WETLAND AND WATERBODY DELINEATION REPORT

LEMON HILL SOLAR, LLC

OLMSTED COUNTY, MINNESOTA

LEMON HILL SOLAR PROJECT

Prepared by:

merjent®

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1.0 INTRODUCTION

This wetland and waterbody delineation report has been prepared to describe the wetlands and waterbodies present within the survey area for Lemon Hill Solar LLC's proposed utility scale solar facility known as the Lemon Hill Solar Project (Project) in Olmsted County, Minnesota. The Project will have a generating capacity of up to 180 megawatts (MW) and will include the construction of solar modules, inverters, racking, electrical collection lines, access roads, and fencing.

The 2,036.53-acre survey area (Survey Area) represents the area available for the Project (see Figure 1). The delineated boundaries and communities described in this report will be used for project planning and the basis on which impacts to wetland and waterbodies will be determined. The purpose of this report is to document the findings from the field survey effort that was performed May 28-31, June 3-5, and June 19, 2024, and May 2, 2025, by Merjent, Inc. (Merjent).

1.1 SURVEY AREA DESCRIPTION

The 2,036.53-acre Survey Area is located in the Public Land Survey System sections listed in Table 1.1-1. The Survey Area is located between the cities of Viola and Rochester, MN. The Survey Area is a combination of row crop production, forested areas, pasture lands, residential areas, and road rights-of-way. The Survey Area is bound on the north by 65th Street Northeast, on the east by 100th Avenue Northeast, on the south by Silver Creek Road Northeast, and on the west by 55th Avenue Northeast.

TABLE 1.1-1

Summary of Section, Township, Range

Section	Township	Range
11, 12, 13, 14, 23, 24	107N	13W
7, 17, 18, 19, 20, 29	107N	12W

2.0 DEFINITIONS

2.1 WETLANDS DEFINITION

Wetlands are defined in the *United States Army Corps of Engineers* (USACE) *Wetlands Delineation Manual* (Environmental Laboratory, 1987) as follows:

> "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

In order for a surveyor to make a positive determination that a wetland is present based on the methods described in the USACE Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (USACE, 2010), one positive indicator (except in certain situations) from each of the three elements must be present, which are as follows:

- Dominance of hydrophytic plant species.
- Presence of hydric soil.
- Wetland hydrology is present during the growing season.

Where one or more elements used to define the presence or absence, extent, or composition of wetland communities is obscured fully or in part by conditions that are naturally problematic and/or significantly disturbed, the extent of the wetland area and the communities within the wetland may be difficult to define. In these situations, the presence or absence of undisturbed wetland indicators, landscape position, topography, and a review of aerial photography are used to inform professional judgement to determine wetland boundaries and community types.

2.2 WATERBODIES DEFINITION

Waterbodies are defined as both linear surface water conveyances and non-linear surface water features (open waterbodies).

2.2.1 Streams Definition

Streams are defined as any linear waterway otherwise referred to as, but not limited to, streams, creeks, rivers, or other local designations. Streams are characterized by evidence of flow and a continuous bed and bank, bounded by observed and defined field indicators.

2.2.2 Open Waterbodies Definition

Open waterbodies are defined as non-linear features that permanently hold water deeper than approximately 6 feet and of enough duration to preclude most aquatic vegetation or other wetland characteristics. These features include those commonly referred to as, but not limited to, ponds, lakes, or reservoirs.

3.0 METHODS

3.1 RESOURCE REVIEW

The following processes and procedures were followed to determine the potential presence of wetlands and waterbodies within the Survey Area. Prior to the field survey, Merjent's delineators review available desktop resources to identify suspected wetlands and waterbodies which advise the development and execution of the field survey. When available, the results from previous wetland and waterbody delineations are reviewed in addition to the resources described in the following sections.

3.1.1 Topography

Merjent reviewed Minnesota Department of Natural Resources (MNDNR) two-foot contours based on Light Detection and Ranging (LiDAR) (Minnesota Geospatial Information Office, 2023). The review of topographical data aids in determining general locations of large surface water features and surface water flow across a landscape within and surrounding the Survey Area.

3.1.2 Soil Survey

Merjent reviewed the Natural Resources Conservation Service (NRCS), U.S. Dept. of Agriculture (USDA) Soil Survey Geographic Database (SSURGO; Soil Survey Staff, NRCS, USDA, 2019) soils inventory prior to the field survey. SSURGO data describes the soils for the Survey Area and surrounding landscape. Attributes within each soil's series can provide evidence for potential wetlands, most commonly the Hydric Soils classification attribute. While historical land use and common drainage practices have led to many of these areas no longer supporting any remaining indication of wetland conditions, hydric soils series are still useful in determining areas with which to focus survey effort.

3.1.3 Mapped Aquatic Resources

A desktop review was completed using the following aquatic resources datasets ahead of field survey.

The MNDNR update (MNDNR, 2015) to the National Wetlands Inventory (NWI) is a Minnesota-specific update to the nation-wide NWI data set (United States Fish and Wildlife Service [USFWS], 2021) that was developed to remotely identify potential wetland areas.

The MNDNR Hydrography Dataset (MNDNR, 2012), which is the authoritative version of statewide hydrography. The MNDNR Hydrography Dataset is a collection of the "best available" MNDNR spatial features representing Minnesota surficial hydrology. These features originate from multiple sources representing a range of scales and accuracies. All feature classes are topologically related and will function as an integrated set of statewide features.

The MNDNR Public Waters Inventory (PWI) data set (MNDNR, 2011) is a database maintained by the State of Minnesota. It identifies and provides additional regulatory protection for features meeting selected criteria as described in Minnesota Statute Section 103G.005, subd. 15, identified on the maps authorized by Section 103G.201.

The NWI (USFWS, 2021) is a nation-wide layer developed locally to remotely identify wetland areas based on additional background information. Portions may be updated at the state or county level at various time intervals, and some may be field verified in select locations.

The USGS National Hydrography Dataset (NHD; USGS, 2004) is the most up-to-date and comprehensive nationwide dataset for rivers, streams, canals, lakes, ponds, coastline, dams, and stream gages. While originally developed by the Environmental Protection Agency (EPA) and USGS, it is now maintained and updated by multiple regulatory bodies.

3.1.4 Recent Climatic Conditions and Precipitation Data

The Wetland Delineation Precipitation Data Retrieval is a desktop tool developed by the Minnesota State Climatology Office. The gridded database is derived from a monthly precipitation database maintained by the State Climatology Office. This tool is used to support decisions as to whether field data collection and other site-specific observations occurred under normal climatic conditions (Minnesota, 2008).

3.2 OFF-SITE HYDROLOGY AND WETLAND DETERMINATIONS

Historic aerial imagery was reviewed for the Off-site Hydrology and Wetland Determinations for the presence or absence of farmed wetlands within agricultural fields in the Survey Area in accordance with USACE and Minnesota Board of Water and Soil Resources (BWSR) Guidance for Offsite Hydrology/Wetland Determinations (USACE, BWSR 2016). The method provides an objective, step-by-step evaluation of aerial imagery, which is cross-referenced with the above-referenced aquatic resources data. Associated data entry forms are populated, which calculate the probability of wetland presence for each feature reviewed.

The dates of the aerial imagery are used to determine if the images exhibit normal precipitation climate conditions. A wet year aerial image is used to mark potential features, and a minimum of five normal-precipitation aerial images were reviewed for making determinations. Suspected wetland areas are analyzed for common wetland hydrology signatures visible in aerial images including crop stress, areas that were not cropped or planted but drowned out, areas where the planting of crops were avoided, and signatures of soil wetness (darker tones of soil often surrounding standing water or prominent wetland features). Wetland signatures were also determined by observing standing water or by distinct differences in vegetative cover. For example, common wetland species such as cattails (*Typha* spp.) and reed canary grass (*Phalaris arundinacea*) can be readily identifiable on high-resolution aerial imagery (BWSR, 2010). Observations were recorded in a decision matrix to determine if a field investigation is required, and a wetland determination is made for each area (USACE, BWSR 2016).

3.3 FIELD SURVEY METHODS

3.3.1 Naming Conventions

Features identified in associated figures and appendices are named in the following manner:

- Wetlands (w0, w02, etc.)
- Streams (s01, s02, etc.)
- Open water features (o01, o02, etc.)
- Wetland delineation sample points – 2024 survey (adp01, adp02, bdp01, bdp02, etc.)

- Wetland delineation sample points – 2025 survey (dp01, dp02, etc.)
- Wet signatures from off-site determination (ws001, ws002, etc.)
- Stream sample points – 2024 survey (asp01, asp02, bsp01, bsp02, etc.)
- Stream sample points – 2025 survey (sp01, sp02, etc.)
- Photo locations (pp001, pp002, etc.)

In the 2024 survey sample point naming convention, the first letter identifies the team member who recorded the associated data. For example, adp01 is wetland determination sample point dp01 recorded by team member "a," and bdp01 is wetland determination sample point dp01 recorded by team member "b."

3.3.2 Wetlands

Merjent delineates wetlands based on the methodology described in the *USACE Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (USACE, 2010). Delineators document wetland indicators, or lack of, on Wetland Determination Data Forms at locations representative of the vegetative communities being described during the field survey within or near the wetland. Wetland vegetative communities are identified according to the Eggers and Reed (Eggers and Reed, 2015), Hydrogeomorphic (Brinson, 1993), and Cowardin (Cowardin et al., 1979) classification systems.

3.3.2.1 Wetland Determination Data Forms

Wetland Determination Data Forms were completed during the field survey as written documentation of how representative sample point locations meet or do not meet each of the wetland criteria (see Appendix A). Plant species nomenclature follows the Regional Wetland Plant List (USACE, 2022). Hydric soils were identified using the methods outlined in Field Indicators of Hydric Soils in the United States, Version 8.2 (USDA-NRCS, 2018).

Wetland Determination Data Forms were completed during the field survey for desktop-mapped resources that are determined to be absent. In areas of upland associated with hydric soils or linear stream features, representative photos are taken of upland conditions. In areas of upland conditions within NWI mapped features, a sample point, Wetland Determination Data Form, and photos are taken to document upland conditions, unless the area is significantly sloped or otherwise obviously upland; in those circumstances, representative photos may be deemed sufficient.

3.3.2.2 Naturally Problematic and Significantly Disturbed Features

Naturally Problematic and Significantly Disturbed features are those by which wetland indicators of, or lack thereof, are obscured, and additional context may be needed in making accurate determinations. Commonly encountered Naturally Problematic conditions include hardpan, natural cobble or gravel, bedrock, and a dominance of upland and/or facultative upland plant species. Significantly Disturbed conditions relate specifically to the obscuring of indicators caused by anthropogenic influence or recent, catastrophic natural disturbances. Commonly encountered anthropogenic Significantly Disturbed conditions include row crop agriculture, forestry practices, and site clearing or grading. Natural Significantly Disturbed conditions can include dam breaches or other major flooding and storm-related blowdown.

Where wetland indicators may be disturbed or naturally problematic, a conservative assumption of the presence or absence of wetlands may be made using the observable wetland indicators and best professional judgement. Additional desktop review may also be used and can be useful, especially in agricultural settings.

3.3.3 Streams

Merjent identifies and maps streams in accordance with the USACE National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams (David et al., 2022). Biologists fill data forms at data points during the field survey within stream areas to document indicators, or lack of, for each suspected feature.

For these features, the Ordinary High Water Mark (OHWM) width, substrate, and estimated flow are recorded, along with the OHWM indicators and analysis found within the data sheets (see Appendix B). The OHWM determination is a direct in-field observation, used to document evidence used to determine the shape of the channel of a linear feature that reflects the magnitudes and variety of flows necessary to define it based on direct observations and indicators. The OHWM width is the result of the compilation of evidence observed in-field (David et al., 2022).

3.3.3.1 Rapid Ordinary High Water Mark Field Identification Data Sheets

The Rapid OHWM Field Identification Data Sheets (David et al., 2022; see Appendix B) were completed during field survey as written documentation of what indicators of the potential OHWM were observed, and how they are applied in determining the OHWM.

This data sheet was developed for the sole purpose of identifying the OHWM of linear features, and it does not apply to open waterbodies such as lakes or ponds.

3.3.4 Open Waterbodies

Boundaries for open waterbodies are generally mapped at the transition between the presence and absence of surface water. Wetland vegetative communities may be present on either side of the open waterbody boundary.

3.3.5 Other Surface Water Connections

While often not considered as regulated features, surface water connections such as culverts, upland swales or drainages, and upland road ditches may at times connect to, drain, or drain into regulated features within the Survey Area, particularly during extreme flow events. To the extent practicable and relevant, Merjent mapped these surface water connections to aid in explaining surface water connectivity across the Survey Area.

3.3.6 Survey Photographs

Photographs provided in Appendix C provide a visual representation of wetlands and other surface water features, as well as general site conditions, at the time of inspection. Photos are geospatially referenced by their associated photo point location and presented with direction taken (e.g., “pp01 view West,” “pp02 view Northeast”). Photo point locations are depicted on the wetland delineation figure (see Figure 5).

Representative photos were taken for each feature identified in the field. Site photos were collected throughout the Survey Area to demonstrate upland and transitional conditions. Additional photos not provided in Appendix C are available upon request.

3.3.7 Limitations of Survey Data

Merjent surveyed all data point locations and boundaries of wetlands, streams, and open waterbodies using Global Positioning System (GPS) technology capable of sub-meter accuracy. While these surveys provide reasonably accurate and industry-standard spatial data, they do not provide the same level of accuracy as a professional land survey.

For linear features narrower than twice the accuracy of GPS (i.e., 2 meters), the centerline is mapped, and the feature is widened utilizing GIS. A center line may be taken for forested features where GPS accuracy is less. Lateral extents for anomalies such as impoundments or culvert washes are collected in-field to accurately map the variability along entire feature.

Feature boundaries were not flagged during the field survey.

4.0 RESULTS

4.1 DESKTOP REVIEW RESULTS

4.1.1 Previous Wetland and Waterbody Delineation Review

Merjent is unaware of previous wetland and waterbody delineations at this site or associated regulatory review, as such, a review of previous wetland and waterbody delineations was not completed.

4.1.2 Background Data Review

4.1.2.1 Topography

LiDAR was acquired from MNDNR (see Figure 2; Minnesota Geospatial Information Office, 2023) for review of this Survey Area. The Survey Area ranges between 1,136 to 1,302 feet above mean sea level. Elevation varies greatly within the Survey Area generally sloping towards the mapped NHD features.

4.1.2.2 Soil Survey

The SSURGO soil map (see Figure 3) identifies 57 soil types within the Survey Area, 7 of which are classified as hydric (see Appendix D; Soil Survey Staff; NRCS, USDA, 2019). The soil unit Water does not have a hydric rating. The hydric soils are generally located around mapped NHD and NWI features.

4.1.2.3 Mapped Wetlands and Waterbody Features

The hydrology map (see Figure 4) shows approximately 121.02 acres of NWI features (see Table 4.1.2-3; (MNDNR, 2015). There are 30 NHD features including 29 streams totaling 35,425 linear feet, and one artificial path totaling 469 linear feet within the Survey Area (USGS 2004).

TABLE 4.1.2-1

Mapped NWI Features

Symbol	Description	Acres in Survey Area
PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded	0.66
PEM1B	Palustrine, Emergent, Persistent, Seasonally Saturated	72.45
PEM1C	Palustrine, Emergent, Persistent, Seasonally Flooded	4.18
PEM1Ch	Palustrine, Emergent, Persistent, Seasonally Flooded, Diked/impounded	0.39
PFO1B	Palustrine, Forested, Broad-Leaved Deciduous, Seasonally Saturated	23.42
PSS1B	Palustrine, Scrub-Shrub, Broad-Leaved Deciduous, Seasonally Saturated	6.51
PUBFx	Palustrine, Unconsolidated Bottom, Semipermanently Flooded, Excavated	0.91
PUBHh	Palustrine, Unconsolidated Bottom, Permanently Flooded, Diked/impounded	1.94
R4SBC	Riverine, Intermittent, Streambed, Seasonally Flooded	10.47
R5UBH	Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded	0.09
	Total	**121.02**

Source: MNDNR update to the NWI; MNDNR, 2015

4.1.3 Off-site Hydrology and Wetland Determination

The Off-site Hydrology and Wetland Determination identified 102 potential wetland signature areas within the Survey Area (see Appendix E). Thirty-six areas were determined to not be wetland and did not require field verification as they only had wetland signatures in 16.7 percent or less of normal precipitation years. Of the 66 areas that were field verified, 15 of those areas were delineated as wetland. The wetland signature areas that were field verified and were determined to be upland either lacked hydrophytic vegetation, hydric soils, or an additional hydrology indicator.

The full Off-site Hydrology and Wetland Determination, APT analyses, and the decision matrix are available in Appendix E. The Off-site Hydrology and Wetland Determination was used as a contributing factor in making determinations in agricultural fields, and all features were evaluated in-field, regardless of the results of the results of the Off-site Hydrology and Wetland Determination decision matrix.

4.1.4 Recent Climatic Conditions and Precipitation Data

Merjent compared recent precipitation data with historic precipitation data from a 30-year dataset (1991-2020) using the Minnesota State Climatology Office Precipitation Worksheet (Minnesota, 2008) to determine if normal hydrologic and climatic conditions were present on-site during field delineations. When compared, the observed precipitation data from three months prior to the field delineations indicated normal precipitation conditions at the time of the 2024 field surveys and wetter than normal precipitation conditions at the time of the 2025 field survey (see Appendix F).

4.2 FIELD SURVEY RESULTS

On May 28-31, June 3-5, and June 19, 2024, and May 2, 2025, biologists conducted a general reconnaissance of the entire Survey Area to evaluate site conditions and determine boundaries of wetlands and other surface water features.

Land use largely consists of agriculture land, pastureland, and forests, with intermittent wetlands and residences.

Approximately 17.5 acres of the portion of the Survey Area southeast of the intersection of 65th Street NE and 70th Avenue NE were inaccessible due to active livestock grazing in the area. A desktop review was completed for this area as shown in Figure 5.

The field survey was conducted during the active growing season and all dominant vegetative species were identifiable.

4.2.1 Uplands

A majority of the upland areas within the Survey Area were pastureland, agricultural land, or forest.

In the pastureland the herbaceous stratum was dense with smooth brome (*Bromus inermis*) and Kentucky blue grass (*Poa pratensis*).

In the agricultural land the herbaceous stratum was moderately dense with planted row crops including soybeans (*Glycine max*) and corn (*Zea mays*). In 2025, the survey was conducted before the planted crops sprouted.

In the forested areas the herbaceous stratum was dense with Missouri gooseberry (*Ribes missouriense*), clustered black-snakeroot (*Sanicula odorata*), spotted touch-me-not (*Impatiens capensis*), reed canary grass (*Phalaris arundinacea*), white avens (*Geum canadense*), common red raspberry (*Rubus idaeus*), Virginia-creeper (*Parthenocissus quinquefolia*), Canadian clearweed (*Pilea pumila*), and groundivy (*Glechoma hederacea*). The sapling/shrub stratum was moderately dense with black walnut (*Juglans nigra*), European buckthorn (*Rhamnus cathartica*), Missouri gooseberry, and ash-leaf maple (*Acer negundo*). The tree stratum was dense with burr oak (*Quercus macrocarpa*), ash-leaf maple, black walnut, eastern cottonwood (*Populus deltoides*), and American elm (*Ulmus americana*).

4.2.1.1 Upland Verification of Unobserved Mapped Features

Data point adp16 was located in a mapped palustrine emergent (PEM1D) NWI wetland. This area was not delineated as wetland as it lacked hydric soils indicators and indicators of wetland hydrology.

Data point bdp51 was located in a mapped palustrine emergent/palustrine forested (PEM1B/PFO1B) NWI wetland. This area was not delineated as wetland as it lacked hydric soils indicators and indicators of wetland hydrology.

Data points adp48 and adp49 were located in mapped palustrine emergent (PEM1B) NWI wetlands adjacent to a riverine feature. Data point adp48 lacked hydric soil indicators. Data point adp49 lacked dominant hydrophytic vegetation, hydric soil indicators, and indicators of wetland hydrology.

Data points ddp07 and ddp08 were located in mapped palustrine emergent (PEM1B) NWI wetlands. Data point ddp07 lacked dominant hydrophytic vegetation, hydric soil indicators, and indicators of wetland hydrology. Data point ddp08 lacked dominant hydrophytic vegetation and indicators of wetland hydrology.

Data point ddp05 was located in mapped palustrine emergent (PEM1B) NWI adjacent to a riverine feature. Data point ddp05 lacked hydric soil indicators.

Multiple locations in the Survey Area were mapped with NHD and riverine NWI features. Based on field visits, many of these locations were located in active agriculture fields or upland swales, had no defined bed or bank, and lacked wetland indicators. Refer to Appendix C for photos of these locations.

4.2.2 Wetlands

Merjent identified 37 wetlands totaling 93.03 acres to community type within the Survey Area according to Eggers and Reed (2015, see Figure 5), Hydrogeomorphic (HGM; Brinson, 1993), and Cowardin et al. (1979) classification systems (see Table 4.2.2-1 below). Representative photographs of the wetlands are provided in Appendix C. More detailed information for the associated data points is found in the wetland determination data forms in Appendix A.

ATTACHMENT B

TABLE 4.2.2-1

Summary of Delineated Wetlands

Wetland ID	Area		Wetland Classification[1]			Sample Point	NWI (Type)	Wetland Hydrology Indicators		Hydric Soil Indicators[3]	Surficial Connectivity	Notes
	Acres	Feet[2]	Eggers and Reed	HGM	Cowardin			Primary	Secondary			
w01	7.93	345,393	Fresh (Wet) Meadow	Riverine	PEM	adp03 adp05 adp08	PEM1B PSS1B R4SBC	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	A12 – Thick Dark Surface F6 – Redox Dark Surface	Culvert located at north end, wetland continues southwest to wetland w04	Wetland complex between agriculture fields and pastureland. A portion of this wetland was determined via desktop delineation due to access restrictions.
	2.42	105,450	Floodplain Forest		PFO	adp67		-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface		
w02	0.16	7,135	Fresh (Wet) Meadow	Riverine	PEM	adp08 representative	PEM1B	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface	Continues northwest connecting to desktop delineated wetland w01, connected to stream s14	Wetland at the edge of a forest and pastureland
w03	0.02	865	Fresh (Wet) Meadow	Riverine	PEM	adp17	PEM1B R4SBC	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	A12 – Thick Dark Surface	Connected to stream s05 and continues west offsite	Wetland located along a stream in pastureland
w04	13.17	573,886	Sedge Meadow	Riverine	PEM	bdp01 bdp47	PEM1B PEM1C R4SBC	-	B10 – Drainage Patterns D2 – Geomorphic Position	A12 – Thick Dark Surface	Connected to stream s15, continues east and west offsite	Wetland complex located in pastureland
	3.07	133,847	Fresh (Wet) Meadow	Depressional	PEM	bdp03		-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface		

TABLE 4.2.2-1

Summary of Delineated Wetlands

Wetland ID	Area		Wetland Classification[1]			Sample Point	NWI (Type)	Wetland Hydrology Indicators		Hydric Soil Indicators[3]	Surficial Connectivity	Notes
	Acres	Feet[2]	Eggers and Reed	HGM	Cowardin			Primary	Secondary			
w05	0.04	1,694	Fresh (Wet) Meadow	Depressional	PEM	adp24	PEM1B	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	A11 – Depleted Below Dark Surface	Appears surficially isolated	Wetland located between agriculture fields
w06	0.04	1,889	Fresh (Wet) Meadow	Depressional	PEM	adp24 representative	PEM1B	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	A11 – Depleted Below Dark Surface	Appears surficially isolated	Wetland located between agriculture fields
w07	0.01	372	Fresh (Wet) Meadow	Depressional	PEM	adp24 representative	PFO1B	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	A11 – Depleted Below Dark Surface	Appears surficially isolated	Wetland located between agriculture fields
w08	0.11	4,596	Seasonally Flooded Basin	Depressional	PEM	adp38	-		C9 – Saturation Visible On Aerial Imagery D2 – Geomorphic Position	A12 – Thick Dark Surface F6 – Redox Dark Surface	Appears surficially isolated	Wetland in an agriculture field
w09	0.16	6,860	Fresh (Wet) Meadow	Depressional	PEM	adp28	PFO1B PEM1B	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	A11 – Depleted Below Dark Surface	Appears surficially isolated	Wetland located in meadow between forest and agriculture

TABLE 4.2.2-1

Summary of Delineated Wetlands

Wetland ID	Area		Wetland Classification[1]			Sample Point	NWI (Type)	Wetland Hydrology Indicators		Hydric Soil Indicators[3]	Surficial Connectivity	Notes
	Acres	Feet[2]	Eggers and Reed	HGM	Cowardin			Primary	Secondary			
w10	5.85	254,954	Fresh (Wet) Meadow	Riverine	PEM	adp31 cdp20 ddp04	PSS1B PEM1B R4SBC PFO1B PEM1C	C3 – Oxidized Rhizospheres Along Living Roots C7 – Thin Muck Surface	B10 – Drainage Patterns D2 – Geomorphic Position D5 – FAC-Neutral Test	A11 – Depleted Below Dark Surface A12 – Thick Dark Surface F6 – Redox Dark Surface	Continues east, west, and south offsite; connected to streams s07, s08, s09, s10, s11, s26	Wetland complex located between agriculture fields in the east and in forest to the west. Follows stream s07
	10.73	467,307	Floodplain Forest	Riverine	PFO	adp32 cdp24 cdp26 cdp28		A1 – Surface Water A2 – High Water Table A3 – Saturation, B4 – Algal Mat Or Crust B9 – Water Stained Leaves	B6 – Surface Soil Cracks D2 – Geomorphic Position D5 – FAC-Neutral Test	A11 – Depleted Below Dark Surface A12 – Thick Dark Surface F1 – Loamy Mucky Mineral		
	0.31	13,353	Seasonally Flooded Basin	Riverine	PEM	cdp13		-	C9 – Saturation Visible On Aerial Imagery D2 – Geomorphic Position	A12 – Thick Dark Surface F6 – Redox Dark Surface		
w11	1.06	46,257	Seasonally Flooded Basin	Slope	PEM	adp29	-	-	B6 – Surface Soil Cracks C9 – Saturation Visible On Aerial Imagery	F2 – Loamy Gleyed Matrix	Appears surficially isolated	Side hill seep in an agriculture field
	0.42	18,311	Fresh (Wet) Meadow	Slope	PEM	adp31 representative		-	D2 – Geomorphic Position D5 – FAC-Neutral Test	A12 – Thick Dark Surface		

TABLE 4.2.2-1

Summary of Delineated Wetlands

Wetland ID	Area		Wetland Classification[1]			Sample Point	NWI (Type)	Wetland Hydrology Indicators		Hydric Soil Indicators[3]	Surficial Connectivity	Notes
	Acres	Feet[2]	Eggers and Reed	HGM	Cowardin			Primary	Secondary			
w12	0.23	10,036	Seasonally Flooded Basin	Slope	PEM	cdp17	-	-	B6 – Surface Soil Cracks C9 – Saturation Visible On Aerial Imagery	A11 – Depleted Below Dark Surface F2 – Loamy Gleyed Matrix	Appears surficially isolated	Wetland located in active agriculture field
w13	0.15	6,705	Fresh (Wet) Meadow	Depressional	PEM	bdp20	PEM1Ch	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F7 – Depleted Dark Surface	Appears surficially isolated	Wetland located between agriculture fields
w14	0.17	7,504	Fresh (Wet) Meadow	Depressional	PEM	bdp07	-	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F3 – Depleted Matrix	Appears surficially isolated	Wetland located between agriculture fields in a swale
w15	0.68	29,612	Fresh (Wet) Meadow	Depressional	PEM	bdp03 representative	R4SBC	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface	Connected to stream s16; s16 appears to continue offsite	Wetland located between residential property and roadway
w16	0.73	31,727	Fresh (Wet) Meadow	Slope	PEM	cdp14	-	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	Other	May be connected to wetlands w17 and w18 via culverts. Continues northwest offsite	Wetland located in a roadside ditch
w17	1.51	65,846	Fresh (Wet) Meadow	Depressional	PEM	cdp13	PEM1A	-	C9 – Saturation Visible On Aerial Imagery D2 – Geomorphic Position	A12 – Thick Dark Surface F6 – Redox Dark Surface	May be connected to wetland w16 via culvert	Wetland located between agriculture and roadway

ATTACHMENT B

TABLE 4.2.2-1

Summary of Delineated Wetlands

Wetland ID	Area		Wetland Classification[1]			Sample Point	NWI (Type)	Wetland Hydrology Indicators		Hydric Soil Indicators[3]	Surficial Connectivity	Notes
	Acres	Feet[2]	Eggers and Reed	HGM	Cowardin			Primary	Secondary			
w18	3.50	152,275	Seasonally Flooded Basin		PEM	cpd02 cpd03	-	-	B6 – Surface Soil Cracks B10 – Drainage Patterns C9 – Saturation Visible On Aerial Imagery D2 – Geomorphic Position	A12 – Thick Dark Surface F6 – Redox Dark Surface	Connected to stream s03, may be connected to w16 via culvert. Continues east offsite.	Wetland complex located between agriculture to the west and shrub land to the east
	2.03	88,599	Fresh (Wet) Meadow	Slope	PEM	cdp11		-	D2 – Geomorphic Position D5 – FAC-Neutral Test	Other		
	0.86	37,385	Shrub-carr	Slope	PSS	cdp07		-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface		
	0.60	25,993	Hardwood Swamp	Slope	PFO	cdp09		-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface		
w19	0.03	1,195	Fresh (Wet) Meadow	Depressional	PEM	cdp05	-	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	Other	Appears surficially isolated	Wetland located at the edge of agriculture field
w20	0.70	30,603	Fresh (Wet) Meadow	Riverine	PEM	adp41	PEM1B R4SBC	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface	Connected to s18 and s19, continues west offsite	Wetland located in a pasture

ATTACHMENT B

TABLE 4.2.2-1

Summary of Delineated Wetlands

Wetland ID	Area		Wetland Classification[1]			Sample Point	NWI (Type)	Wetland Hydrology Indicators		Hydric Soil Indicators[3]	Surficial Connectivity	Notes
	Acres	Feet[2]	Eggers and Reed	HGM	Cowardin			Primary	Secondary			
w21	4.42	192,566	Seasonally Flooded Basin	Depressional	PEM	adp60	R4SBC	-	C9 – Saturation Visible On Aerial Imagery D2 – Geomorphic Position	A11 – Depleted Below Dark Surface	Appears surficially isolated, culvert located at the southeastern end	Wetland located between agriculture fields
w22	0.79	34,530	Fresh (Wet) Meadow	Depressional	PEM	adp50	PUBHh R5UBH PEM1B PFO1B PEM1Ch	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F3 – Depleted Matrix	Connected to s02 and s24, continues southwest offsite	Wetland complex located between forest, agriculture, and meadow
	1.10	47,933	Floodplain Forest	Riverine	PFO	adp47		A1 – Surface Water	D2 – Geomorphic Position	Other		
w23	0.05	2,370	Hardwood Swamp	Slope	PFO	adp52	PFO1B R4SBC	A1 – Surface Water C1 – Hydrogen Sulfide Odor	D5 – FAC-Neutral Test	F6 – Redox Dark Surface	Connected to s02	Hillside seep located along forested riverine
w24	0.01	511	Floodplain Forest	Riverine	PFO	adp64	R4SBC	A3 – Saturation	D2 – Geomorphic Position D5 – Fac-Neutral Test	F12 – Iron-Manganese Masses	Connected to s22	Stream fringe located along forested riverine
w25	0.01	613	Floodplain Forest	Riverine	PFO	adp64 representative	PFO1B	A3 – Saturation	D2 – Geomorphic Position D5 – Fac-Neutral Test	F12 – Iron-Manganese Masses	Connected to s22	Stream fringe located along forested riverine

TABLE 4.2.2-1

Summary of Delineated Wetlands

Wetland ID	Area		Wetland Classification[1]			Sample Point	NWI (Type)	Wetland Hydrology Indicators		Hydric Soil Indicators[3]	Surficial Connectivity	Notes
	Acres	Feet[2]	Eggers and Reed	HGM	Cowardin			Primary	Secondary			
w26	6.07	264,247	Fresh (Wet) Meadow	Depressional	PEM	bdp35	PEM1B PSS1B	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F1 – Loamy Mucky Mineral	Connected to s21, continues east offsite	Wetland located between agriculture fields
	0.70	30,492	Hardwood Swamp	Depressional	PFO	bdp41		-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface		
	1.37	59,879	Seasonally Flooded Basin	Depressional	PEM	bdp39		-	C9 – Saturation Visible On Aerial Imagery D2 – Geomorphic Position	A11 – Depleted Below Dark Surface		
	3.14	136,610	Shrub-carr	Depressional	PSS	bdp42		-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F1 – Loamy Mucky Mineral, F6 – Redox Dark Surface		
w27	1.06	45,962	Seasonally Flooded Basin	Depressional	PEM	bdp45	-	-	C9 – Saturation Visible On Aerial Imagery, D5 – FAC-Neutral Test	F6 – Redox Dark Surface	Appears surficially isolated	Wetland located in active agriculture field
w28	0.001	31	Fresh (Wet) Meadow	Depressional	PEM	adp58	-	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	Other	Appears surficially isolated	Wetland located in roadside ditch

TABLE 4.2.2-1

Summary of Delineated Wetlands

Wetland ID	Area		Wetland Classification[1]			Sample Point	NWI (Type)	Wetland Hydrology Indicators		Hydric Soil Indicators[3]	Surficial Connectivity	Notes
	Acres	Feet[2]	Eggers and Reed	HGM	Cowardin			Primary	Secondary			
w29	3.48	151,421	Fresh (Wet) Meadow	Depressional	PEM	bdp29	R4SBC PEM1B PSS1B	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	A12 – Thick Dark Surface	Appears surficially isolated	Wetland complex located between agriculture fields and roadway
	0.59	25,729	Shrub-carr	Depressional	PSS	bdp30		-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface		
	0.64	27,833	Hardwood Swamp	Depressional	PFO	bdp31		-	D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface		
w30	0.06	2,831	Fresh (Wet) Meadow	Depressional	PEM	bdp23	-	-	C9 – Saturation Visible On Aerial Imagery D2 – Geomorphic Position D5 – FAC-Neutral Test	A12 – Thick Dark Surface	Appears surficially isolated	Wetland located in active agriculture field
w31	0.17	7,220	Seasonally Flooded Basin	Depressional	PEM	bdp22	PUBFx	-	D1 – Stunted Or Stressed Plants D2 – Geomorphic Position	F6 – Redox Dark Surface	Appears surficially isolated	Wetland located what appears to be a previously excavated pond
w32	0.03	1,524	Fresh (Wet) Meadow	Depressional	PEM	ddp02	R4SBC		B10 – Drainage Patterns D2 – Geomorphic Position D5 – FAC-Neutral Test	F6 – Redox Dark Surface	Appears surficially isolated	Wetland located between forest and agriculture fields

TABLE 4.2.2-1

Summary of Delineated Wetlands

Wetland ID	Area		Wetland Classification[1]			Sample Point	NWI (Type)	Wetland Hydrology Indicators		Hydric Soil Indicators[3]	Surficial Connectivity	Notes
	Acres	Feet[2]	Eggers and Reed	HGM	Cowardin			Primary	Secondary			
w33	0.05	2,383	Fresh (Wet) Meadow	Depressional	PEM	ddp10	-	-	D2 – Geomorphic Position D5 – FAC-Neutral Test	Other	Appears surficially isolated	Wetland located in a roadside ditch
w34	0.09	3,894	Fresh (Wet) Meadow	Depressional	PEM	-	-	-	-	-	Continues south offsite within roadside ditch	Wetland located in a roadside ditch
w35	6.33	275,942	Hardwood Swamp	Depressional	PFO	dp04	PFO1D	-	D2 – Geomorphic Position D5 – FAC-neutral Test	F6 – Redox Dark Surface F7 – Depleted Dark Surface	Appears hydrologically connected to wetland w01 and stream s12 outside of Survey Area	Wetland located in an agricultural field and unfarmed low-lying area within the field
	0.76	33,102	Shrub-carr	Depressional	PSS	dp01	PSS1D	A2 – High Water Table A3 – Saturation B9 – Water-stained Leaves	D2 – Geomorphic Position D5 – FAC-neutral Test	F1 – Loamy Mucky Mineral F6 – Redox Dark Surface		
	3.84	167,386	Fresh (Wet) Meadow	Depressional	PEM	dp06	PEM1D	B9 – Water-stained Leaves	D2 – Geomorphic Position D5 – FAC-neutral Test	Other		
	2.99	130,380	Seasonally Flooded Basin	Depressional	PEM	dp03	-	-	C9 – Saturation Visible on Aerial Imagery D2 – Geomorphic Position D5 – FAC-neutral Test	F6 – Redox Dark Surface		

TABLE 4.2.2-1

Summary of Delineated Wetlands

Wetland ID	Area		Wetland Classification[1]			Sample Point	NWI (Type)	Wetland Hydrology Indicators		Hydric Soil Indicators[3]	Surficial Connectivity	Notes
	Acres	Feet[2]	Eggers and Reed	HGM	Cowardin			Primary	Secondary			
w36	0.10	4,324	Seasonally Flooded Basin	Depressional	PEM	dp07	-	-	C9 – Saturation Visible on Aerial Imagery D2 – Geomorphic Position	F3 – Depleted Matrix	Appears surficially isolated	Wetland located in isolated depression in agricultural field
w37	1.88	81,724	Hardwood Swamp	Depressional	PFO	dp11	PFO1D	-	D2 – Geomorphic Position D5 – FAC-neutral Test	A12 – Thick Dark Surface	Wetland extends offsite northeast; appears to connect to wetland w22 and stream s23	Wetland located in a low-lying forest and a recently excavated swale
	0.42	18,411	Seasonally Flooded Basin	Depressional	PEM	dp13	-	-	C9 – Saturation Visible on Aerial Imagery D2 – Geomorphic Position	Other – soil sampled to a depth of 44 inches; presumed to meet A12		
Total Area	**93.03**	**4,053,629**										

[1] Source: Eggers and Reed, 2015; Brinson, 1993; and Cowardin et al., 1979

[2] Note: delineated wetlands may extend outside of Survey Area

[3] Unless otherwise stated, Other indicates soils were not sampled due to proximity to buried utilities and soils are assumed to be hydric based on landscape position and other indicators of wetland hydrology

4.2.2.1 Naturally Problematic and Significantly Disturbed Datapoints

Multiple wetlands were found in agricultural fields within the Survey Area. These wetlands had significantly disturbed vegetation due to recurring agricultural activities. In these situations, the problematic hydrophytic vegetation indicator was used if hydric soil and hydrology indicators were present. There were also working drain tile inlets identified in portions of the Survey Area; in these locations, hydrology indicator D2 Geomorphic Position was not used to account for the disturbance to hydrology.

4.2.3 Streams

Merjent identified 29 streams totaling 28,585 linear feet within the Survey Area (see Table 4.2.3-1 below; Figure 5). Representative photographs of the streams are provided in Appendix C. The completed Rapid OHWM Field Identification Data Sheets are provided in Appendix B.

TABLE 4.2.3-1

Summary of Delineated Streams

Field ID	Name	Length in Survey Area (linear feet)	OHWM Width (feet)	Substrate	Flow Regime
s01	Dry Creek	2	8	Silt/clay/mud	Perennial
s02	UNT to Whitewater River, North Branch	33	4	N/A*	Intermittent
s03	UNT to Whitewater River, North Branch	1,334	4	Silt/clay/mud	Ephemeral
s04	UNT to Dry Creek	227	2	Bedrock	Intermittent
s05	UNT to Dry Creek	1,239	4	Bedrock	Intermittent
s06	UNT to Dry Creek	39	1	Bedrock	Intermittent
s07	UNT to Whitewater River, North Branch	1,719	8	Silt/clay/mud	Intermittent
s08	UNT to Whitewater River, North Branch	519	5	Silt/clay/mud	Intermittent
s09	UNT to Whitewater River, North Branch	6,235	9	Silt/clay/mud	Perennial
s10	UNT to Whitewater River, North Branch	1,011	7	Silt/clay/mud	Intermittent
s11	UNT to Whitewater River, North Branch	63	9	Silt/clay/mud	Perennial
s12	Dry Creek	4,277	8	Silt/clay/mud	Perennial
s13	UNT to Dry Creek	365	2	Silt/clay/mud	Ephemeral
s14	UNT to Dry Creek	547	2	Silt/clay/mud	Ephemeral
s15	UNT to Dry Creek	825	2	Silt/clay/mud	Intermittent
s16	UNT to Whitewater River, North Branch	421	2	Silt/clay/mud	Perennial
s17	UNT to Whitewater River, North Branch	1,278	4	Silt/clay/mud	Perennial
s18	UNT to Whitewater River, North Branch	1,942	3	Boulders	Intermittent
s19	UNT to Whitewater River, North Branch	116	2	Silt/clay/mud	Ephemeral
s20	UNT to Whitewater River, North Branch	167	9.5	Cobble	Intermittent
s21	UNT to Silver Creek	1,450	2	Silt/clay/mud	Perennial
s22	UNT to Whitewater River, North Branch	929	6	Silt/clay/mud	Intermittent
s23	UNT to Whitewater River, North Branch	1,098	5	Silt/clay/mud	Intermittent
s24	UNT to Whitewater River, North Branch	201	4	Silt/clay/mud	Ephemeral
s25	UNT to Dry Creek	54	8	Silt/clay/mud	Perennial
s26	UNT to Whitewater River, North Branch	2,404	3	Silt/clay/mud	Intermittent
s27	UNT to Whitewater River, North Branch	22	2	Silt/clay/mud	Intermittent
s28	UNT to Whitewater River, North Branch	30	2	Silt/clay/mud	Intermittent
s29	UNT to Whitewater River, North Branch	38	3	N/A*	Intermittent

OHWM = ordinary high water mark; UNT = unnamed tributary
*Waterway assessed from roadway, substrate unknown

4.2.4 Open Waterbodies

Merjent identified one open waterbody feature totaling 1.66 acres within the Survey Area (see Table 4.2.4-1 below; Figure 5). Representative photographs of the open waterbody are provided in Appendix C.

TABLE 4.2.4-1

Summary of Delineated Open Waterbodies

Feature ID	Cowardin Classification [1]	Size (acres) within Survey Area[1]
ow01	PUBHh	1.66
	Total	**1.66**

[1] Delineated other water resources may extend outside of Survey Area.

4.2.5 Other Surface Water Resources Identified

No other surface water resources were identified.

5.0 SUMMARY AND CONCLUSION

Merjent performed a delineation of wetlands and other surface water features for the Lemon Hill Solar Project in Olmsted County, Minnesota.

Based on the field survey and review of desktop resources, it is our professional opinion that 37 wetlands (93.03 acres), 29 waterways (28,585 linear feet), and one open waterbody (1.66 acres) exist within the 2,036.53-acre Survey Area. This report represents our best professional judgment based on our local knowledge and experience.

6.0 DISCLAIMER

The survey results described in this report represent the physical conditions encountered at the time the field survey was performed. In addition, the surveys were performed using regulatory guidance and scientific methods in effect and current at the time. If regulatory frameworks or technical guidance change in the future, some additional survey work or modifications to the survey report may be required.

7.0 LITERATURE CITED

Brinson, M.M. 1993. A Hydrogeomorphic Classification for Wetlands. U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS, USA. Technical Report WRP-DE-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Cowardin, L.M., V. Carter, F.C. Golet, E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C. 131 pp.

David, Gabrielle C. L., Ken M. Fritz, Tracie-Lynn Nadeau, Brian J. Topping, Aaron O. Allen, Patrick H. Trier, Steven L. Kichefski, L. Allan James, Ellen Wohl, and Daniel Hamill. 2025. National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams: Final Version. U.S. Engineer Research and Development Center (ERDC). Technical Report ERDC/CRREL TR-25-1. Wetlands Regulatory Assistance Program. Vicksburg, MS.

Eggers, S.D. and D.M. Reed. 2015. Wetland Plants and Plant Communities of Minnesota and Wisconsin (Version 3.2). Published by the United States Army Corps of Engineers (USACE), St. Paul District. Available online at: https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/2801. Accessed June 2025.

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

Minnesota Department of Natural Resources (MNDNR). 2011. Public Waters Inventory Mapping. Available online at: https://www.dnr.state.mn.us/waters/watermgmt_section/pwi/maps.html. Accessed June 2025.

MNDNR. 2012. DNR Hydrography Dataset. Updated August 3, 2023. Available online at: https://gisdata.mn.gov/dataset/water-dnr-hydrography. Accessed June 2025.

MNDNR. 2015. National Wetland Inventory for Minnesota. MNDNR NWI Wetland Finder. Updated September 14, 2023. Available online at: https://arcgis.dnr.state.mn.us/ewr/wetlandfinder/. Accessed June 2025.

Minnesota Geospatial Information Office. 2023. Minnesota Elevation Mapping Project: 2-foot Contours. Available online at: https://www.mngeo.state.mn.us/committee/elevation/mn_elev_mapping.html. Accessed June 2025.Minnesota State Climatology Office. 2008. Wetland Delineation Precipitation Data Retrieval from a Gridded Database. Accessed online at: https://climateapps.dnr.state.mn.us/gridded_data/precip/wetland/wetland.asp. Accessed June 2025.

Soil Survey Staff, NRCS, USDA. 2019. Web Soil Survey. Available online at: http://websoilsurvey.sc.egov.usda.gov/. Accessed June 2025.

USACE. 2022. National Wetland Plant List, version 3.5. USACE Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH. Available online at: http://wetland-plants.usace.army.mil/.

USACE. 2010. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

USACE, BWSR. 2016. Guidance for Offsite Hydrology/Wetland Determinations.

USDA-NRCS. 2018. Field Indicators of Hydric Soils in the United States, Version 8.2. Edited by L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

U.S. Environmental Protection Agency (USEPA). 2021. Antecedent Precipitation Tool. Available online at: https://www.epa.gov/wotus/antecedent-precipitation-tool-apt. Accessed June 2025.

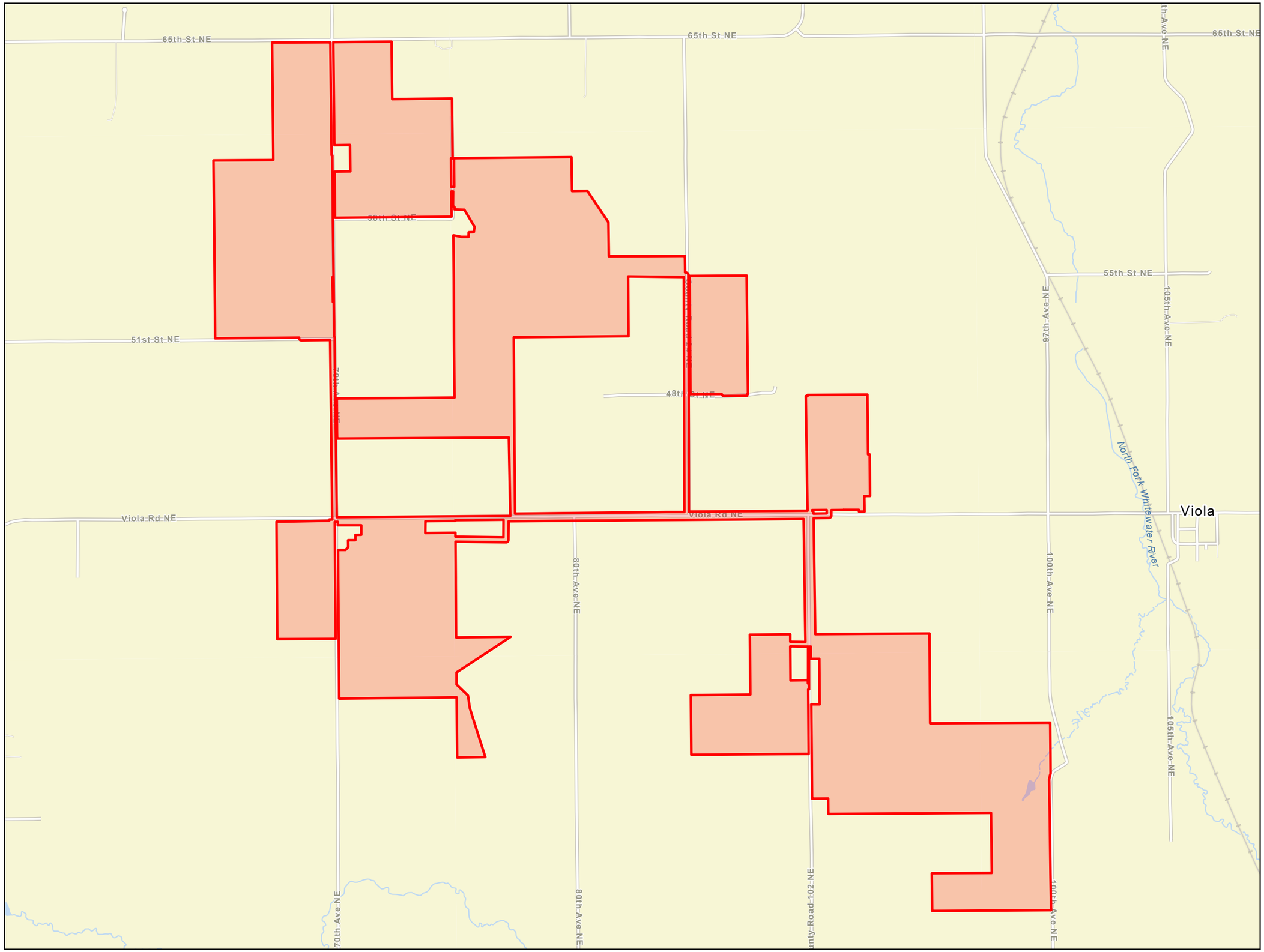
U.S. Fish and Wildlife Service (USFWS). 2021. National Wetlands Inventory. National Wetlands Inventory Data Mapper, updated May 3, 2021. Available online at: https://www.fws.gov/wetlands/Data/Mapper.html. Accessed June 2025.

USGS. 2004. National Hydrography Dataset. Reston, Va. 2004.

USGS, USFWS. 2019. The National Map. Available online at: https://www.usgs.gov/the-national-map-data-delivery/gis-data-download. Accessed June 2025.

Figure 1

Project Location



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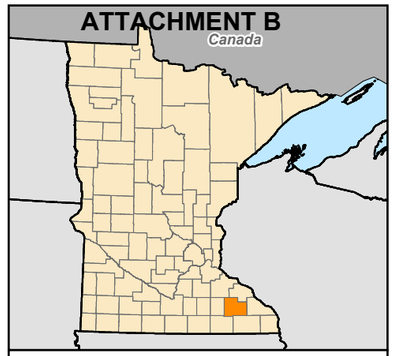

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1 inch = 2,000 feet

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Survey Area

Figure 1
Project Location
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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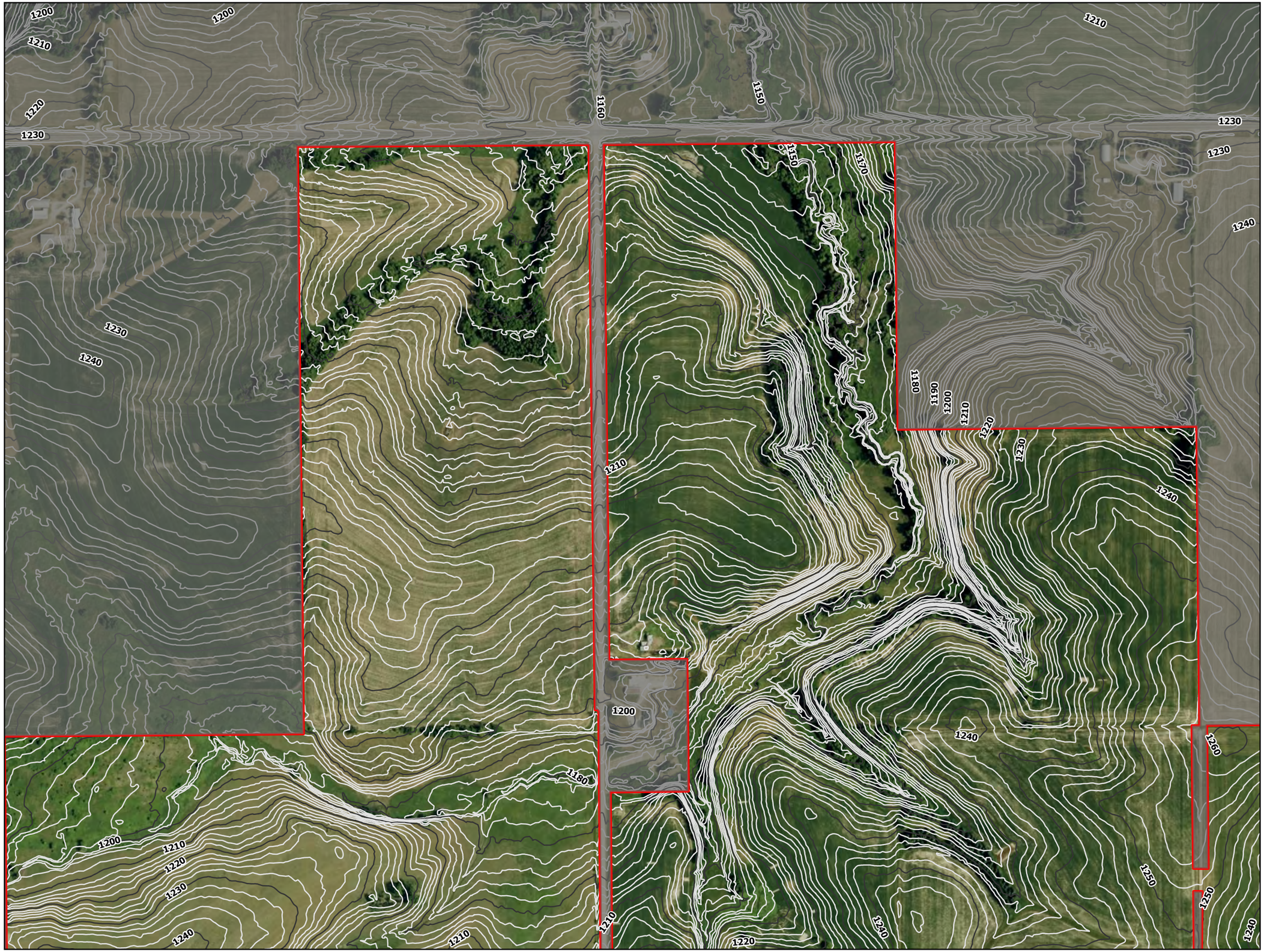
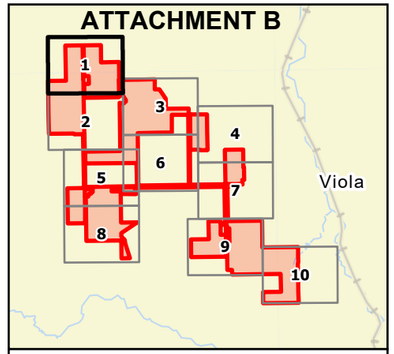
Figure 2

Topography





0 200 400 Feet

1 inch = 400 feet

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Survey Area

Major Contour (10')

Minor Contour (2')

Figure 2
Topographic Map
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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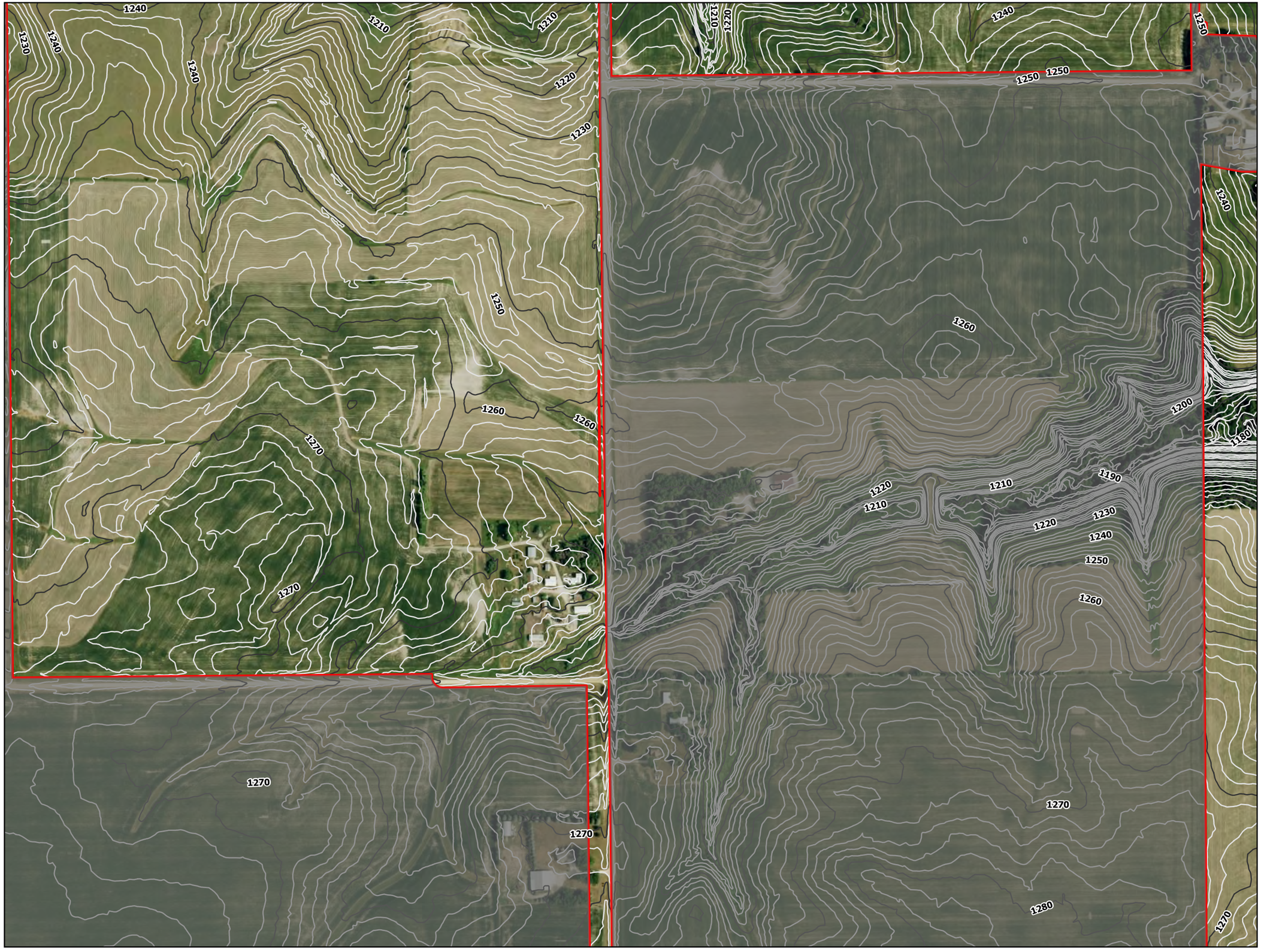

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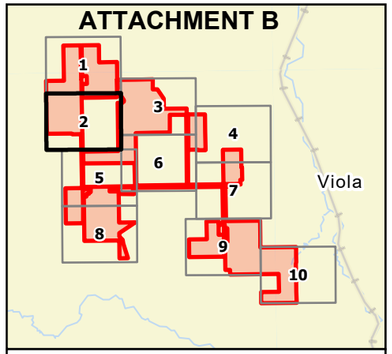

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1 inch = 400 feet

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- Survey Area
- Major Contour (10')
- Minor Contour (2')

Figure 2
Topographic Map
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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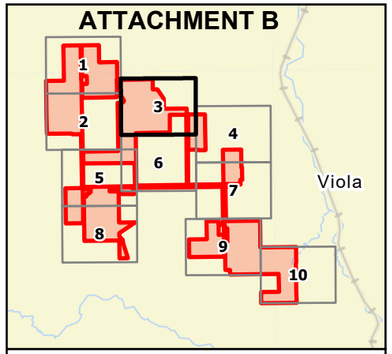
ATTACHMENT B



0 200 400 Feet

1 inch = 400 feet

N
W E
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Survey Area

Major Contour (10')

Minor Contour (2')

Figure 2
Topographic Map
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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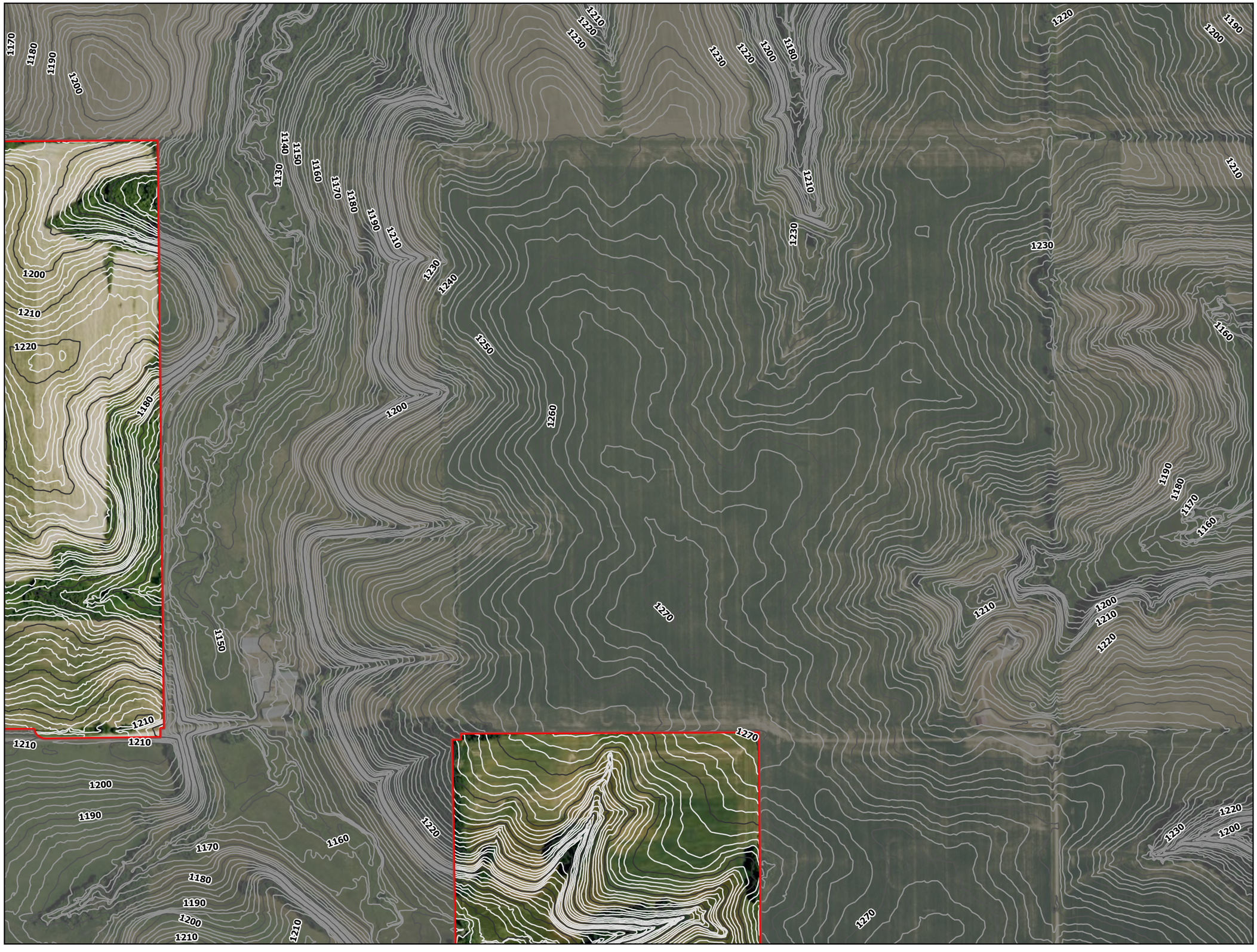
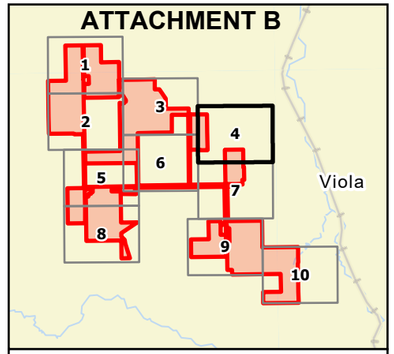
For Environmental Review Purposes Only

Source: Z:\Clients\Q_T\Ranger_Power\Lemon_Hill_Solar\ArcGIS\Biological\001_ArcProDesktopReview_2025\LH_DesktopReview_2025.aprx
Date: (7/9/2025)





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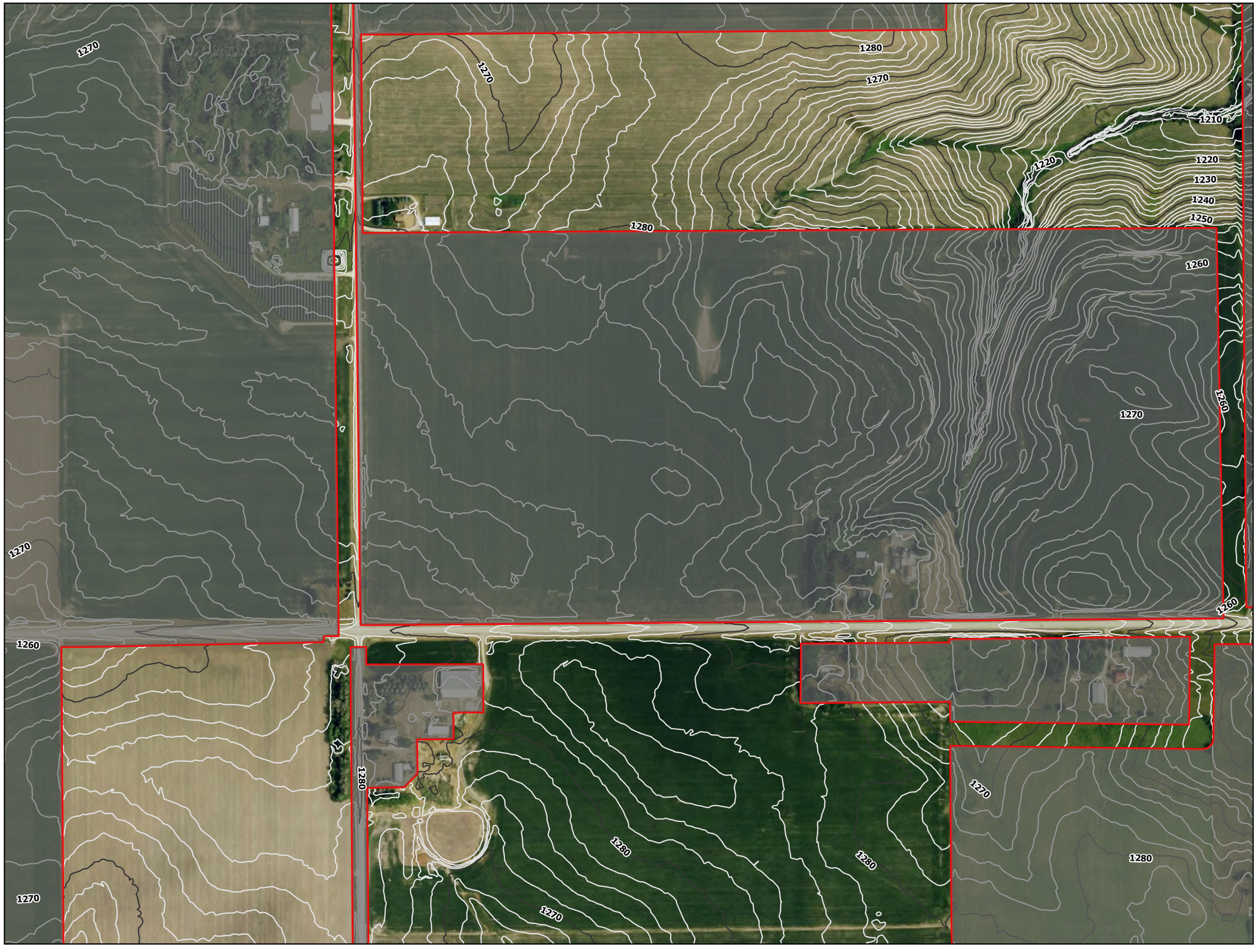

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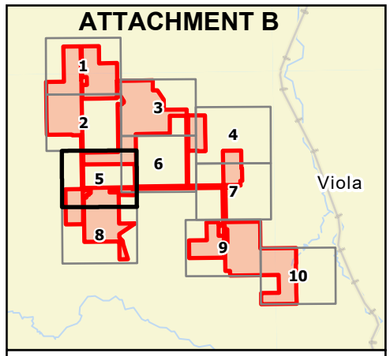

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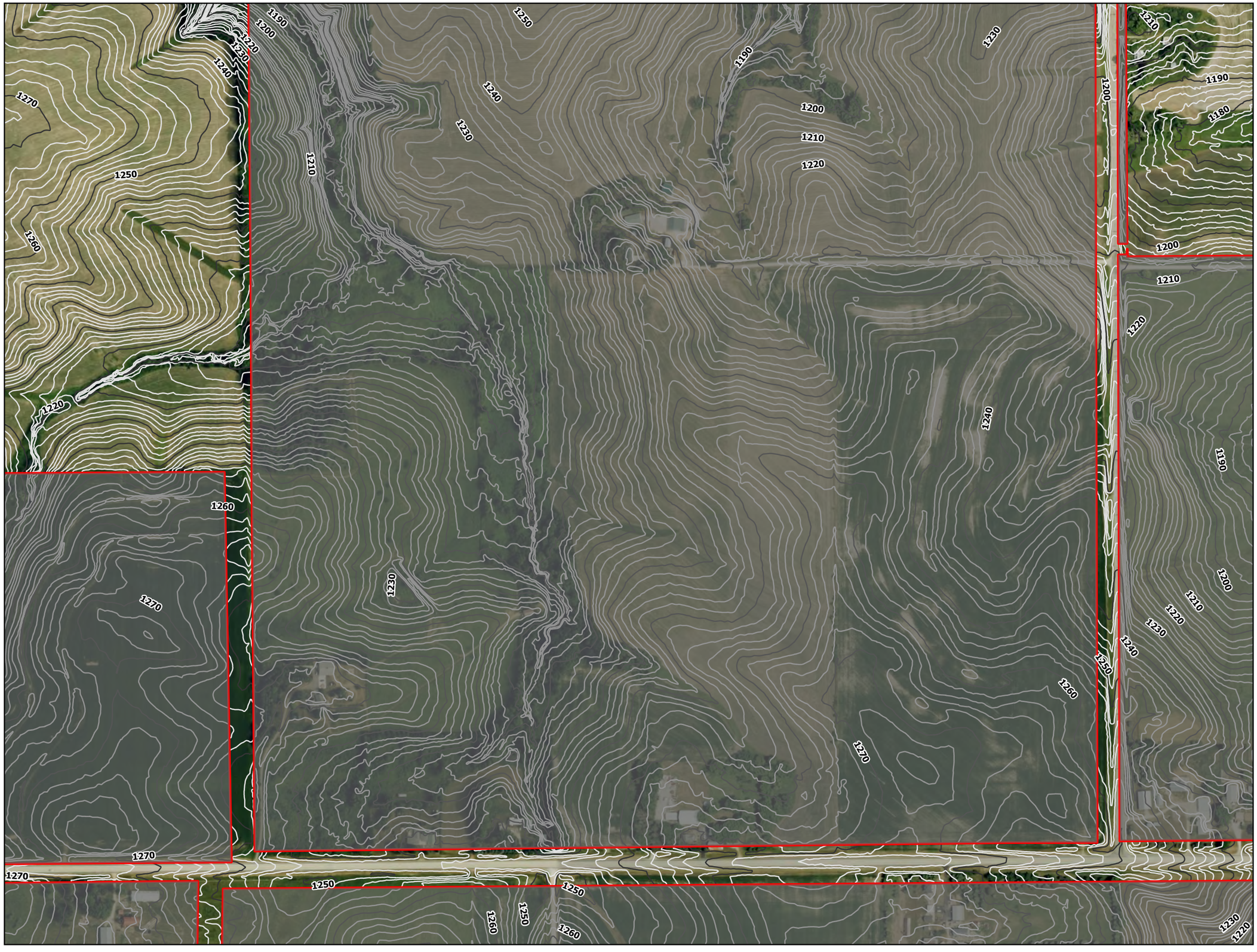

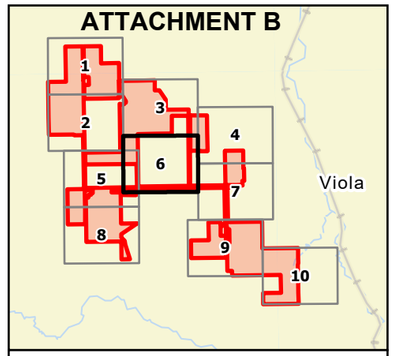

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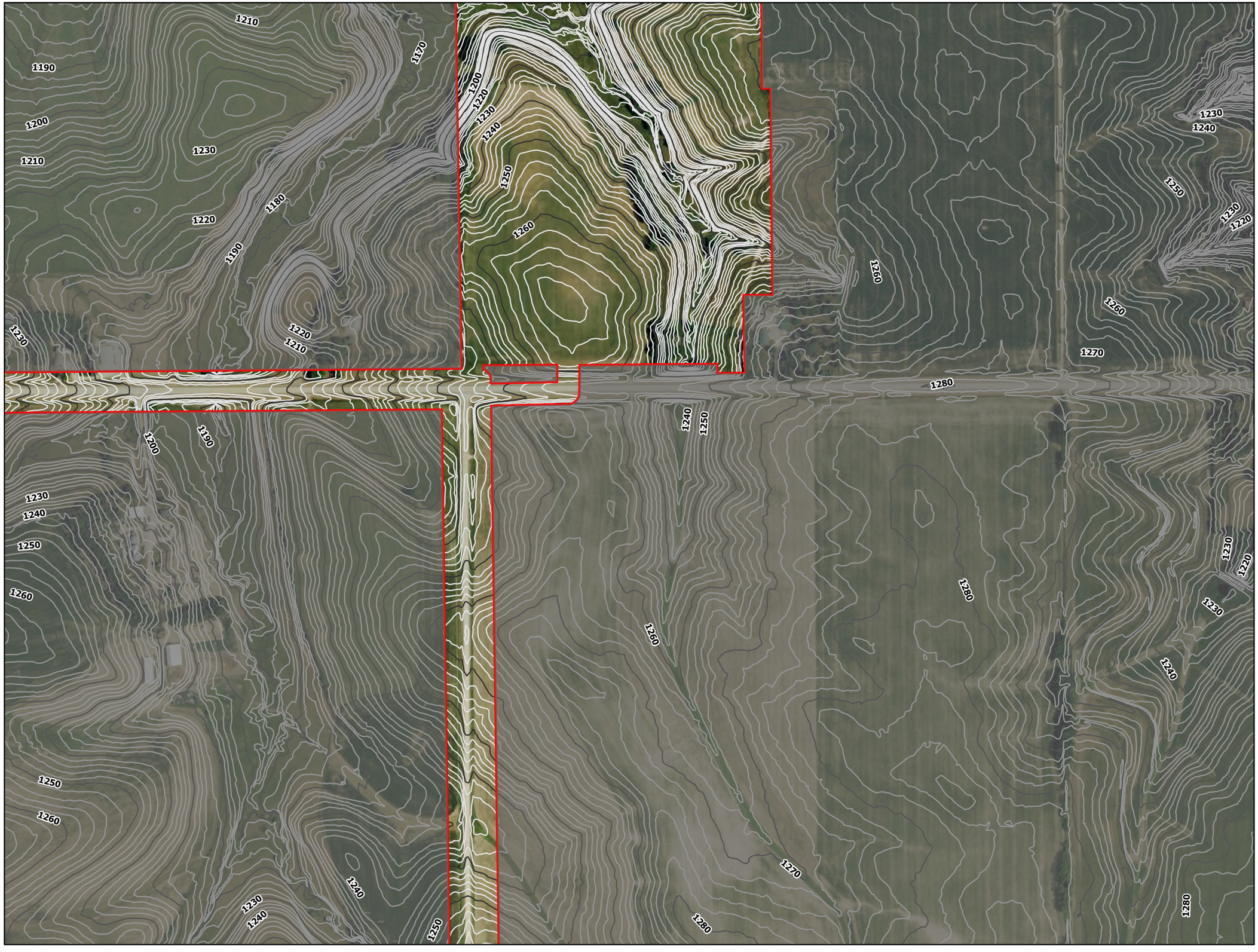

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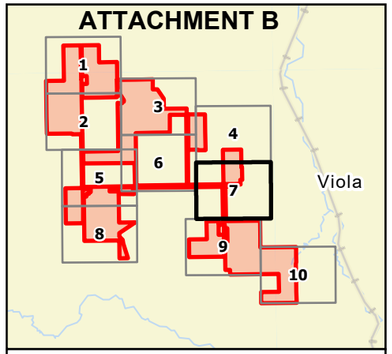

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Survey Area

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Olmsted County, MN

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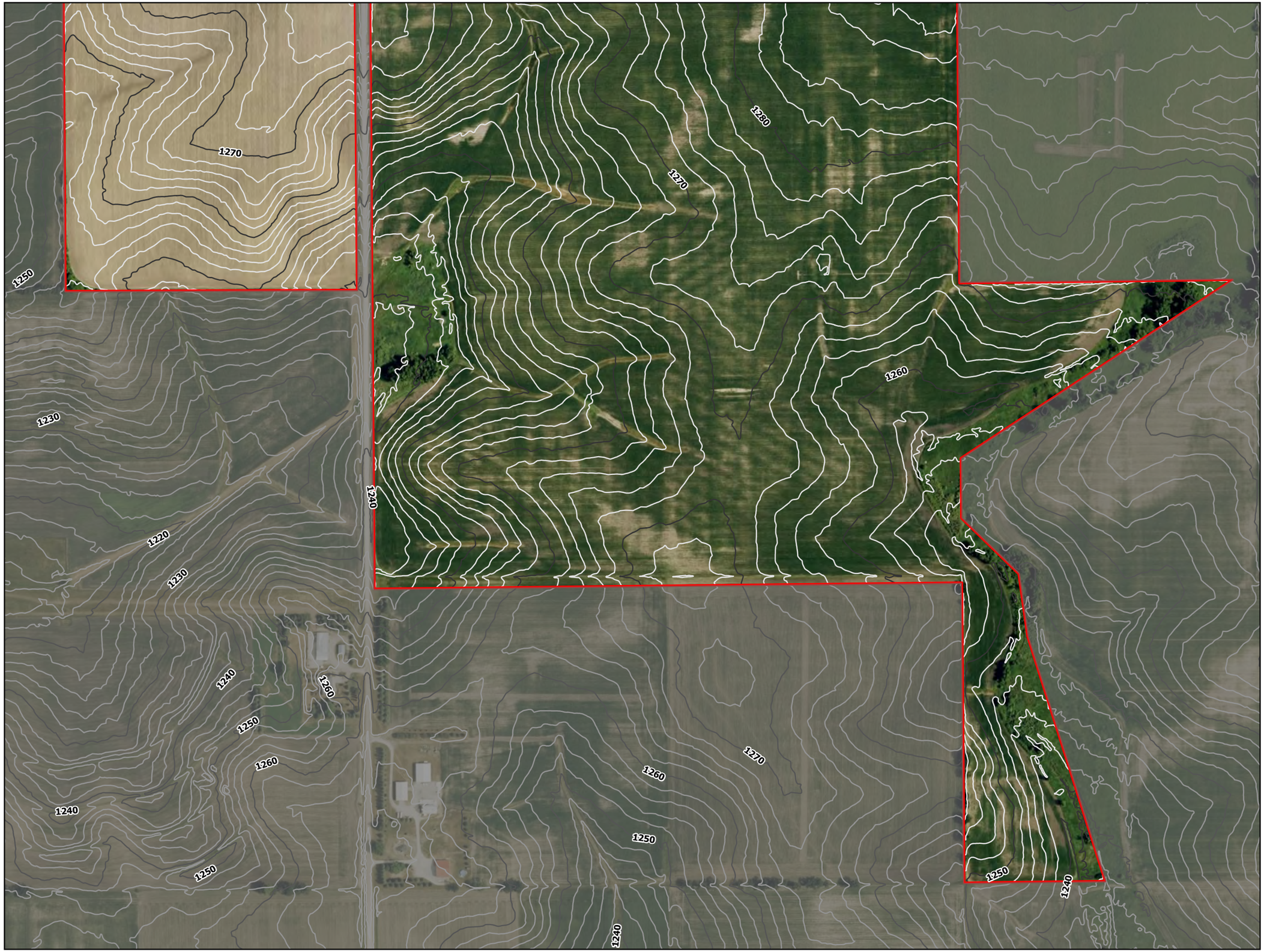

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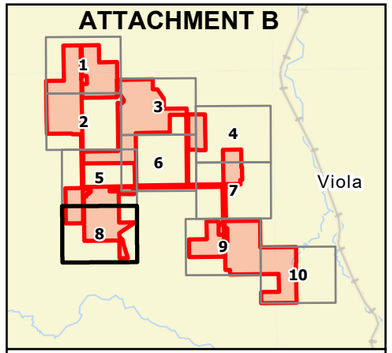

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N
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S

Survey Area
Major Contour (10')
Minor Contour (2')

Figure 2
Topographic Map
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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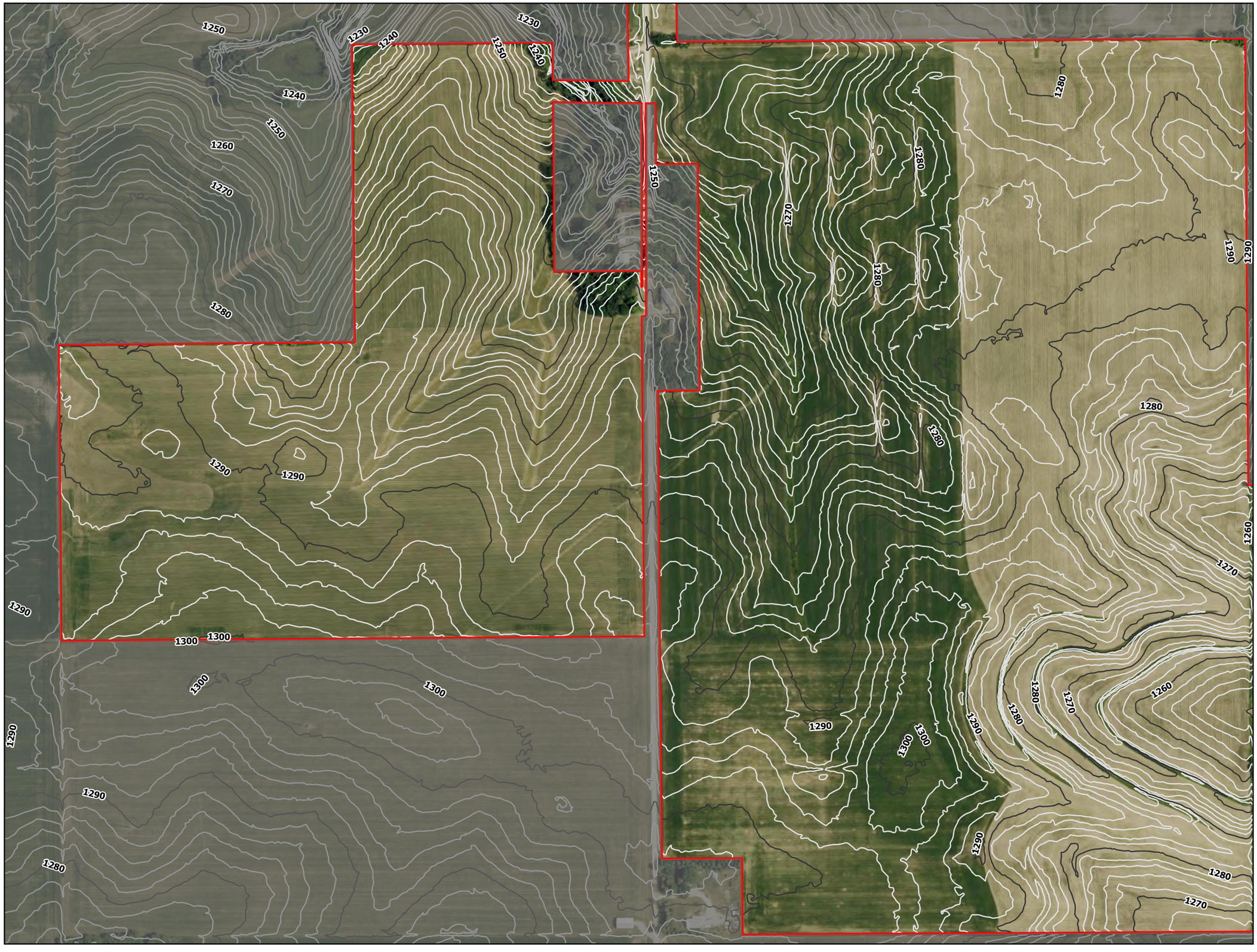

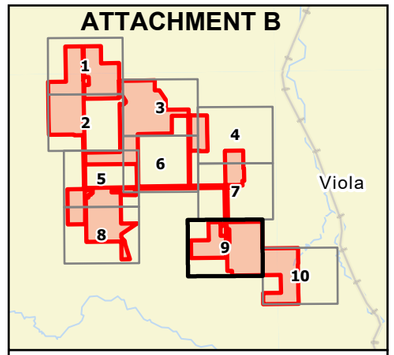

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1 inch = 400 feet

N
W E
S

Survey Area

Major Contour (10')

Minor Contour (2')

Figure 2
Topographic Map
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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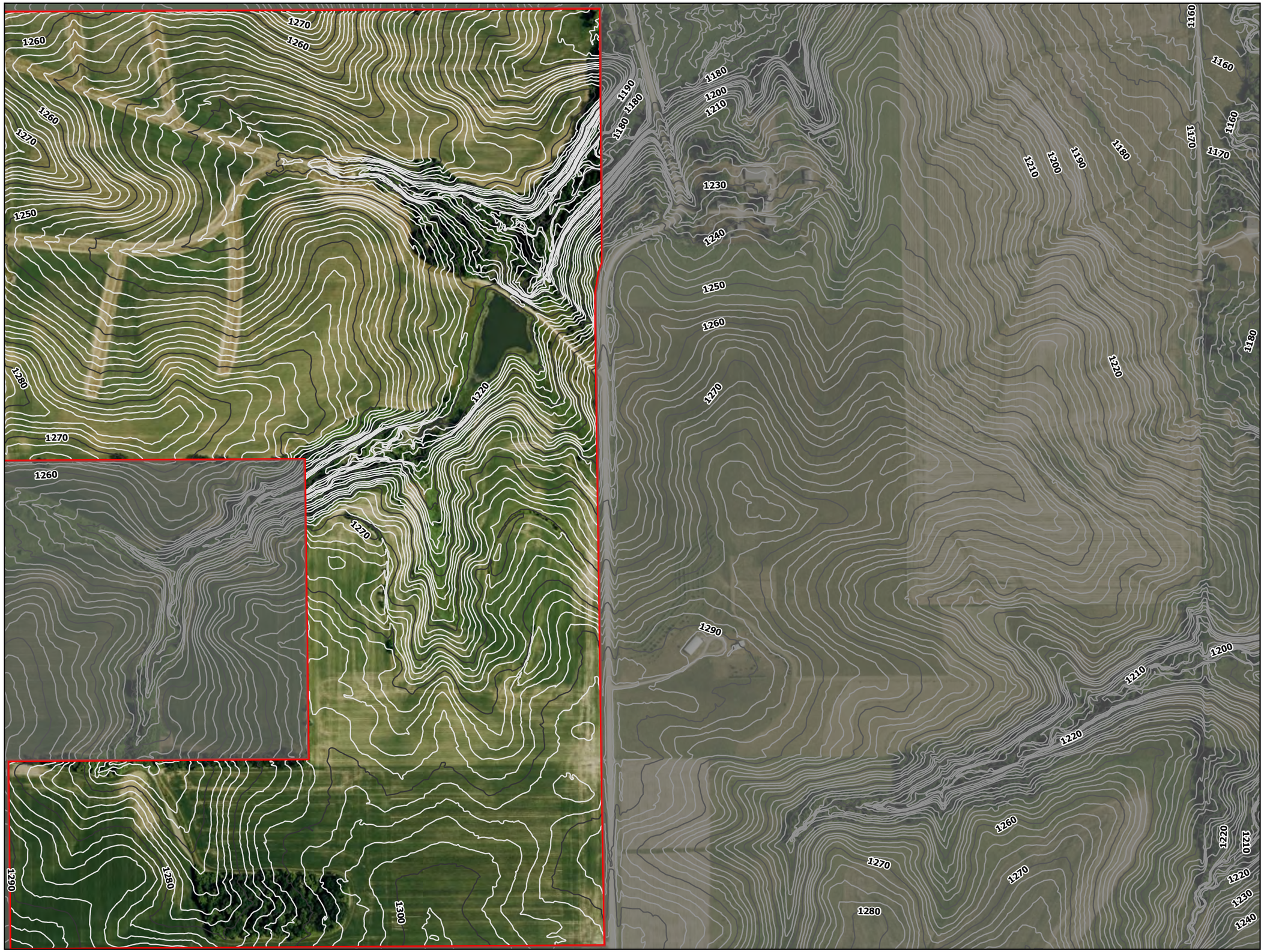

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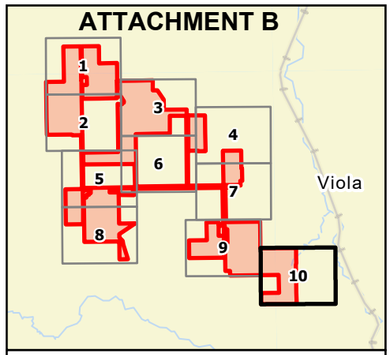

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N
W E
S

Survey Area

Major Contour (10')

Minor Contour (2')

Figure 2
Topographic Map
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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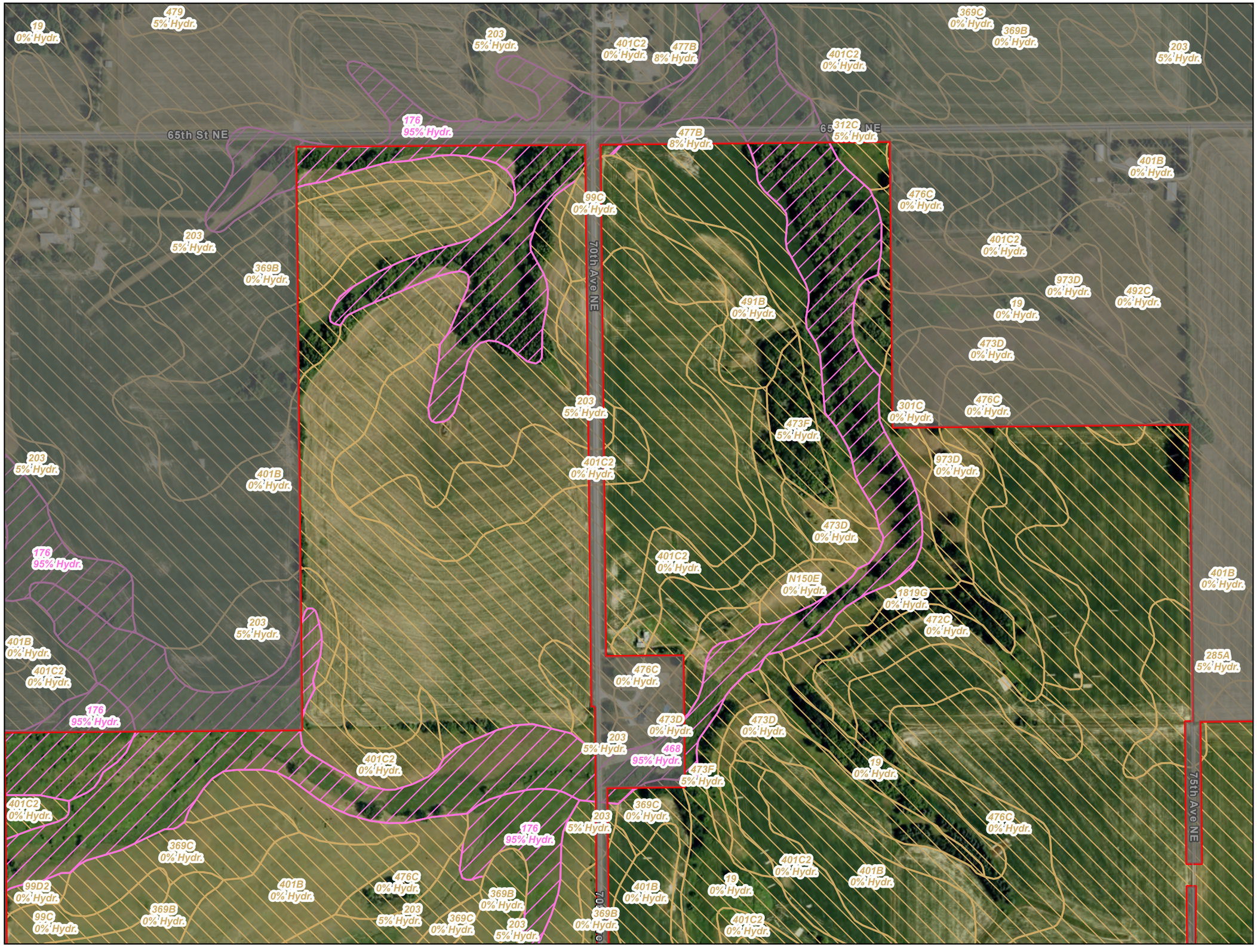
Date: (7/9/2025)

Figure 3

Soil Units (SSURGO)



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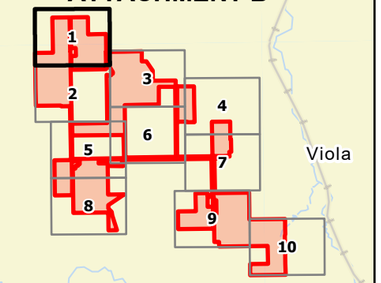

0 200 400 Feet

1 inch = 400 feet

N W E S

- Project Area
- Hydric Soil
- Non-Hydric Soil

Figure 3
Soil Units (SSURGO)
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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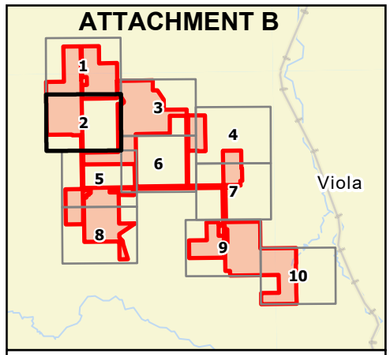

0 200 400 Feet

1 inch = 400 feet

N
W E
S

- Project Area
- Hydric Soil
- Non-Hydric Soil

Figure 3
Soil Units (SSURGO)
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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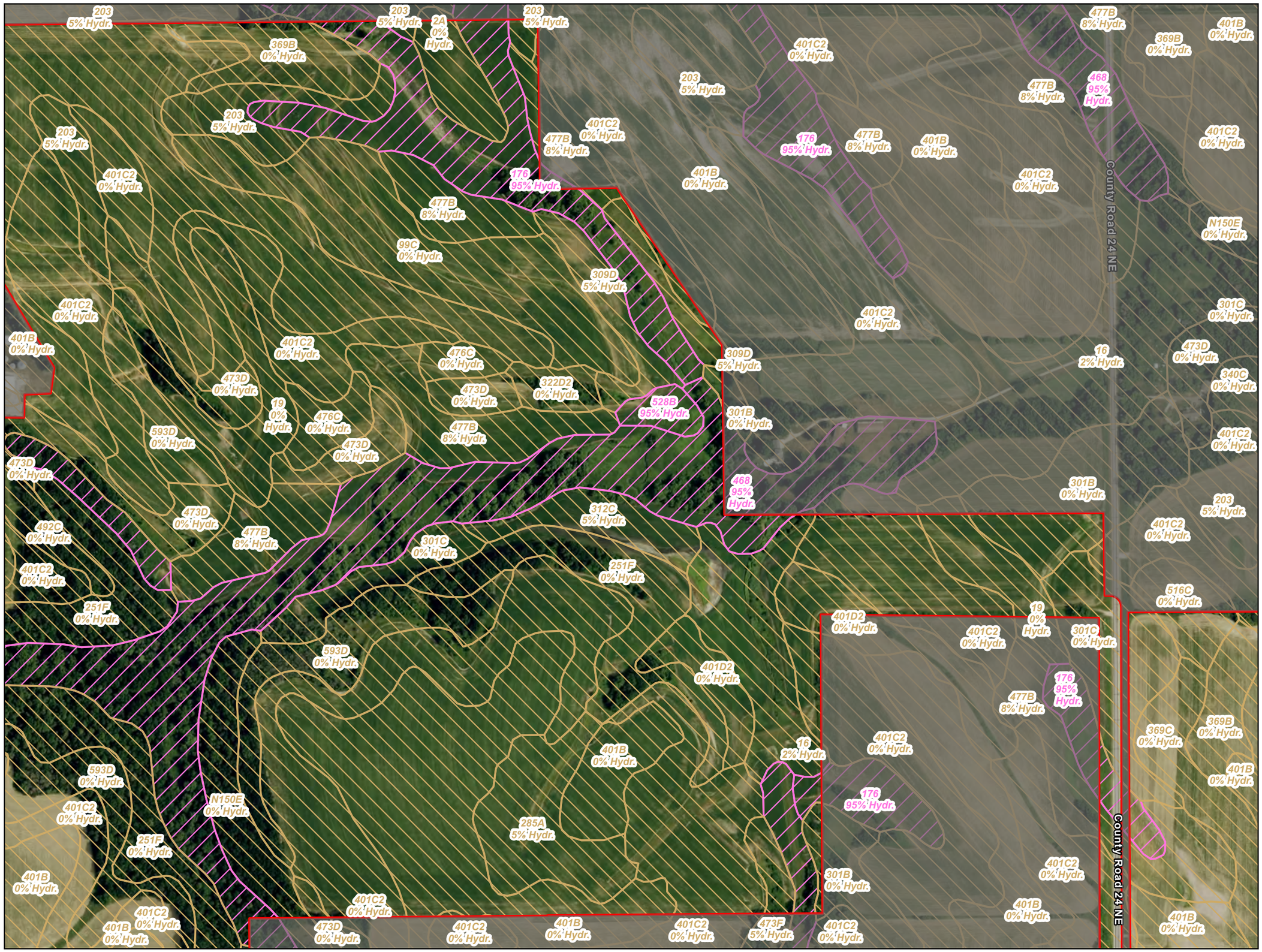

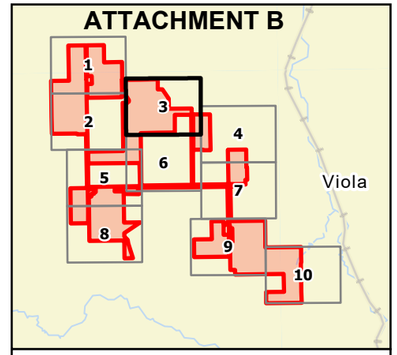

0 200 400 Feet

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N
W E
S

- Project Area
- Hydric Soil
- Non-Hydric Soil

Figure 3
Soil Units (SSURGO)
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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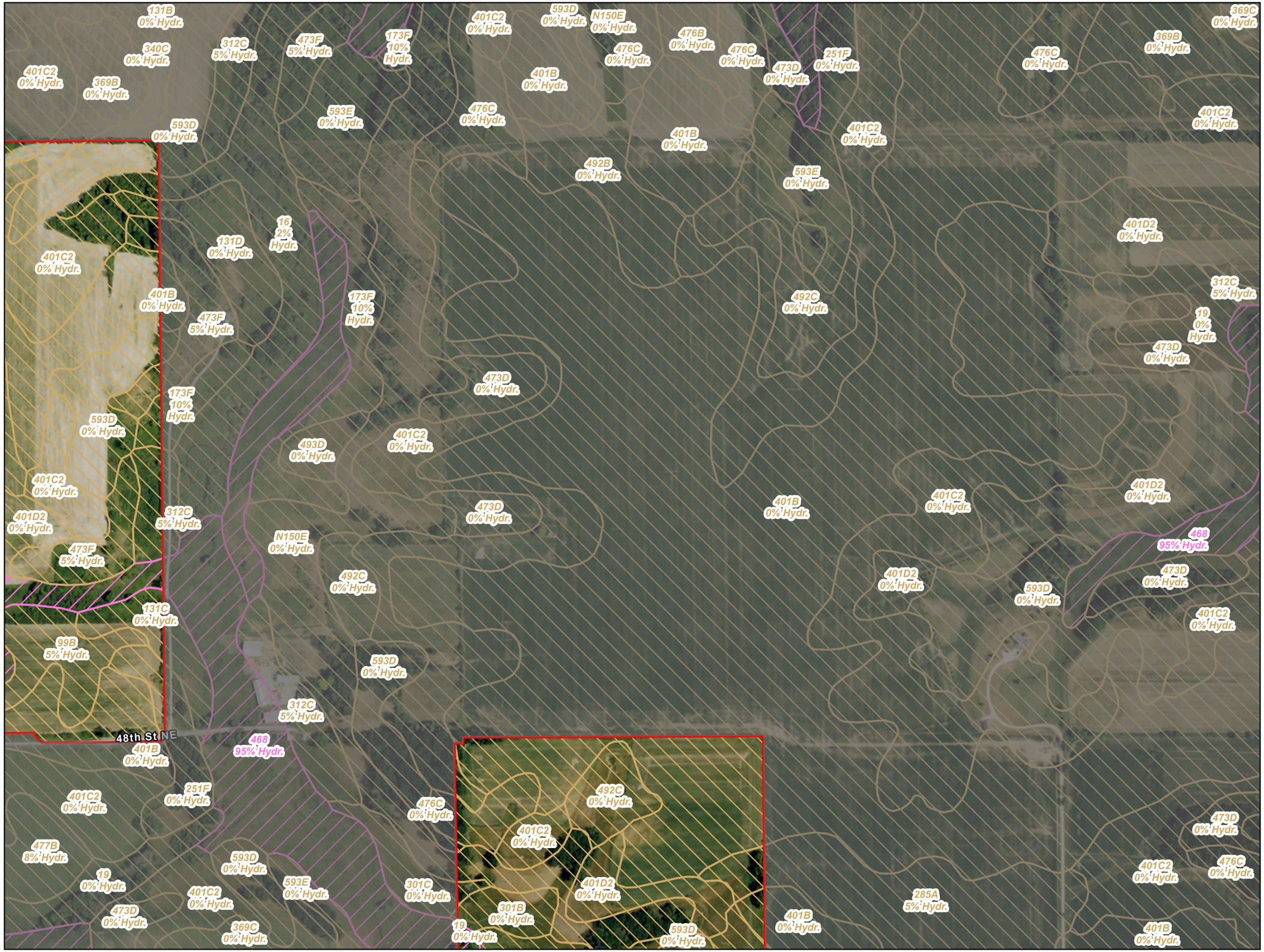

Figure 3
Soil Units (SSURGO)
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

merjent

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Source: Z:\Clients\O_T\Ranger_Power\Lemon_Hill_Solar\ArcGIS\Biological\001_ArcPro\Desktop\Review_2025\LH_DesktopReview_2025.aprx
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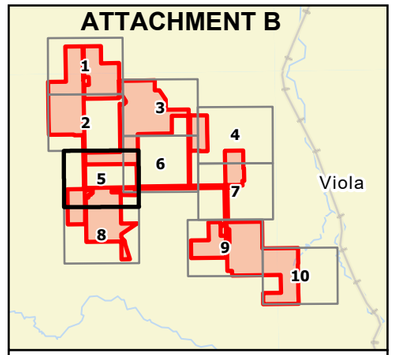

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N W E S

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Figure 3
Soil Units (SSURGO)
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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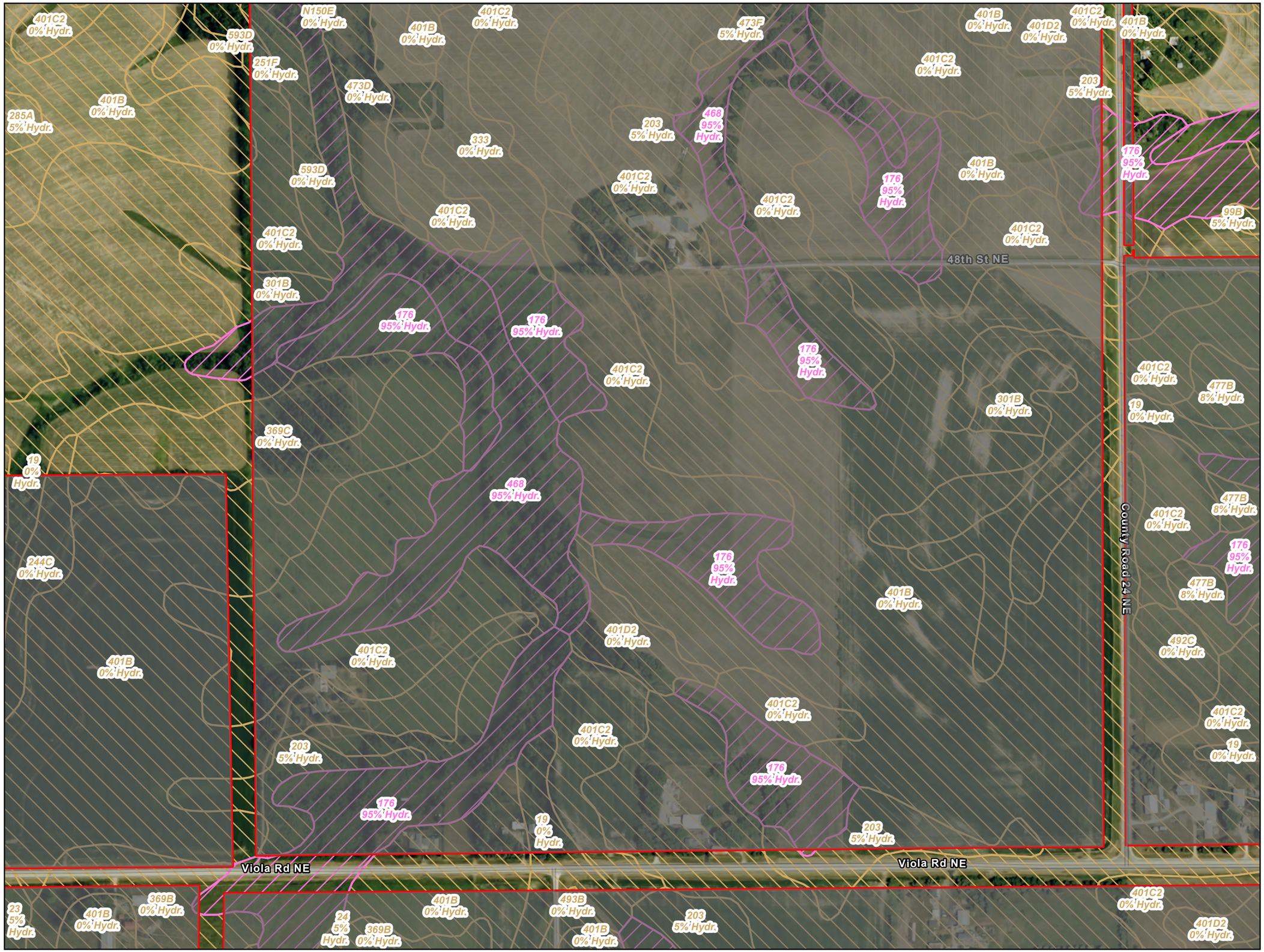

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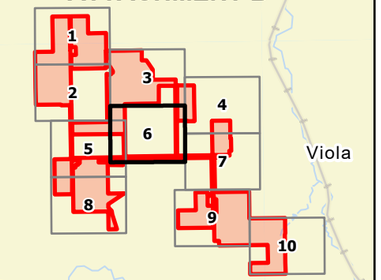

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1 inch = 400 feet

N
W E
S

- Project Area
- Hydric Soil
- Non-Hydric Soil

Figure 3
Soil Units (SSURGO)
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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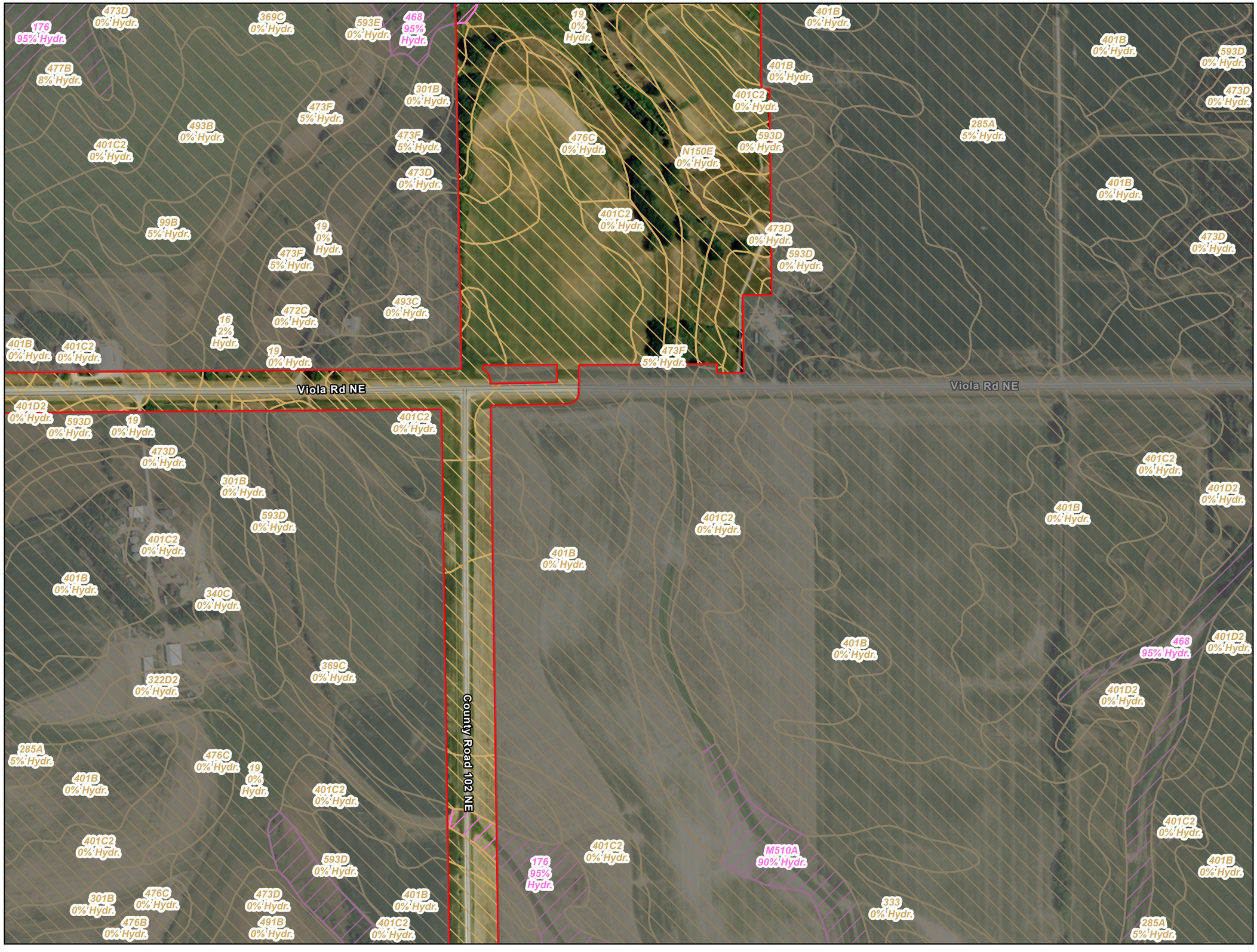

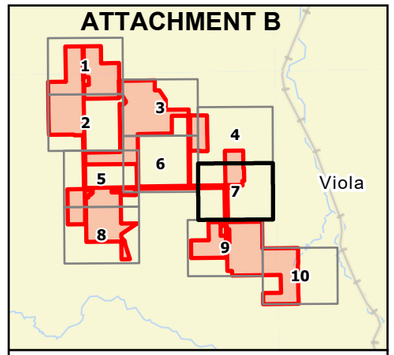

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N W E S

- Project Area
- Hydric Soil
- Non-Hydric Soil

Figure 3
Soil Units (SSURGO)
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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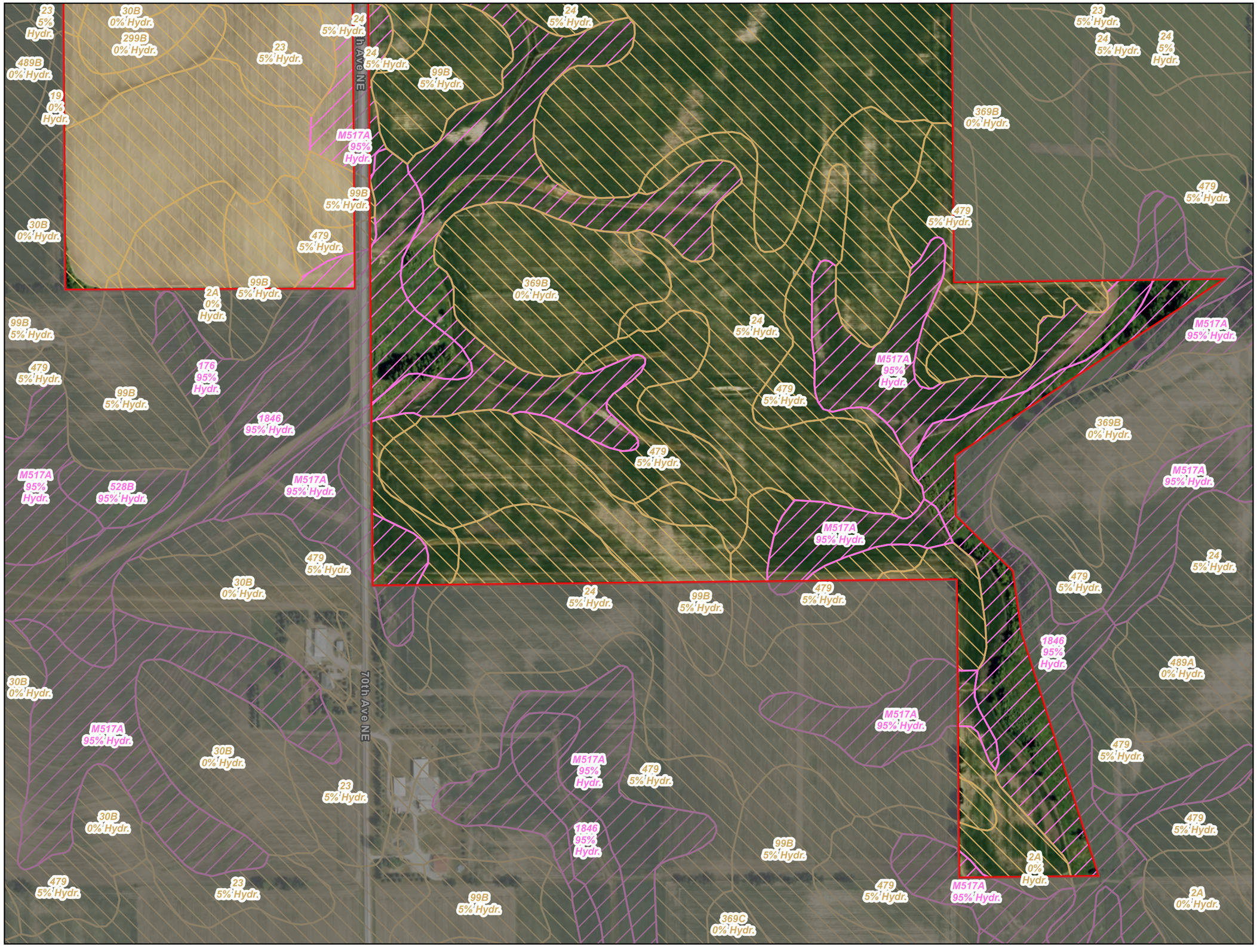

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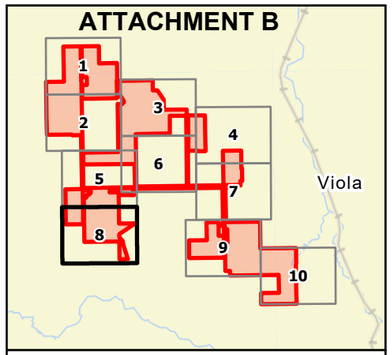

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N
W E
S

Project Area
Hydric Soil
Non-Hydric Soil

Figure 3
Soil Units (SSURGO)
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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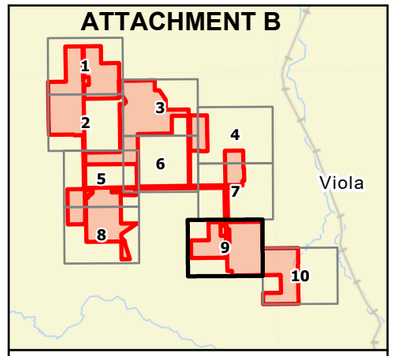

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Project Area
Hydric Soil
Non-Hydric Soil

Figure 3
Soil Units (SSURGO)
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Ranger Power
Olmsted County, MN

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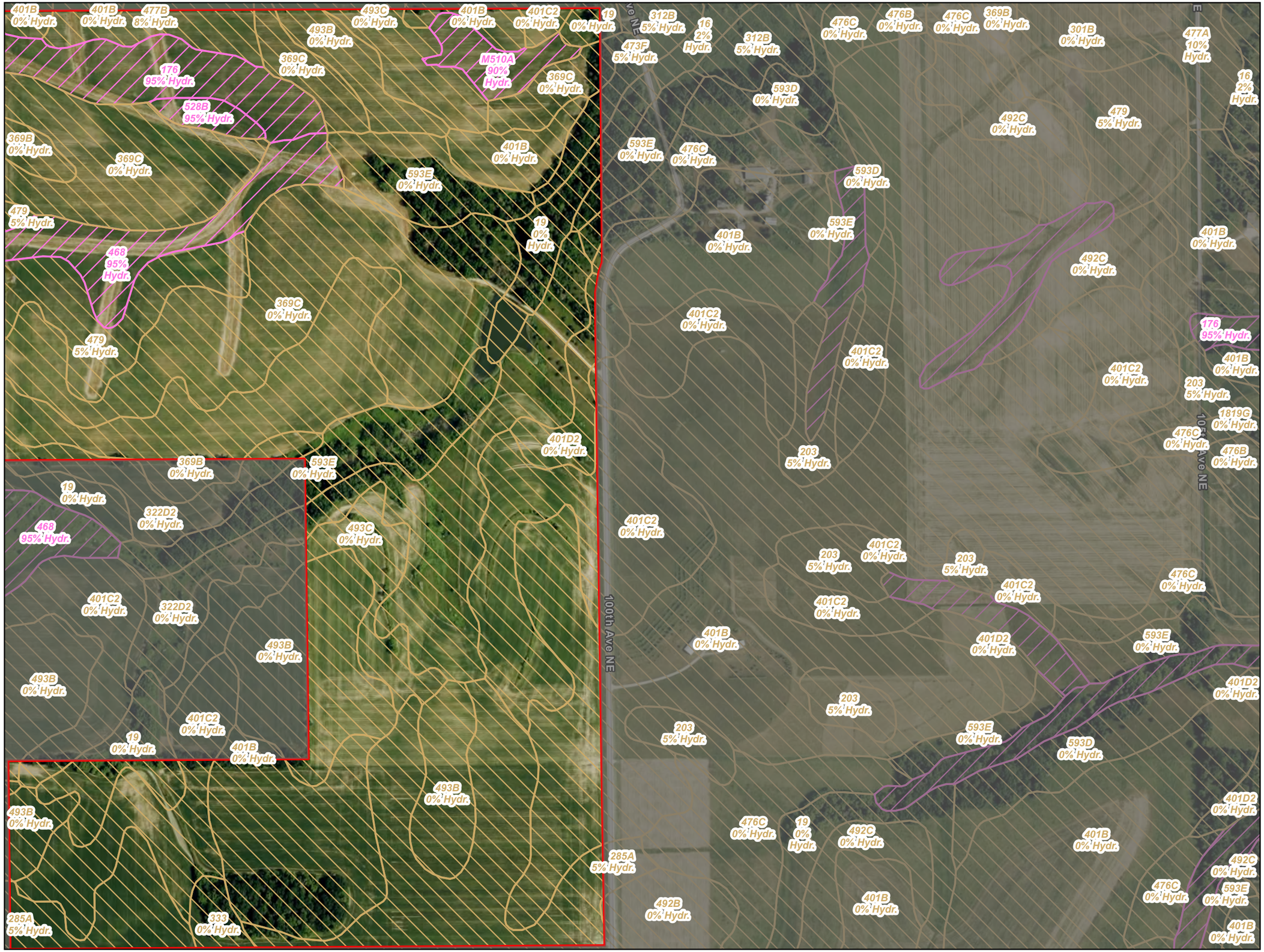

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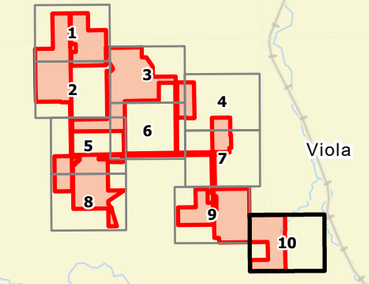

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- Project Area
- Hydric Soil
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Figure 3
Soil Units (SSURGO)
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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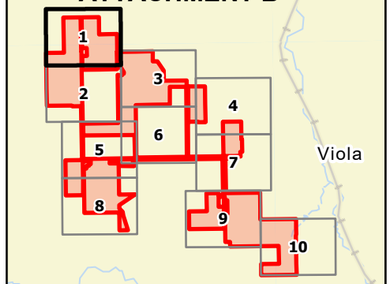
Figure 4

Hydrology

ATTACHMENT B



0 200 400 Feet

1 inch = 400 feet

N
W E
S

- Survey Area
- Wetland (NWI)
- Waterway (NHD)
- Watercourses (PWI)
- Waterbody (NHD)
- Basins (PWI)*

*No features within data frame

Figure 4
Hydrology
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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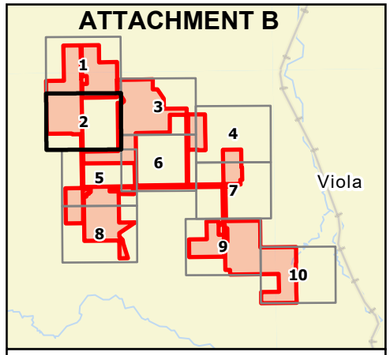

0 200 400 Feet

1 inch = 400 feet

N
W E
S

- Survey Area
- Wetland (NWI)
- Waterway (NHD)
- Watercourses (PWI)
- Waterbody (NHD)
- Basins (PWI)*

*No features within data frame

Figure 4
Hydrology
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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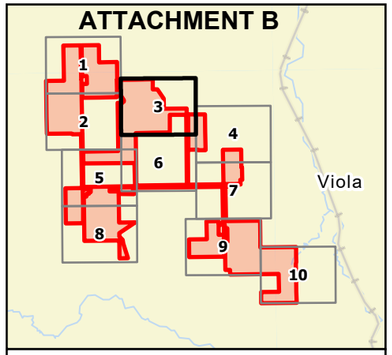

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- Survey Area
- Wetland (NWI)
- Waterway (NHD)
- Watercourses (PWI)
- Waterbody (NHD)
- Basins (PWI)*

*No features within data frame

Figure 4
Hydrology
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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Source: Z:\Clients\Q_T\Ranger_Power\Lemon_Hill_Solar\ArcGIS\Biological\001_ArcPro\Desktop\Review_2025\LH_DesktopReview_2025.aprx
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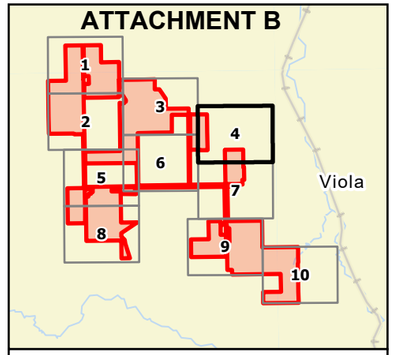

0 200 400 Feet

1 inch = 400 feet

N
W E
S

- Survey Area
- Wetland (NWI)
- Waterway (NHD)
- Watercourses (PWI)
- Waterbody (NHD)
- Basins (PWI)*

*No features within data frame

Figure 4
Hydrology
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

merjent

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Source: Z:\Clients\C_T\Ranger_Power\Lemon_Hill_Solar\ArcGIS\Biological\001_ArcPro\Desktop\Review_2025\LH_DesktopReview_2025.aprx
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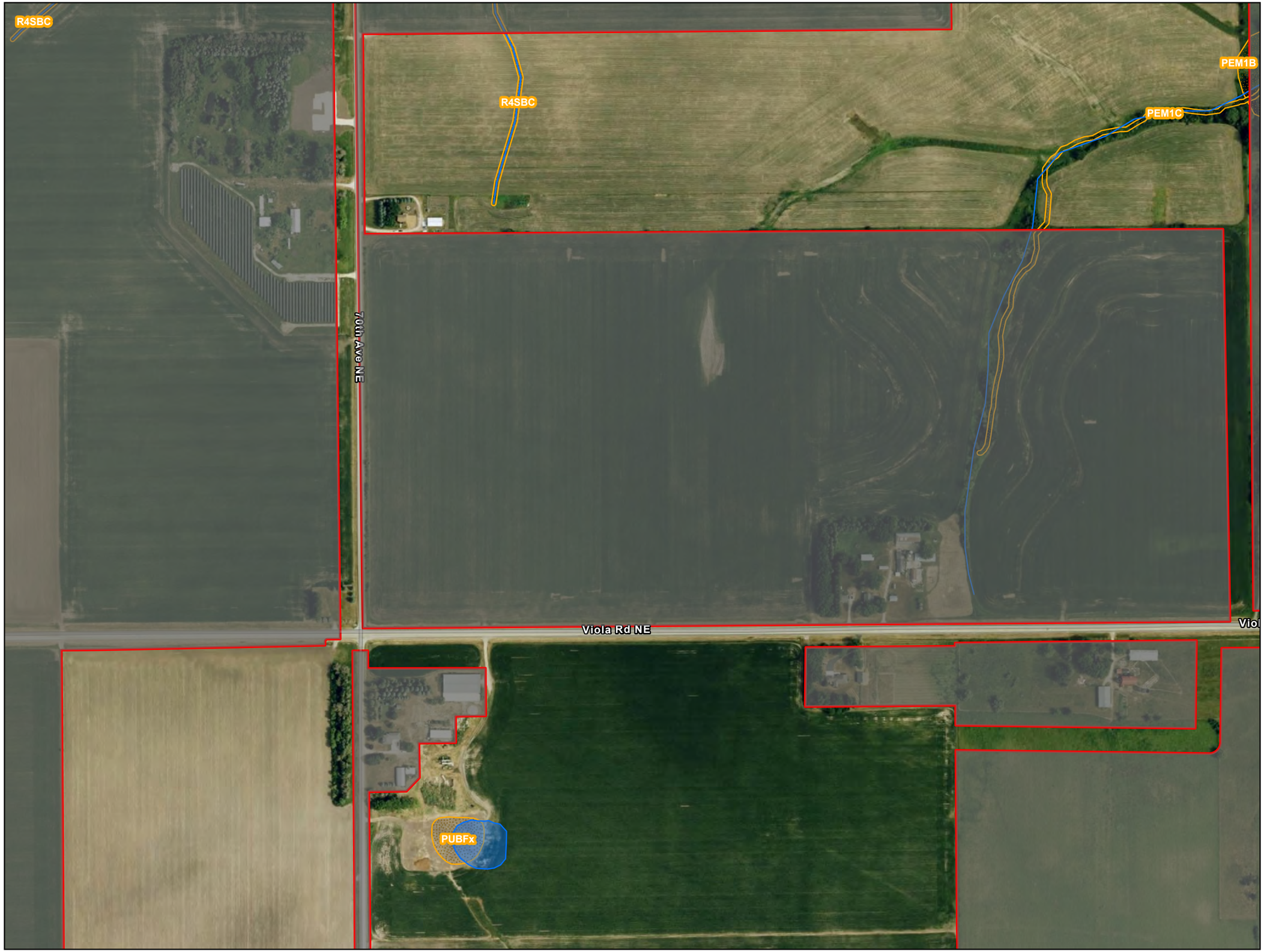

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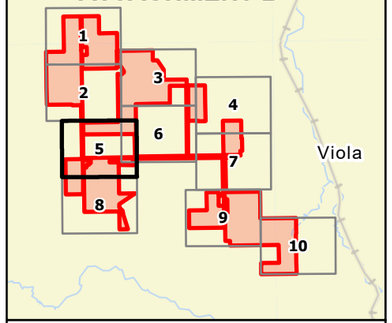

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*No features within data frame

Figure 4
Hydrology
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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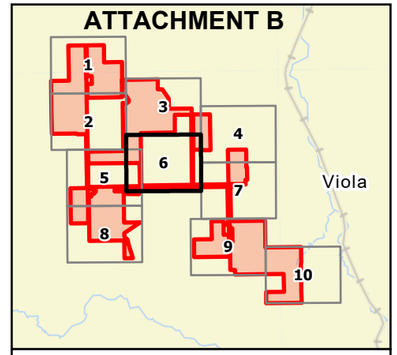

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Figure 4
Hydrology
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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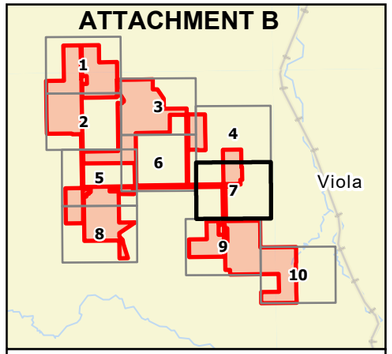

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Figure 4
Hydrology
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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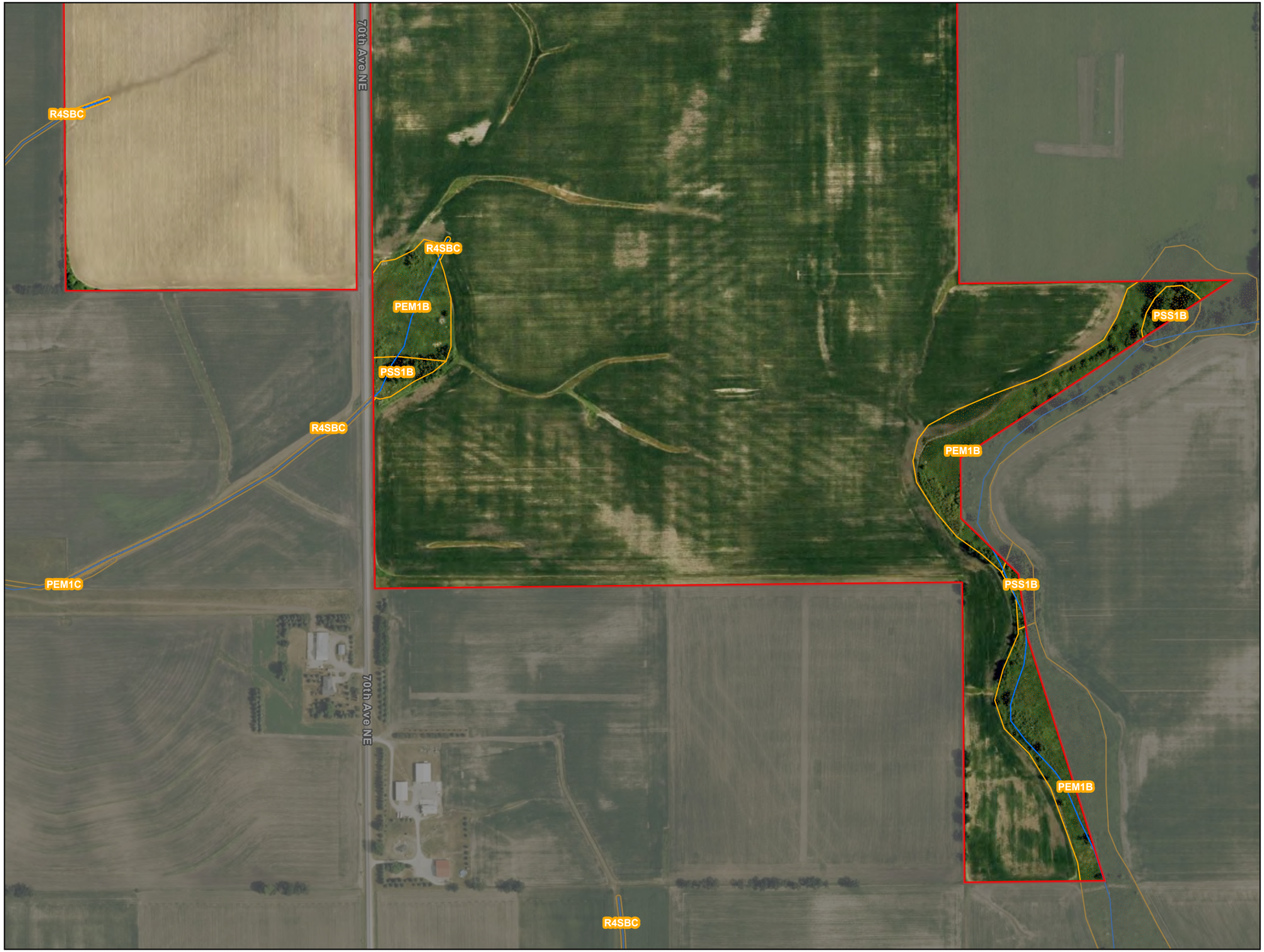

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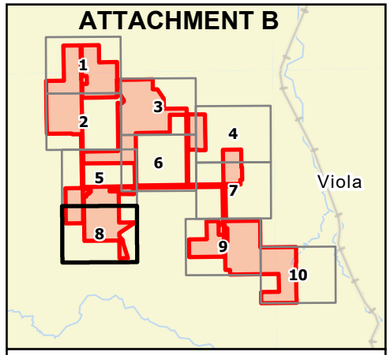

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Hydrology
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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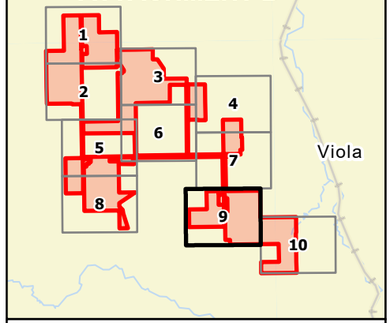

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Figure 4
Hydrology
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Ranger Power
Olmsted County, MN

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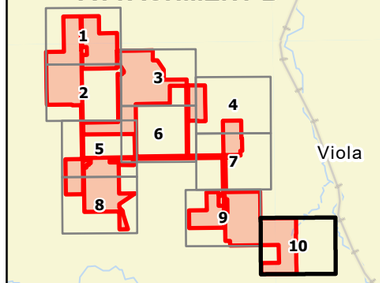

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- Watercourses (PWI)
- Waterbody (NHD)
- Basins (PWI)*

*No features within data frame

Figure 4
Hydrology
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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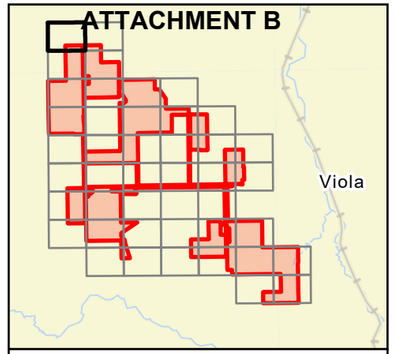
Date: (7/9/2025)

Figure 5

Wetland and Waterbody Delineation

ATTACHMENT B



0 100 200 Feet

1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point

Delineated Wetland

- Fresh (Wet) Meadow
- Hardwood Swamp
- Seasonally Flooded Basin
- Shrub-Carr

70th Ave NE

65th St NE

dp01
w35
pp462
w35
w35
dp06
pp469
dp02
pp463
pp460
w35

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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Source: Z:\Clients\Q_TR\Ranger_Power\Lemon_Hill_Solar\ArcGIS\Biological\001_ArcPro\Desktop\Review_2025\LH_DesktopReview_2025.aprx

Date: (7/9/2025)

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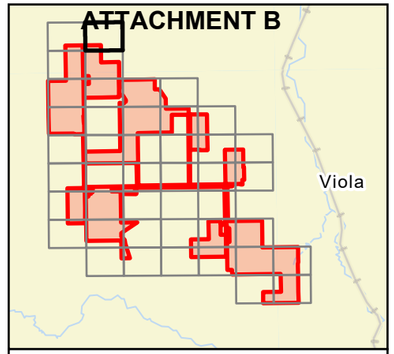

0 100 200 Feet

1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point
- Delineated Waterway

Delineated Wetland

- Floodplain Forest
- Fresh (Wet) Meadow

65th St NE

65th St NE

adp01
pp001
pp002
adp02
pp004
adp03
pp007
pp012
adp06
adp05
pp011
pp008
pp009
pp003
pp005
pp006
pp369
s12
w01
adp04
pp013
w01

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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Source: Z:\Clients\Q_T\Ranger_Power\Lemon_Hill_Solar\ArcGIS\Biological\001_ArcPro\Desktop\Review_2025\LH_DesktopReview_2025.aprx

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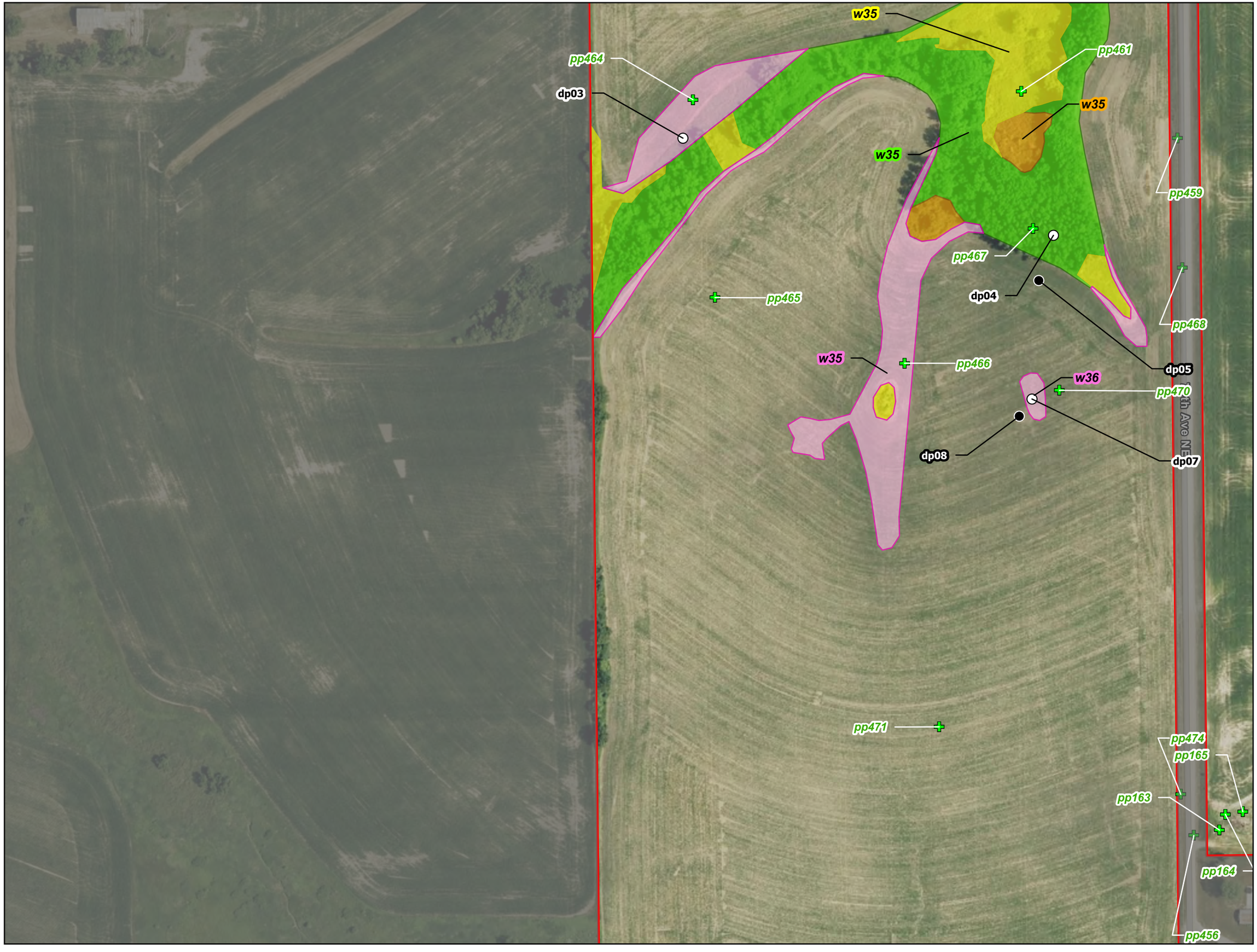

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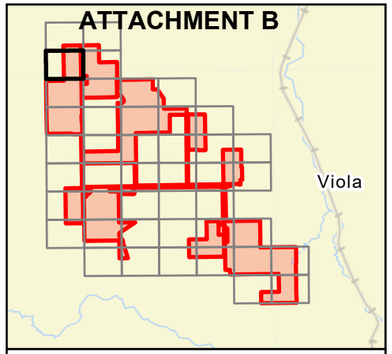

0 100 200 Feet

1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point

Delineated Wetland

- Fresh (Wet) Meadow
- Hardwood Swamp
- Seasonally Flooded Basin
- Shrub-Carr

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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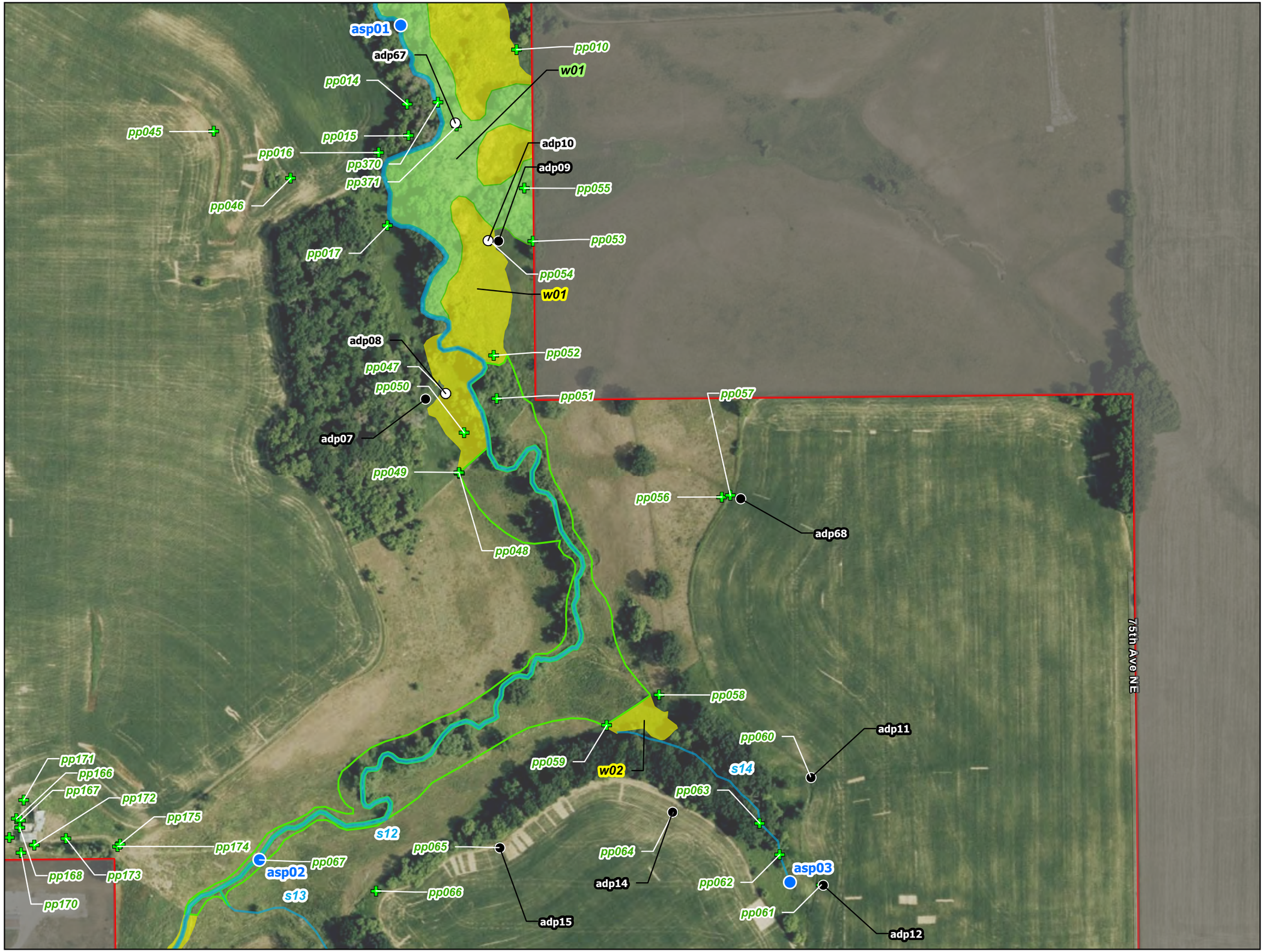

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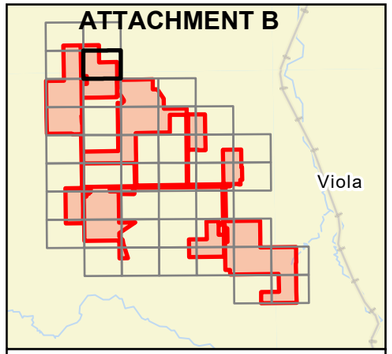

0 100 200 Feet

1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point
- Delineated Waterway
- Desktop Delineated Wetland

Delineated Wetland

- Floodplain Forest
- Fresh (Wet) Meadow

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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Source: Z:\Clients\Q_T\Ranger_Power\Lemon_Hill_Solar\ArcGIS\Biological\001_ArcPro\DesktopReview_2025\LH_DesktopReview_2025.aprx
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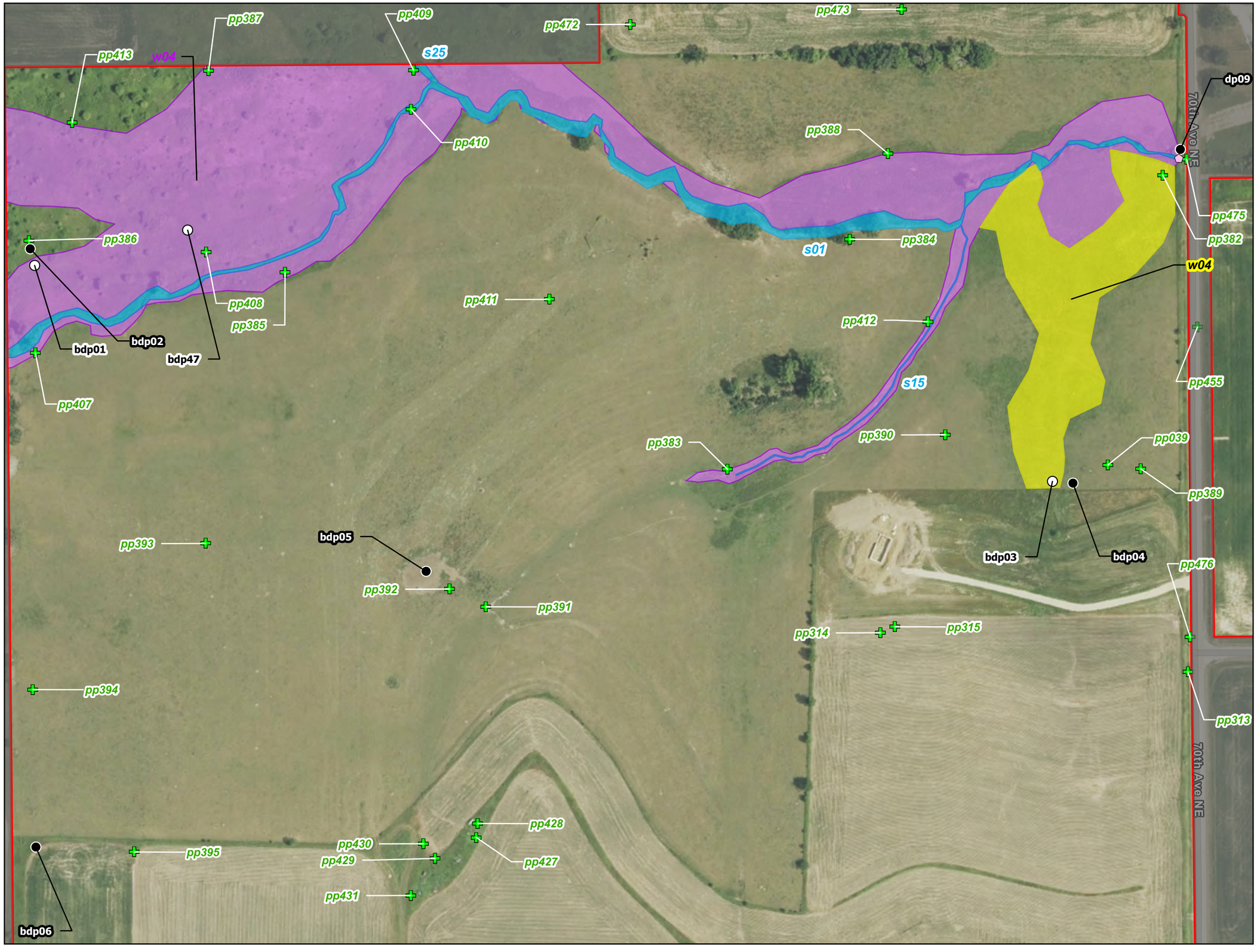

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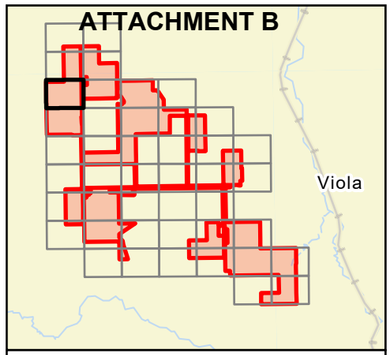

0 100 200 Feet

1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point
- Delineated Waterway

Delineated Wetland

- Fresh (Wet) Meadow
- Sedge Meadow

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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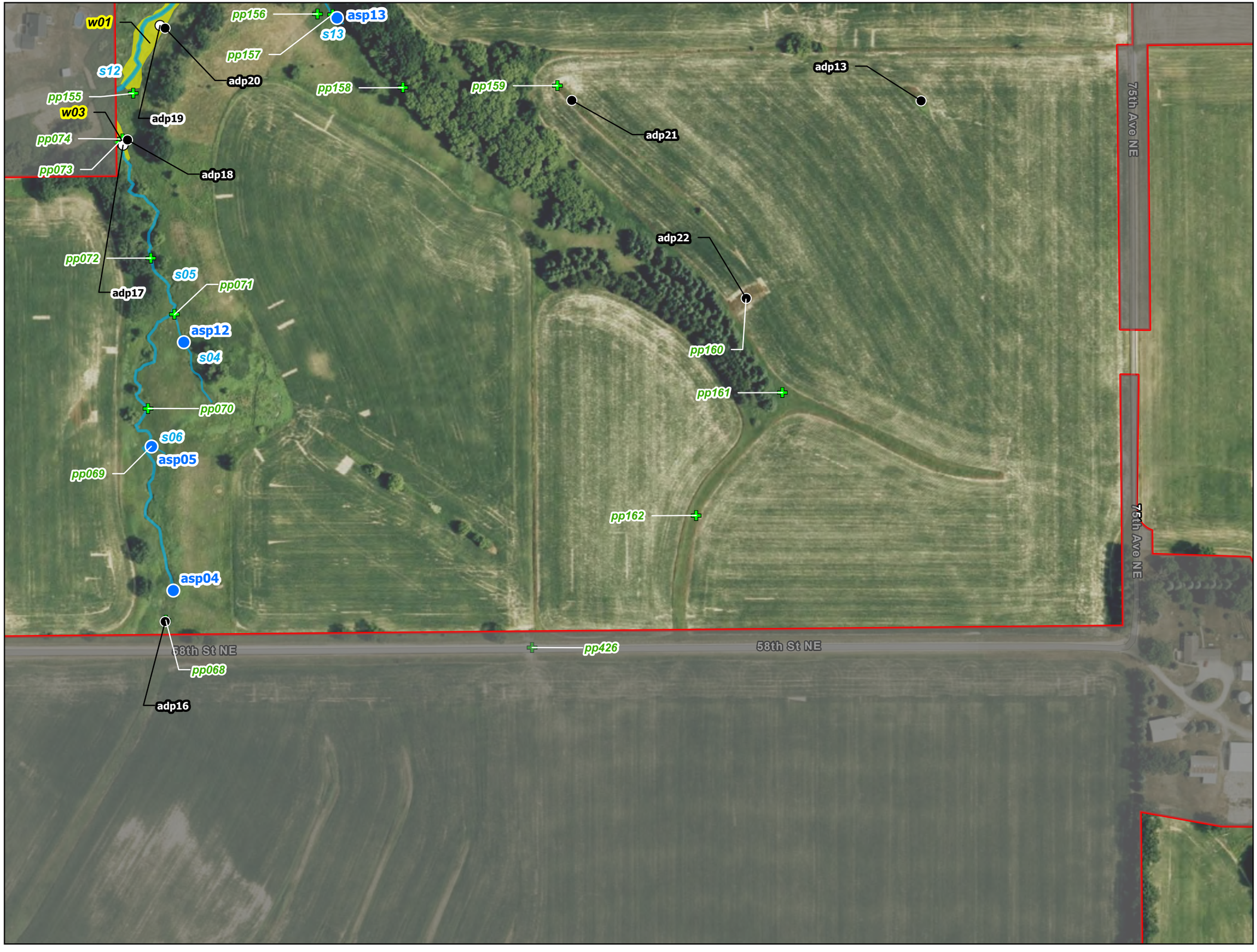

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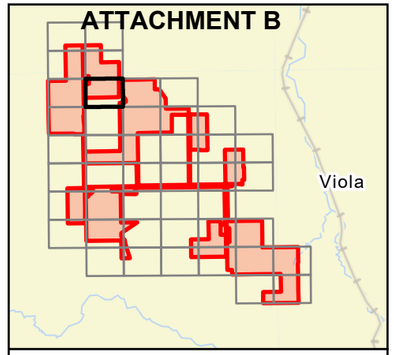

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1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point
- Delineated Waterway

Delineated Wetland

- Fresh (Wet) Meadow

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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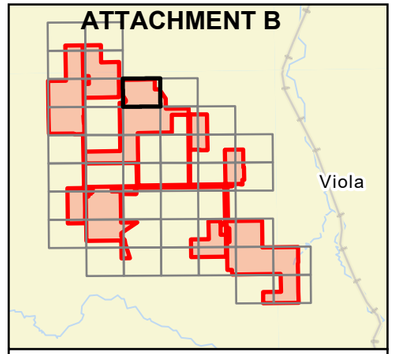

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N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point
- Delineated Waterway

Delineated Wetland

- Floodplain Forest
- Fresh (Wet) Meadow
- Seasonally Flooded Basin

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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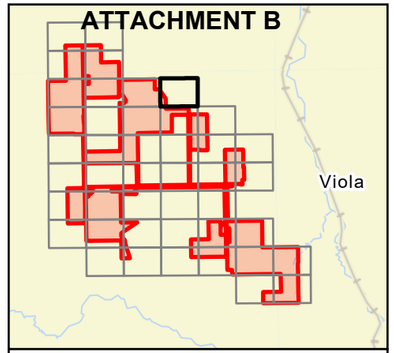

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W E
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- Photo Point
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- Upland Data Point
- Wetland Data Point
- Delineated Waterway

Delineated Wetland

- Floodplain Forest
- Fresh (Wet) Meadow

County Road 24 NE

pp422
s26
pp424
ddp05
ddp04
ddp03
pp423
w10
s26
s09
w10

County Road 24 NE

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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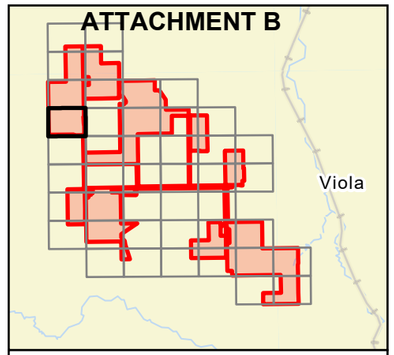

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Delineated Wetland

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Figure 5
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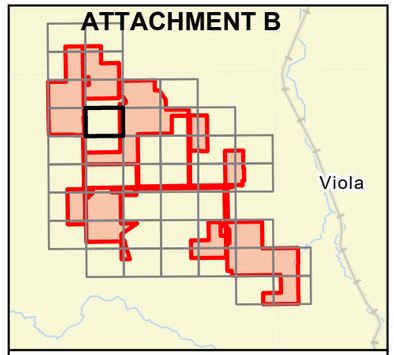

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- Delineated Waterway

Delineated Wetland

- Floodplain Forest

Figure 5
Wetland Delineation
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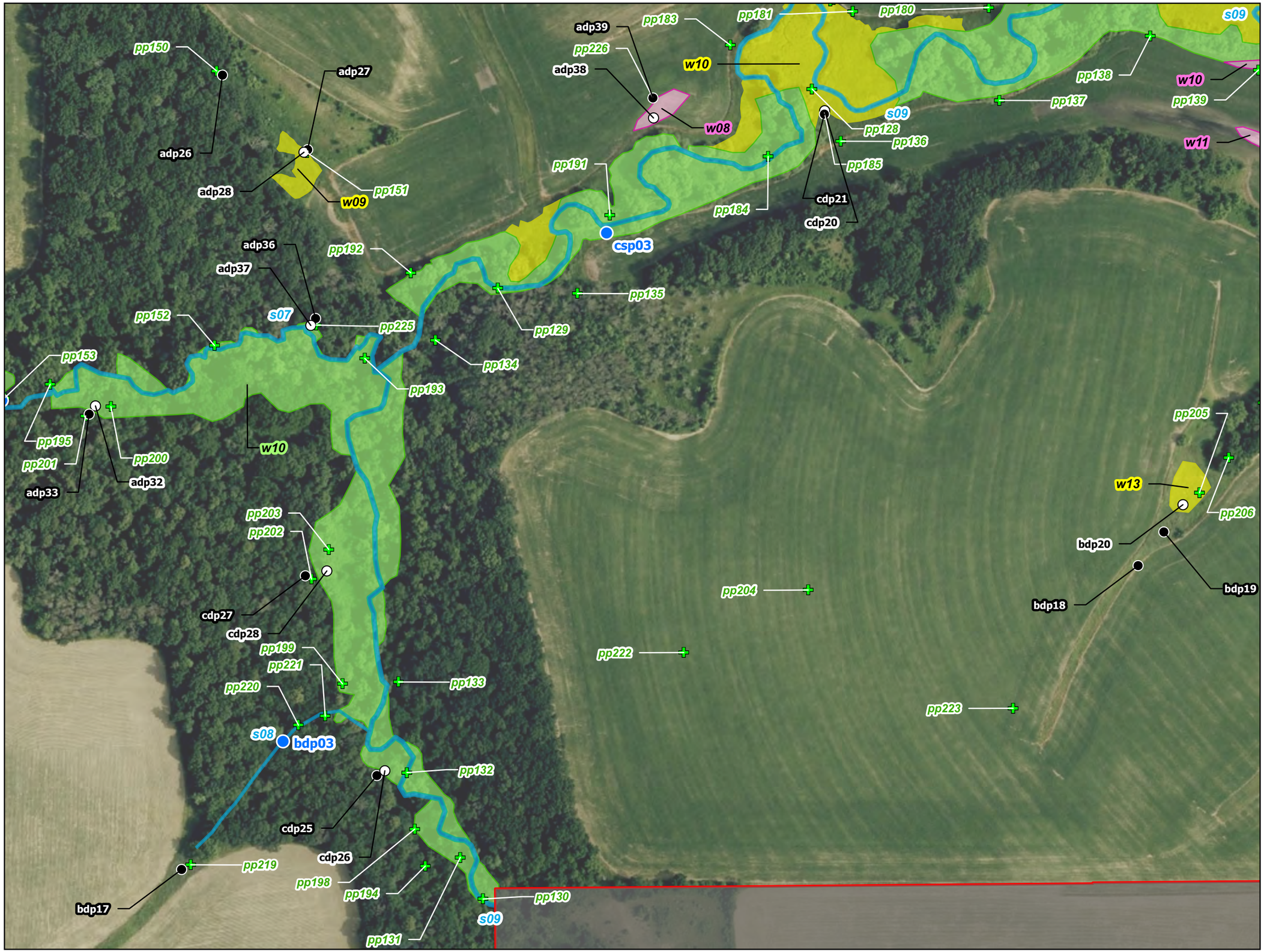

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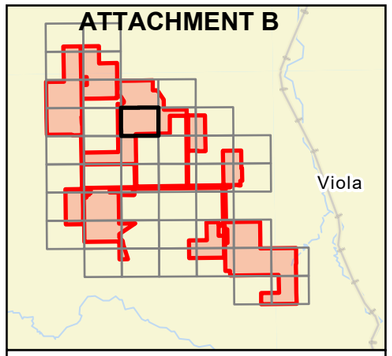

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- Delineated Waterway

Delineated Wetland

- Floodplain Forest
- Fresh (Wet) Meadow
- Seasonally Flooded Basin

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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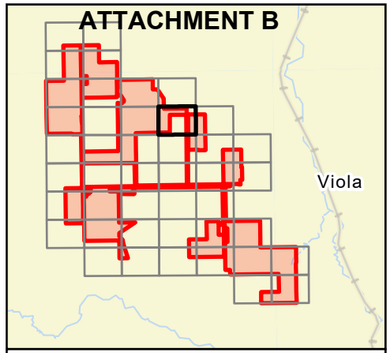

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- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point
- Delineated Waterway

Delineated Wetland

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- Fresh (Wet) Meadow
- Seasonally Flooded Basin

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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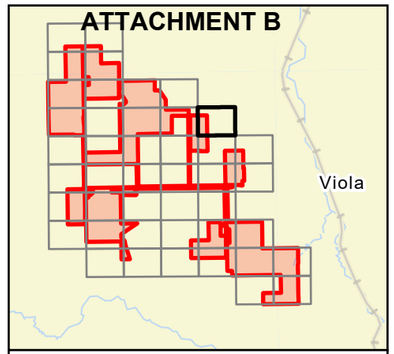

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- Wetland Data Point

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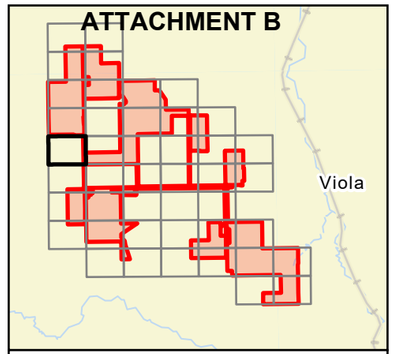
ATTACHMENT B



0 100 200 Feet

1 inch = 200 feet

N
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S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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For Environmental Review Purposes Only

Source: Z:\Clients\Q_T\Ranger_PowerLemon_Hill_SolarArcGIS\Biological\001_ArcProDesktopReview_2025LH_DesktopReview_2025.aprx
Date: (7/9/2025)

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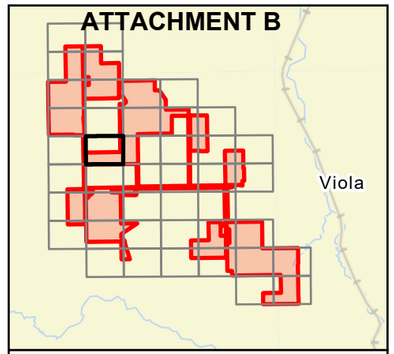

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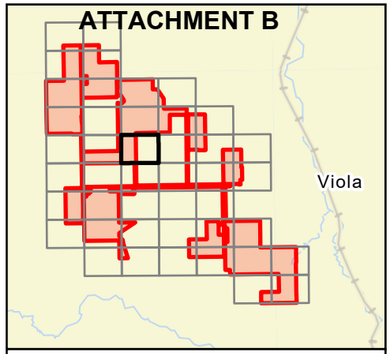

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- Delineated Waterway

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Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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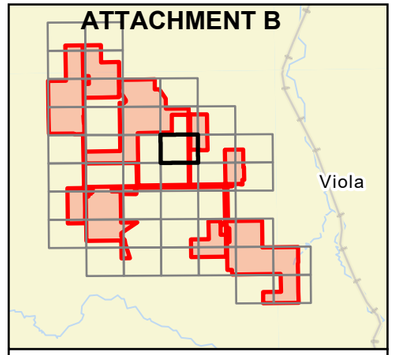

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- Delineated Waterway

Delineated Wetland

- Fresh (Wet) Meadow
- Hardwood Swamp
- Seasonally Flooded Basin
- Shrub-Carr

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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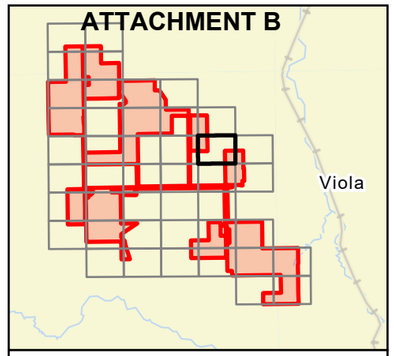

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- Shrub-Carr

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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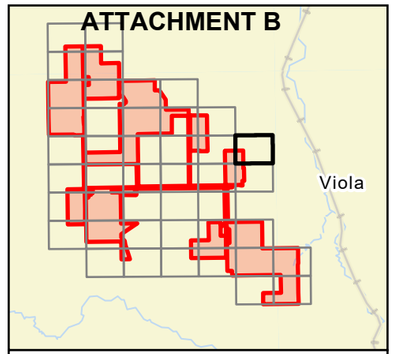

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Ranger Power
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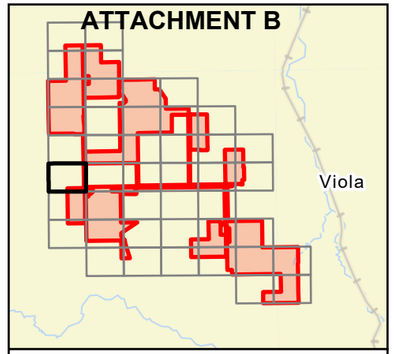

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Delineated Wetland

- Fresh (Wet) Meadow

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
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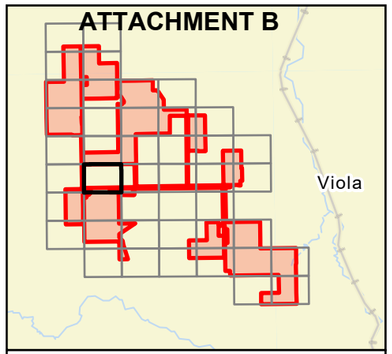

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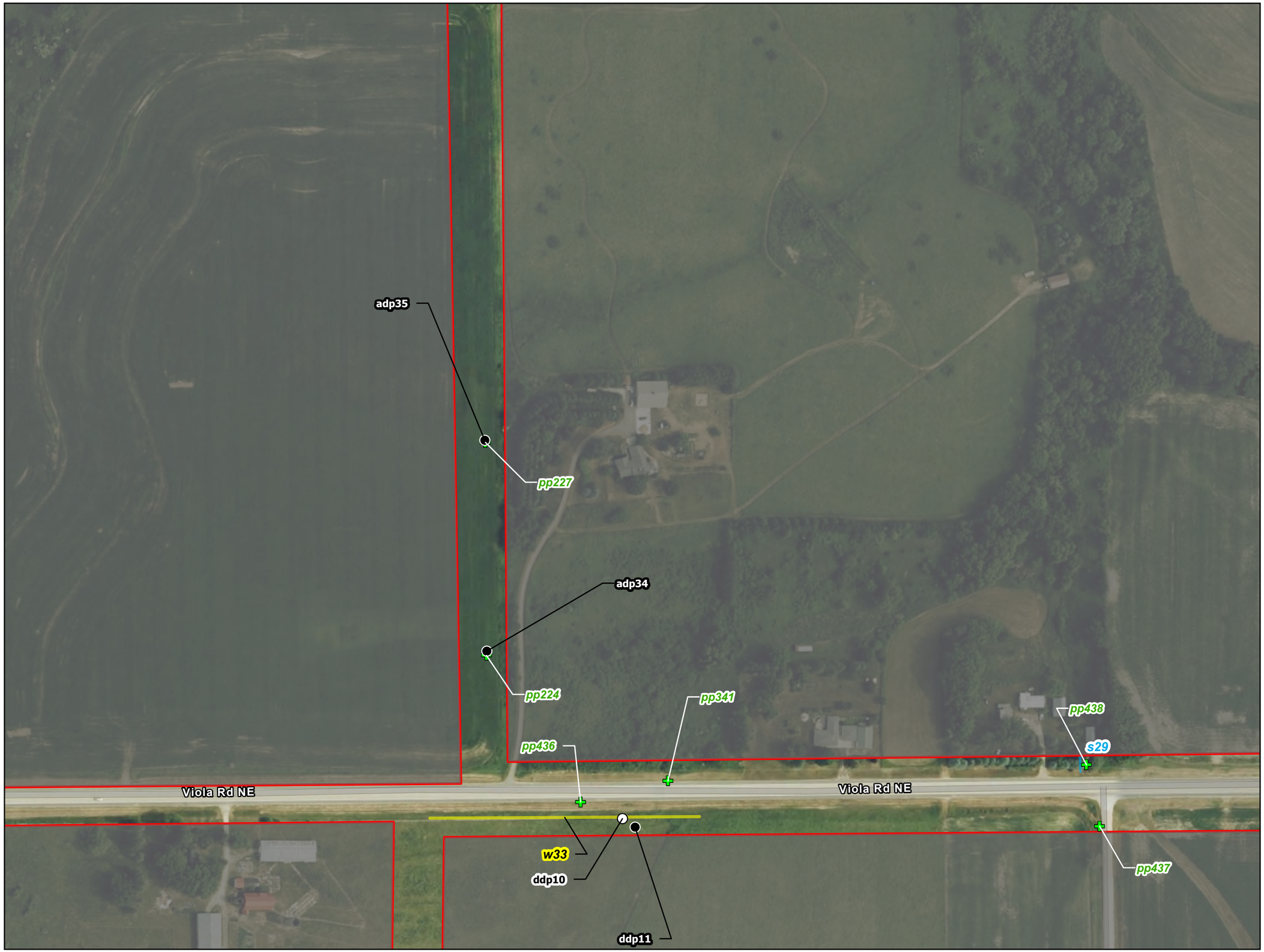

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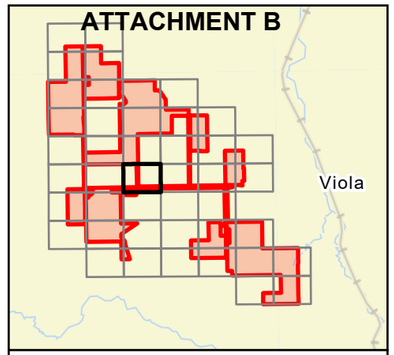

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Delineated Wetland

- Fresh (Wet) Meadow

Figure 5
Wetland Delineation
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Ranger Power
Olmsted County, MN

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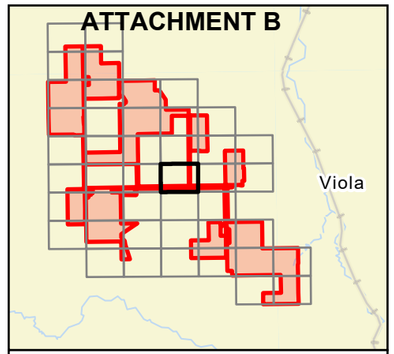

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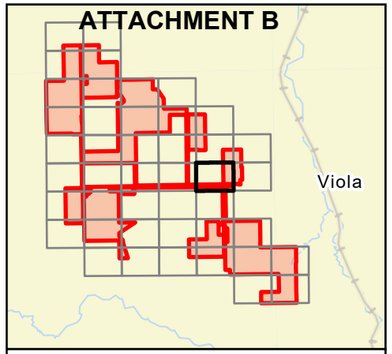

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Delineated Wetland

- Fresh (Wet) Meadow

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
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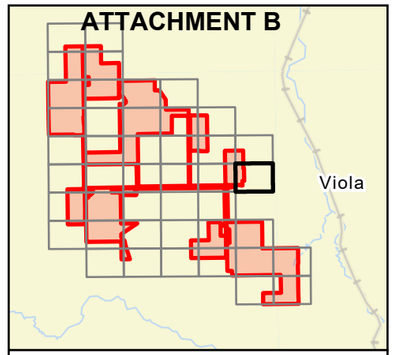

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Delineated Wetland

- Fresh (Wet) Meadow

Figure 5
Wetland Delineation
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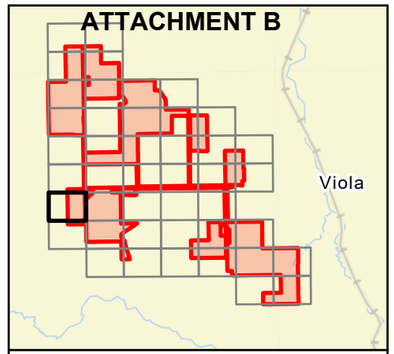

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Delineated Wetland

- Fresh (Wet) Meadow

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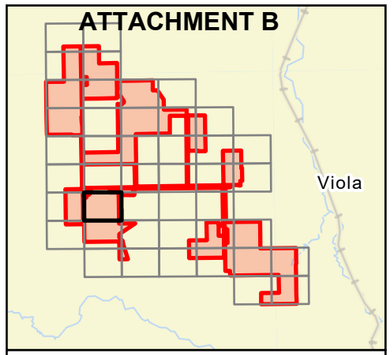

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Delineated Wetland

- Fresh (Wet) Meadow
- Seasonally Flooded Basin

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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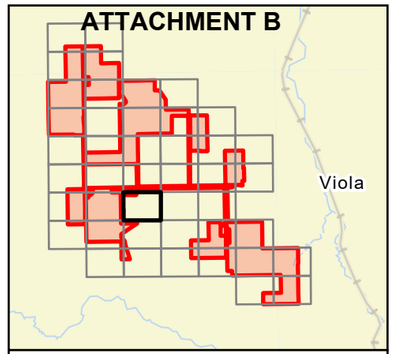

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Ranger Power
Olmsted County, MN

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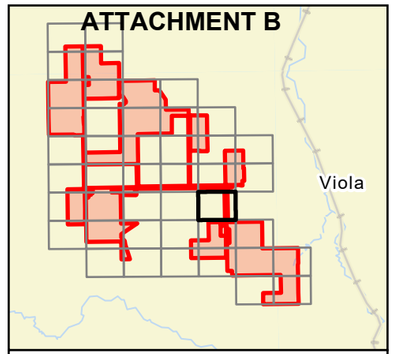

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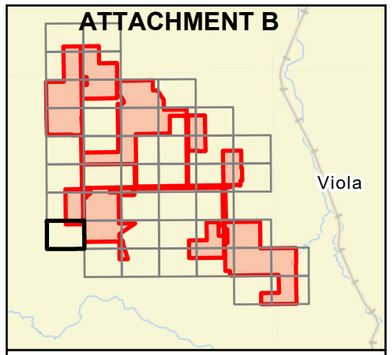

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Delineated Wetland

- Fresh (Wet) Meadow
- Shrub-Carr

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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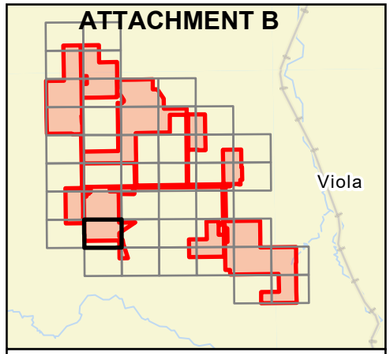

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Delineated Wetland

- Fresh (Wet) Meadow
- Hardwood Swamp
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Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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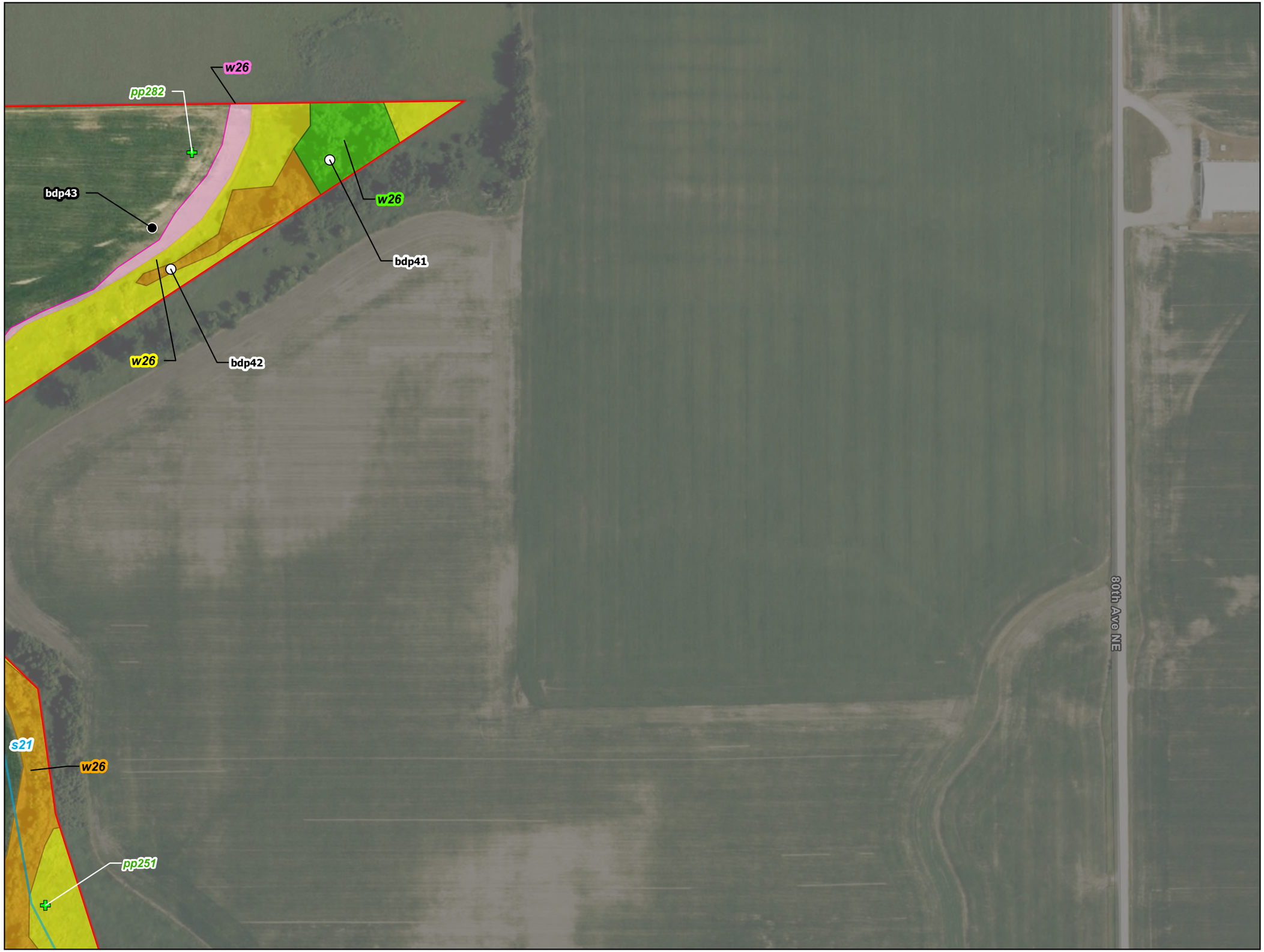

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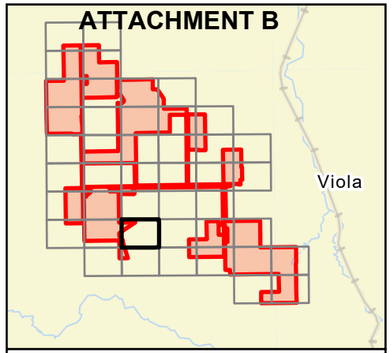

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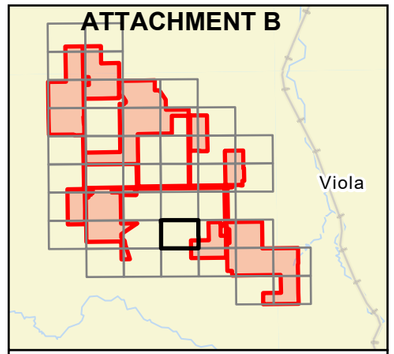

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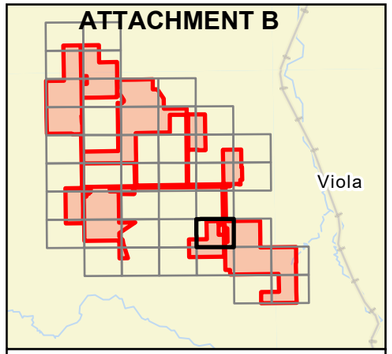

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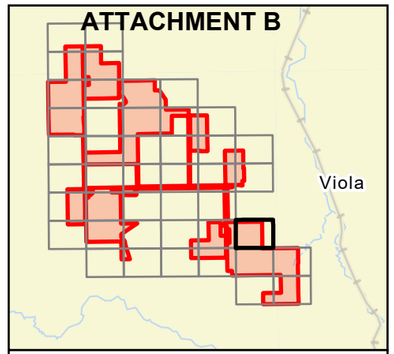

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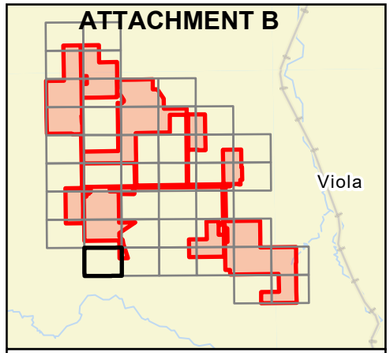

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Delineated Wetland

- Shrub-Carr

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Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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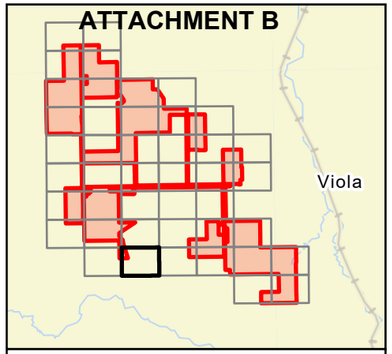

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Delineated Wetland

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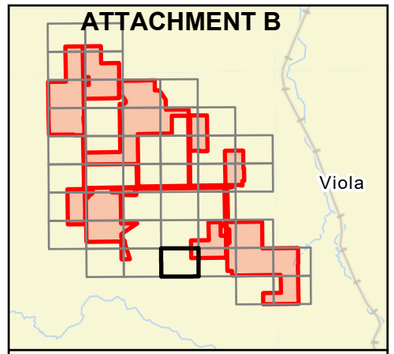
Source: Z:\Clients\Q_T\Ranger_PowerLemon_Hill_SolarArcGIS\Biological\001_ArcPro\DesktopReview_2025\LH_DesktopReview_2025.aprx
Date: (7/9/2025)

ATTACHMENT B



0 100 200 Feet

1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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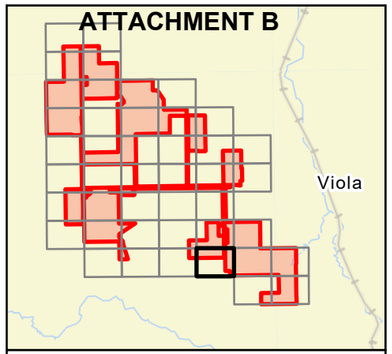

0 100 200 Feet

1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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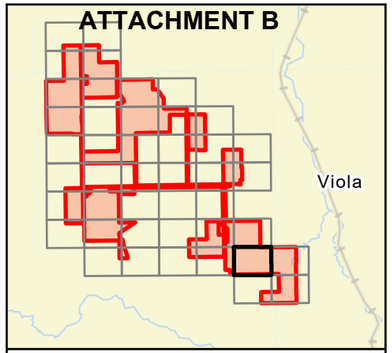

0 100 200 Feet

1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point

Delineated Wetland

- Seasonally Flooded Basin

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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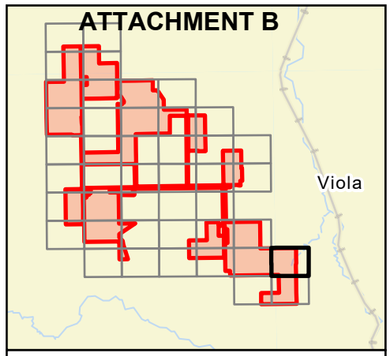
For Environmental Review Purposes Only

Source: Z:\Clients\Q_T\Ranger_PowerLemon_Hill_SolarArcGIS\Biological\001_ArcProDesktopReview_2025LH_DesktopReview_2025.aprx
Date: (7/9/2025)

ATTACHMENT B



0 100 200 Feet

1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point
- Delineated Waterway

Delineated Wetland

- Floodplain Forest
- Fresh (Wet) Meadow
- Hardwood Swamp
- Seasonally Flooded Basin

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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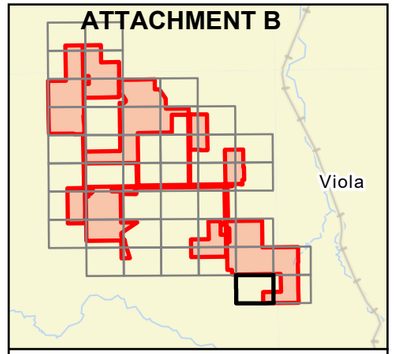
Source: Z:\Clients\O_T\Ranger_PowerLemon_Hill_Solar\ArcGIS\Biological\001_ArcPro\Desktop\Review_2025\LH_DesktopReview_2025.aprx
Date: (7/9/2025)

ATTACHMENT B



0 100 200 Feet

1 inch = 200 feet

N
W E
S

Survey Area
Culvert Point
Photo Point
Stream Point
Upland Data Point
Wetland Data Point
Delineated Wetland
Hardwood Swamp
Seasonally Flooded Basin

pp493
pp494
pp495
w37
dp13
w37
dp14
pp492
pp491

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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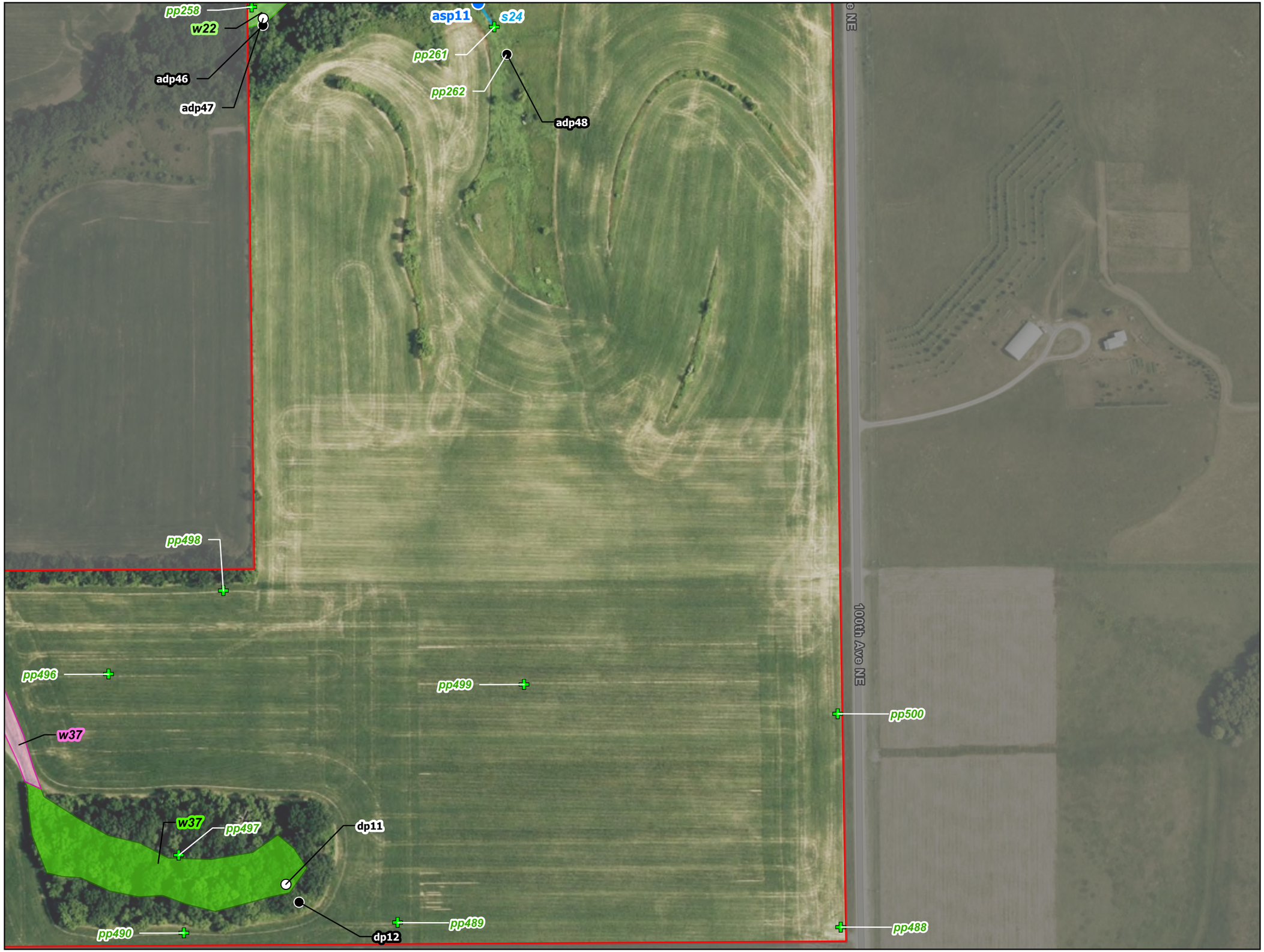
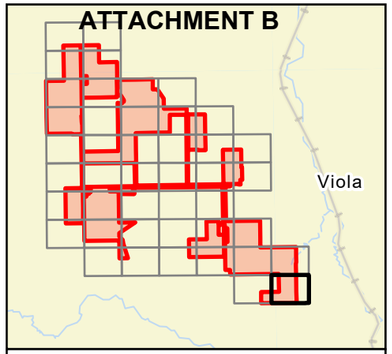
For Environmental Review Purposes Only

Source: Z:\Clients\Q_T\Ranger_Power\Lemon_Hill_Solar\ArcGIS\Biological\001_ArcProDesktopReview_2025\LH_DesktopReview_2025.aprx

Date: (7/9/2025)



ATTACHMENT B



0 100 200 Feet

1 inch = 200 feet

N
W E
S

- Survey Area
- Culvert Point
- Photo Point
- Stream Point
- Upland Data Point
- Wetland Data Point
- Delineated Waterway

Delineated Wetland

- Floodplain Forest
- Hardwood Swamp
- Seasonally Flooded Basin

Figure 5
Wetland Delineation
Lemon Hill Solar Project
Ranger Power
Olmsted County, MN

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For Environmental Review Purposes Only

Source: Z:\Clients\Q_T\Ranger_Power\Lemon_Hill_Solar\ArcGIS\Biological\001_ArcPro\DesktopReview_2025\LH_DesktopReview_2025.aprx
Date: (7/9/2025)

Appendix A

Wetland Determination Data Forms –

Midwest Region

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-28

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp01

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.09288 | Long: -92.33736 | Datum: WGS 84

Soil Map Unit Name: 477B: Littleton silt loam, 1 to 4 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point in a recently planted soybean field at ws01, area is sloped to the meadow located northeast.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Recently planted soybean present

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ATTACHMENT B

SOIL

Sample Point: **adp01**

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
0-11	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
11-24	2.5Y - 5/2	90	10YR-6/8	10	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-28

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp02

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.09289 | Long: -92.33608 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	100%	yes	FAC
2.			
3.			
4.			
5.			
	100%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Acer negundo* , Ash-Leaf Maple	20%	yes	FAC
2.			
3.			
4.			
5.			
	20%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Parthenocissus quinquefolia*, Virginia-Creeper	60%	yes	FACU
2. *Glechoma hederacea*, Groundivy	40%	yes	FACU
3. *Solanum dulcamara*, Climbing Nightshade	20%	no	FAC
4. *Rubus idaeus*, Common Red Raspberry	15%	no	FACU
5. *Solidago gigantea*, Late Goldenrod	10%	no	FACW
6. *Taraxacum officinale*, Common Dandelion	10%	no	FACU
7. *Ribes cynosbati*, Eastern Prickly Gooseberry	5%	no	FAC
8. *Arctium minus*, Lesser Burrdock	5%	no	FACU
9.			
10.			
	165%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	10	x1 =	20
FAC species	145	x1 =	435
FACU species	130	x1 =	520
UPL species	0	x1 =	0
Column Totals:	285	x1 =	975 (B)

Prevalence Index = B/A = 3.421

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

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ATTACHMENT B

SOIL

Sample Point: **adp02**

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
0-17	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
17-34	10YR - 2/1	95	5YR-3/4	5	C	M	SiCL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-28

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp03

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.09295 | Long: -92.33588 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Meadow located west of stream.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	70%	yes	FACW
2. *Laportea canadensis*, Canadian Wood-Nettle	30%	yes	FACW
3. *Impatiens capensis*, Spotted Touch-Me-Not	20%	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	120%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	120	x1 =	240
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	120	x1 =	240 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

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ATTACHMENT B

SOIL

Sample Point: **adp03**

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
0-14	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
14-36	10YR - 2/1	95	5YR-3/4	5	C	M	SiL	- - -
36-40	- - - - 2.5/- - -	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	Gley 1 2.5 N

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-28

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp04

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.09273 | Long: -92.33574 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Forested area in NWI adjacent stream.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	100%	yes	FAC
2.			
3.			
4.			
5.			
	100%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Geum canadense*, White Avens	70%	yes	FAC
2. *Glechoma hederacea*, Groundivy	60%	yes	FACU
3. *Solidago gigantea*, Late Goldenrod	40%	no	FACW
4. *Viola sororia*, Hooded Blue Violet	30%	no	FAC
5. *Hydrophyllum virginianum*, Shawnee-Salad	10%	no	FAC
6. *Phalaris arundinacea*, Reed Canary Grass	5%	no	FACW
7. *Arctium minus*, Lesser Burrdock	5%	no	FACU
8.			
9.			
10.			
	220%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.667% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	45	x1 =	90
FAC species	210	x1 =	630
FACU species	65	x1 =	260
UPL species	0	x1 =	0
Column Totals:	320	x1 =	980 (B)

Prevalence Index = B/A = 3.063

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Other FACU plants outside the vegetation plot. Would not pass FAC neutral anywhere adjacent.

merjent

ATTACHMENT B

SOIL

Sample Point: **adp04**

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
0-20	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
20-30	10YR - 2/1	95	5YR-3/4	5	C	M	SiL	- - -
30-38	- - - - 2.5/- - -	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	Gley1 2.5N

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-28

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp05

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.09295 | Long: -92.33491 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
At edge of meadow, some tree cover.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	30%	yes	FAC
2.			
3.			
4.			
5.			
	30%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	95%	yes	FACW
2. *Impatiens capensis*, Spotted Touch-Me-Not	20%	no	FACW
3. *Solidago gigantea*, Late Goldenrod	10%	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	125%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	125	x1 =	250
FAC species	30	x1 =	90
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	155	x1 =	340 (B)

Prevalence Index = B/A = 2.194

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp05**

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
0-39	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Assume hydric soil is present due to presence of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ___ Depth (inches): 36

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 33

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-28

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp06

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.09297 | Long: -92.33491 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔	No ___	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upslope adp05 approximately 1-foot.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Pastinaca sativa* , Wild parsnip	40%	yes	UPL
2. *Impatiens capensis*, Spotted Touch-Me-Not	30%	yes	FACW
3. *Solidago gigantea*, Late Goldenrod	10%	no	FACW
4. *Hackelia virginiana*, Beggar's-Lice	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	85%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	40	x1 =	80
FAC species	0	x1 =	0
FACU species	5	x1 =	20
UPL species	40	x1 =	200
Column Totals:	85	x1 =	300 (B)

Prevalence Index = B/A = 3.529

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp06**

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
0-35	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Depleted layer coming in at the bottom of the last bucket. Not able to dig dipper to color depleted layer.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 33

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp07

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Slough | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08968 | Long: -92.33486 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Side slope directly above toeslope between forest and meadow.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	80%	yes	FAC
2. *Urtica dioica*, Stinging Nettle	25%	yes	FACW
3. *Cirsium arvense*, Canadian Thistle	10%	no	FACU
4. *Pastinaca sativa*, Wild parsnip	5%	no	UPL
5.			
6.			
7.			
8.			
9.			
10.			
	120%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	25	x1 =	50
FAC species	80	x1 =	240
FACU species	10	x1 =	40
UPL species	5	x1 =	25
Column Totals:	120	x1 =	355 (B)

Prevalence Index = B/A = 2.958

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

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ATTACHMENT B

SOIL

Sample Point: **adp07**

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
0-15	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp08

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08975 | Long: -92.33453 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Stinging nettle dominant depression adjacent Kentucky blue grass dominant depression.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	60%	yes	FAC
2. *Urtica dioica*, Stinging Nettle	50%	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	50	x1 =	100
FAC species	60	x1 =	180
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	110	x1 =	280 (B)

Prevalence Index = B/A = 2.545

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

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ATTACHMENT B

SOIL

Sample Point: **adp08**

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
0-5	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
5-13	10YR - 3/2	95	5YR-4/6	5	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp09

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.09063 | Long: -92.33424 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Directly above toeslope in reed canary grass dominated field

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	95%	yes	FACW
2. *Cirsium arvense*, Canadian Thistle	30%	yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	125%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	95	x1 =	190
FAC species	0	x1 =	0
FACU species	30	x1 =	120
UPL species	0	x1 =	0
Column Totals:	125	x1 =	310 (B)

Prevalence Index = B/A = 2.480

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

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ATTACHMENT B

SOIL

Sample Point: **adp09**

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
0-13	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp10

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.09063 | Long: -92.33432 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: PEM1B

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Reed canary grass dominated depression.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	90%	yes	FACW
2. *Urtica dioica*, Stinging Nettle	25%	yes	FACW
3. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	120%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	115	x1 =	230
FAC species	0	x1 =	0
FACU species	5	x1 =	20
UPL species	0	x1 =	0
Column Totals:	120	x1 =	250 (B)

Prevalence Index = B/A = 2.083

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

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ATTACHMENT B

SOIL

Sample Point: **adp10**

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
0-7	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
7-15	10YR - 3/2	95	5YR-4/6	5	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): - - -

Water Table Present? Yes ___ No ___ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp11

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08739 | Long: -92.33168 | Datum: WGS 84

Soil Map Unit Name: 472C: Channahon loam, 6 to 12 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Cirsium arvense*, Canadian Thistle	5%	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	5	x1 =	20
UPL species	0	x1 =	0
Column Totals:	5	x1 =	20 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp11**

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
0-12	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp12

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08676 | Long: -92.33165 | Datum: WGS 84

Soil Map Unit Name: 472C: Channahon loam, 6 to 12 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

SOIL

Sample Point: **adp12**

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
0-12	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp13

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08574 | Long: -92.33071 | Datum: WGS 84

Soil Map Unit Name: 401B: Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Minute depression in agriculture field, not cropped.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	50%	yes	FAC
2. *Phalaris arundinacea*, Reed Canary Grass	30%	yes	FACW
3. *Ambrosia trifida*, Great Ragweed	20%	no	FAC
4. *Solidago altissima*, Tall Goldenrod	10%	no	FACU
5. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
6. *Urtica dioica*, Stinging Nettle	5%	no	FACW
7.			
8.			
9.			
10.			
	120%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	35	x1 =	70
FAC species	70	x1 =	210
FACU species	15	x1 =	60
UPL species	0	x1 =	0
Column Totals:	120	x1 =	340 (B)

Prevalence Index = B/A = 2.833

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp13**

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
0-12	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp14

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08718 | Long: -92.33281 | Datum: WGS 84

Soil Map Unit Name: 472C: Channahon loam, 6 to 12 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
At ws06 in a recently planted soybean field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp14**

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
0-10	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp15

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08697 | Long: -92.33426 | Datum: WGS 84

Soil Map Unit Name: 472C: Channahon loam, 6 to 12 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
At ws05 in recently planted soybean field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	15%	yes	FAC
2. *Acer negundo* , Ash-Leaf Maple	5%	no	FAC
3. *Asclepias syriaca*, Common Milkweed	5%	no	FACU
4. *Arctium minus*, Lesser Burrdock	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	30%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	20	x1 =	60
FACU species	10	x1 =	40
UPL species	0	x1 =	0
Column Totals:	30	x1 =	100 (B)

Prevalence Index = B/A = 3.333

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp15**

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 - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 8

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ____ Depth (inches): - - -

Water Table Present? Yes ____ No ____ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp16

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08261 | Long: -92.33708 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Depressional swale adjacent 58th St NE.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	95%	yes	FAC
2. *Pastinaca sativa*, Wild parsnip	5%	no	UPL
3. *Phalaris arundinacea*, Reed Canary Grass	5%	no	FACW
4. *Cirsium arvense*, Canadian Thistle	2%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	107%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	5	x1 =	10
FAC species	95	x1 =	285
FACU species	2	x1 =	8
UPL species	5	x1 =	25
Column Totals:	107	x1 =	328 (B)

Prevalence Index = B/A = 3.065

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp16**

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
0-12	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp17

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08552 | Long: -92.33743 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Depression adjacent stream wetland fringe

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	80%	yes	FACW
2. *Angelica atropurpurea*, Purple-Stem Angelica	10%	no	OBL
3. *Impatiens capensis*, Spotted Touch-Me-Not	5%	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x1 =	10
FACW species	85	x1 =	170
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	95	x1 =	180 (B)

Prevalence Index = B/A = 1.895

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp17**

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
0-19	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
19-26	- - - - 2.5/- - -	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	Gley 1 2.5 N

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): - - -

Water Table Present? Yes ___ No ___ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp18

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08554 | Long: -92.3374 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Side slope above wetland fringe

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	95%	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	95	x1 =	285
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	95	x1 =	285 (B)

Prevalence Index = B/A = 3.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp18**

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
0-12	- - - - - - -/- - -	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	Gley 1 2.5 N

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ✔ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp19

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.08624 | Long: -92.33713 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B, R4SBC

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland fringe of stream

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Phalaris arundinacea*, Reed Canary Grass	90%	yes	FACW
2. *Carex trichocarpa*, Hairy-Fruit Sedge	30%	yes	OBL
3.			
4.			
5.			
	120%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x1 =	30
FACW species	90	x1 =	180
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	120	x1 =	210 (B)

Prevalence Index = B/A = 1.750

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp19**

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
0-24	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Pipe

Depth (inches): 24

Hydric Soil Present? Yes ✔ No ___

Remarks:
Assume hydric soil due to presence of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp20

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08622 | Long: -92.33707 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B, R4SBC

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upslope 1-foot of adp19.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Carex trichocarpa*, Hairy-Fruit Sedge	50%	yes	OBL
2. *Phalaris arundinacea*, Reed Canary Grass	20%	yes	FACW
3. *Impatiens capensis*, Spotted Touch-Me-Not	10%	no	FACW
4. *Pastinaca sativa*, Wild parsnip	10%	no	UPL
5. *Rubus idaeus*, Common Red Raspberry	5%	no	FACU
6. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x1 =	50
FACW species	30	x1 =	60
FAC species	0	x1 =	0
FACU species	10	x1 =	40
UPL species	10	x1 =	50
Column Totals:	100	x1 =	200 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

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ATTACHMENT B

SOIL

Sample Point: **adp20**

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
0-21	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Pipe

Depth (inches): 21

Hydric Soil Present? Yes ____ No ✔

Remarks:
Assume non-hydric due to absence of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp21

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08576 | Long: -92.33365 | Datum: WGS 84

Soil Map Unit Name: 401B: Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Slope breaker in agriculture field

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	95%	yes	FACU
2. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
3. *Asclepias syriaca*, Common Milkweed	5%	no	FACU
4. *Pastinaca sativa*, Wild parsnip	5%	no	UPL
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	105	x1 =	420
UPL species	5	x1 =	25
Column Totals:	110	x1 =	445 (B)

Prevalence Index = B/A = 4.045

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

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ATTACHMENT B

SOIL

Sample Point: **adp21**

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
0-10	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp22

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Toeslope | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08454 | Long: -92.33214 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Toeslope of an agriculture slope break

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	80%	yes	FACU
2. *Dactylis glomerata*, Orchard Grass	30%	yes	FACU
3. *Taraxacum officinale*, Common Dandelion	15%	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	125%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	125	x1 =	500
UPL species	0	x1 =	0
Column Totals:	125	x1 =	500 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp22**

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
0-10	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp23

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 8-15 | Lat: 44.0827 | Long: -92.32635 | Datum: WGS 84

Soil Map Unit Name: 401C2: Mt. Carroll silt loam, 6 to 12 percent slopes, moderately eroded | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	90%	yes	FACU
2. *Rubus idaeus*, Common Red Raspberry	5%	no	FACU
3. *Urtica dioica*, Stinging Nettle	5%	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	5	x1 =	10
FAC species	0	x1 =	0
FACU species	95	x1 =	380
UPL species	0	x1 =	0
Column Totals:	100	x1 =	390 (B)

Prevalence Index = B/A = 3.900

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp23**

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
0-10	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp24

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.0827 | Long: -92.32601 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: PEM1B

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Grassy depression between agriculture fields

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Urtica dioica*, Stinging Nettle	40%	yes	FACW
2. *Bromus inermis*, Smooth Brome	40%	yes	FACU
3. *Phalaris arundinacea*, Reed Canary Grass	40%	yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	120%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.667% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	80	x1 =	160
FAC species	0	x1 =	0
FACU species	40	x1 =	160
UPL species	0	x1 =	0
Column Totals:	120	x1 =	320 (B)

Prevalence Index = B/A = 2.667

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp24**

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
0-9	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
9-20	10YR - 4/2	98	10YR-4/6	2	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ✔ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp25

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08263 | Long: -92.32592 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
downslope from adp24 in grassy meadow

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	90%	yes	FACU
2. *Urtica dioica*, Stinging Nettle	40%	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	130% = Total Cover		
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0% = 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	40	x1 =	80
FAC species	0	x1 =	0
FACU species	90	x1 =	360
UPL species	0	x1 =	0
Column Totals:	130	x1 =	440 (B)

Prevalence Index = B/A = 3.385

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp25**

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
0-9	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
9-14	10YR - 4/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp26

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08018 | Long: -92.32618 | Datum: WGS 84

Soil Map Unit Name: 471: Root silt loam | NWI classification: PFO1B

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Located in meadow in mapped NWI

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Arctium minus*, Lesser Burrdock	70%	yes	FACU
2. *Phalaris arundinacea*, Reed Canary Grass	40%	yes	FACW
3. *Impatiens capensis*, Spotted Touch-Me-Not	10%	no	FACW
4. *Alliaria petiolata*, Garlic-Mustard	5%	no	FAC
5. *Pastinaca sativa*, Wild parsnip	5%	no	UPL
6.			
7.			
8.			
9.			
10.			
	130%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	50	x1 =	100
FAC species	5	x1 =	15
FACU species	70	x1 =	280
UPL species	5	x1 =	25
Column Totals:	130	x1 =	420 (B)

Prevalence Index = B/A = 3.231

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp26**

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

	Matrix		Redox Features					
Depth (inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
3-14	10YR - 4/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp27

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.07972 | Long: -92.32545 | Datum: WGS 84

Soil Map Unit Name: 471: Root silt loam | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Sideslope between agriculture field and wetland meadow.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	80%	yes	FACW
2. *Poa pratensis*, Kentucky Blue Grass	20%	no	FAC
3. *Pastinaca sativa*, Wild parsnip	20%	no	UPL
4. *Galium aparine*, Sticky-Willy	10%	no	FACU
5. *Urtica dioica*, Stinging Nettle	5%	no	FACW
6.			
7.			
8.			
9.			
10.			
	135%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	85	x1 =	170
FAC species	20	x1 =	60
FACU species	10	x1 =	40
UPL species	20	x1 =	100
Column Totals:	135	x1 =	370 (B)

Prevalence Index = B/A = 2.741

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp27**

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 - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
4-12	10YR - 4/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
✔ FAC-neutral test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp28

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07962 | Long: -92.3256 | Datum: WGS 84

Soil Map Unit Name: 471: Root silt loam | NWI classification: PEM1B

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Depression in mapped NWI between sideslope and forest.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	95%	yes	FACW
2. *Urtica dioica*, Stinging Nettle	30%	yes	FACW
3. *Galium aparine*, Sticky-Willy	5%	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	130%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	125	x1 =	250
FAC species	0	x1 =	0
FACU species	5	x1 =	20
UPL species	0	x1 =	0
Column Totals:	130	x1 =	270 (B)

Prevalence Index = B/A = 2.077

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

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ATTACHMENT B

SOIL

Sample Point: **adp28**

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
0-9	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
9-17	10YR - 4/2	95	10YR-5/8	5	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ✔ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Depleted below dark surface

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp29

Investigator(s): Maddie Humphrey | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.07958 | Long: -92.31611 | Datum: WGS 84

Soil Map Unit Name: 16: Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ✔ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Agriculture side slope, seep wetland

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Tiny sedges and other tiny facw plant. Recently planted soybeans

merjent

ATTACHMENT B

SOIL

Sample Point: **adp29**

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
0-12	- - - - 3/- - -	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	Gley1 2.5 N

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ✔ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:
Adjacent tile drainage noted.

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp30

Investigator(s): Maddie Humphrey | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08089 | Long: -92.31818 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B, R4SBC

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Side slope between agriculture field and wetland fringe

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	100%	yes	FACW
2. *Urtica dioica*, Stinging Nettle	10%	no	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110% = Total Cover		
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0% = Total Cover		

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	110	x1 =	220
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	110	x1 =	220 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp30**

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
0-20	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
20-28	- - - - - - -/- - -	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	Gley1 2.5 N

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp31

Investigator(s): Maddie Humphrey | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.08088 | Long: -92.31819 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B, R4SBC

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	95%	yes	FACW
2. *Ambrosia trifida*, Great Ragweed	10%	no	FAC
3. *Urtica dioica*, Stinging Nettle	5%	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	100	x1 =	200
FAC species	10	x1 =	30
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	110	x1 =	230 (B)

Prevalence Index = B/A = 2.091

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp31**

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
0-35	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
35-38	10YR - 2/1	98	10YR-4/6	2	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Assume hydric due to presence of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp32

Investigator(s): Maddie Humphrey | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Stream Terrace | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07818 | Long: -92.32725 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PFO1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum* , Silver Maple	30%	yes	FACW
2. *Juglans nigra*, Black Walnut	30%	yes	FACU
3. *Ulmus americana*, American Elm	10%	no	FACW
4.			
5.			
	70%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Impatiens capensis*, Spotted Touch-Me-Not	70%	yes	FACW
2. *Pilea pumila*, Canadian Clearweed	30%	yes	FACW
3. *Hackelia virginiana* , Virginia stickseed	20%	no	FACU
4. *Phalaris arundinacea*, Reed Canary Grass	15%	no	FACW
5. *Ribes cynosbati*, Eastern Prickly Gooseberry	15%	no	FAC
6. *Hydrophyllum virginianum*, Shawnee-Salad	10%	no	FAC
7. *Alliaria petiolata*, Garlic-Mustard	5%	no	FAC
8. *Dryopteris carthusiana*, Spinulose Wood Fern	5%	no	FACW
9.			
10.			
	170%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	160	x1 =	320
FAC species	30	x1 =	90
FACU species	50	x1 =	200
UPL species	0	x1 =	0
Column Totals:	240	x1 =	610 (B)

Prevalence Index = B/A = 2.542

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp32**

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
0-20	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
20-38	10YR - 2/1	90	7.5YR-3/4	10	C	M	SiCL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Assume hydric due to presence of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp33

Investigator(s): Maddie Humphrey | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Toeslope | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07818 | Long: -92.32724 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PFO1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Forested toeslope below forested 3-7 percent slope

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*, Black Walnut	60%	yes	FACU
2. *Populus deltoides*, Eastern Cottonwood	15%	yes	FAC
3.			
4.			
5.			
	75%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Juglans nigra*, Black Walnut	20%	yes	FACU
2.			
3.			
4.			
5.			
	20%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Rubus idaeus*, Common Red Raspberry	70%	yes	FACU
2. *Parthenocissus quinquefolia*, Virginia-Creeper	30%	yes	FACU
3. *Pilea pumila*, Canadian Clearweed	30%	yes	FACW
4. *Ribes cynosbati*, Eastern Prickly Gooseberry	15%	no	FAC
5. *Hydrophyllum virginianum*, Shawnee-Salad	15%	no	FAC
6. *Dryopteris carthusiana*, Spinulose Wood Fern	10%	no	FACW
7.			
8.			
9.			
10.			
	170%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	40	x1 =	80
FAC species	45	x1 =	135
FACU species	180	x1 =	720
UPL species	0	x1 =	0
Column Totals:	265	x1 =	935 (B)

Prevalence Index = B/A = 3.528

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp33**

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
0-17	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
17-25	10YR - 4/2	95	10YR-3/6	5	C	M	SiCL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp34

Investigator(s): Maddie Humphrey | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.06516 | Long: -92.32411 | Datum: WGS 84

Soil Map Unit Name: 203: Joy silt loam, 1 to 4 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Slight depression in agriculture field north of County Road 2 NE.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

SOIL

Sample Point: **adp34**

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
0-10	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
10-26	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ____ Depth (inches): 23

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp35

Investigator(s): Maddie Humphrey | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.06654 | Long: -92.32412 | Datum: WGS 84

Soil Map Unit Name: 401C2: Mt. Carroll silt loam, 6 to 12 percent slopes, moderately eroded | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Slight depression in agriculture field north of County Road 2 NE.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp35**

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
0-6	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
6-13	10YR - 3/2	98	10YR-5/8	2	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ____ Depth (inches): - - -

Water Table Present? Yes ____ No ____ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp36

Investigator(s): Maddie Humphrey | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.0787 | Long: -92.3254 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1C, PFO1B

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Forested side slope between agriculture field and stream

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum* , Silver Maple	50%	yes	FACW
2.			
3.			
4.			
5.			
	50%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Fraxinus pennsylvanica*, Green Ash	80%	yes	FACW
2. *Lonicera tatarica*, Twinsisters	15%	no	FACU
3.			
4.			
5.			
	95%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Ribes cynosbati*, Eastern Prickly Gooseberry	60%	yes	FAC
2. *Impatiens capensis*, Spotted Touch-Me-Not	50%	yes	FACW
3. *Hydrophyllum virginianum*, Shawnee-Salad	15%	no	FAC
4. *Arisaema triphyllum*, Jack-in-the-Pulpit	10%	no	FACW
5. *Viola sororia*, Hooded Blue Violet	10%	no	FAC
6.			
7.			
8.			
9.			
10.			
	145%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	190	x1 =	380
FAC species	85	x1 =	255
FACU species	15	x1 =	60
UPL species	0	x1 =	0
Column Totals:	290	x1 =	695 (B)

Prevalence Index = B/A = 2.397

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp36**

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
0-13	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
13-19	- - - - - - -/- - -	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	Gley1 2.5 N

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp37

Investigator(s): Maddie Humphrey | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Stream Terrace | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07865 | Long: -92.32543 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1C, PFO1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Impatiens capensis*, Spotted Touch-Me-Not	90%	yes	FACW
2. *Phalaris arundinacea*, Reed Canary Grass	20%	no	FACW
3. *Solanum dulcamara*, Climbing Nightshade	15%	no	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	125%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	110	x1 =	220
FAC species	15	x1 =	45
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	125	x1 =	265 (B)

Prevalence Index = B/A = 2.120

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp37**

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 - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
8-13	10YR - 2/1	5	10YR-4/6	5	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ___ Depth (inches): 15

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp38

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07989 | Long: -92.32255 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: - - -

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

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Slight depression at edge of agriculture field and above riverine.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp38**

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 - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
8-12	10YR - 2/1	95	10GY-4/6	5	C	M	SiL	- - -
12-18	- - - - - - -/- - -	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	Gley1 2.5 N

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp39

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.08002 | Long: -92.32256 | Datum: WGS 84

Soil Map Unit Name: 477B: Littleton silt loam, 1 to 4 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upslope adp38 approximately 1-foot.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0% = Total Cover		
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0% = Total Cover		

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp39**

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 - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
4-13	10YR - 3/1	10	10YR-4/6	10	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp40

Investigator(s): Maddie Humphrey | Section, Township, Range: S17 T107N S012W

Lanform(hillslope, terrace, etc): Berm | Local relief (concave, convex, none): convex

Slope(%): 0-2 | Lat: 44.06872 | Long: -92.29739 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: R4SBC

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Berm between stream and wetland

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa compressa*, Flat-Stem Blue Grass	70%	yes	FACU
2. *Poa pratensis*, Kentucky Blue Grass	40%	yes	FAC
3. *undefined*, Wild parsnip	10%	no	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	120%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	40	x1 =	120
FACU species	70	x1 =	280
UPL species	10	x1 =	50
Column Totals:	120	x1 =	450 (B)

Prevalence Index = B/A = 3.750

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp40**

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 - 2/1	98	10YR-4/6	2	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 8

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp41

Investigator(s): Maddie Humphrey | Section, Township, Range: S17 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.06877 | Long: -92.29743 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: PEM1B, R4SBC

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Depression at the bottom of a valley

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	100%	yes	FACW
2. *Poa pratensis*, Kentucky Blue Grass	10%	no	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	100	x1 =	200
FAC species	10	x1 =	30
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	110	x1 =	230 (B)

Prevalence Index = B/A = 2.091

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp41**

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
0-12	10YR - 2/1	95	5YR-3/4	5	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp42

Investigator(s): Maddie Humphrey | Section, Township, Range: S17 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.06488 | Long: -92.29563 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: R4SBC

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland fringe of stream north of Viola Rd NE.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	100%	yes	FACW
2. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	105%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	100	x1 =	200
FAC species	0	x1 =	0
FACU species	5	x1 =	20
UPL species	0	x1 =	0
Column Totals:	105	x1 =	220 (B)

Prevalence Index = B/A = 2.095

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

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ATTACHMENT B

SOIL

Sample Point: **adp42**

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
0-6	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	Mucky Loam	- - -
6-13	10YR - 4/1	95	10YR-3/4	5	C	M/PL	L	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ___ Depth (inches): 3

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp43

Investigator(s): Maddie Humphrey | Section, Township, Range: S17 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.06478 | Long: -92.29564 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔	No ___	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upslope adp42 approximately 1-foot.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Cirsium arvense*, Canadian Thistle	90%	yes	FACU
2. *Phalaris arundinacea*, Reed Canary Grass	20%	no	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	20	x1 =	40
FAC species	0	x1 =	0
FACU species	90	x1 =	360
UPL species	0	x1 =	0
Column Totals:	110	x1 =	400 (B)

Prevalence Index = B/A = 3.636

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp43**

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 - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
8-14	10YR - 3/2	95	10YR-4/6	5	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp44

Investigator(s): Maddie Humphrey | Section, Township, Range: S17 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.06665 | Long: -92.29706 | Datum: WGS 84

Soil Map Unit Name: 476C: Frankville silt loam, 6 to 12 percent slopes | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Slope breaker in agriculture field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Trifolium pratense*, Red Clover	100%	yes	FACU
2. *Medicago lupulina*, Black Medick	30%	yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	130%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	130	x1 =	520
UPL species	0	x1 =	0
Column Totals:	130	x1 =	520 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp44**

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 - 4/4	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp45

Investigator(s): Maddie Humphrey | Section, Township, Range: S17 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.06695 | Long: -92.299 | Datum: WGS 84

Soil Map Unit Name: 473D: Dorerton loam, 12 to 25 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Recently planted soybean field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Trifolium pratense*, Red Clover	30%	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	30	x1 =	120
UPL species	0	x1 =	0
Column Totals:	30	x1 =	120 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp45**

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 - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp46

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 8-15 | Lat: 44.04597 | Long: -92.2842 | Datum: WGS 84

Soil Map Unit Name: 593E: Elbaville silt loam, 18 to 30 percent slopes | NWI classification: PEM1C

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Forested side slope above forested floodplain.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Tilia americana*, American Basswood	50%	yes	FACU
2. *Prunus serotina*, Black Cherry	30%	yes	FACU
3. *Quercus alba*, Northern White Oak	20%	yes	FACU
4. *Lonicera tatarica*, Twinsisters	undefined%	no	FACU
5. *Ulmus americana*, American Elm	undefined%	no	FACW
	NaN%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Lonicera tatarica*, Twinsisters	undefined%	no	FACU
2. *Ulmus americana*, American Elm	undefined%	no	FACW
3. *Tilia americana*, American Basswood	10%	yes	FACU
4. *Prunus serotina*, Black Cherry	10%	yes	FACU
5.			
	NaN%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Parthenocissus quinquefolia*, Virginia-Creeper	10%	yes	FACU
2. *Lonicera tatarica*, Twinsisters	undefined%	no	FACU
3. *Ribes cynosbati*, Eastern Prickly Gooseberry	15%	yes	FAC
4. *Prunus serotina*, Black Cherry	15%	yes	FACU
5. *Geum canadense*, White Avens	10%	yes	FAC
6. *Alliaria petiolata*, Garlic-Mustard	10%	yes	FAC
7. *Hackelia virginiana*, Beggar's-Lice	5%	no	FACU
8.			
9.			
10.			
	NaN%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 30% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	NaN	x1 =	NaN
FAC species	35	x1 =	105
FACU species	NaN	x1 =	NaN
UPL species	0	x1 =	0
Column Totals:	NaN	x1 =	NaN (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

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ATTACHMENT B

SOIL

Sample Point: **adp46**

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
0-10	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
10-16	10YR - 3/1	98	10YR-4/4	2	- - -	- - -	SL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp47

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.04596 | Long: -92.28418 | Datum: WGS 84

Soil Map Unit Name: 593E: Elbaville silt loam, 18 to 30 percent slopes | NWI classification: PEM1C

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	10%	yes	FAC
2.			
3.			
4.			
5.			
	10% = Total Cover		
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0% = Total Cover		
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0% = Total Cover		

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	10	x1 =	30
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	10	x1 =	30 (B)

Prevalence Index = B/A = 3.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

SOIL

Sample Point: **adp47**

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

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Hydric soil assumed, Surface water present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): 36

Water Table Present? Yes ___ No ___ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp48

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.04578 | Long: -92.28217 | Datum: WGS 84

Soil Map Unit Name: 322D2: Timula silt loam, 12 to 20 percent slopes, moderately eroded | NWI classification: PEM1B

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Depression in valley between soybean field and meadow slope

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Urtica dioica*, Stinging Nettle	35%	yes	FACW
2. *Phalaris arundinacea*, Reed Canary Grass	30%	yes	FACW
3. *Ambrosia trifida*, Great Ragweed	30%	yes	FAC
4. *Galium aparine*, Sticky-Willy	10%	no	FACU
5. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	65	x1 =	130
FAC species	30	x1 =	90
FACU species	15	x1 =	60
UPL species	0	x1 =	0
Column Totals:	110	x1 =	280 (B)

Prevalence Index = B/A = 2.545

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp48**

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
0-15	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp49

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.04732 | Long: -92.28039 | Datum: WGS 84

Soil Map Unit Name: 322D2: Timula silt loam, 12 to 20 percent slopes, moderately eroded | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Meadow swale adjacent open water

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	50%	yes	FAC
2. *Solidago canadensis*, Canadian Goldenrod	40%	yes	FACU
3. *Parthenocissus quinquefolia*, Virginia-Creeper	15%	no	FACU
4. *Pastinaca sativa*, Wild parsnip	10%	no	UPL
5. *Asclepias syriaca*, Common Milkweed	5%	no	FACU
6.			
7.			
8.			
9.			
10.			
	120%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	50	x1 =	150
FACU species	60	x1 =	240
UPL species	10	x1 =	50
Column Totals:	120	x1 =	440 (B)

Prevalence Index = B/A = 3.667

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp49**

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 - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
8-15	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp50

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.04734 | Long: -92.28041 | Datum: WGS 84

Soil Map Unit Name: 322D2: Timula silt loam, 12 to 20 percent slopes, moderately eroded | NWI classification: PEM1B, PUBHh

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Depression adjacent open water

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	100%	yes	FACW
2. *Angelica atropurpurea*, Purple-Stem Angelica	5%	no	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	105%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x1 =	5
FACW species	100	x1 =	200
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	105	x1 =	205 (B)

Prevalence Index = B/A = 1.952

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

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ATTACHMENT B

SOIL

Sample Point: **adp50**

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 - 4/1	95	7.5YR-3/4	5	C	M/PL	Mucky Loam	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp51

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.04795 | Long: -92.28072 | Datum: WGS 84

Soil Map Unit Name: W: Water | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
No surface vegetation, assume hydrophytic due to presence of surface water

merjent

SOIL

Sample Point: **adp51**

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

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Assume hydric due to surface water

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): 36

Water Table Present? Yes ___ No ___ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp52

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.04836 | Long: -92.28046 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: PFO1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Slope adjacent stream, wetland seep

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Impatiens capensis*, Spotted Touch-Me-Not	80%	yes	FACW
2. *Ribes cynosbati*, Eastern Prickly Gooseberry	15%	no	FAC
3. *Parthenocissus quinquefolia*, Virginia-Creeper	10%	no	FACU
4. *Rubus idaeus*, Common Red Raspberry	10%	no	FACU
5. *Solidago canadensis*, Canadian Goldenrod	10%	no	FACU
6. *Lonicera tatarica*, Twinsisters	10%	no	FACU
7. *Dactylis glomerata*, Orchard Grass	2%	no	FACU
8.			
9.			
10.			
	137%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	80	x1 =	160
FAC species	15	x1 =	45
FACU species	42	x1 =	168
UPL species	0	x1 =	0
Column Totals:	137	x1 =	373 (B)

Prevalence Index = B/A = 2.723

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

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ATTACHMENT B

SOIL

Sample Point: **adp52**

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
0-16	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 16

Hydric Soil Present? Yes ✔ No ___

Remarks:
Assume hydric. Too wet to see redox

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ✔ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): - - -

Water Table Present? Yes ___ No ___ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:
1cm surface water. Seep

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp53

Investigator(s): Maddie Humphrey | Section, Township, Range: S19 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.06322 | Long: -92.29955 | Datum: WGS 84

Soil Map Unit Name: 369C: Waubeek silt loam, 6 to 12 percent slopes | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Road right of way

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	70%	yes	FACU
2. *Poa pratensis*, Kentucky Blue Grass	30%	yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	30	x1 =	90
FACU species	70	x1 =	280
UPL species	0	x1 =	0
Column Totals:	100	x1 =	370 (B)

Prevalence Index = B/A = 3.700

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

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SOIL

Sample Point: **adp53**

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

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
No pit taken road ROW assume non hydric due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp54

Investigator(s): Maddie Humphrey | Section, Township, Range: S19 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.05913 | Long: -92.2996 | Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Road right of way adjacent culvert

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	90%	yes	FACU
2. *Phalaris arundinacea*, Reed Canary Grass	10%	no	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	10	x1 =	20
FAC species	0	x1 =	0
FACU species	90	x1 =	360
UPL species	0	x1 =	0
Column Totals:	100	x1 =	380 (B)

Prevalence Index = B/A = 3.800

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

SOIL

Sample Point: **adp54**

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

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
No pit taken road ROW assume non hydric due to lack of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp55

Investigator(s): Maddie Humphrey | Section, Township, Range: S20 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.0518 | Long: -92.29709 | Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Depressional swale between agriculture fields

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	100%	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	100	x1 =	400
UPL species	0	x1 =	0
Column Totals:	100	x1 =	400 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp55**

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
0-12	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp56

Investigator(s): Maddie Humphrey | Section, Township, Range: S19 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05394 | Long: -92.30138 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Swale between agriculture fields

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Lolium perenne*, Perennial Rye Grass	95%	yes	FACU
2. *Ambrosia trifida*, Great Ragweed	5%	no	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x1 =	0	
FACW species	0	x1 =	0	
FAC species	5	x1 =	15	
FACU species	95	x1 =	380	
UPL species	0	x1 =	0	
Column Totals:	100	x1 =	395	(B)

Prevalence Index = B/A = 3.950

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp56**

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 - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp57

Investigator(s): Maddie Humphrey | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05433 | Long: -92.3388 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Roadside ditch along 70th Ave NE.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	90%	yes	FAC
2. *Medicago lupulina*, Black Medick	5%	no	FACU
3. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	90	x1 =	270
FACU species	10	x1 =	40
UPL species	0	x1 =	0
Column Totals:	100	x1 =	310 (B)

Prevalence Index = B/A = 3.100

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

SOIL

Sample Point: **adp57**

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

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Assume non-hydric due to lack of hydrology indicators. No pit taken, located in road ROW.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✔ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp58

Investigator(s): Maddie Humphrey | Section, Township, Range: S23 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05374 | Long: -92.33888 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Roadside ditch downslope adp57 approximately half of a foot.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	95%	yes	FACW
2. *Poa pratensis*, Kentucky Blue Grass	10%	no	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	105%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	95	x1 =	190
FAC species	10	x1 =	30
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	105	x1 =	220 (B)

Prevalence Index = B/A = 2.095

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

SOIL

Sample Point: **adp58**

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

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
No pit taken, located in road ROW, assume hydric due to presence of hydrology indicators and hydrophytic vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✔ Geomorphic position (D2)
✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): 1
Water Table Present? Yes ___ No ___ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:
Recent rainfall

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp59

Investigator(s): Maddie Humphrey | Section, Township, Range: S19 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05192 | Long: -92.30874 | Datum: WGS 84

Soil Map Unit Name: 489A: Atkinson loam, 0 to 1 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Slight depression in planted corn field

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Chenopodium album*, Lamb's-Quarters	5%	yes	FACU
2. *Rorippa sylvestris*, Creeping Yellowcress	2%	yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	7%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	2	x1 =	2
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	5	x1 =	20
UPL species	0	x1 =	0
Column Totals:	7	x1 =	22 (B)

Prevalence Index = B/A = 3.143

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp59**

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
0-19	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
19-30	10YR - 3/1	50	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
	10YR - 4/6	50	- - --- - -/- - -	- - -	- - -	- - -	- - -	

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ____ Depth (inches): - - -

Water Table Present? Yes ____ No ____ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp60

Investigator(s): Maddie Humphrey | Section, Township, Range: S20 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.04995 | Long: -92.28532 | Datum: WGS 84

Soil Map Unit Name: 369C: Waubeek silt loam, 6 to 12 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Agriculture depression between swales

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Planted corn. Assume hydrophytic due to presence of hydric soil and hydrology indicators.

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ATTACHMENT B

SOIL

Sample Point: **adp60**

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
0-10	10YR - 2/1	98	10YR-3/6	2	C	M	SiL	- - -
10-16	- - - - - - -/- - -	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	Gley1 2.5 N

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ✔ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): - - -

Water Table Present? Yes ___ No ___ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp61

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.04983 | Long: -92.28551 | Datum: WGS 84

Soil Map Unit Name: 369C: Waubeek silt loam, 6 to 12 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp61**

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
0-12	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp62

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.04899 | Long: -92.28704 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Agriculture side slope above swale at ws88

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp62**

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
0-10	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Drain tile?

Depth (inches): 10

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp63

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.04875 | Long: -92.28761 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Agriculture side slope, sloping into adjacent swale at ws89

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Recently planted healthy corn.

merjent

ATTACHMENT B

SOIL

Sample Point: **adp63**

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
0-12	10YR - 2/1	98	10YR-3/6	2	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp64

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.0491 | Long: -92.28076 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: PEM1C, PFO1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*, Black Walnut	15%	yes	FACU
2. *Salix discolor*, Pussy Willow	10%	yes	FACW
3.			
4.			
5.			
	25%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	80%	yes	FACW
2. *Pastinaca sativa*, Wild parsnip	10%	no	UPL
3. *Impatiens capensis*, Spotted Touch-Me-Not	5%	no	FACW
4. *Hackelia virginiana*, Beggar's-Lice	5%	no	FACU
5. *Urtica dioica*, Stinging Nettle	5%	no	FACW
6. *Parthenocissus quinquefolia*, Virginia-Creeper	5%	no	FACU
7. *Galium aparine*, Sticky-Willy	5%	no	FACU
8. *Alliaria petiolata*, Garlic-Mustard	5%	no	FAC
9.			
10.			
	120%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.667% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	100	x1 =	200
FAC species	5	x1 =	15
FACU species	30	x1 =	120
UPL species	10	x1 =	50
Column Totals:	145	x1 =	385 (B)

Prevalence Index = B/A = 2.655

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp64**

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
0-7	10YR - 2/1	98	- - -2.5/- - -	2	C	M	SL	Redox is the iron manganese masses

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ✔ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 7

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp65

Investigator(s): Maddie Humphrey | Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Toeslope | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.04916 | Long: -92.28081 | Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes | NWI classification: PEM1C, PFO1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Toeslope between forest and stream fringe

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*, Black Walnut	80%	yes	FACU
2.			
3.			
4.			
5.			
	80%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Rubus idaeus*, Common Red Raspberry	60%	yes	FACU
2. *Hackelia virginiana*, Beggar's-Lice	40%	yes	FACU
3. *Ribes cynosbati*, Eastern Prickly Gooseberry	30%	yes	FAC
4. *Arctium minus*, Lesser Burrdock	15%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	145%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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: 4 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	30	x1 =	90
FACU species	195	x1 =	780
UPL species	0	x1 =	0
Column Totals:	225	x1 =	870 (B)

Prevalence Index = B/A = 3.867

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp65**

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
0-10	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
10-13	10YR - 2/1	98	- - --2.5/- - -	2	C	M	SiL	gley1 2.5/N Iron manganese
13-16	10YR - 2/1	95	10YR-4/6	5	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 16

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill City/County: Farmington/Olmsted County Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power State: MN Sampling Point: adp66

Investigator(s): Maddie Humphrey Section, Township, Range: S29 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope Local relief (concave, convex, none): none

Slope(%): 8-15 Lat: 44.04839 Long: -92.2804 Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes NWI classification: PFO1B

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Slope between seep areas

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*, Black Walnut	20%	yes	FACU
2.			
3.			
4.			
5.			
	20%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Prunus serotina*, Black Cherry	10%	yes	FACU
2.			
3.			
4.			
5.			
	10%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Glechoma hederacea*, Groundivy	20%	yes	FACU
2. *Parthenocissus quinquefolia*, Virginia-Creeper	15%	yes	FACU
3. *Ribes cynosbati*, Eastern Prickly Gooseberry	15%	yes	FAC
4. *Rubus idaeus*, Common Red Raspberry	15%	yes	FACU
5. *Hydrophyllum virginianum*, Shawnee-Salad	15%	yes	FAC
6.			
7.			
8.			
9.			
10.			
	80%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 28.571% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x1 =	0	
FACW species	0	x1 =	0	
FAC species	30	x1 =	90	
FACU species	80	x1 =	320	
UPL species	0	x1 =	0	
Column Totals:	110	x1 =	410	(B)

Prevalence Index = B/A = 3.727

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp66**

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
0-6	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	SL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Bedrock

Depth (inches): 6

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp67

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Stream Terrace | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.09133 | Long: -92.33459 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PSS1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Stream terrace floodplain forest

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	90%	yes	FAC
2.			
3.			
4.			
5.			
	90%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Acer negundo* , Ash-Leaf Maple	20%	yes	FAC
2.			
3.			
4.			
5.			
	20%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Impatiens capensis*, Spotted Touch-Me-Not	90%	yes	FACW
2. *Solidago gigantea*, Late Goldenrod	15%	no	FACW
3. *Arctium minus*, Lesser Burrdock	10%	no	FACU
4. *Hydrophyllum virginianum*, Shawnee-Salad	10%	no	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	125%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	105	x1 =	210
FAC species	120	x1 =	360
FACU species	10	x1 =	40
UPL species	0	x1 =	0
Column Totals:	235	x1 =	610 (B)

Prevalence Index = B/A = 2.596

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp67**

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 - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
4-10	10YR - 2/1	95	10YR-4/6	5	C	M	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Tree root

Depth (inches): 10

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: adp68

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.08906 | Long: -92.33223 | Datum: WGS 84

Soil Map Unit Name: 472C: Channahon loam, 6 to 12 percent slopes | NWI classification: - - -

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

Are Vegetation ✔, Soil ____, or Hydrology ✔ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Sloped soybean field with tile drainage.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0% = Total Cover		
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0% = Total Cover		

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **adp68**

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 - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	L	- - -
8-12	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	L	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:
Drain tile present

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-28

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp01

Investigator(s): Andy Kranz | Section, Township, Range: S11 T107N S013W

Lanform(hillslope, terrace, etc): Backslope | Local relief (concave, convex, none): concave

Slope(%): 8-15 | Lat: 44.08485 | Long: -92.34868 | Datum: WGS 84

Soil Map Unit Name: 401C2: Mt. Carroll silt loam, 6 to 12 percent slopes, moderately eroded | NWI classification: PEM1B

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔	No ___	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Sedge meadow sampled at the edge of a stream valley.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Cornus alba*, Red Osier	1%	yes	FACW
2.			
3.			
4.			
5.			
	1%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Carex stricta*, Uptight Sedge	40%	yes	OBL
2. *Solidago altissima*, Tall Goldenrod	40%	yes	FACU
3. *Poa pratensis*, Kentucky Blue Grass	15%	no	FAC
4. *Ambrosia trifida*, Great Ragweed	5%	no	FAC
5. *Pastinica sati a*, undefined	5%	no	FACU
6. *Agrimonia gryposepala*, Tall Hairy Grooveburr	2%	no	FACU
7. *Solidago gigantea*, Late Goldenrod	2%	no	FACW
8. *Angelica atropurpurea*, Purple-Stem Angelica	2%	no	OBL
9.			
10.			
	111%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.667% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	42	x1 =	42	
FACW species	3	x1 =	6	
FAC species	20	x1 =	60	
FACU species	47	x1 =	188	
UPL species	0	x1 =	0	
Column Totals:	112	x1 =	296	(B)

Prevalence Index = B/A = 2.643

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp01**

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 - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	Mucky Loam	- - -
4-16	10YR - 2/1	95	5YR-3/4	5	C	M	Mucky Loam	- - -
16-24	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	Mucky Loam	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:
Position at edge of valley is likely outside the floodplain of nearby stream but geomorphic position is assumed due to evidence that groundwater is near the surface for a significant portion of the growing season: high organic matter content of the soil, springy/bouncy ground typically of sedge meadows and fens with groundwater influence, and strongly hydrophytic vegetation.

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-28

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp02

Investigator(s): Andy Kranz | Section, Township, Range: S11 T107N S013W

Lanform(hillslope, terrace, etc): Shoulder | Local relief (concave, convex, none): convex

Slope(%): 8-15 | Lat: 44.08494 | Long: -92.34872 | Datum: WGS 84

Soil Map Unit Name: 401C2: Mt. Carroll silt loam, 6 to 12 percent slopes, moderately eroded | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow on shoulder of slope at edge of stream valley.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	1%	yes	FAC
2.			
3.			
4.			
5.			
	1%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Cornus alba*, Red Osier	2%	yes	FACW
2. *Rosa blanda*, Smooth Rose	1%	yes	FACU
3.			
4.			
5.			
	3%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Elymus repens*, Creeping Wild Rye	35%	yes	FACU
2. *Poa pratensis*, Kentucky Blue Grass	20%	yes	FAC
3. *Solidago altissima*, Tall Goldenrod	20%	yes	FACU
4. *Vitis riparia*, River-Bank Grape	15%	no	FACW
5. *Equisetum arvense*, Field Horsetail	10%	no	FAC
6. *Angelica atropurpurea*, Purple-Stem Angelica	2%	no	OBL
7.			
8.			
9.			
10.			
	102%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	2	x1 =	2
FACW species	17	x1 =	34
FAC species	31	x1 =	93
FACU species	56	x1 =	224
UPL species	0	x1 =	0
Column Totals:	106	x1 =	353 (B)

Prevalence Index = B/A = 3.330

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp02**

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

	Matrix		Redox Features					
Depth (inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-30	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
30-40	10YR - 4/2	95	7.5YR-4/4	5	C	M	SiCL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp03

Investigator(s): Andy Kranz | Section, Township, Range: S11 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08348 | Long: -92.34012 | Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Wet meadow in a depression within a pasture.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	50%	yes	FACW
2. *Poa pratensis*, Kentucky Blue Grass	40%	yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	50	x1 =	100
FAC species	40	x1 =	120
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	90	x1 =	220 (B)

Prevalence Index = B/A = 2.444

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Senesced Persicaria amphibia from previous year is present.

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp03**

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 - 2/1	95	5YR-4/4	5	C	M	SiCL	- - -
4-12	10YR - 3/1	93	5YR-4/4	5	C	M	CL	- - -
	- - - - - - -/- - -	- - -	10YR-5/1	2	D	M	- - -	

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp04

Investigator(s): Andy Kranz | Section, Township, Range: S11 T107N S013W

Lanform(hillslope, terrace, etc): Toeslope | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08346 | Long: -92.33996 | Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ___ No ✔	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	40%	yes	FACU
2. *Poa pratensis*, Kentucky Blue Grass	30%	yes	FAC
3. *Trifolium repens*, White Clover	15%	no	FACU
4. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
5. *Plantago rugelii*, Black-Seed Plantain	5%	no	FAC
6. *Stellaria media*, Common Chickweed	2%	no	FACU
7.			
8.			
9.			
10.			
	97%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	35	x1 =	105
FACU species	62	x1 =	248
UPL species	0	x1 =	0
Column Totals:	97	x1 =	353 (B)

Prevalence Index = B/A = 3.639

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp04**

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
0-12	10R - 2/1	95	5YR-4/4	5	C	M	SiCL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp05

Investigator(s): Andy Kranz | Section, Township, Range: S11 T107N S013W

Lanform(hillslope, terrace, etc): Backslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08128 | Long: -92.34872 | Datum: WGS 84

Soil Map Unit Name: 333: Vasa silt loam | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland cow wallow on a back slope, closer to the top than bottom of a hill. Investigated because of aerial signature.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation is absent. Surrounding vegetation is dominated by Bromus inermis and Poa pratensis.

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp05**

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

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Soul sampling unnecessary.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp06

Investigator(s): Andy Kranz | Section, Township, Range: S11 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.0813 | Long: -92.3487 | Datum: WGS 84

Soil Map Unit Name: 333: Vasa silt loam | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ✓ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland margin of crop field. Investigated due to aerial signature. Sample point located outside of signature at lowest elevation locally where a wetland would be most likely.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Ambrosia trifida*, Great Ragweed	40%	yes	FAC
2. *Bromus inermis*, Smooth Brome	40%	yes	FACU
3. *Chenopodium album*, Lamb's-Quarters	10%	no	FACU
4. *Urtica dioica*, Stinging Nettle	10%	no	FACW
5. *Pastinica sati a*, undefined	5%	no	FACU
6.			
7.			
8.			
9.			
10.			
	105%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	10	x1 =	20
FAC species	40	x1 =	120
FACU species	55	x1 =	220
UPL species	0	x1 =	0
Column Totals:	105	x1 =	360 (B)

Prevalence Index = B/A = 3.429

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Wetness signature located in field planted with corn. Crop appears healthy.

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp06**

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
0-16	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
16-24	10YR - 3/4	70	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
	10YR - 3/2	30	- - --- - -/- - -	- - -	- - -	- - -	- - -	

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): - - -

Water Table Present? Yes ____ No ✓ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp07

Investigator(s): Andy Kranz | Section, Township, Range: S14 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07823 | Long: -92.34758 | Datum: WGS 84

Soil Map Unit Name: 333: Vasa silt loam | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔	No ___	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Wet meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	40%	yes	FACW
2. *Ambrosia trifida*, Great Ragweed	15%	yes	FAC
3. *Dactylis glomerata*, Orchard Grass	5%	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	40	x1 =	80
FAC species	15	x1 =	45
FACU species	5	x1 =	20
UPL species	0	x1 =	0
Column Totals:	60	x1 =	145 (B)

Prevalence Index = B/A = 2.417

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

SOIL

Sample Point: **bdp07**

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 - 3/1	75	7.5YR-4/4	15	C	M	SiC	- - -
	- - - - - - -/- - -	- - -	10YR-4/2	10	D	M	- - -	
4-12	10YR - 4/1	85	7.5YR-4/4	15	C	M	SiC	- - -

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
✔ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✓ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✔ Geomorphic position (D2)
✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -
Water Table Present? Yes ___ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp08

Investigator(s): Andy Kranz | Section, Township, Range: S14 T107N S013W

Lanform(hillslope, terrace, etc): Toeslope | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07818 | Long: -92.34759 | Datum: WGS 84

Soil Map Unit Name: 333: Vasa silt loam | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ✓ No ____	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	85%	yes	FACU
2. *Ambrosia trifida*, Great Ragweed	5%	no	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x1 =	0	
FACW species	0	x1 =	0	
FAC species	5	x1 =	15	
FACU species	85	x1 =	340	
UPL species	0	x1 =	0	
Column Totals:	90	x1 =	355	(B)

Prevalence Index = B/A = 3.944

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop is healthy.

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp08**

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
0-14	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
14-24	10YR - 3/4	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✓ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✓ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp09

Investigator(s): Andy Kranz | Section, Township, Range:

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07696 | Long: -92.34788 | Datum: WGS 84

Soil Map Unit Name: 333: Vasa silt loam | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	40%	yes	FACU
2. *Dactylis glomerata*, Orchard Grass	40%	yes	FACU
3. *Ambrosia trifida*, Great Ragweed	30%	yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	30	x1 =	90
FACU species	80	x1 =	320
UPL species	0	x1 =	0
Column Totals:	110	x1 =	410 (B)

Prevalence Index = B/A = 3.727

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp09**

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
0-3	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
3-12	10YR - 3/4	95	10YR-4/2	5	D	M	SiC	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp10

Investigator(s): Andy Kranz | Section, Township, Range: S14 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07797 | Long: -92.34109 | Datum: WGS 84

Soil Map Unit Name: 333: Vasa silt loam | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field. Investigated due to aerial signature. Sample point located in the most moist portion of the swale.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phleum pratense*, Common Timothy	50%	yes	FACU
2. *Trifolium pratense*, Red Clover	35%	yes	FACU
3. *Poa pratensis*, Kentucky Blue Grass	25%	yes	FAC
4. *Carex vulpinoidea*, Common Fox Sedge	10%	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	120%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	10	x1 =	20
FAC species	25	x1 =	75
FACU species	85	x1 =	340
UPL species	0	x1 =	0
Column Totals:	120	x1 =	435 (B)

Prevalence Index = B/A = 3.625

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp10**

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
0-2	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	CL	- - -
2-6	10YR - 2/1	90	7.5YR-3/4	10	C	M	CL	- - -
6-12	10YR - 3/1	90	7.5YR-3/4	10	C	M	C	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp11

Investigator(s): Andy Kranz | Section, Township, Range:

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07026 | Long: -92.32963 | Datum: WGS 84

Soil Map Unit Name: 203: Joy silt loam, 1 to 4 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	50%	yes	FACU
2. *Phalaris arundinacea*, Reed Canary Grass	10%	no	FACW
3. *Ambrosia trifida*, Great Ragweed	10%	no	FAC
4. *Apocynum cannabinum*, Indian-Hemp	10%	no	FAC
5. *Poa pratensis*, Kentucky Blue Grass	5%	no	FAC
6. *Helianthus tuberosus*, Jerusalem-Artichoke	5%	no	FACU
7.			
8.			
9.			
10.			
	90%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	10	x1 =	20
FAC species	25	x1 =	75
FACU species	55	x1 =	220
UPL species	0	x1 =	0
Column Totals:	90	x1 =	315 (B)

Prevalence Index = B/A = 3.500

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

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ATTACHMENT B

SOIL

Sample Point: **bdp11**

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 - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
4-16	10YR - 3/1	90	5YR-4/6	10	C	M	SiCL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp12

Investigator(s): Andy Kranz | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 8-15 | Lat: 44.06957 | Long: -92.32547 | Datum: WGS 84

Soil Map Unit Name: 369C: Waubeek silt loam, 6 to 12 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ✓ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland vegetated swale. Investigated due to aerial signature.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Ambrosia trifida*, Great Ragweed	40%	yes	FAC
2. *Cirsium arvense*, Canadian Thistle	20%	yes	FACU
3. *Barbarea vulgaris*, Garden Yellow-Rocket	15%	no	FAC
4. *Solidago altissima*, Tall Goldenrod	10%	no	FACU
5. *Silene latifolia*, Bladder Campion	10%	no	UPL
6. *Phalaris arundinacea*, Reed Canary Grass	5%	no	FACW
7. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
8.			
9.			
10.			
	105%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x1 =	0	
FACW species	5	x1 =	10	
FAC species	55	x1 =	165	
FACU species	35	x1 =	140	
UPL species	10	x1 =	50	
Column Totals:	105	x1 =	365	(B)

Prevalence Index = B/A = 3.476

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

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ATTACHMENT B

SOIL

Sample Point: **bdp12**

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
0-12	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): - - -

Water Table Present? Yes ____ No ✓ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp13

Investigator(s): Andy Kranz | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Stream Terrace | Local relief (concave, convex, none): none

Slope(%): 8-15 | Lat: 44.071 | Long: -92.32396 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Shrub-dominated moist upland on a sloped stream terrace.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix X fragilis*, Whitecrack Willow	5%	yes	FAC
2.			
3.			
4.			
5.			
	5%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Sambucus nigra*, Black Elder	15%	yes	FAC
2. *Acer negundo* , Ash-Leaf Maple	5%	yes	FAC
3. *Juglans nigra*, Black Walnut	2%	no	FACU
4.			
5.			
	22%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Urtica dioica*, Stinging Nettle	80%	yes	FACW
2. *Ribes missouriense*, Missouri Gooseberry	5%	no	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1. *Vitis riparia*, River-Bank Grape	10%	yes	FACW
2.			
	10%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x1 =	0	
FACW species	90	x1 =	180	
FAC species	25	x1 =	75	
FACU species	2	x1 =	8	
UPL species	5	x1 =	25	
Column Totals:	122	x1 =	288	(B)

Prevalence Index = B/A = 2.361

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

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

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp13**

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
0-14	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
14-30	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiC	- - -
30-38	10YR - 3/2	95	7.5YR-4/6	5	C	M	C	- - -
38-42	10YR - 4/3	95	7.5YR-4/6	5	C	M	C	- - -

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
✔ FAC-neutral test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: - - - | Sampling Point: bdp14

Investigator(s): Andy Kranz | Section, Township, Range:

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07167 | Long: -92.3244 | Datum: WGS 84

Soil Map Unit Name: - - - | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Dactylis glomerata*, Orchard Grass	40%	yes	FACU
2. *Medicago sativa*, Alfalfa	35%	yes	FACU
3. *Poa pratensis*, Kentucky Blue Grass	10%	no	FAC
4. *Parthenocissus quinquefolia*, Virginia-Creeper	5%	no	FACU
5. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
6. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
7. *Solidago gigantea*, Late Goldenrod	2%	no	FACW
8.			
9.			
10.			
	102%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x1 =	0	
FACW species	2	x1 =	4	
FAC species	10	x1 =	30	
FACU species	90	x1 =	360	
UPL species	0	x1 =	0	
Column Totals:	102	x1 =	394	(B)

Prevalence Index = B/A = 3.863

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp14**

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
0-12	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): - - -

Water Table Present? Yes ____ No ✓ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp15

Investigator(s): Andy Kranz | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 8-15 | Lat: 44.07113 | Long: -92.327 | Datum: WGS 84

Soil Map Unit Name: 401C2: Mt. Carroll silt loam, 6 to 12 percent slopes, moderately eroded | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Trifolium pratense*, Red Clover	85%	yes	FACU
2. *Securigera varia*, Crown Vetch	10%	no	UPL
3. *Vicia villosa*, Hairy Vetch	5%	no	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	85	x1 =	340
UPL species	15	x1 =	75
Column Totals:	100	x1 =	415 (B)

Prevalence Index = B/A = 4.150

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Write in nonfunctional, SECCER, VICVIL

merjent

SOIL

Sample Point: **bdp15**

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
0-2	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
2-12	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): - - -

Water Table Present? Yes ____ No ✓ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp16

Investigator(s): Andy Kranz | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07429 | Long: -92.32552 | Datum: WGS 84

Soil Map Unit Name: 401C2: Mt. Carroll silt loam, 6 to 12 percent slopes, moderately eroded | NWI classification: - - -

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

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

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

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

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	70%	yes	FACU
2. *Arctium minus*, Lesser Burrdock	10%	no	FACU
3. *Poa pratensis*, Kentucky Blue Grass	5%	no	FAC
4. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
5. *Solidago altissima*, Tall Goldenrod	5%	no	FACU
6.			
7.			
8.			
9.			
10.			
	95%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	5	x1 =	15
FACU species	90	x1 =	360
UPL species	0	x1 =	0
Column Totals:	95	x1 =	375 (B)

Prevalence Index = B/A = 3.947

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

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

merjent

SOIL

Sample Point: **bdp16**

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
0-3	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
3-12	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): - - -

Water Table Present? Yes ____ No ✓ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp17

Investigator(s): Andy Kranz | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07537 | Long: -92.32654 | Datum: WGS 84

Soil Map Unit Name: 401C2: Mt. Carroll silt loam, 6 to 12 percent slopes, moderately eroded | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ✓ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Schedonorus arundinaceus*, Tall False Rye Grass	20%	yes	FACU
2. *Bromus inermis*, Smooth Brome	15%	yes	FACU
3. *Cirsium arvense*, Canadian Thistle	15%	yes	FACU
4. *Pastinica sati a*, Wild Parsnip	15%	yes	FACU
5. *Glechoma hederacea*, Groundivy	15%	yes	FACU
6. *Dactylis glomerata*, Orchard Grass	10%	no	FACU
7. *Phalaris arundinacea*, Reed Canary Grass	10%	no	FACW
8. *Poa pratensis*, Kentucky Blue Grass	5%	no	FAC
9. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x1 =	0	
FACW species	10	x1 =	20	
FAC species	5	x1 =	15	
FACU species	95	x1 =	380	
UPL species	0	x1 =	0	
Column Totals:	110	x1 =	415	(B)

Prevalence Index = B/A = 3.773

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp17**

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
0-2	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
2-12	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp18

Investigator(s): Andy Kranz | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07716 | Long: -92.31852 | Datum: WGS 84

Soil Map Unit Name: 285A: Port Byron silt loam, 0 to 2 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ✓	No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Dactylis glomerata*, Orchard Grass	35%	yes	FACU
2. *Pastinica sativa*, Wild Parsnip	20%	yes	UPL
3. *Arctium minus*, Lesser Burrdock	15%	no	FACU
4. *Phalaris arundinacea*, Reed Canary Grass	10%	no	FACW
5. *Ambrosia trifida*, Great Ragweed	10%	no	FAC
6.			
7.			
8.			
9.			
10.			
	90%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	10	x1 =	20
FAC species	10	x1 =	30
FACU species	50	x1 =	200
UPL species	20	x1 =	100
Column Totals:	90	x1 =	350 (B)

Prevalence Index = B/A = 3.889

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

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

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ATTACHMENT B

SOIL

Sample Point: **bdp18**

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
0-12	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): - - -

Water Table Present? Yes ____ No ✓ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp19

Investigator(s): Andy Kranz | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Backslope | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07736 | Long: -92.31831 | Datum: WGS 84

Soil Map Unit Name: 285A: Port Byron silt loam, 0 to 2 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow on back slope of a depression

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	100%	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	100	x1 =	200
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	100	x1 =	200 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

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ATTACHMENT B

SOIL

Sample Point: **bdp19**

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
0-9	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
9-18	10YR - 3/2	98	10YR-4/2	2	D	M	SiCL	- - -
18-42	10YR - 3/2	90	10YR-4/2	10	D	M	SiCL	- - -

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
✔ FAC-neutral test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp20

Investigator(s): Andy Kranz | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Toeslope | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07754 | Long: -92.31813 | Datum: WGS 84

Soil Map Unit Name: 285A: Port Byron silt loam, 0 to 2 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Wet meadow on toeslope slope of a depression

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	100%	yes	FACW
2. *Urtica dioica*, Stinging Nettle	2%	no	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	102%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	102	x1 =	204
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	102	x1 =	204 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp20**

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
0-12	10YR - 5/2	80	10YR-3/2	20	C	M	SiCL	- - -

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
✔ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✔ Geomorphic position (D2)
✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -
Water Table Present? Yes ___ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp21

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Footslope | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.06208 | Long: -92.33718 | Datum: WGS 84

Soil Map Unit Name: 24: Kasson silt loam, 1 to 4 percent slopes | NWI classification: PUBFx

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

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland at margin of depression in a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Digitaria sanguinalis*, Hairy Crab Grass	60%	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60% = Total Cover		
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0% = Total Cover		

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	60	x1 =	240
UPL species	0	x1 =	0
Column Totals:	60	x1 =	240 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Corn seedlings at normal density.

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ATTACHMENT B

SOIL

Sample Point: **bdp21**

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 - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	SCL	- - -
4-12	10YR - 2/2	98	10YR-4/3	2	C	M	SCL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp22

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.06196 | Long: -92.33717 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: PUBFx

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

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

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

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

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Seasonally flooded basin in depression within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Vegetation significantly disturbed due to tillage. Less than 1% Ambrosia trifida and Digitaria sanguinalis which are greatly stunted compared with surroundings. Corn crop is absent to sparse in bottom of depression whereas it is dense in surrounding uplands.

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ATTACHMENT B

SOIL

Sample Point: **bdp22**

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
0-2	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SCL	- - -
2-12	10YR - 2/1	95	10YR-4/4	5	C	M	SCL	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ✔ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): 1

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:
Sparse Digitaria sanguinalis and corn seedlings are greatly stunted in comparison to dense taller plants in surrounding upland.

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp23

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.06083 | Long: -92.33683 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Wet meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	65%	yes	FACW
2. *Poa pratensis*, Kentucky Blue Grass	40%	yes	FAC
3. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
4. *Arctium minus*, Lesser Burrdock	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	115%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	65	x1 =	130
FAC species	40	x1 =	120
FACU species	10	x1 =	40
UPL species	0	x1 =	0
Column Totals:	115	x1 =	290 (B)

Prevalence Index = B/A = 2.522

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

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

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ATTACHMENT B

SOIL

Sample Point: **bdp23**

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
0-20	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
20-28	10YR - 2/1	95	2.5YR-3/6	5	C	M	SiC	- - -

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

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Assume presence of hydric soils due to presence of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

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

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp24

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.06076 | Long: -92.33668 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

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

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland portion of a swale in which wetland occurs in lower areas.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Schedonorus arundinaceus*, Tall False Rye Grass	50%	yes	FACU
2. *Taraxacum officinale*, Common Dandelion	35%	yes	FACU
3. *Poa pratensis*, Kentucky Blue Grass	30%	yes	FAC
4. *Phleum pratense*, Common Timothy	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	120%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	30	x1 =	90
FACU species	90	x1 =	360
UPL species	0	x1 =	0
Column Totals:	120	x1 =	450 (B)

Prevalence Index = B/A = 3.750

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Bromus inermis becomes dominant to he south.

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ATTACHMENT B

SOIL

Sample Point: **bdp24**

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
0-1	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
1-12	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

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

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

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

Wetland Hydrology Present? Yes ____ No ✔

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

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp25

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.05994 | Long: -92.33602 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

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

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

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

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland vegetated swale in a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Schedonorus arundinaceus*, Tall False Rye Grass	80%	yes	FACU
2. *Cirsium arvense*, Canadian Thistle	15%	no	FACU
3. *Taraxacum officinale*, Common Dandelion	10%	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	105% = Total Cover		
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0% = Total Cover		

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	105	x1 =	420
UPL species	0	x1 =	0
Column Totals:	105	x1 =	420 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp25**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Soil sample not taken due to lack of hydrophytic vegetation and lack of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: - - - | Sampling Point: bdp26

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Toeslope | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.05889 | Long: -92.33723 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Moist upland crop field. Slope levels out — where hydrophytic vegetation occurs — them continues to slope again, with a southeastern aspect.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Cyperus esculentus*, Chufa	40%	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	40	x1 =	80
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	40	x1 =	80 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop appears healthy.

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp26**

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
0-6	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
6-38	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiC	- - -
38-46	2.5Y - 4/4	100	- - --- - -/- - -	- - -	- - -	- - -	SiC	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✔ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Perched water table over clay, but soil was not saturated below 6".

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp27

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05847 | Long: -92.33661 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	60%	yes	FAC
2. *Elymus repens*, Creeping Wild Rye	20%	yes	FACU
3. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
4. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
5. *Arctium minus*, Lesser Burrdock	5%	no	FACU
6. *Rumex crispus*, Curly Dock	2%	no	FAC
7.			
8.			
9.			
10.			
	97%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	62	x1 =	186
FACU species	35	x1 =	140
UPL species	0	x1 =	0
Column Totals:	97	x1 =	326 (B)

Prevalence Index = B/A = 3.361

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp27**

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
0-32	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
32-40	10YR - 2/1	30	2.5Y-3/4	2	C	M	SiC	- - -
	10YR - 3/4	68	- - --- - -/- - -	- - -	- - -	- - -	- - -	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ___ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): - - -

Water Table Present? Yes ___ No ✓ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp28

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05814 | Long: -92.33763 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Elymus repens*, Creeping Wild Rye	100%	yes	FACU
2. *Phalaris arundinacea*, Reed Canary Grass	10%	no	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	10	x1 =	20
FAC species	0	x1 =	0
FACU species	100	x1 =	400
UPL species	0	x1 =	0
Column Totals:	110	x1 =	420 (B)

Prevalence Index = B/A = 3.818

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp28**

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
0-20	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	CL	- - -
20-38	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	C	Occasional depletions less than 1%
38-46	10YR - 4/2	100	- - --- - -/- - -	- - -	- - -	- - -	- - -	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp29

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): - - - | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05759 | Long: -92.3382 | Datum: WGS 84

Soil Map Unit Name: 1846: Kato silty clay loam, depressional | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Fresh wet meadow along 70th Avenue NE.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	40%	yes	FAC
2. *Phalaris arundinacea*, Reed Canary Grass	30%	yes	FACW
3. *Trifolium pratense*, Red Clover	10%	no	FACU
4. *Salix interior*, Sandbar Willow	5%	no	FACW
5. *Juncus tenuis*, Lesser Poverty Rush	5%	no	FAC
6. *Taraxacum officinale*, Common Dandelion	2%	no	FACU
7.			
8.			
9.			
10.			
	92%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	35	x1 =	70
FAC species	45	x1 =	135
FACU species	12	x1 =	48
UPL species	0	x1 =	0
Column Totals:	92	x1 =	253 (B)

Prevalence Index = B/A = 2.750

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp29**

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
0-38	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	C	- - -
38-46	10YR - 5/1	90	10YR-4/6	10	C	M	C	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp30

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.0564 | Long: -92.33861 | Datum: WGS 84

Soil Map Unit Name: 1846: Kato silty clay loam, depressional | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Shrub-carr in a basin. Part of a complex of wetland communities.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Salix interior*, Sandbar Willow	75%	yes	FACW
2.			
3.			
4.			
5.			
	75%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	75%	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	75%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	150	x1 =	300
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	150	x1 =	300 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp30**

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 - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	CL	- - -
8-16	10YR - 2/1	95	5YR-3/4	5	C	M	CL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp31

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.0562 | Long: -92.33774 | Datum: WGS 84

Soil Map Unit Name: 1846: Kato silty clay loam, depressional | NWI classification: PSS1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Hardwood swamp in a basin. Part of a complex of wetland communities.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix euxina*, Crack Willow	70%	yes	FAC
2. *Populus deltoides*, Eastern Cottonwood	5%	no	FAC
3.			
4.			
5.			
	75%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	50%	yes	FACW
2. *Solidago gigantea*, Late Goldenrod	5%	no	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	55%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	55	x1 =	110
FAC species	75	x1 =	225
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	130	x1 =	335 (B)

Prevalence Index = B/A = 2.577

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp31**

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
0-6	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiC	- - -
6-12	10YR - 2/1	95	5Y-4/6	5	C	M	C	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ___ Depth (inches): 8

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp32

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Footslope | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.05599 | Long: -92.33757 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upslope bdp31 in agriculture field

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Digitaria ischaemum*, Smooth Crab Grass	10%	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	10	x1 =	40
UPL species	0	x1 =	0
Column Totals:	10	x1 =	40 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop appears healthy.

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp32**

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
0-12	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	CL	- - -
12-14	10YR - 2/1	95	5YR-4/6	5	C	M	CL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 14

Hydric Soil Present? Yes ✔ No ___

Remarks:
Soil is assumed likely to meet thick dark surface due to the observed profile and proximity to the nearby wetland, despite being unable to investigate to a greater depth.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp33

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.05617 | Long: -92.33713 | Datum: WGS 84

Soil Map Unit Name: 1846: Kato silty clay loam, depressional | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	30%	yes	FAC
2. *Taraxacum officinale*, Common Dandelion	30%	yes	FACU
3. *Schedonorus arundinaceus*, Tall False Rye Grass	25%	yes	FACU
4. *Phalaris arundinacea*, Reed Canary Grass	20%	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	105%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	20	x1 =	40
FAC species	30	x1 =	90
FACU species	55	x1 =	220
UPL species	0	x1 =	0
Column Totals:	105	x1 =	350 (B)

Prevalence Index = B/A = 3.333

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

SOIL

Sample Point: **bdp33**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Soil sample not taken due to lack of hydrophytic vegetation and lack of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✔ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✔ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp34

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 8-15 | Lat: 44.05559 | Long: -92.33509 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Elymus repens*, Creeping Wild Rye	70%	yes	FACU
2. *Cirsium arvense*, Canadian Thistle	25%	yes	FACU
3. *Phalaris arundinacea*, Reed Canary Grass	5%	no	FACW
4. *Asclepias syriaca*, Common Milkweed	2%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	102%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	5	x1 =	10
FAC species	0	x1 =	0
FACU species	97	x1 =	388
UPL species	0	x1 =	0
Column Totals:	102	x1 =	398 (B)

Prevalence Index = B/A = 3.902

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

SOIL

Sample Point: **bdp34**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
No soil sample taken due to lack of hydrophytic vegetation and lack of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✓ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✓ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp35

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05055 | Long: -92.32713 | Datum: WGS 84

Soil Map Unit Name: 1846: Kato silty clay loam, depressional | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Wet meadow in a broad swale separating crop fields. Part of a complex of wetland communities.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	100%	yes	FACW
2. *Cirsium arvense*, Canadian Thistle	2%	no	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	102%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	100	x1 =	200
FAC species	0	x1 =	0
FACU species	2	x1 =	8
UPL species	0	x1 =	0
Column Totals:	102	x1 =	208 (B)

Prevalence Index = B/A = 2.039

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp35**

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
0-6	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	Mucky Loam	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ✔ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp36

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Footslope | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.05052 | Long: -92.32738 | Datum: WGS 84

Soil Map Unit Name: 1846: Kato silty clay loam, depressional | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Digitaria ischaemum*, Smooth Crab Grass	40%	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	40	x1 =	160
UPL species	0	x1 =	0
Column Totals:	40	x1 =	160 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop appears healthy.

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp36**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

	Matrix		Redox Features					
Depth (inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	CL	- - -
8-16	10YR - 2/1	95	5YR-4/6	5	C	M	CL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-03

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp37

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.05224 | Long: -92.32858 | Datum: WGS 84

Soil Map Unit Name: 1846: Kato silty clay loam, depressional | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	40%	yes	FACU
2. *Dactylis glomerata*, Orchard Grass	30%	yes	FACU
3. *Phalaris arundinacea*, Reed Canary Grass	25%	yes	FACW
4. *Poa pratensis*, Kentucky Blue Grass	10%	no	FAC
5. *Cirsium arvense*, Canadian Thistle	2%	no	FACU
6.			
7.			
8.			
9.			
10.			
	107%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	25	x1 =	50
FAC species	10	x1 =	30
FACU species	72	x1 =	288
UPL species	0	x1 =	0
Column Totals:	107	x1 =	368 (B)

Prevalence Index = B/A = 3.439

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

SOIL

Sample Point: **bdp37**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Soil sample unnecessary due to lack of hydrophytic vegetation and lack of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✔ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✔ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp38

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.05403 | Long: -92.33788 | Datum: WGS 84

Soil Map Unit Name: 479: Floyd silt loam, 1 to 4 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Schedonorus arundinaceus*, Tall False Rye Grass	40%	yes	FACU
2. *Poa pratensis*, Kentucky Blue Grass	25%	yes	FAC
3. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
4. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	75%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	25	x1 =	75
FACU species	50	x1 =	200
UPL species	0	x1 =	0
Column Totals:	75	x1 =	275 (B)

Prevalence Index = B/A = 3.667

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

SOIL

Sample Point: **bdp38**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Soil sample unnecessary due to lack of hydrophytic vegetation and lack of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✓ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✓ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp39

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.05521 | Long: -92.32967 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Seasonally flooded crop land at margin of wetland basin.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Echinochloa crus-galli*, Large Barnyard Grass	40%	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	40%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	40	x1 =	80
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	40	x1 =	80 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop patchy to normal density but stunted in comparison with adjacent upland.

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp39**

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
0-2	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SCL	- - -
2-12	10YR - 2/1	80	5YR-4/6	2	C	M	SiCL	Second matrix loamy sand. Incorporated from below via tillage.
	10YR - 5/2	18	- - --- - -/- - -	- - -	- - -	- - -	- - -	
12-24	10YR - 5/1	85	5YR-4/6	15	C	M	LS	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ✔ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp40

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Backslope | Local relief (concave, convex, none): none

Slope(%): 8-15 | Lat: 44.05513 | Long: -92.32998 | Datum: WGS 84

Soil Map Unit Name: 479: Floyd silt loam, 1 to 4 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field on a slope.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Echinochloa crus-galli*, Large Barnyard Grass	2%	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	2%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	2	x1 =	4
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	2	x1 =	4 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop healthy. Very sparse volunteer soybean seedlings present. The sparse presence of the FACW Echinochloa crus-gali in an upland crop field upslope from a wetland is a common occurrence.

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ATTACHMENT B

SOIL

Sample Point: **bdp40**

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
0-14	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
14-18	10YR - 4/1	80	5YR-4/4	20	C	M	C	- - -
18-24	10YR - 5/1	60	5YR-4/6	40	C	M	C	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp41

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05681 | Long: -92.32551 | Datum: WGS 84

Soil Map Unit Name: 1846: Kato silty clay loam, depressional | NWI classification: PSS1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Hardwood swamp in a basin. Part of a complex of wetland communities.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus deltoides*, Eastern Cottonwood	45%	yes	FAC
2. *Salix euxina*, Crack Willow	15%	yes	FAC
3.			
4.			
5.			
	60%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Salix petiolaris*, Meadow Willow	10%	yes	OBL
2. *Salix eriocephala*, Missouri Willow	10%	yes	FACW
3. *Salix discolor*, Pussy Willow	5%	no	FACW
4. *Rhamnus cathartica*, European Buckthorn	5%	no	FAC
5.			
	30%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Impatiens capensis*, Spotted Touch-Me-Not	25%	yes	FACW
2. *Phalaris arundinacea*, Reed Canary Grass	20%	yes	FACW
3. *Solidago gigantea*, Late Goldenrod	10%	no	FACW
4. *Parthenocissus quinquefolia*, Virginia-Creeper	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	60%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1. *Parthenocissus quinquefolia*, Virginia-Creeper	5%	yes	FACU
2.			
	5%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.714% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x1 =	10
FACW species	70	x1 =	140
FAC species	65	x1 =	195
FACU species	10	x1 =	40
UPL species	0	x1 =	0
Column Totals:	155	x1 =	385 (B)

Prevalence Index = B/A = 2.484

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp41**

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
0-5	10YR - 2/1	95	5YR-3/4	5	C	M	CL	- - -
5-12	10YR - 3/1	95	5YR-3/4	5	C	M	C	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ___ Depth (inches): 5

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp42

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05616 | Long: -92.32684 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Shrub-carr in a basin. Part of a complex of wetland communities.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Salix petiolaris*, Meadow Willow	70%	yes	OBL
2. *Salix discolor*, Pussy Willow	10%	no	FACW
3.			
4.			
5.			
	80%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Circaea canadensis*, Broad-Leaf Enchanter's-Nightshade	20%	yes	FACU
2. *Cryptotaenia canadensis*, Canadian Honewort	15%	yes	FAC
3. *Phalaris arundinacea*, Reed Canary Grass	10%	yes	FACW
4. *Packera aurea*, Golden Groundsel	10%	yes	FACW
5. *Poa pratensis*, Kentucky Blue Grass	10%	yes	FAC
6. *Equisetum pratense*, Meadow Horsetail	10%	yes	FACW
7. *Solidago gigantea*, Late Goldenrod	5%	no	FACW
8.			
9.			
10.			
	80%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.714% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	70	x1 =	70	
FACW species	45	x1 =	90	
FAC species	25	x1 =	75	
FACU species	20	x1 =	80	
UPL species	0	x1 =	0	
Column Totals:	160	x1 =	315	(B)

Prevalence Index = B/A = 1.969

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

SOIL

Sample Point: **bdp42**

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
0-3	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	Mucky Loam	- - -
4-10	10YR - 2/1	96	5YR-3/4	2	C	M	C	- - -
	- - - - - - -/- - -	- - -	10YR-4/1	2	D	M	- - -	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ✔ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ___ Depth (inches): 5

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp43

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Backslope | Local relief (concave, convex, none): none

Slope(%): 8-15 | Lat: 44.0564 | Long: -92.32699 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field on a slope.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Echinochloa crus-galli*, Large Barnyard Grass	5%	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	5%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	5	x1 =	10
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	5	x1 =	10 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop healthy. Very sparse volunteer soybean seedlings present. The sparse presence of the FACW Echinochloa crus-gali in an upland crop field upslope from a wetland is a common occurrence.

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp43**

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
0-18	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
18-24	10YR - 3/1	90	5YR-4/4	10	C	M	C	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp44

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.05692 | Long: -92.32928 | Datum: WGS 84

Soil Map Unit Name: 479: Floyd silt loam, 1 to 4 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ✓ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow in a swale within a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	75%	yes	FACU
2. *Poa pratensis*, Kentucky Blue Grass	15%	no	FAC
3. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
4. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	15	x1 =	45
FACU species	85	x1 =	340
UPL species	0	x1 =	0
Column Totals:	100	x1 =	385 (B)

Prevalence Index = B/A = 3.850

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

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SOIL

Sample Point: **bdp44**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Soil sample unnecessary due to lack of hydrophytic vegetation and lack of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✓ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✓ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp45

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.05653 | Long: -92.33124 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Low gradient wetland swale in a crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Cyperus esculentus*, Chufa	45%	yes	FACW
2. *Echinochloa crus-galli*, Large Barnyard Grass	5%	no	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	50	x1 =	100
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	50	x1 =	100 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Corn crop is patchy and slightly stunted in comparison to surrounding upland.

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ATTACHMENT B

SOIL

Sample Point: **bdp45**

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
0-2	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	CL	- - -
2-6	10YR - 2/1	98	10YR-3/1	2	D	M	C	- - -
6-12	10YR - 2/1	93	10YR-3/1	5	D	M	C	- - -
	- - - - - - -/- - -	- - -	5YR-4/6	2	C	M	- - -	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Perched water table at 10”

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp46

Investigator(s): Andy Kranz | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Backslope | Local relief (concave, convex, none): none

Slope(%): 8-15 | Lat: 44.05653 | Long: -92.33142 | Datum: WGS 84

Soil Map Unit Name: 479: Floyd silt loam, 1 to 4 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
No spontaneous vegetation present. Corn crop is full statured and dense in line with the field as a whole.

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ATTACHMENT B

SOIL

Sample Point: **bdp46**

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
0-16	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	CL	- - -
16-22	10YR - 2/1	98	10YR-3/1	2	D	M	C	- - -
22-30	10YR - 4/1	90	10YR-4/6	10	C	M	C	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
✔ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -
Water Table Present? Yes ___ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-06-04

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp47

Investigator(s): Andy Kranz | Section, Township, Range: S11 T107N S013W

Lanform(hillslope, terrace, etc): Stream Terrace | Local relief (concave, convex, none): none

Slope(%): 0-2 | Lat: 44.08504 | Long: -92.34736 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Wet meadow in a stream terrace. Investigated due to being the driest portion of a larger wetland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	2%	yes	FAC
2.			
3.			
4.			
5.			
	2%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Cornus alba*, Red Osier	5%	yes	FACW
2.			
3.			
4.			
5.			
	5%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Solidago altissima*, Tall Goldenrod	35%	yes	FACU
2. *Poa pratensis*, Kentucky Blue Grass	30%	yes	FAC
3. *Agrostis gigantea*, Black Bent	15%	no	FACW
4. *Pastinica sativa*, Wild parsnip	10%	no	FACU
5. *Viola sororia*, Hooded Blue Violet	5%	no	FAC
6. *Vitis riparia*, River-Bank Grape	5%	no	FACW
7. *Symphyotrichum novae-angliae*, New England American-Aster	5%	no	FACW
8. *Equisetum arvense*, Field Horsetail	5%	no	FAC
9. *Angelica atropurpurea*, Purple-Stem Angelica	5%	no	OBL
10.			
	115%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x1 =	5
FACW species	30	x1 =	60
FAC species	42	x1 =	126
FACU species	45	x1 =	180
UPL species	0	x1 =	0
Column Totals:	122	x1 =	371 (B)

Prevalence Index = B/A = 3.041

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp47**

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
0-18	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
18-46	10YR - 2/1	90	10YR-4/1	5	D	M	C	- - -
	- - - - - - -/- - -	- - -	5YR-4/4	5	C	M	- - -	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Soil is black to the depth capable of sampling. It is assumed the soil will meet Thick Dark Surface (A12).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ___ Depth (inches): 18

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp48

Investigator(s): Andy Kranz | Section, Township, Range: S11 T107N S013W

Lanform(hillslope, terrace, etc): Flat/subtle, broad depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08017 | Long: -92.33938 | Datum: WGS 84

Soil Map Unit Name: 203: Joy silt loam, 1 to 4 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field in a broad depression in very gently rolling terrain.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Spontaneous vegetation is absent. Corn crop is consistent with the field in stature and density. Bromus inermis is dominant in the adjacent roadside ditch which is lower in elevation than the sample point.

merjent

ATTACHMENT B

SOIL

Sample Point: **bdp48**

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
0-30	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	CL	Less than 1% redox concentrations of 10YR 4/4 and depletions of 10YR 3/1
30-40	10YR - 3/4	80	- - --- - -/- - -	- - -	- - -	- - -	SiC	- - -
	10YR - 2/1	20	- - --- - -/- - -	- - -	- - -	- - -	- - -	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp49

Investigator(s): Andy Kranz | Section, Township, Range: S11 T107N S013W

Lanform(hillslope, terrace, etc): Backslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.07895 | Long: -92.34138 | Datum: WGS 84

Soil Map Unit Name: 333: Vasa silt loam | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field on gentle slope

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Unidentified grass seedlings 1%. Corn crop consistent with surroundings in stature and density.

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ATTACHMENT B

SOIL

Sample Point: **bdp49**

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
0-18	10YR - 2/1	80	- - --- - -/- - -	- - -	- - -	- - -	CL	Less than 1% redox concentrations of 10YR 4/4 and depletions of 10YR 3/1
	10YR - 3/3	20	- - --- - -/- - -	- - -	- - -	- - -	- - -	
18-24	10YR - 3/3	90	- - --- - -/- - -	- - -	- - -	- - -	SiC	- - -
	10YR - 2/1	10	- - --- - -/- - -	- - -	- - -	- - -	- - -	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Drainage tile inlet nearby to the northeast

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp50

Investigator(s): Andy Kranz | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Backslope | Local relief (concave, convex, none): none

Slope(%): 35+ | Lat: 44.07772 | Long: -92.3164 | Datum: WGS 84

Soil Map Unit Name: 251F: Marlean silty clay loam, 25 to 40 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow on steep ground within crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	80%	yes	FACU
2. *Pastinaca sativa*, Wild Parsnip	10%	no	FACU
3. *Ambrosia trifida*, Great Ragweed	2%	no	FAC
4. *Chenopodium album*, Lamb's-Quarters	2%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	94%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	2	x1 =	6
FACU species	92	x1 =	368
UPL species	0	x1 =	0
Column Totals:	94	x1 =	374 (B)

Prevalence Index = B/A = 3.979

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

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SOIL

Sample Point: **bdp50**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Soil sample unnecessary due to lack of hydrophytic vegetation and lack of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✔ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp51

Investigator(s): Andy Kranz | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Draw | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07816 | Long: -92.31722 | Datum: WGS 84

Soil Map Unit Name: 251F: Marlean silty clay loam, 25 to 40 percent slopes | NWI classification: PFO1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland forest in a draw in steeply rolling terrain.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus macrocarpa*, Burr Oak	60%	yes	FAC
2. *Acer negundo* , Ash-Leaf Maple	50%	yes	FAC
3.			
4.			
5.			
	110%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Acer negundo* , Ash-Leaf Maple	10%	yes	FAC
2.			
3.			
4.			
5.			
	10%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Ribes missouriense* , Missouri Gooseberry	undefined%	no	UPL
2. *Sanicula odorata*, Clustered Black-Snakeroot	50%	yes	FAC
3. *Cryptotaenia canadensis*, Canadian Honewort	20%	yes	FAC
4. *Osmorhiza claytonii*, Hairy Sweet-Cicely	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	NaN%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	190	x1 =	570
FACU species	5	x1 =	20
UPL species	NaN	x1 =	NaN
Column Totals:	NaN	x1 =	NaN (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **bdp51**

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
0-32	10YR - 2/2	95	10YR-3/2	5	D	M	SiL	- - -
32-42	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp52

Investigator(s): Andy Kranz | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Backslope | Local relief (concave, convex, none): none

Slope(%): 8-15 | Lat: 44.07589 | Long: -92.31498 | Datum: WGS 84

Soil Map Unit Name: 473F: Dorerton loam, 25 to 40 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field on a back slope.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Less than 1% Chenopodium album. Soy crop is consistent in stature and density with the surrounding field.

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ATTACHMENT B

SOIL

Sample Point: **bdp52**

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
0-10	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
10-34	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	CL	- - -
34-42	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	CL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Soil sampl

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Olmsted County | Sampling Date: 2024-06-05

Applicant/Owner: Ranger Power | State: MN | Sampling Point: bdp53

Investigator(s): Andy Kranz | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Backslope | Local relief (concave, convex, none): none

Slope(%): 16-25 | Lat: 44.07668 | Long: -92.3165 | Datum: WGS 84

Soil Map Unit Name: 251F: Marlean silty clay loam, 25 to 40 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland meadow strip on steep ground within crop field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	95%	yes	FACU
2. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	100	x1 =	400
UPL species	0	x1 =	0
Column Totals:	100	x1 =	400 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

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SOIL

Sample Point: **bdp53**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Soil sample unnecessary due to lack of hydrophytic vegetation and lack of hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✓ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp01

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07193 | Long: -92.30835 | Datum: WGS 84

Soil Map Unit Name: 401B: Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point is located on side slope above wetland drainage basin. Plot is planted in row crops and does not meet the criteria of a wetland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Agricultural field planted with corn.

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ATTACHMENT B

SOIL

Sample Point: **cdp01**

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
0-23	10YR - 2/1	99	7.5YR-4/6	1	C	M	CL	- - -
23-30	10YR - 3/3	99	7.5YR-4/6	1	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ___ No ✔

Remarks:
Soils colored when wet.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
✔ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -
Water Table Present? Yes ___ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Area was highlighted on aerial review but do not meet any other wetland hydrology indicators.

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp02

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Concave drainage | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07193 | Long: -92.30835 | Datum: WGS 84

Soil Map Unit Name: 401B: Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Plot is located in a drainage way that is planted in agricultural cover. Wetland classified as a seasonally flooded basin due presence of hydric soils, and hydrology indicators soil surface cracks, drainage patterns, and saturation air imagery. Vegetation is significantly disturbed due to agricultural practices. Wetland does not meet normal conditions due to vegetation disturbances.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland planted with corn.

merjent

ATTACHMENT B

SOIL

Sample Point: **cdp02**

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
0-6	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
6-25	10YR - 2/1	97	7.5YR-4/6	3	C	M	- - -	- - -
25-30	10YR - 4/1	65	7.5YR-4/6	10	C	M	SiCL	- - -
25-30	10YR - 2/1	30	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface soil cracks (B6)
- ✔ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Drainage has a higher slope does not meet geomorphic position.

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp03

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Concave drainage | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07298 | Long: -92.30543 | Datum: WGS 84

Soil Map Unit Name: 131C: Massbach silt loam, 6 to 12 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Plot is located in a drainage way that is planted in agricultural cover. Wetland classified as a seasonally flooded basin due presence of hydric soils, and hydrology indicators including soil surface cracks, drainage patterns, saturation air imagery and geomorphic position. Wetland is connected to another wetland at the top of the hill by a very steep flashy upland drainage channel. Once the slope decreases the wetland opens up to a drainage basin which is then connected to a floodplain type wetland system. Vegetation is disturbed due to agricultural practices making it not qualify for normal circumstances.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Equisetum arvense*, Field Horsetail	2%	yes	FAC
2. *Cirsium arvense*, Canadian Thistle	2%	yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	4%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	2	x1 =	6
FACU species	2	x1 =	8
UPL species	0	x1 =	0
Column Totals:	4	x1 =	14 (B)

Prevalence Index = B/A = 3.500

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Wetland planted with corn.

merjent

ATTACHMENT B

SOIL

Sample Point: **cdp03**

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
0-24	10YR - 2/1	95	7.5YR-4/6	5	- - -	- - -	SiCL	- - -
24-30	10YR - 4/1	65	7.5YR-4/6	10	C	M	SiCL	- - -
24-30	10YR - 2/1	30	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface soil cracks (B6)
- ✔ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp04

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.07297 | Long: -92.30539 | Datum: WGS 84

Soil Map Unit Name: 131C: Massbach silt loam, 6 to 12 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland data point located on a side slope next to a flashy upland drainage system. Located in planted corn field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Planted in corn

merjent

ATTACHMENT B

SOIL

Sample Point: **cdp04**

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
0-26	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
26-30	10YR - 3/2	99	7.5YR-4/6	1	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No wetland hydrology indicators observed.

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp05

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Open depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07173 | Long: -92.30587 | Datum: WGS 84

Soil Map Unit Name: 401B: Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Road ditch depression at the top of a hill. Open depression that transitions into a steep slope with a flashy runoff channel cutting down the middle of it. Wetland has fresh wet meadow cover. No soil pit due to road right of way soils assumed hydric based on hydrophytic vegetation.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	70%	yes	FACW
2. *Solidago gigantea*, Late Goldenrod	30%	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	100	x1 =	200
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	100	x1 =	200 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp05**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
No soil pit due to road right of way, soils assumed hydric based on geomorphic position and hydrophytic vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✔ Geomorphic position (D2)
✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -
Water Table Present? Yes ___ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp06

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Riser | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07175 | Long: -92.30587 | Datum: WGS 84

Soil Map Unit Name: 401B: Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland data point located on slight rise before entering the corn field.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Lonicera tatarica*, Twinsisters	5%	yes	FACU
2.			
3.			
4.			
5.			
	5%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	80%	yes	FACU
2. *undefined*, Wild parsnip	5%	no	UPL
3. *Asclepias syriaca*, Common Milkweed	5%	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	90	x1 =	360
UPL species	5	x1 =	25
Column Totals:	95	x1 =	385 (B)

Prevalence Index = B/A = 4.053

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp06**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
No dig due to presence of right of way soils assumed non hydric based on lack of hydrology indicators and dominance of upland vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No wetland hydrology indicators observed.

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp07

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Stream Terrace | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07341 | Long: -92.30582 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point is located in PSS shrub car wetland that buffers an ephemeral stream.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Salix interior*, Sandbar Willow	65%	yes	FACW
2. *Lonicera tatarica*, Twinsisters	10%	no	FACU
3.			
4.			
5.			
	75%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Urtica dioica*, Stinging Nettle	60%	yes	FACW
2. *undefined*, undefined	15%	no	UPL
3. *Poa pratensis*, Kentucky Blue Grass	10%	no	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x1 =	0	
FACW species	125	x1 =	250	
FAC species	10	x1 =	30	
FACU species	10	x1 =	40	
UPL species	15	x1 =	75	
Column Totals:	160	x1 =	395	(B)

Prevalence Index = B/A = 2.469

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp07**

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
0-24	10YR - 3/1	97	7.5YR-4/6	3	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp08

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07345 | Long: -92.30583 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland side slope leading with natural meadow cover.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Lonicera tatarica*, Twinsisters	35%	yes	FACU
2.			
3.			
4.			
5.			
	35%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	80%	yes	FACU
2. *Poa pratensis*, Kentucky Blue Grass	40%	yes	FAC
3. *Solidago canadensis*, Canadian Goldenrod	20%	no	FACU
4. *undefined*, Wild parsnip	10%	no	UPL
5.			
6.			
7.			
8.			
9.			
10.			
	150%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	40	x1 =	120
FACU species	135	x1 =	540
UPL species	10	x1 =	50
Column Totals:	185	x1 =	710 (B)

Prevalence Index = B/A = 3.838

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp08**

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
0-16	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	L	- - -
16-25	10YR - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	CL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No wetland hydrology indicators observed.

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp09

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Stream Terrace | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07335 | Long: -92.30828 | Datum: WGS 84

Soil Map Unit Name: 203: Joy silt loam, 1 to 4 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Pfo hardwood swamp located at top of wetland basin.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix nigra*, Black Willow	30%	yes	OBL
2. *Juglans nigra*, Black Walnut	10%	yes	FACU
3.			
4.			
5.			
	40%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Salix interior*, Sandbar Willow	5%	yes	FACW
2. *Juglans nigra*, Black Walnut	5%	yes	FACU
3.			
4.			
5.			
	10%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	75%	yes	FACW
2. *Poa pratensis*, Kentucky Blue Grass	25%	yes	FAC
3. *Urtica dioica*, Stinging Nettle	10%	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.667% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x1 =	30
FACW species	90	x1 =	180
FAC species	25	x1 =	75
FACU species	15	x1 =	60
UPL species	0	x1 =	0
Column Totals:	160	x1 =	345 (B)

Prevalence Index = B/A = 2.156

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp09**

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
0-12	10YR - 3/1	95	7.5YR-3/1	5	C	M	SiCL	- - -
12-24	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ___ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp10

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07338 | Long: -92.30818 | Datum: WGS 84

Soil Map Unit Name: 203: Joy silt loam, 1 to 4 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland side slope above wetland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*, Black Walnut	10%	yes	FACU
2.			
3.			
4.			
5.			
	10%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Lonicera tatarica*, Twinsisters	5%	yes	FACU
2.			
3.			
4.			
5.			
	5%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	90%	yes	FACU
2. *Poa pratensis*, Kentucky Blue Grass	10%	no	FAC
3. *Parthenocissus quinquefolia*, Virginia-Creeper	5%	no	FACU
4. *Rubus idaeus*, Common Red Raspberry	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	10	x1 =	30
FACU species	115	x1 =	460
UPL species	0	x1 =	0
Column Totals:	125	x1 =	490 (B)

Prevalence Index = B/A = 3.920

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp10**

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
0-24	10YR - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
24-30	10YR - 3/2	95	7.5YR-4/6	5	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ____ Depth (inches): - - -

Water Table Present? Yes ____ No ____ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No wetland hydrology indicators observed.

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-29

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp11

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Open depression | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07329 | Long: -92.30817 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point is located in a fresh wet meadow that surrounds the top of a stream. The stream enters the survey are to the north then relatively disperses into the fresh wet meadow. Water table was observed at 8 inches saturation at 6.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	85%	yes	FACW
2. *Poa pratensis*, Kentucky Blue Grass	20%	no	FAC
3. *Verbena hastata*, Simpler's-Joy	5%	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	90	x1 =	180
FAC species	20	x1 =	60
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	110	x1 =	240 (B)

Prevalence Index = B/A = 2.182

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp11**

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
0-24	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Assume thick dark surface due to presence of hydrophytic vegetation and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ___ Depth (inches): 8

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 6

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp12

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Footslope | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07554 | Long: -92.30892 | Datum: WGS 84

Soil Map Unit Name: 477B: Littleton silt loam, 1 to 4 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland data point located on agricultural side slope.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Plantago major*, Great Plantain	5%	yes	FAC
2. *Taraxacum officinale*, Common Dandelion	3%	yes	FACU
3. *Trifolium repens*, White Clover	2%	yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	5	x1 =	15
FACU species	5	x1 =	20
UPL species	0	x1 =	0
Column Totals:	10	x1 =	35 (B)

Prevalence Index = B/A = 3.500

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp12**

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
0-19	10YR - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
19-24	10YR - 3/2	98	7.5YR-4/6	2	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No wetland hydrology indicators observed.

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp13

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Open depression | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07559 | Long: -92.30891 | Datum: WGS 84

Soil Map Unit Name: 477B: Littleton silt loam, 1 to 4 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland depression in an agricultural field with a combination of natural growing wetland species and planted species, fresh wet meadow cover.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	35%	yes	FACW
2. *Trifolium repens*, White Clover	20%	yes	FACU
3. *Eleocharis palustris*, Common Spike-Rush	10%	no	OBL
4. *Plantago major*, Great Plantain	10%	no	FAC
5. *Juncus tenuis*, Lesser Poverty Rush	5%	no	FAC
6. *Rumex crispus*, Curly Dock	5%	no	FAC
7.			
8.			
9.			
10.			
	85%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x1 =	10
FACW species	35	x1 =	70
FAC species	20	x1 =	60
FACU species	20	x1 =	80
UPL species	0	x1 =	0
Column Totals:	85	x1 =	220 (B)

Prevalence Index = B/A = 2.588

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Significantly disturbed vegetation due to agricultural practices.

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ATTACHMENT B

SOIL

Sample Point: **cdp13**

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
0-20	10YR - 2/1	97	7.5YR-4/6	3	C	M/PL	SiCL	- - -
20-24	10YR - 4/1	95	7.5YR-4/6	5	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp14

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Ditch | Local relief (concave, convex, none): - - -

Slope(%): - - - | Lat: 44.07579 | Long: -92.30953 | Datum: WGS 84

Soil Map Unit Name: 401C2: Mt. Carroll silt loam, 6 to 12 percent slopes, moderately eroded | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Fresh wet meadow ditch along road way. Higher diversity, dominated by rcg.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	70%	yes	FACW
2. *Helianthus grosseserratus*, Saw-Tooth Sunflower	15%	no	FACW
3. *Stachys palustris*, Woundwort	5%	no	OBL
4. *Poa pratensis*, Kentucky Blue Grass	5%	no	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	95%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x1 =	5
FACW species	85	x1 =	170
FAC species	5	x1 =	15
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	95	x1 =	190 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp14**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
No dig due to presence of road way. Soils assumed hydrocarbon based of wetland hydrology indicators and hydrophytic vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✔ Geomorphic position (D2)
✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -
Water Table Present? Yes ___ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp15

Investigator(s): Jared Booms | Section, Township, Range: S18 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.0758 | Long: -92.30956 | Datum: WGS 84

Soil Map Unit Name: 401C2: Mt. Carroll silt loam, 6 to 12 percent slopes, moderately eroded | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland data point in an at field edge, above a road ditch.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	50%	yes	FACU
2. *Solidago canadensis*, Canadian Goldenrod	15%	no	FACU
3. *Poa pratensis*, Kentucky Blue Grass	10%	no	FAC
4. *Asclepias syriaca*, Common Milkweed	5%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	80%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	10	x1 =	30
FACU species	70	x1 =	280
UPL species	0	x1 =	0
Column Totals:	80	x1 =	310 (B)

Prevalence Index = B/A = 3.875

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **cdp15**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
No dig due to presence of road right of way, soils assumed non hydric based of lack of hydrophytic veg and wetland hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No wetland hydrology indicators observed.

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-30

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp16

Investigator(s): Jared Booms | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Vegetated drainageway | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07938 | Long: -92.31046 | Datum: WGS 84

Soil Map Unit Name: N518B: Lindstrom silt loam, 2 to 6 percent slopes | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ✔	No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Vegetated drainage-way that was highlighted on the the desktop review. Wetland swale further up hill to the south. Suspect tile on this parcel. Vegetation consistent with upland with clover and wheat and invasives.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Trifolium hybridum*, Alsike Clover	65%	yes	FACU
2. *Cirsium arvense*, Canadian Thistle	20%	no	FACU
3. *Dactylis glomerata*, Orchard Grass	10%	no	FACU
4. *Taraxacum officinale*, Common Dandelion	10%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	105%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	105	x1 =	420
UPL species	0	x1 =	0
Column Totals:	105	x1 =	420 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp16**

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
0-14	10YR - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	L	- - -
14-24	10YR - 3/2	98	7.5YR-4/6	2	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✓ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): - - -

Water Table Present? Yes ____ No ✓ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): - - -

Wetland Hydrology Present? Yes ✓ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Saturation would not be visible on desktop review due to vegetation growing

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp17

Investigator(s): Jared Booms | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Side hill | Local relief (concave, convex, none): concave

Slope(%): 3-7 | Lat: 44.07924 | Long: -92.31519 | Datum: WGS 84

Soil Map Unit Name: 16: Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland is located on a side hill above a drainage ditch. Wetland is heavily sloped. Soils color as gley. Observed tile outlets in the drainage ditch. This wetland is located at the interface between the water table and the surface. This wetland is impacted by the tile which is why saturation and surface water is not observed. While tile is present it is not draining the wetland to the point of it not being a wetland. Classified as disturbed veg due to ag practices.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Ambrosia trifida*, Great Ragweed	1%	yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	1%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	1	x1 =	3
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	1	x1 =	3 (B)

Prevalence Index = B/A = 3.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp17**

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 - 2/1	60	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
	5GY - 5/1	40	- - --- - -/- - -	- - -	- - -	- - -	- - -	
8-25	- - - - - - -/- - -	- - -	5GY-5/1	95	D	M	C	- - -
	- - - - - - -/- - -	- - -	7.5YR-4/6	5	C	M	- - -	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ✔ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ✔ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp18

Investigator(s): Jared Booms | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07923 | Long: -92.31513 | Datum: WGS 84

Soil Map Unit Name: 16: Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland data point is located on a side slope. Soil is darker than the soil uphill and historically this area was probably part of the wetland. Tile is present along the creek and it is effectively draining this area. Not enough hydrology indicators for this location to be considered a wetland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Located in active agriculture field.

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ATTACHMENT B

SOIL

Sample Point: **cdp18**

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
0-14	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
14-24	10YR - 2/2	100	- - --- - -/- - -	- - -	- - -	- - -	L	Organic matter observed looks similar to peat.

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: - - - | Sampling Point: cdp19

Investigator(s): Jared Booms | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07953 | Long: -92.31586 | Datum: WGS 84

Soil Map Unit Name: - - - | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ✔	No ____	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland point in agriculture field down slope from side hill seep. Multiple functioning tiles on the landscape. Area is suspected to be a wetland pre tile based on soils.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Active agriculture field.

merjent

ATTACHMENT B

SOIL

Sample Point: **cdp19**

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
0-12	10YR - 3/1	97	7.5Y-4/6	3	C	M	SiCL	- - -
12-24	10YR - 2/1	95	7.5R-3/4	5	C	M	SiC	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp20

Investigator(s): Jared Booms | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Stream Terrace | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.07991 | Long: -92.32111 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point is located in a fresh wet meadow floodplain. The floodplain varies in topography with stream terraces at different elevations. This stream terraces is dominated by reed canary grass and nettle.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	80%	yes	FACW
2. *Urtica dioica*, Stinging Nettle	30%	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	110%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	110	x1 =	220
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	110	x1 =	220 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **cdp20**

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 - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
8-24	10YR - 4/2	95	7.5YR-4/6	5	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ✔ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp21

Investigator(s): Jared Booms | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): convex

Slope(%): 0-2 | Lat: 44.0799 | Long: -92.32111 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland data point on break between rcg and brome.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	60%	yes	FACU
2. *Phalaris arundinacea*, Reed Canary Grass	40%	yes	FACW
3. *Urtica dioica*, Stinging Nettle	10%	no	FACW
4. *undefined*, undefined	10%	no	UPL
5. *Asclepias syriaca*, Common Milkweed	5%	no	FACU
6.			
7.			
8.			
9.			
10.			
	125%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	50	x1 =	100
FAC species	0	x1 =	0
FACU species	65	x1 =	260
UPL species	10	x1 =	50
Column Totals:	125	x1 =	410 (B)

Prevalence Index = B/A = 3.280

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Upland veg is wild parsnip

merjent

ATTACHMENT B

SOIL

Sample Point: **cdp21**

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
0-10	10YR - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
10-24	10YR - 3/4	95	7.5YR-4/6	5	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ____ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Not enough wetland hydrology indicators to qualify as a wetland.

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp22

Investigator(s): Jared Booms | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08012 | Long: -92.31714 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Swale/finger in ag field. Volunteer species, dark soils, and geomorphic position points to this depression being a seasonally flooded basin.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Equisetum hyemale*, Tall Scouring-Rush	5%	yes	FACW
2. *Salix interior*, Sandbar Willow	5%	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	10	x1 =	20
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	10	x1 =	20 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **cdp22**

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
0-6	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
6-24	10YR - 2/1	90	7.5YR-4/6	10	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp23

Investigator(s): Jared Booms | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Footslope | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.08005 | Long: -92.31716 | Datum: WGS 84

Soil Map Unit Name: 312C: Shullsburg silt loam, 6 to 12 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland data point on foot slope in agriculture field. Tile present on landscape.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp23**

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
0-45	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✓

Remarks:
Could qualify for thick dark surface, does not meet any hydrology indicators due to tile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✓ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): - - -

Water Table Present? Yes ____ No ✓ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No wetland hydrology indicators observed.

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp24

Investigator(s): Jared Booms | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Stream Terrace | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08024 | Long: -92.31689 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B, PSS1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Floodplain forest subject to flooding.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	45%	yes	FAC
2. *Salix nigra*, Black Willow	10%	no	OBL
3.			
4.			
5.			
	55%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Lonicera tatarica*, Twinsisters	10%	yes	FACU
2.			
3.			
4.			
5.			
	10%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Ambrosia trifida*, Great Ragweed	10%	yes	FAC
2. *Alliaria petiolata*, Garlic-Mustard	10%	yes	FAC
3. *Impatiens capensis*, Spotted Touch-Me-Not	10%	yes	FACW
4. *Phalaris arundinacea*, Reed Canary Grass	5%	no	FACW
5. *Eutrochium maculatum*, Spotted Trumpetweed	undefined%	no	OBL
6. *Parthenocissus quinquefolia*, Virginia-Creeper	0%	no	FACU
7.			
8.			
9.			
10.			
	NaN%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1. *Vitis riparia*, River-Bank Grape	10%	yes	FACW
2.			
	10%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	NaN	x1 =	NaN
FACW species	25	x1 =	50
FAC species	65	x1 =	195
FACU species	10	x1 =	40
UPL species	0	x1 =	0
Column Totals:	NaN	x1 =	NaN (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp24**

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
0-7	10YR - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
7-24	10YR - 3/1	97	7.5YR-4/6	3	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Probably meets thick dark surface as well.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: Cdp25

Investigator(s): Jared Booms | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07597 | Long: -92.32487 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PFO1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland side slope above floodplain forest

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	35%	yes	FAC
2. *Ulmus americana*, American Elm	20%	yes	FACW
3. *Tilia americana*, American Basswood	15%	no	FACU
4. *Quercus alba*, Northern White Oak	10%	no	FACU
5.			
	80%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Ribes missouriense*s, undefined	50%	yes	UPL
2. *Rhamnus cathartica*, European Buckthorn	30%	yes	FAC
3.			
4.			
5.			
	80%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Impatiens capensis*, Spotted Touch-Me-Not	85%	yes	FACW
2. *Phalaris arundinacea*, Reed Canary Grass	30%	yes	FACW
3. *Hydrophyllum virginianum*, Shawnee-Salad	10%	no	FAC
4. *Trillium cernuum*, Whip-Poor-Will-Flower	5%	no	FAC
5. *Viola sororia*, Hooded Blue Violet	5%	no	FAC
6.			
7.			
8.			
9.			
10.			
	135%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	135	x1 =	270
FAC species	85	x1 =	255
FACU species	25	x1 =	100
UPL species	50	x1 =	250
Column Totals:	295	x1 =	875 (B)

Prevalence Index = B/A = 2.966

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **Cdp25**

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
0-50	10YR - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp26

Investigator(s): Jared Booms | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Shoulder | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07601 | Long: -92.32489 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PFO1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Data point is located on valley floor specifically on the top of a floodplain ridge.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	40%	yes	FAC
2. *Ulmus americana*, American Elm	20%	yes	FACW
3. *Prunus serotina*, Black Cherry	10%	no	FACU
4.			
5.			
	70%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Rhamnus cathartica*, European Buckthorn	50%	yes	FAC
2.			
3.			
4.			
5.			
	50%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Parthenocissus quinquefolia*, Virginia-Creeper	45%	yes	FACU
2. *Urtica dioica*, Stinging Nettle	35%	yes	FACW
3. *Lycopus virginicus*, Virginia Water-Horehound	15%	no	OBL
4. *Hackelia virginiana*, Beggar's-Lice	10%	no	FACU
5. *Viola sororia*, Hooded Blue Violet	5%	no	FAC
6. *undefined*, undefined	5%	no	UPL
7. *Geum canadense*, White Avens	5%	no	FAC
8.			
9.			
10.			
	120%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x1 =	15
FACW species	55	x1 =	110
FAC species	100	x1 =	300
FACU species	65	x1 =	260
UPL species	5	x1 =	25
Column Totals:	240	x1 =	710 (B)

Prevalence Index = B/A = 2.958

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
5% upland plant = Ribes Missouri

merjent

ATTACHMENT B

SOIL

Sample Point: **cdp26**

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
0-45	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
45-50	10YR - 5/1	96	7.5YR-4/6	4	C	M	SiC	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp27

Investigator(s): Jared Booms | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): convex

Slope(%): 8-15 | Lat: 44.07712 | Long: -92.32554 | Datum: WGS 84

Soil Map Unit Name: 251F: Marlean silty clay loam, 25 to 40 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland data point on steep side slope above sidehill seep

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Tilia americana*, American Basswood	45%	yes	FACU
2. *Ulmus americana*, American Elm	15%	no	FACW
3. *Prunus serotina*, Black Cherry	10%	no	FACU
4. *Juglans nigra*, Black Walnut	10%	no	FACU
5. *Acer negundo* , Ash-Leaf Maple	5%	no	FAC
	85%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Prunus serotina*, Black Cherry	15%	yes	FACU
2. *undefined*, undefined	15%	yes	UPL
3. *Rhamnus cathartica*, European Buckthorn	10%	yes	FAC
4.			
5.			
	40%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *undefined*, undefined	30%	yes	UPL
2. *Impatiens capensis*, Spotted Touch-Me-Not	25%	yes	FACW
3. *Hydrophyllum virginianum*, Shawnee-Salad	15%	no	FAC
4. *Trillium cernuum*, Whip-Poor-Will-Flower	10%	no	FAC
5. *Rhamnus cathartica*, European Buckthorn	5%	no	FAC
6.			
7.			
8.			
9.			
10.			
	85%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	40	x1 =	80
FAC species	45	x1 =	135
FACU species	80	x1 =	320
UPL species	45	x1 =	225
Column Totals:	210	x1 =	760 (B)

Prevalence Index = B/A = 3.619

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Upland species that is blank = ribies missourienses

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ATTACHMENT B

SOIL

Sample Point: **cdp27**

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
0-13	10YR - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock/ gravel bar

Depth (inches): 13

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No wetland hydrology observed

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-05-31

Applicant/Owner: Ranger Power | State: MN | Sampling Point: cdp28

Investigator(s): Jared Booms | Section, Township, Range: S13 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): convex

Slope(%): 3-7 | Lat: 44.07717 | Long: -92.3253 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PFO1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	**Is the Sampled Area within a Wetland?** Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Side hill seep with fresh wet meadow cover.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	90%	yes	FACW
2. *Impatiens capensis*, Spotted Touch-Me-Not	50%	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	140%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	140	x1 =	280
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	140	x1 =	280 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **cdp28**

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
0-24	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	Mucky Loam	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ✔ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): 1

Water Table Present? Yes ✔ No ___ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 0

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp01

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08603 | Long: -92.32197 | Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam | NWI classification: PFO1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Sideslope in mapped NWI. Upslope ddp02 approximately 2-feet.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Ambrosia trifida*, Great Ragweed	60%	yes	FAC
2. *Phalaris arundinacea*, Reed Canary Grass	40%	yes	FACW
3. *undefined*, Parsnip	15%	no	UPL
4. *Hackelia micrantha*, Blue Stickseed	15%	no	UPL
5. *Bromus inermis*, Smooth Brome	10%	no	FACU
6.			
7.			
8.			
9.			
10.			
	140%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	40	x1 =	80
FAC species	60	x1 =	180
FACU species	10	x1 =	40
UPL species	30	x1 =	150
Column Totals:	140	x1 =	450 (B)

Prevalence Index = B/A = 3.214

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **ddp01**

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
0-18	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Assume non-hydric due to lack of hydrology.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp02

Investigator(s): Maddie Humphrey | Section, Township, Range: S12 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.08599 | Long: -92.32186 | Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam | NWI classification: PFO1B, R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Depressional area adjacent agricultural fields and forested area.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	90%	yes	FACW
2. *Poa pratensis*, Kentucky Blue Grass	30%	yes	FAC
3. *Lolium perenne*, Perennial Rye Grass	10%	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	130%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	90	x1 =	180
FAC species	30	x1 =	90
FACU species	10	x1 =	40
UPL species	0	x1 =	0
Column Totals:	130	x1 =	310 (B)

Prevalence Index = B/A = 2.385

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **ddp02**

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
0-12	10YR - 2/1	95	10YR-4/6	5	C	M	SiL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ✔ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): 1

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Recent rainfall, surface water present likely due to rainfall and not water table.

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp03

Investigator(s): Maddie Humphrey | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08141 | Long: -92.31721 | Datum: WGS 84

Soil Map Unit Name: 528B: Palms muck, 1 to 6 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Sideslope between agriculture fields and wetland

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	90%	yes	FACU
2. *Solidago canadensis*, Canadian Goldenrod	40%	yes	FACU
3. *undefined*, Parsnip	15%	no	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	145% = Total Cover		
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0% = Total Cover		

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	130	x1 =	520
UPL species	15	x1 =	75
Column Totals:	145	x1 =	595 (B)

Prevalence Index = B/A = 4.103

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **ddp03**

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
0-12	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp04

Investigator(s): Maddie Humphrey | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08142 | Long: -92.31709 | Datum: WGS 84

Soil Map Unit Name: 528B: Palms muck, 1 to 6 percent slopes | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Sloped wetland between agriculture fields and stream

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	100%	yes	FACW
2. *Equisetum arvense*, Field Horsetail	50%	yes	FAC
3. *Urtica dioica*, Stinging Nettle	20%	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	170%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	120	x1 =	240
FAC species	50	x1 =	150
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	170	x1 =	390 (B)

Prevalence Index = B/A = 2.294

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **ddp04**

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
0-12	10YR - 2/1	98	7.5YR-4/4	2	C	PL	Mucky Loam	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
High organic matter, mucky

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ✔ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ✔ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ✔ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp05

Investigator(s): Maddie Humphrey | Section, Township, Range: S07 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.08201 | Long: -92.31679 | Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Sideslope of stream

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Ambrosia trifida*, Great Ragweed	50%	yes	FAC
2. *Phalaris arundinacea*, Reed Canary Grass	50%	yes	FACW
3. *Urtica dioica*, Stinging Nettle	30%	yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	130%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	80	x1 =	160
FAC species	50	x1 =	150
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	130	x1 =	310 (B)

Prevalence Index = B/A = 2.385

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **ddp05**

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
0-22	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
22-35	5Y - 6/3	40	10YR-5/8	20	C	M	SiL	- - -
	10YR - 2/1	40	- - --- - -/- - -	- - -	- - -	- - -	- - -	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ___ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ✔ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp06

Investigator(s): Maddie Humphrey | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Swale | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.05813 | Long: -92.33454 | Datum: WGS 84

Soil Map Unit Name: M517A: Clyde silty clay loam, 0 to 3 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Swale between agricultural fields.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	70%	yes	FACW
2. *Dactylis glomerata*, Orchard Grass	20%	no	FACU
3. *Poa pratensis*, Kentucky Blue Grass	15%	no	FAC
4. *Taraxacum officinale*, Common Dandelion	10%	no	FACU
5.			
6.			
7.			
8.			
9.			
10.			
	115%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	70	x1 =	140
FAC species	15	x1 =	45
FACU species	30	x1 =	120
UPL species	0	x1 =	0
Column Totals:	115	x1 =	305 (B)

Prevalence Index = B/A = 2.652

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **ddp06**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

	Matrix		Redox Features					
Depth (inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-30	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
30-40	10YR - 3/2	80	10YR-2/1	20	C	M	SiL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp07

Investigator(s): Maddie Humphrey | Section, Township, Range: S17 T107N S012W

Lanform(hillslope, terrace, etc): Sideslope | Local relief (concave, convex, none): none

Slope(%): 3-7 | Lat: 44.06945 | Long: -92.29806 | Datum: WGS 84

Soil Map Unit Name: N518B: Lindstrom silt loam, 2 to 6 percent slopes | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Sideslope in mapped NWI in pasture.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	80%	yes	FACU
2. *Dactylis glomerata*, Orchard Grass	30%	yes	FACU
3. *Phleum pratense*, Common Timothy	30%	yes	FACU
4. *Cirsium arvense*, Canadian Thistle	5%	no	FACU
5. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
6.			
7.			
8.			
9.			
10.			
	150%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	150	x1 =	600
UPL species	0	x1 =	0
Column Totals:	150	x1 =	600 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **ddp07**

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
0-12	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp08

Investigator(s): Maddie Humphrey | Section, Township, Range: S17 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.06925 | Long: -92.29932 | Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled | NWI classification: PEM1B

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ✔	No ___	
Wetland Hydrology Present?	Yes ___	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Depression in pasture in mapped NWI.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix discolor*, Pussy Willow	30%	yes	FACW
2.			
3.			
4.			
5.			
	30%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phleum pratense*, Common Timothy	40%	yes	FACU
2. *Bromus inermis*, Smooth Brome	30%	yes	FACU
3. *Phalaris arundinacea*, Reed Canary Grass	30%	yes	FACW
4. *Dactylis glomerata*, Orchard Grass	10%	no	FACU
5. *Cirsium arvense*, Canadian Thistle	10%	no	FACU
6. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
7.			
8.			
9.			
10.			
	125%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	60	x1 =	120
FAC species	0	x1 =	0
FACU species	95	x1 =	380
UPL species	0	x1 =	0
Column Totals:	155	x1 =	500 (B)

Prevalence Index = B/A = 3.226

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: **ddp08**

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
0-6	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -
6-12	10YR - 2/1	95	7.5YR-4/4	5	C	M	SiL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Enid/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp09

Investigator(s): Maddie Humphrey | Section, Township, Range: S20 T107N S012W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.0571 | Long: -92.29285 | Datum: WGS 84

Soil Map Unit Name: M510A: Maxfield silt loam, 0 to 2 percent slopes | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___	No ✔	**Is the Sampled Area within a Wetland?** Yes ___ No ✔
Hydric Soil Present?	Yes ___	No ✔	
Wetland Hydrology Present?	Yes ✔	No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Swale in agricultural field

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	30%	yes	FACU
2. *Phalaris arundinacea*, Reed Canary Grass	30%	yes	FACW
3. *Lolium perenne*, Perennial Rye Grass	30%	yes	FACU
4. *Ambrosia trifida*, Great Ragweed	20%	no	FAC
5. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
6.			
7.			
8.			
9.			
10.			
	115%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.333% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	30	x1 =	60
FAC species	20	x1 =	60
FACU species	65	x1 =	260
UPL species	0	x1 =	0
Column Totals:	115	x1 =	380 (B)

Prevalence Index = B/A = 3.304

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

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ATTACHMENT B

SOIL

Sample Point: **ddp09**

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
0-9	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) **undefined**
- ___ Histic Epipedon (A2) **undefined**
- ___ Black Histi (A3) **undefined**
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp10

Investigator(s): Maddie Humphrey | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.064225 | Long: -92.323283 | Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	**Is the Sampled Area within a Wetland?** Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Roadside ditch downslope ddp11 approximately half of a foot.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	95%	yes	FACW
2. *Poa pratensis*, Kentucky Blue Grass	10%	no	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	105%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	95	x1 =	190
FAC species	10	x1 =	30
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	105	x1 =	220 (B)

Prevalence Index = B/A = 2.095

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

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SOIL

Sample Point: **adp58**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
No pit taken, located in road ROW, assume hydric due to presence of hydrology indicators and hydrophytic vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✔ Geomorphic position (D2)
✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ✔ No ___ Depth (inches): 1
Water Table Present? Yes ___ No ___ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Recent rainfall

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ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill | City/County: Farmington/Olmsted County | Sampling Date: 2024-06-19

Applicant/Owner: Ranger Power | State: MN | Sampling Point: ddp11

Investigator(s): Maddie Humphrey | Section, Township, Range: S24 T107N S013W

Lanform(hillslope, terrace, etc): Depression | Local relief (concave, convex, none): concave

Slope(%): 0-2 | Lat: 44.064262 | Long: -92.322182 | Datum: WGS 84

Soil Map Unit Name: 401B: Mt. Carroll silt loam, 2 to 6 percent slopes, moderately eroded | NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Roadside ditch along Viola Rd NE

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Poa pratensis*, Kentucky Blue Grass	90%	yes	FAC
2. *Medicago lupulina*, Black Medick	5%	no	FACU
3. *Taraxacum officinale*, Common Dandelion	5%	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	90	x1 =	270
FACU species	10	x1 =	40
UPL species	0	x1 =	0
Column Totals:	100	x1 =	310 (B)

Prevalence Index = B/A = 3.100

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

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SOIL

Sample Point: **adp57**

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) **undefined**
___ Histic Epipedon (A2) **undefined**
___ Black Histi (A3) **undefined**
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
Assume non-hydric due to lack of hydrology indicators. No pit taken, located in road ROW.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
✔ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ____ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp01

Investigator(s): Andy Kranz Section, Township, Range: S11 T107N R013W

Lanform(hillslope, terrace, etc): Depression Local relief (concave, convex, none): concave

Slope(%): 0-2 Lat: 44.09299 Long: -92.34308 Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam NWI classification: PSS1D

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No ✔ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	Is the Sampled Area within a Wetland? Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Shrub-carr component of a wetland complex in a basin. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Salix bebbiana*, Gray Willow	60%	yes	FACW
2.			
3.			
4.			
5.			
	60%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	25%	yes	FACW
2. *Urtica dioica*, Stinging Nettle	15%	yes	FACW
3. *Impatiens capensis*, Spotted Touch-Me-Not	5%	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	45%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	105	x1 =	210
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	105	x1 =	210 (B)

Prevalence Index = B/A = 2.000

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: dp01

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
0-2	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	Mucky Loam	- - -
2-10	10YR - 2/2	95	5YR-4/6	5	C	M/PL	C	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ✔ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ✔ No ___ Depth (inches): 3

Saturation Present? (includes capillary fringe) Yes ✔ No ___ Depth (inches): 2

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp02

Investigator(s): Andy Kranz Section, Township, Range: S11 T107N R013W

Lanform(hillslope, terrace, etc): Footslope Local relief (concave, convex, none): concave

Slope(%): 8-15 Lat: 44.09274 Long: -92.3431 Datum: WGS 84

Soil Map Unit Name: 203: Joy silt loam, 1 to 4 percent slopes NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	Is the Sampled Area within a Wetland? Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field sampled on a slope. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)
Residues of 2024 corn crop are consistent in density with the surrounding upland. Cirsium canadensis is present but very sparse in the field at this landscape position.

merjent

ATTACHMENT B

SOIL

Sample Point: dp02

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
0-10	10YR - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
10-18	10YR - 3/4	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) undefined
___ Histic Epipedon (A2) undefined
___ Black Histi (A3) undefined
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Little Chute/Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp03

Investigator(s): Andy Kranz Section, Township, Range: S11 T107N R013W

Lanform(hillslope, terrace, etc): Toeslope Local relief (concave, convex, none): concave

Slope(%): 0-2 Lat: 44.09127 Long: -92.34315 Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	Is the Sampled Area within a Wetland? Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Cropped edge of a wetland complex. Sampled at toe of slope. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Ambrosia trifida*, Great Ragweed	5%	yes	FAC
2. *Cardamine pensylvanica*, Quaker Bittercress	5%	yes	FACW
3. *Phalaris arundinacea*, Reed Canary Grass	2%	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	12%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	7	x1 =	14
FAC species	5	x1 =	15
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	12	x1 =	29 (B)

Prevalence Index = B/A = 2.417

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Residues of 2024 corn crop are less dense than in the adjacent upland.

merjent

ATTACHMENT B

SOIL

Sample Point: dp03

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
0-12	10YR - 2/1	93	5YR-4/6	5	C	M/PL	SiC	- - -
	- - - - - - -/- - -	- - -	10YR-4/1	2	D	M	- - -	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp04

Investigator(s): Andy Kranz Section, Township, Range: S11 T107N R013W

Lanform(hillslope, terrace, etc): Depression Local relief (concave, convex, none): concave

Slope(%): 0-2 Lat: 44.09064 Long: -92.33998 Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam NWI classification: PFO1D

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	Is the Sampled Area within a Wetland? Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Hardwood swamp component of a wetland complex located in a basin. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix amygdaloides*, Peach-Leaf Willow	60%	yes	FACW
2. *Populus deltoides*, Eastern Cottonwood	10%	no	FAC
3.			
4.			
5.			
	70%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Acer negundo* , Ash-Leaf Maple	10%	yes	FAC
2. *Cornus alba*, Red Osier	2%	no	FACW
3.			
4.			
5.			
	12%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	15%	yes	FACW
2. *Impatiens capensis*, Spotted Touch-Me-Not	10%	yes	FACW
3. *Acer negundo* , Ash-Leaf Maple	5%	no	FAC
4. *Ribes americanum*, Wild Black Currant	5%	no	FACW
5.			
6.			
7.			
8.			
9.			
10.			
	35%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	92	x1 =	184
FAC species	25	x1 =	75
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	117	x1 =	259 (B)

Prevalence Index = B/A = 2.214

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: dp04

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
0-6	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
6-14	10YR - 2/1	85	10YR-5/1	10	D	M	SiCL	- - -
	- - - - - - -/- - -	- - -	5YR-3/4	5	C	M	- - -	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✔ Redox Dark Surface (F6)
- ✔ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ___ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp05

Investigator(s): Andy Kranz Section, Township, Range: S11 T107N R013W

Lanform(hillslope, terrace, etc): Footslope Local relief (concave, convex, none): concave

Slope(%): 8-15 Lat: 44.0904 Long: -92.34016 Datum: WGS 84

Soil Map Unit Name: 203: Joy silt loam, 1 to 4 percent slopes NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No ✔	Is the Sampled Area within a Wetland? Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field sampled on foot of slope. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Residues of 2024 corn crop or consistent in density with the surrounding upland.

merjent

ATTACHMENT B

SOIL

Sample Point: dp05

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
0-10	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
10-18	2.5Y - 4/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) undefined
___ Histic Epipedon (A2) undefined
___ Black Histi (A3) undefined
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Little Chute/Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp06

Investigator(s): Andy Kranz Section, Township, Range: S11 T107N R013W

Lanform(hillslope, terrace, etc): Depression Local relief (concave, convex, none): concave

Slope(%): 0-2 Lat: 44.09307 Long: -92.33922 Datum: WGS 84

Soil Map Unit Name: 176: Garwin silty clay loam NWI classification: PEM1D

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No ✔ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	Is the Sampled Area within a Wetland? Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Wet meadow component of a wetland complex located in a basin. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	40%	yes	FACW
2. *Typha X glauca*, hybrid cattail	10%	no	OBL
3. *Urtica dioica*, Stinging Nettle	5%	no	FACW
4. *Sambucus nigra*, Black Elder	5%	no	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	60%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x1 =	10
FACW species	45	x1 =	90
FAC species	5	x1 =	15
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	60	x1 =	115 (B)

Prevalence Index = B/A = 1.917

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: dp06

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
No dig utilities. Soils are assumed to be hydric based on landscape position and presence of hydrophytic vegetation.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ___ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Little Chute/Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp07

Investigator(s): Andy Kranz Section, Township, Range: S11 T107N R013W

Lanform(hillslope, terrace, etc): Swale Local relief (concave, convex, none): concave

Slope(%): 0-2 Lat: 44.08968 Long: -92.34022 Datum: WGS 84

Soil Map Unit Name: 203: Joy silt loam, 1 to 4 percent slopes NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ___	Is the Sampled Area within a Wetland? Yes ✔ No ___
Hydric Soil Present?	Yes ✔ No ___	
Wetland Hydrology Present?	Yes ✔ No ___	

Remarks: (Explain alternative procedures here or in a separate report.)
Crop field wetland within a swale. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species	0	x1 =	0	
FACW species	0	x1 =	0	
FAC species	0	x1 =	0	
FACU species	0	x1 =	0	
UPL species	0	x1 =	0	
Column Totals:	0	x1 =	0	(B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ___

Remarks: (Include photo numbers here or on a separate sheet.)
If 2024 crop are consistent in density with the surrounding upland. Potential vegetation is assumed to be hydrophytic based on landscape position and presence of wetland hydrology and hydric soil.

merjent

ATTACHMENT B

SOIL

Sample Point: dp07

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
0-6	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
6-14	10YR - 4/2	90	10YR-5/6	10	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp08

Investigator(s): Andy Kranz Section, Township, Range: S11 T107N R013W

Lanform(hillslope, terrace, etc): Footslope Local relief (concave, convex, none): concave

Slope(%): 8-15 Lat: 44.08958 Long: -92.34033 Datum: WGS 84

Soil Map Unit Name: 203: Joy silt loam, 1 to 4 percent slopes NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ___, or Hydrology ___ Significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✔

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No ✔	Is the Sampled Area within a Wetland? Yes ___ No ✔
Hydric Soil Present?	Yes ___ No ✔	
Wetland Hydrology Present?	Yes ___ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field sampled on a slope. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ___ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
If 2024 crop are consistent in density with the surrounding upland. Potential vegetation is assumed not to be hydrophytic based on landscape position and absence of wetland hydrology and hydric soil.

merjent

ATTACHMENT B

SOIL

Sample Point: dp08

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
0-18	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
18-24	10YR - 4/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp09

Investigator(s): Andy Kranz Section, Township, Range: S11 T107N R013W

Lanform(hillslope, terrace, etc): Backslope Local relief (concave, convex, none): none

Slope(%): 35+ Lat: 44.08549 Long: -92.33905 Datum: WGS 84

Soil Map Unit Name: 468: Otter silt loam, channeled NWI classification: PEM1D

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No ✔	Is the Sampled Area within a Wetland? Yes ____ No ✔
Hydric Soil Present?	Yes ____	No ✔	
Wetland Hydrology Present?	Yes ____	No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland roadside slope. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Bromus inermis*, Smooth Brome	85%	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	85	x1 =	340
UPL species	0	x1 =	0
Column Totals:	85	x1 =	340 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: dp09

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
No dig roadside potential utilities

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ____ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp10

Investigator(s): Andy Kranz Section, Township, Range: S23 T107N R013W

Lanform(hillslope, terrace, etc): Swale Local relief (concave, convex, none): concave

Slope(%): 3-7 Lat: 44.06038 Long: -92.3409 Datum: WGS 84

Soil Map Unit Name: 23: Skyberg silt loam, 0 to 3 percent slopes NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	Is the Sampled Area within a Wetland? Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field sampled in a broad, shallow swale. Data point is representative of much of the field. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Taraxacum officinale*, Common Dandelion	2%	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	2%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	2	x1 =	8
UPL species	0	x1 =	0
Column Totals:	2	x1 =	8 (B)

Prevalence Index = B/A = 4.000

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Alfalfa crop is healthy. Taraxacum officinale present throughout the field.

merjent

ATTACHMENT B

SOIL

Sample Point: dp10

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

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:
No dig, no one calls

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ____ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ____ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp11

Investigator(s): Andy Kranz Section, Township, Range: S29 T107N R012W

Lanform(hillslope, terrace, etc): Depression Local relief (concave, convex, none): concave

Slope(%): 0-2 Lat: 44.04077 Long: -92.28405 Datum: WGS 84

Soil Map Unit Name: N501B2: Downs silt loam, 2 to 6 percent slopes, moderately eroded NWI classification: PFO1D

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	Is the Sampled Area within a Wetland? Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Forested wetland in a depression. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus macrocarpa*, Burr Oak	60%	yes	FAC
2. *Acer negundo* , Ash-Leaf Maple	30%	yes	FAC
3.			
4.			
5.			
	90%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Sambucus nigra*, Black Elder	30%	yes	FAC
2. *Ribes missouriense*, Missouri Gooseberry	undefined%	no	UPL
3.			
4.			
5.			
	NaN%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Phalaris arundinacea*, Reed Canary Grass	25%	yes	FACW
2. *Urtica dioica*, Stinging Nettle	20%	yes	FACW
3. *Viola pubescens*, Downy Yellow Violet	5%	no	FACU
4. *Geum canadense*, White Avens	5%	no	FAC
5. *Allium tricoccum*, Ramp	2%	no	FACU
6. *Geranium maculatum*, Spotted Crane's-Bill	2%	no	FACU
7.			
8.			
9.			
10.			
	59%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	45	x1 =	90
FAC species	125	x1 =	375
FACU species	9	x1 =	36
UPL species	NaN	x1 =	NaN
Column Totals:	NaN	x1 =	NaN (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: dp11

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
0-14	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
14-20	7.5YR - 3/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
20-26	7.5YR - 4/2	90	5YR-4/6	10	C	M	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ✔ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ✔ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp12

Investigator(s): Andy Kranz Section, Township, Range: S29 T107N R012W

Lanform(hillslope, terrace, etc): Backslope Local relief (concave, convex, none): none

Slope(%): 3-7 Lat: 44.04066 Long: -92.28394 Datum: WGS 84

Soil Map Unit Name: N501B2: Downs silt loam, 2 to 6 percent slopes, moderately eroded NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	Is the Sampled Area within a Wetland? Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland forest samples on a gentle slope. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo* , Ash-Leaf Maple	30%	yes	FAC
2. *Quercus macrocarpa*, Burr Oak	20%	yes	FAC
3. *Prunus serotina*, Black Cherry	10%	no	FACU
4.			
5.			
	60%	= Total Cover	
Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1. *Acer negundo* , Ash-Leaf Maple	10%	yes	FAC
2. *Prunus serotina*, Black Cherry	5%	yes	FACU
3.			
4.			
5.			
	15%	= Total Cover	
Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1. *Ribes americanum*, Wild Black Currant	10%	yes	FACW
2. *Viola pubescens*, Downy Yellow Violet	10%	yes	FACU
3. *Polemonium reptans*, Greek-Valerian	5%	no	FAC
4. *Lonicera X bella*, _?_	5%	no	FACU
5. *Galium aparine*, Sticky-Willy	2%	no	FACU
6. *Bromus inermis*, Smooth Brome	2%	no	FACU
7. *Arctium minus*, Lesser Burrdock	2%	no	FACU
8.			
9.			
10.			
	36%	= Total Cover	
Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.667% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	10	x1 =	20
FAC species	65	x1 =	195
FACU species	36	x1 =	144
UPL species	0	x1 =	0
Column Totals:	111	x1 =	359 (B)

Prevalence Index = B/A = 3.234

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)

merjent

ATTACHMENT B

SOIL

Sample Point: dp12

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
0-20	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
20-24	7.5R - 3/2	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -
24-30	7.5R - 4/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (or Histel) (A1) undefined
___ Histic Epipedon (A2) undefined
___ Black Histi (A3) undefined
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Dark Surface (S7)
___ Iron-Manganese Masses (F12)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -
Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
___ True aquatic plants (B14)
___ Hydrogen sulfide odor (C1)
___ Oxidized rhizospheres along living roots (C3)
___ Presence of reduced iron (C4)
___ Recent iron reduction in tilled soils (C6)
___ Thin muck surface (C7)
___ Gauge or well data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface soil cracks (B6)
___ Drainage patterns (B10)
___ Dry-season water table (C2)
___ Crayfish burrows (C8)
___ Saturation visible on aerial imagery (C9)
___ Stunted or stressed plants (D1)
___ Geomorphic position (D2)
___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -
Water Table Present? Yes ____ No ✔ Depth (inches): - - -
Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp13

Investigator(s): Andy Kranz Section, Township, Range: S29 T107N R012W

Lanform(hillslope, terrace, etc): Swale Local relief (concave, convex, none): concave

Slope(%): 0-2 Lat: 44.04242 Long: -92.28678 Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No ____	Is the Sampled Area within a Wetland? Yes ✔ No ____
Hydric Soil Present?	Yes ✔ No ____	
Wetland Hydrology Present?	Yes ✔ No ____	

Remarks: (Explain alternative procedures here or in a separate report.)
Crop field wetland in an excavated swale. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ✔ No ____

Remarks: (Include photo numbers here or on a separate sheet.)
Feature is freshly excavated.

merjent

ATTACHMENT B

SOIL

Sample Point: dp13

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
0-44	10YR - 2/1	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ✔ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ✔ No ___

Remarks:
Presumably meets A12

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ✔ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ✔ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✔ Depth (inches): - - -

Water Table Present? Yes ___ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ___ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ✔ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

ATTACHMENT B

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Lemon Hill 2025 City/County: Olmsted County Sampling Date: 2025-05-02

Applicant/Owner: Ranger Power State: MN Sampling Point: dp14

Investigator(s): Andy Kranz Section, Township, Range: S29 T107N R012W

Lanform(hillslope, terrace, etc): Footslope Local relief (concave, convex, none): concave

Slope(%): 8-15 Lat: 44.04234 Long: -92.28688 Datum: WGS 84

Soil Map Unit Name: 19: Chaseburg silt loam, moderately well drained, 0 to 2 percent slopes NWI classification: - - -

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ✔ (If no, explain in Remarks.)

Are Vegetation ✔, Soil ____, or Hydrology ____ Significantly disturbed? Are "Normal Circumstances" present? Yes ____ No ✔

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____ No ✔	Is the Sampled Area within a Wetland? Yes ____ No ✔
Hydric Soil Present?	Yes ____ No ✔	
Wetland Hydrology Present?	Yes ____ No ✔	

Remarks: (Explain alternative procedures here or in a separate report.)
Upland crop field sampled on a slope. Analysis of antecedent precipitation conditions indicates wetter than normal precipitation conditions on-site at the time of survey.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:30-ft (9.1-m) radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size:15-ft (4.6-m) radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herbaceous Stratum (Plot size:5-ft (1.5-m) radius OR 3.28- by 3.28-ft square (1-m²) quadrat)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size:30-ft (9.1-m) radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x1 =	0
FACW species	0	x1 =	0
FAC species	0	x1 =	0
FACU species	0	x1 =	0
UPL species	0	x1 =	0
Column Totals:	0	x1 =	0 (B)

Prevalence Index = B/A = NaN

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.

Hydrophytic Vegetation Present? Yes ____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)
Residues of 2024 soybean crop are consistent in density with the surrounding upland.

merjent

ATTACHMENT B

SOIL

Sample Point: dp14

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
0-12	10YR - 3/3	100	- - --- - -/- - -	- - -	- - -	- - -	SiCL	- - -

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (or Histel) (A1) undefined
- ___ Histic Epipedon (A2) undefined
- ___ Black Histi (A3) undefined
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: - - -

Depth (inches): - - -

Hydric Soil Present? Yes ____ No ✔

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one 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)
- ___ True aquatic plants (B14)
- ___ Hydrogen sulfide odor (C1)
- ___ Oxidized rhizospheres along living roots (C3)
- ___ Presence of reduced iron (C4)
- ___ Recent iron reduction in tilled soils (C6)
- ___ Thin muck surface (C7)
- ___ Gauge or well data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface soil cracks (B6)
- ___ Drainage patterns (B10)
- ___ Dry-season water table (C2)
- ___ Crayfish burrows (C8)
- ___ Saturation visible on aerial imagery (C9)
- ___ Stunted or stressed plants (D1)
- ___ Geomorphic position (D2)
- ___ FAC-neutral test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): - - -

Water Table Present? Yes ____ No ✔ Depth (inches): - - -

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): - - -

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

merjent

Appendix B

Rapid OWHM Field Identification Data Sheets

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: asp01	Site Name: Lemon Hill	Date and Time: 2024-06-05 15:32
Location: 44.091871499999996°, -92.33497491666667°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Stream is surrounded by floodplain forest, with agriculture fields to the west and pasture to the east. Both east and west areas flow to the stream.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal for this time of year.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [a] *on the bank:*
  - [a] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [A] **Shelving:**
  - [a] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [X] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [X] *vegetation absent to:* forbs
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp01

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to very steep banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: asp02	Site Name: Lemon Hill	Date and Time: 2024-05-29 09:24
Location: 44.086918645839404°, -92.33628779831615°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Stream is surrounded by pasture land. Land is sloping towards stream.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are considered normal at the time of the site visit.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [X] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [X] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp02

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to very steep banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: asp03	Site Name: Lemon Hill	Date and Time: 2024-06-17 09:37
Location: 44.08681760691161°, -92.3318830161949°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Stream surrounded by meadow and floodplain forest. Agriculture fields located to the east, south, and west. Water flows from the east south and west to the stream, northwest to the larger channel.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions were normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [X] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [X] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp03

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: asp04	Site Name: Lemon Hill	Date and Time: 2024-05-29 09:51
Location: 44.082842695269775°, -92.33704895010275°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Stream surrounded by pasture. Agriculture fields located to the east and west. Water flows north to larger channel.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [X] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp04

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

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Project ID#: asp05	Site Name: Lemon Hill	Date and Time: 2024-05-29 09:56
Location: 44.08367985049776°, -92.33717665330866°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?
Pasture land, stream flows northwest to larger channel.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal.

Step 3 **Check the boxes next to the indicators used to identify the location of the OHWM.**
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [X] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp05

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

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Project ID#: asp06	Site Name: Lemon Hill	Date and Time: 2024-05-29 10:15
Location: 44.078256165354695°, -92.32805326471812°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?
Surrounded by floodplain forest.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [X] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp06

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: asp07	Site Name: Lemon Hill	Date and Time: 2024-06-03 16:04
Location: 44.06910808333334°, -92.29713413333333°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?
Forested area sloping southwest toward larger channel.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [B] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [B] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp07

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to very steep banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: asp08	Site Name: Lemon Hill	Date and Time: 2024-06-05 09:06
Location: 44.05675383333333°, -92.30081546666666°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

- - -

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

- - -

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [B] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [B] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp08

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to very steep banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: asp09	Site Name: Lemon Hill	Date and Time: 2024-06-05 13:03
Location: 44.04982565°, -92.27944879999998°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?
Surrounded by floodplain forest.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [a] *on the bank:*
  - [a] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [B] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [B] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp09

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to very steep banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

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Project ID#: asp10	Site Name: Lemon Hill	Date and Time: 2024-06-05 10:28
Location: 44.04947795898256°, -92.2822792750222°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?
Surrounded by floodplain forest.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [B] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [B] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp10

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to very steep banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

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Project ID#: asp11	Site Name: Lemon Hill	Date and Time: 2024-06-04 10:19
Location: 44.04608865°, -92.28240106666667°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Valley between meadow slope and agricultural field. Water flows north to wetland.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [X] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [B] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp11

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to very steep banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

The public reporting burden for this collection of information, 0710-OHWM, is estimated to average 30 **minutes** per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID#: asp12	Site Name: Lemon Hill	Date and Time: 2024-05-29 09:47
Location: 44.08434123915041°, -92.33694464255646°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Stream surrounded by pasture. water flows north to larger stream.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [X] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp12

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: asp13	Site Name: Lemon Hill	Date and Time: 2024-05-29 09:44
Location: 44.08631561974129°, -92.33563095604012°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Stream surrounded by meadow and pasture. Water flows northeast to larger stream.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [X] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp13

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: asp14	Site Name: Lemon Hill	Date and Time: 2024-06-03 16:47
Location: 44.06856465000001°, -92.29720575°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Meadow depression surrounded by pasture.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Precipitation conditions are normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: asp14

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to very steep banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: bdp03	Site Name: Lemon Hill	Date and Time: 2024-05-31 13:43
Location: 44.07624526666667°, -92.32553945°	Investigator(s): Andy Kranz	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [X] climatic data
- [X] satellite imagery
- [ ] land use maps
- [X] aerial photos
- [X] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Ephemeral waterway in the bottom of a forested ravine. Receives overland flow from crop field to the southwest.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Steep-sided ravine, high gradient.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [X] **Break in slope:**
  - [x] *on the bank:*
  - [ ] *undercut bank:*
  - [ ] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
Vegetation changes from sparse to dense forbs.

Project ID#: bdp03

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM
OHWM is indicated by abrupt change from level bottom to very steep banks, and by a change from sparse to dense forbs,

Additional observations or notes
- - -

Attach a photo log of the site. Use the table below, or attach separately.
Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: bsp01	Site Name: Lemon Hill	Date and Time: 2024-05-29 15:24
Location: 44.0755477°, -92.33950886666668°	Investigator(s): Andy Kranz	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [X] climatic data
- [X] satellite imagery
- [ ] land use maps
- [X] aerial photos
- [X] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Stream flowing through wet meadow. Enters and exits wetland via culvert.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

N/A

Step 3 **Check the boxes next to the indicators used to identify the location of the OHWM.**
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [X] **Break in slope:**
  - [x] *on the bank:*
  - [ ] *undercut bank:*
  - [ ] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: bsp01

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM
OHWM is located where the vertical banks transition to gently sloped ground above the banks.

Additional observations or notes
- - -

Attach a photo log of the site. Use the table below, or attach separately.
Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: bsp02	Site Name: Lemon Hill	Date and Time: 2024-05-31 11:17
Location: 44.0706551°, -92.32396633333335°	Investigator(s): Andy Kranz	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [X] climatic data
- [X] satellite imagery
- [ ] land use maps
- [X] aerial photos
- [X] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Stream is located in a steep-sided ravine that is vegetated and separates crop fields.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Stream passes beneath two crossings via culverts, and is widened for a short distance downstream of each culvert. Rip rap has been added to the banks on the downstream side of one of the culverts.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [X] **Break in slope:**
  - [x] *on the bank:*
  - [ ] *undercut bank:*
  - [ ] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
OHWM coincides with transition from sparse to dense herbs.

Project ID#: bsp02

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM
OHWM is indicated by a change in slope from gentle to steep-sided banks, and by a change from sparse to dense herbs.

Additional observations or notes
- - -

Attach a photo log of the site. Use the table below, or attach separately.
Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

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Project ID#: csp01	Site Name: Lemon Hill	Date and Time: 2024-05-29 12:21
Location: 44.073159199130174°, -92.30725632164197°	Investigator(s): Jared Booms	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [X] climatic data
- [X] satellite imagery
- [X] land use maps
- [X] aerial photos
- [X] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

The stream is located in a hilly agricultural landscape. The side-slopes hold agricultural fields while the tops and bottomlands are left natural. The stream held flowing water in some locations and was stagnant in others.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

The ohwm was determined to be 4 ft wide by 4ft deep.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [X] **Break in slope:**
  - [x] *on the bank:*
  - [b] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [X] **Instream bedforms and other bedload transport evidence:**
  - [b] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [b] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [b] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: csp01

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

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Project ID#: csp02	Site Name: Lemon Hill	Date and Time: 2024-05-30 12:34
Location: 44.08000008333334°, -92.31468406666667°	Investigator(s): Jared Booms	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [ ] climatic data
- [X] satellite imagery
- [X] land use maps
- [X] aerial photos
- [X] topographic maps
- [ ] Other:

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Land use is rolling hills agriculture and pasture lands. Water is present and flowing in waterway.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Stream is located I. A steeper ditch. It meanders between toe slopes. Bank width varies from 7 feet to 25 feet. OHWM is 7 foot wide and 4 feet deep. Substrate is of silt clay mud with occasional cobble.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [X] **Break in slope:**
  - [a] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [B] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [b] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [b] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: csp02

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

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Project ID#: csp03	Site Name: Lemon Hill	Date and Time: 2024-05-30 17:18
Location: 44.07919226666667°, -92.32294608333336°	Investigator(s): Jared Booms	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [X] climatic data
- [X] satellite imagery
- [X] land use maps
- [X] aerial photos
- [X] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Rolling hill agricultural pasture setting with agricultural fields in the side hill woods up top woods down in the bottom.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Broad flood plain holding a meandering perennial stream. Flows west to east picking up two additional tributaries in the process. Stream runs through an open wetland and a thick woods. In the meadow the stream is subject to beaver ponding with multiple beaver dams observed. The ohwm is averages 9 feet wide and 4 feet deep.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [X] **Break in slope:**
  - [a] *on the bank:*
  - [a] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [X] **Shelving:**
  - [a] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [B] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [b] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [b] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [B] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: csp03

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
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Project ID#: dsp01	Site Name: Lemon Hill	Date and Time: 2024-06-24 09:16
Location: 44.084876°, -92.320799°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Water accumulates from east and west agriculture fields and drains southeast.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Overcast and precipitation conditions are wetter than normal

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
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Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: dsp01

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to steep banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

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Project ID#: dsp02	Site Name: Lemon Hill	Date and Time: 2024-06-24 09:20
Location: 44.082402°, -92.317044°	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Water accumulates from western agriculture field and eastern meadow, water flows southeast.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Overcast and precipitation conditions were wetter than normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [b] *unvegetated:*
  - [x] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: dsp02

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to very steep banks, and by a change from sparse to dense forbs.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

The public reporting burden for this collection of information, 0710-OHWM, is estimated to average 30 **minutes** per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID#: dsp03	Site Name: Lemon Hill	Date and Time: 2024-06-19 09:20
Location: 44.064507, -92.319085	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Water accumulates from surrounding forest and flows north.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Overcast and precipitation conditions were normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: dsp03

Step 4 Is additional information needed to support this determination? ☐ Yes ☐ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to steep banks.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

ATTACHMENT B

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW_CO_R

Form Approved -
OMB No. 0710-0025
Expires: 01-31-2025

AGENCY DISCLOSURE NOTICE

The public reporting burden for this collection of information, 0710-OHWM, is estimated to average 30 **minutes** per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID#: dsp04	Site Name: Lemon Hill	Date and Time: 2024-06-19 09:20
Location: 44.064608, -92.303551	Investigator(s): Maddie Humphrey	

Step 1 Site overview from remote and online resources
Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [x] climatic data
- [x] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [ ] Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?
Water accumulates from pastureland.

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

Overcast and precipitation conditions were normal.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.
OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.
Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [A] **Break in slope:**
  - [x] *on the bank:*
  - [x] *undercut bank:*
  - [b] *valley bottom:*
  - [ ] *other:* - - -
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* - - -
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition:*
  - [ ] *sediment transition:*
  - [ ] *upper limit of deposition on the bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators: (e.g., imbricated clasts, gravel sheets, etc.):*
  - [ ] *bedforms: (e.g., pools, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators: (e.g., obstacle marks, scour, smoothing, etc.):*
- [ ] **Secondary channels:**

Vegetation Indicators

- [ ] **Change in vegetation type and/or density:** Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up th banks, and into the floodplain.***
  - [ ] *vegetation absent to:* - - -
  - [ ] *moss to:* - - -
  - [ ] *forbs to:* - - -
  - [ ] *graminoids to:* - - -
  - [ ] *woody shrubs to:* - - -
  - [ ] *deciduous trees to:* - - -
  - [ ] *coniferous trees to:* - - -
- [ ] **Vegetation matted down and/or bent:**

Sediment indicators

- [ ] **Secondary channels:**
- [ ] **Changes in character of soil:**
- [ ] **Mudcracks:**
- [ ] **Changes in particle-sized distribution:**
  - [ ] *transition from* - - - to - - -
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*
  - [ ] *exposed roots below intact soil layer:*

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [ ] **Leaf litter disturbed or washed away:**
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators? Describe:
- - -

Project ID#: dsp04

Step 4 Is additional information needed to support this determination? ☐ Yes ☑ No If yes, describe and attach information to datasheet:

- - -

Step 5 Describe rationale for location of OHWM

- - -

OHWM is indicated by abrupt change from level bottom to banks.

Additional observations or notes

- - -

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☐ Yes ☐ No If no, explain why not: Found in Wetland Delineation Report

PHOTO NUMBER	PHOTOGRAPH DESCRIPTION

Appendix C

Survey Photographs

Photograph pp001 view East

Photograph pp001 view North

Photograph pp001 view South

Photograph pp001 view West

Photograph pp002 view East

Photograph pp002 view North

Photograph pp002 view South

Photograph pp002 view West

Photograph pp003 view East

Photograph pp003 view North