

Wetland Delineation

Parcel ID 27-0064000, Litchfield, Meeker County, MN

Prepared for Scott Weicht

**Prepared by:
Ag Wetland Services, Inc
P.O. Box 534
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Prepared for
Scott Weicht

Prepared by
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DATE: June 24, 2022
TO: Scott Weicht
FROM: Jeremy J. Donabauer
AG Wetland Services, Inc

SUBJECT: 4.56 ac +/- Section 13 Township 119, Range 31, Litchfield, Minnesota.

PURPOSE OF THE WETLAND DELINEATION REPORT

The purpose of this report is to describe the extent and location of wetlands occurring at the property located in Litchfield, Meeker County, MN. The information herein was requested by Scott Weicht. The wetland delineation was conducted at a level acceptable by the Local Government Unit.

LOCATION OF THE SITE

The site is located in Section 13, Township 119, Range 31, Watkins, Minnesota.



SITE VISIT

The site was visited on June 22, 2022. The vegetation at this time was in the early stages of the growing season. The precipitation levels for this time of year were near or below normal. Jeremy J. Donabauer conducted the field delineation and delineation report.

WETLAND DELINEATION METHODOLOGY

The use of a multi-parameter approach (vegetation, soil and hydrology) was implemented to delineate a wetland occurring in Section 13, Township 119, Range 31, Litchfield, Minnesota.

The Routine On-Site Determination method, as described in the 1987 addition of the **Federal Manual for Identifying and Delineating Jurisdictional Wetlands**, was used to delineate the site. Wetlands were also classified according to **Wetlands and Deepwater Habitats of the United States** (FWS/OBS Pub 79/31; Cowardin et al. 1979) and **Wetlands of the United States** (USFWS Circular 39; Shaw and Fredine 1971). Areas that are dominated by hydrophytic vegetation, meet the hydric soils criteria, and exhibit indications of wetland hydrology are identified as wetland communities. These three technical criteria are mandatory and must be satisfied in making a wetland determination.

Field techniques consist of a main transect with a series of soil samples combined with vegetation data, and observations of hydrology to determine wetland boundaries. Each individual lath is generally associated with a series of soil probes (18 inches or greater in depth) that are taken in a line from obvious upland to obvious wetland. **Munsell Soil Color Charts** are used to determine soil chroma, mottle color and gleying color (when present). If the soil does not meet the hydric requirement, and the site lacks wetland hydrology and dominant hydric vegetation, another sample is taken 1-3 feet toward the wetland until all three requirements are met (under Normal and Undisturbed Conditions).

Wetland Plant Indicator Designations

OBLIGATE WETLAND (OBL): Species occurs almost always (estimated probability >99 %) in wetlands under natural conditions.

FACULTATIVE WETLAND (FACW): Species usually occurs in wetlands (estimated probability 67 to 99 %) but occasionally found in non-wetlands.

FACULTATIVE (FAC): Species equally likely to occur in wetlands and non-wetlands (estimated probability 34 to 64%).

FACULTATIVE UPLAND (FACU): Species usually occurs in non-wetlands (estimated probability 67 to 99 %) but occasionally found in wetlands (estimated probability 1 to 33%).

OBLIGATE UPLAND (UPL): Species occurs almost always (estimated probability >99 %) in non-wetlands under natural conditions.

For an area to be a jurisdictional wetland, more than 50 percent of the dominant vegetation from all strata (Herbaceous, Shrub, Sapling, Tree, and Vine) must be OBL, FACW, and/or FAC, under normal and undisturbed conditions.

Vegetative Dominance and Strata

Dominance refers strictly to the spatial extent of a species that is directly discernible in the field. The most abundant plant species that immediately exceeds 50 percent of the total dominance for a given stratum, plus any additional species comprising 20 percent or more of the total are considered dominant plant species for that stratum. Strata for which dominants are determined include:

1. Tree - >5 inches DBH and 20 feet or taller.
2. Sapling - 0.4 to <5 inches DBH and 20 ft or taller.
3. Shrub - 3 to 20 feet tall including multistemmed, bushy shrubs, trees and saplings
4. Vines - includes all woody vines.
5. Herb - includes all herbaceous plants (grass, sedge, forbs, ferns, etc.)

SUMMARY

Wetlands on-site were identified and delineated following the 1987 Corps of Engineers Wetlands Delineation Manual as required by the Wetland Conservation Act of 1991 and the Corps of Engineers regulatory program under section 404 of the Clean Water Act.

Delineation Summary

The project site is comprised of an area located in Litchfield, Meeker County, MN for the purpose of defining the wetland boundaries. Three wetlands have been delineated with three lines delineating the boundary of each wetland and a map is included below. A site location map is included as Figure 1. Copies of the National Wetland Inventory (NWI), Meeker County Soil Survey maps and LIDAR maps for the area of the project site are included. Figure 4 represents the approximate stream/ditch boundary line delineated as part of this project in an air photo. The boundaries have been flagged with pin-flags and labeled A-1 through A-8, B-1 through B-10 and C-1 through C-9. Once approved, the flags will be located by a surveyor for permanent record.

Wetland A and Transect A



At the transect of line A and the point of TA the area consists of a wetland that transitions to a ditch/stream with a defined bank. The contour rises into the upland community on a concave slope and the stream/ditch bank edge follows a contour change and rises generally from the center of the stream/ditch equally throughout the channel. This can be seen in greater detail on the LiDAR contour map provided in the report.

Wetland B and Transect B



At the transect of line B and the point of TB the area consists of a type 2/6 wetland. The contour rises into the upland community on a concave slope and follows a contour change that rises generally from the center of the wetland equally throughout. This can be seen in greater detail on the LiDAR contour map provided in the report. It is likely that this is an incidental wetland and may fall under the no-loss category. If impacts are proposed, an application and evidence should be submitted to the LGU.

Wetland C and Transect C



At the transect of line C and the point of TC the area consists of a type 4 wetland. The contour rises into the upland community on a concave slope and follows a contour change that rises generally from the center of the wetland equally throughout. This can be seen in greater detail on the LiDAR contour map provided in the report. It is likely that this is an incidental wetland and may fall under the no-loss category. If impacts are proposed, an application and evidence should be submitted to the LGU.

Approximate Wetland Boundary



The site was investigated/delineated by:
AG Wetland Services, Inc

Jeremy J. Donabauer



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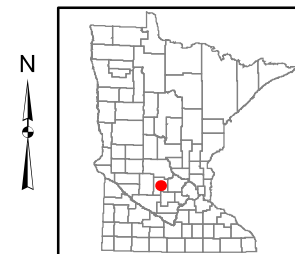
The State of Minnesota assumes no responsibility for loss or damage incurred as a result of any user reliance on this data. All maps and other material provided herein are protected by copyright.

Extreme care was used during the compilation of this product. However, due to changes in ownership and the need to rely on outside information, errors or omissions may exist. If you should discover an oversight, we encourage you to let us know by calling the DNR at 1-888-646-6367 or by e-mail at info.dnr@state.mn.us.

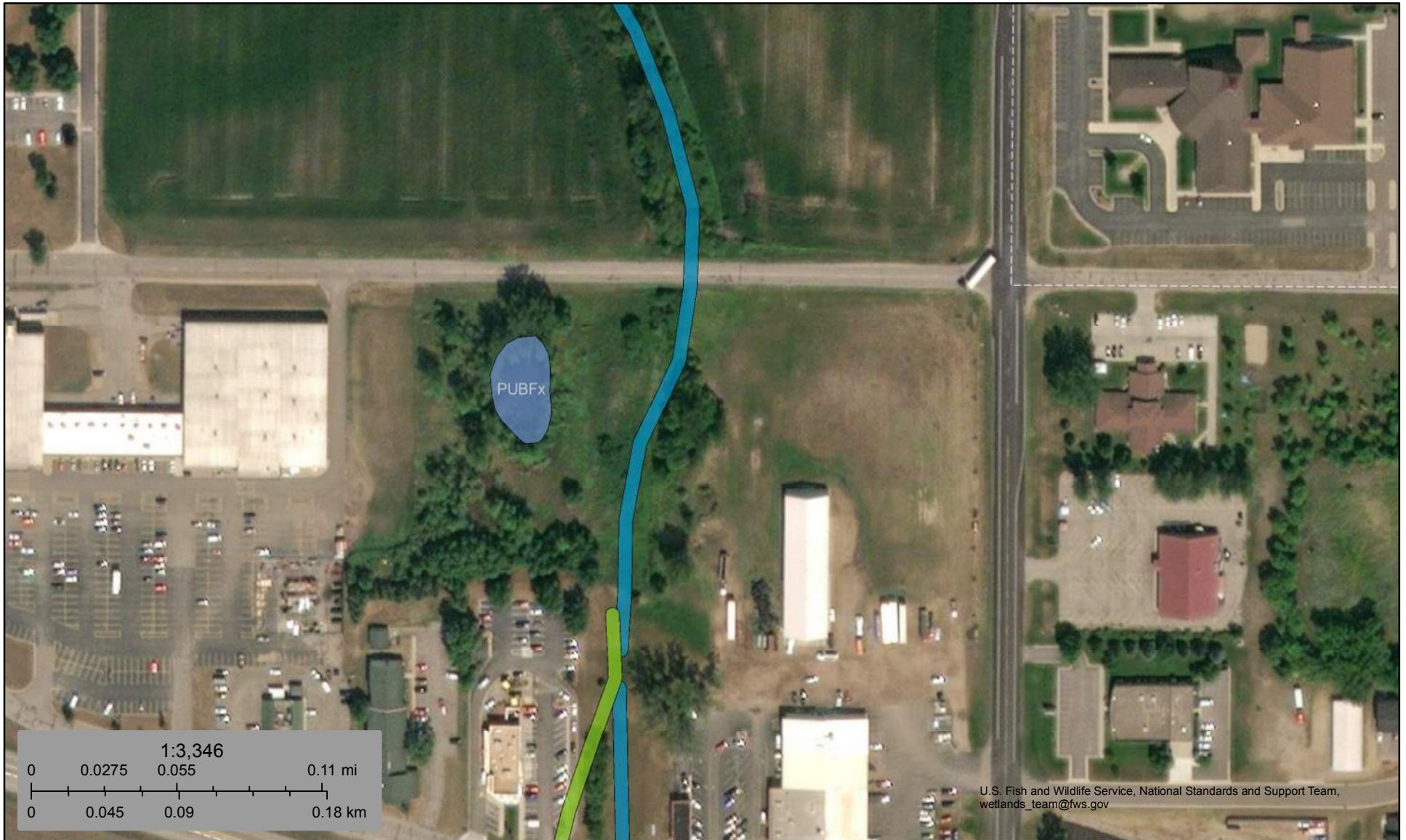
Note: Elevation images and contours were generated from LiDAR derived elevation surfaces acquired 2007-2012.



Scale: 1:4,224










Created on 6/27/2022



June 27, 2022

Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | Riverine |

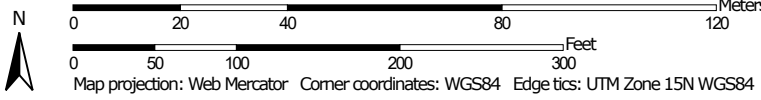
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Hydric Rating by Map Unit—Meeker County, Minnesota



Soil Map may not be valid at this scale.

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









MAP LEGEND

Area of Interest (AOI)







Area of Interest (AOI)

Soils







Soil Rating Polygons

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available


Soil Rating Lines

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available






Soil Rating Points

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available


Water Features

-  Streams and Canals

Transportation

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

Background

-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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

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

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

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

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

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

Soil Survey Area: Meeker County, Minnesota
 Survey Area Data: Version 15, Sep 10, 2021

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

Date(s) aerial images were photographed: Apr 1, 2021—Oct 1, 2021

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

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
8B	Sparta loamy sand, 1 to 6 percent slopes	10	0.0	0.2%
327A	Dickman sandy loam, 0 to 2 percent slopes	5	4.6	61.3%
1015	Udipsamments (cut and fill land)	0	0.7	9.9%
1098	Biscay clay loam, 0 to 2 percent slopes	100	0.4	5.8%
1406	Medo, Dassel, and Biscay soils, ponded, 0 to 1 percent slopes	100	1.7	22.7%
Totals for Area of Interest			7.5	100.0%

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

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

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

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

References:

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

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

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

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

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

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

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site Scott Weicht City/County: Meeker Sampling Date: 06/22/2022
 Applicant/Owner: Scott Weicht State: MN Sampling Point: TA1
 Investigator(s): Jeremy Donabauer Section, Township, Range: S. 13, T 119, R31
 Landform (hillslope, terrace, etc.): slight hillslope Local relief (concave, convex, none): concave
 Slope (%): 1 Lat: 45.07.23.14 Long: 94.30.18.55 Datum: google earth
 Soil Map Unit Name 1406 Medo Dassel Biscay complex NWI Classification: R4SBC

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation , soil , or hydrology naturally problematic?

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u>
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	
If yes, optional wetland site ID: <u> </u>	

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

VEGETATION -- Use scientific names of plants.

Tree Stratum	(Plot size: <u>10</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across all Strata: <u>1</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)
1					
2					
3					
4					
5					
		<u>0</u>	= Total Cover		
Sapling/Shrub stratum	(Plot size: <u>5</u>)				Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>100</u> x 2 = <u>200</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>100</u> (A) <u>200</u> (B) Prevalence Index = B/A = <u>2.00</u>
1					
2					
3					
4					
5					
		<u>0</u>	= Total Cover		
Herb stratum	(Plot size: <u> </u>)				Hydrophytic Vegetation Indicators: Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
1	<u>Phalaris arundinacea</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>	
2					
3					
4					
5					
6					
7					
8					
9					
10					
		<u>100</u>	= Total Cover		
Woody vine stratum	(Plot size: <u> </u>)				Hydrophytic vegetation present? <u>Y</u>
1					
2					
		<u>0</u>	= Total Cover		

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

SOIL

Sampling Point: TA1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-24	10 yr 2/1	90	10 yr 5/6	10	C	PL	Sandy clay loam	redox
24-28	10 yr 5/2	90	10yr 5/6	10	C	PL	Sandy clay loam	redox

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

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- 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:

- Coast Prairie Redox (A16) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: 0
Depth (inches): 0

Hydric soil present? Y

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (minimum of two required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> True Aquatic Plants (B14) | <input checked="" type="checkbox"/> Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Thin Muck Surface (C7) | <input checked="" type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Gauge or Well Data (D9) | <input checked="" type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | |

Field Observations:

Surface water present? Yes No Depth (inches): 0
 Water table present? Yes No Depth (inches):
 Saturation present? (includes capillary fringe) Yes No Depth (inches):

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site Scott Weicht City/County: Meeker Sampling Date: 06/22/2022
 Applicant/Owner: Scott Weicht State: MN Sampling Point: TA2
 Investigator(s): Jeremy Donabauer Section, Township, Range: S. 13, T 119, R31
 Landform (hillslope, terrace, etc.): slight hillslope Local relief (concave, convex, none): concave
 Slope (%): 1 Lat: 45.07.22.47 Long: 94.30.19.31 Datum: google earth
 Soil Map Unit Name 327A Dickman sandy loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances" present? Yes
 Are vegetation , soil , or hydrology naturally problematic?

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: <u> </u>
Hydric soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	

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

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u> </u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across all Strata: <u>3</u> (B)	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>10</u>)	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet	
1 <u> </u>	<u>100</u>	<u>Y</u>	<u> </u>	Total % Cover of:	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL species <u>0</u> x 1 = <u>0</u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species <u>0</u> x 2 = <u>0</u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species <u>0</u> x 3 = <u>0</u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u>100</u> x 4 = <u>400</u>	
	<u>100</u> = Total Cover			UPL species <u>0</u> x 5 = <u>0</u>	
				Column totals <u>100</u> (A) <u>400</u> (B)	
				Prevalence Index = B/A = <u>4.00</u>	
<u>Herb stratum</u> (Plot size: <u> </u>)	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators:	
1 <u>Bromus inermis</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>	<u> </u> Rapid test for hydrophytic vegetation	
2 <u>Taraxacum officinale</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	<u> </u> Dominance test is >50%	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Prevalence index is ≤3.0*	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic hydrophytic vegetation* (explain)	
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
9 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
10 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>100</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u> </u>)	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic vegetation present? <u>N</u>	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>0</u> = Total Cover				

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

SOIL

Sampling Point: TA2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-24	10 yr 3/2	100					Sandy loam	mixed, fill
24-26	10 yr 4/4	100					Sandy loam	mixed, fill

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

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histisol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils:</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p>
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*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

<p>Restrictive Layer (if observed):</p> <p>Type: <u>0</u></p> <p>Depth (inches): <u>0</u></p>	<p>Hydric soil present? <u>N</u></p>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
<p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input type="checkbox"/> Geomorphic Position (D2)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>

<p>Field Observations:</p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u></p> <p>Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u></p> <p>Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u></p> <p>(includes capillary fringe)</p>	<p>Indicators of wetland hydrology present? <u>N</u></p>
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Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site Scott Weicht City/County: Meeker Sampling Date: 06/22/2022
 Applicant/Owner: Scott Weicht State: MN Sampling Point: TB1
 Investigator(s): Jeremy Donabauer Section, Township, Range: S. 13, T 119, R31
 Landform (hillslope, terrace, etc.): slight hillslope Local relief (concave, convex, none): concave
 Slope (%): 1 Lat: 45.07.23.14 Long: 94.30.18.55 Datum: google earth
 Soil Map Unit Name 327 Dickman sandy loam NWI Classification: _____

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil X, or hydrology _____ significantly disturbed? Are "normal circumstances" present? No
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? present? No

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u>
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	
If yes, optional wetland site ID: _____	

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

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>10</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet	
1 _____	_____	_____	_____		Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>1</u> (B)	
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)	
4 _____	_____	_____	_____		
5 _____	_____	_____	_____		
<u>0</u> = Total Cover					
<u>Sapling/Shrub stratum</u> (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet	
1 _____	_____	_____	_____		Total % Cover of:
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>	
3 _____	_____	_____	_____	FACW species <u>100</u> x 2 = <u>200</u>	
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>	
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>	
<u>0</u> = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>	
<u>0</u> = Total Cover				Column totals <u>100</u> (A) <u>200</u> (B)	
<u>0</u> = Total Cover				Prevalence Index = B/A = <u>2.00</u>	
<u>Herb stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators:	
1 <u>Phalaris arundinacea</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>		_____ Rapid test for hydrophytic vegetation
2 _____	_____	_____	_____		<u>X</u> Dominance test is >50%
3 _____	_____	_____	_____		<u>X</u> Prevalence index is ≤3.0*
4 _____	_____	_____	_____		Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____		_____ Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____		
7 _____	_____	_____	_____		
8 _____	_____	_____	_____		
9 _____	_____	_____	_____		
10 _____	_____	_____	_____		
<u>100</u> = Total Cover					
<u>Woody vine stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status		
1 _____	_____	_____	_____		
2 _____	_____	_____	_____		
<u>0</u> = Total Cover					

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

SOIL

Sampling Point: TB1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-4	10 yr 2/1	90	10 yr 5/6	10	C	PL	Sandy clay loam	mixed redox
4-18	10 yr 4/4	90	10yr 5/6	10	C	PL	Sandy loam	mixed redox cut/fill

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

<p>Hydric Soil Indicators:</p> <p>___ Histisol (A1)</p> <p>___ Histic Epipedon (A2)</p> <p>___ Black Histic (A3)</p> <p>___ Hydrogen Sulfide (A4)</p> <p>___ Stratified Layers (A5)</p> <p>___ 2 cm Muck (A10)</p> <p>___ Depleted Below Dark Surface (A11)</p> <p><input checked="" type="checkbox"/> Thick Dark Surface (A12)</p> <p>___ Sandy Mucky Mineral (S1)</p> <p>___ 5 cm Mucky Peat or Peat (S3)</p>	<p>___ Sandy Gleyed Matrix (S4)</p> <p>___ Sandy Redox (S5)</p> <p>___ Stripped Matrix (S6)</p> <p>___ Loamy Mucky Mineral (F1)</p> <p>___ Loamy Gleyed Matrix (F2)</p> <p>___ Depleted Matrix (F3)</p> <p>___ Redox Dark Surface (F6)</p> <p>___ Depleted Dark Surface (F7)</p> <p>___ Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils:</p> <p>___ Coast Prairie Redox (A16) (LRR K, L, R)</p> <p>___ Dark Surface (S7) (LRR K, L)</p> <p>___ Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p>___ Very Shallow Dark Surface (TF12)</p> <p>___ Other (explain in remarks)</p>
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*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

<p>Restrictive Layer (if observed):</p> <p>Type: <u> 0 </u></p> <p>Depth (inches): <u> 0 </u></p>	<p>Hydric soil present? <u> Y </u></p>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
<p>Primary Indicators (minimum of one is required; check all that apply)</p> <p>___ Surface Water (A1)</p> <p>___ High Water Table (A2)</p> <p><input checked="" type="checkbox"/> Saturation (A3)</p> <p>___ Water Marks (B1)</p> <p>___ Sediment Deposits (B2)</p> <p>___ Drift Deposits (B3)</p> <p>___ Algal Mat or Crust (B4)</p> <p>___ Iron Deposits (B5)</p> <p>___ Inundation Visible on Aerial Imagery (B7)</p> <p>___ Sparsely Vegetated Concave Surface (B8)</p> <p>___ Water-Stained Leaves (B9)</p>	<p>Secondary Indicators (minimum of two required)</p> <p>___ Aquatic Fauna (B13)</p> <p>___ True Aquatic Plants (B14)</p> <p>___ Hydrogen Sulfide Odor (C1)</p> <p>___ Oxidized Rhizospheres on Living Roots (C3)</p> <p>___ Presence of Reduced Iron (C4)</p> <p>___ Recent Iron Reduction in Tilled Soils (C6)</p> <p>___ Thin Muck Surface (C7)</p> <p>___ Gauge or Well Data (D9)</p> <p>___ Other (Explain in Remarks)</p>

<p>Field Observations:</p> <p>Surface water present? Yes <u> X </u> No <u> </u> Depth (inches): <u> 10 </u></p> <p>Water table present? Yes <u> X </u> No <u> </u> Depth (inches): <u> </u></p> <p>Saturation present? Yes <u> X </u> No <u> </u> Depth (inches): <u> </u></p> <p>(includes capillary fringe)</p>	<p>Indicators of wetland hydrology present? <u> Y </u></p>
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Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site Scott Weicht City/County: Meeker Sampling Date: 06/22/2022
 Applicant/Owner: Scott Weicht State: MN Sampling Point: TB2
 Investigator(s): Jeremy Donabauer Section, Township, Range: S. 13, T 119, R31
 Landform (hillslope, terrace, etc.): slight hillslope Local relief (concave, convex, none): concave
 Slope (%): 1 Lat: 45.07.22.47 Long: 94.30.19.31 Datum: google earth
 Soil Map Unit Name 327A Dickman sandy loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation , soil X, or hydrology significantly disturbed? Are "normal circumstances" present? No
 Are vegetation , soil , or hydrology naturally problematic?

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: <u> </u>
Hydric soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	

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

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u> </u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A)	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across all Strata: <u>3</u> (B)	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>0</u> = Total Cover				
<u>Sapling/Shrub stratum</u> (Plot size: <u>10</u>)	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet	
1 <u> </u>	<u>100</u>	<u>Y</u>	<u> </u>	Total % Cover of:	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL species <u>0</u> x 1 = <u>0</u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species <u>0</u> x 2 = <u>0</u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species <u>0</u> x 3 = <u>0</u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u>100</u> x 4 = <u>400</u>	
	<u>100</u> = Total Cover			UPL species <u>0</u> x 5 = <u>0</u>	
				Column totals <u>100</u> (A) <u>400</u> (B)	
				Prevalence Index = B/A = <u>4.00</u>	
<u>Herb stratum</u> (Plot size: <u> </u>)	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators:	
1 <u>Bromus inermis</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>	<u> </u> Rapid test for hydrophytic vegetation	
2 <u>Taraxacum officinale</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	<u> </u> Dominance test is >50%	
3 <u>Trifolium repens</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	<u> </u> Prevalence index is ≤3.0*	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic hydrophytic vegetation* (explain)	
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
9 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
10 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>100</u> = Total Cover				
<u>Woody vine stratum</u> (Plot size: <u> </u>)	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic vegetation present? <u>N</u>	
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>		
	<u>0</u> = Total Cover				

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

SOIL

Sampling Point: TB2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-6	10 yr 3/2	100					Sandy loam	mixed, fill
6-16	10 yr 4/4	100					Sandy loam	mixed, fill

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

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histisol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils:</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p>
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*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

<p>Restrictive Layer (if observed):</p> <p>Type: <u> 0 </u></p> <p>Depth (inches): <u> 0 </u></p>	<p>Hydric soil present? <u> N </u></p>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
<p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input type="checkbox"/> Geomorphic Position (D2)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>

<p>Field Observations:</p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u></p> <p>Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u></p> <p>Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u></p> <p>(includes capillary fringe)</p>	<p>Indicators of wetland hydrology present? <u> N </u></p>
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Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site Scott Weicht City/County: Meeker Sampling Date: 06/22/2022
 Applicant/Owner: Scott Weicht State: MN Sampling Point: TC1
 Investigator(s): Jeremy Donabauer Section, Township, Range: S. 13, T 119, R31
 Landform (hillslope, terrace, etc.): slight hillslope Local relief (concave, convex, none): concave
 Slope (%): 1 Lat: 45.07.23.14 Long: 94.30.18.55 Datum: google earth
 Soil Map Unit Name 327 Dickman sandy loam NWI Classification: _____

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation _____, soil X, or hydrology _____ significantly disturbed? Are "normal circumstances" present? No
 Are vegetation _____, soil _____, or hydrology _____ naturally problematic? present? No

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u>
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	
If yes, optional wetland site ID: _____	

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

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>10</u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet	
1 _____	_____	_____	_____		Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A)
2 _____	_____	_____	_____	Total Number of Dominant Species Across all Strata: <u>1</u> (B)	
3 _____	_____	_____	_____	Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)	
4 _____	_____	_____	_____		
5 _____	_____	_____	_____		
<u>0</u> = Total Cover					
<u>Sapling/Shrub stratum</u> (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet	
1 _____	_____	_____	_____		Total % Cover of:
2 _____	_____	_____	_____	OBL species <u>0</u> x 1 = <u>0</u>	
3 _____	_____	_____	_____	FACW species <u>100</u> x 2 = <u>200</u>	
4 _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>	
5 _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>	
<u>0</u> = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>	
<u>0</u> = Total Cover				Column totals <u>100</u> (A) <u>200</u> (B)	
<u>0</u> = Total Cover				Prevalence Index = B/A = <u>2.00</u>	
<u>Herb stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators:	
1 <u>Phalaris arundinacea</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>		<u> </u> Rapid test for hydrophytic vegetation
2 _____	_____	_____	_____		<u>X</u> Dominance test is >50%
3 _____	_____	_____	_____		<u>X</u> Prevalence index is ≤3.0*
4 _____	_____	_____	_____		Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)
5 _____	_____	_____	_____		Problematic hydrophytic vegetation* (explain)
6 _____	_____	_____	_____		
7 _____	_____	_____	_____		
8 _____	_____	_____	_____		
9 _____	_____	_____	_____		
10 _____	_____	_____	_____		
<u>100</u> = Total Cover				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic	
<u>Woody vine stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic vegetation present? <u>Y</u>	
1 _____	_____	_____	_____		
2 _____	_____	_____	_____		
<u>0</u> = Total Cover					

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

SOIL

Sampling Point: TC1

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-2	10 yr 2/1	100					Sandy clay loam	mixed redox
2-12	10 yr 3/2	90	10yr 5/6	10	C	PL	Sandy loam	mixed redox cut/fill

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

Hydric Soil Indicators:

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- 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:

- Coast Prairie Redox (A16) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Very Shallow Dark Surface (TF12)
- Other (explain in remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: 0
 Depth (inches): 0

Hydric soil present? Y

Remarks: Mixed cut fill

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (minimum of two required)

- | | | |
|--|---|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Aquatic Fauna (B13) | <input type="checkbox"/> Surface Soil Cracks (B6) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> True Aquatic Plants (B14) | <input checked="" type="checkbox"/> Drainage Patterns (B10) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted or Stressed Plants (D1) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Thin Muck Surface (C7) | <input checked="" type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Gauge or Well Data (D9) | <input checked="" type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |
| <input type="checkbox"/> Water-Stained Leaves (B9) | | |

Field Observations:

Surface water present? Yes No Depth (inches): 0
 Water table present? Yes No Depth (inches): _____
 Saturation present? (includes capillary fringe) Yes No Depth (inches): _____

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site Scott Weicht City/County: Meeker Sampling Date: 06/22/2022
 Applicant/Owner: Scott Weicht State: MN Sampling Point: TC2
 Investigator(s): Jeremy Donabauer Section, Township, Range: S. 13, T 119, R31
 Landform (hillslope, terrace, etc.): slight hillslope Local relief (concave, convex, none): concave
 Slope (%): 1 Lat: 45.07.22.47 Long: 94.30.19.31 Datum: google earth
 Soil Map Unit Name 327A Dickman sandy loam NWI Classification: None

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
 Are vegetation , soil X, or hydrology significantly disturbed? Are "normal circumstances" present? No
 Are vegetation , soil , or hydrology naturally problematic?

SUMMARY OF FINDINGS (If needed, explain any answers in remarks.)

Hydrophytic vegetation present? <u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: <u> </u>
Hydric soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	

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

VEGETATION -- Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u> </u>)	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across all Strata: <u>2</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>0.00%</u> (A/B)
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5 <u> </u>	<u>0</u> = Total Cover			
<u>Sapling/Shrub stratum</u> (Plot size: <u>10</u>)				
1 <u> </u>	<u>100</u>	<u>Y</u>	<u> </u>	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5 <u> </u>	<u>100</u> = Total Cover			
<u>Herb stratum</u> (Plot size: <u> </u>)				Hydrophytic Vegetation Indicators: <u> </u> Rapid test for hydrophytic vegetation <u> </u> Dominance test is >50% <u> </u> Prevalence index is ≤3.0* <u> </u> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic
1 <u>Bromus inermis</u>	<u>100</u>	<u>Y</u>	<u>FACU</u>	
2 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10 <u> </u>	<u>100</u> = Total Cover			
<u>Woody vine stratum</u> (Plot size: <u> </u>)				Hydrophytic vegetation present? <u>N</u>
1 <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2 <u> </u>	<u>0</u> = Total Cover			

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

SOIL

Sampling Point: TC2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-12	10 yr 3/2	100					Sandy loam	mixed, fill
12-20	10 yr 4/4	100					Sandy loam	mixed, fill

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

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histisol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)</p>	<p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils:</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p>
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*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

<p>Restrictive Layer (if observed):</p> <p>Type: <u>0</u></p> <p>Depth (inches): <u>0</u></p>	<p>Hydric soil present? <u>N</u></p>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:		
<p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p><input type="checkbox"/> Surface Water (A1)</p> <p><input type="checkbox"/> High Water Table (A2)</p> <p><input type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1)</p> <p><input type="checkbox"/> Sediment Deposits (B2)</p> <p><input type="checkbox"/> Drift Deposits (B3)</p> <p><input type="checkbox"/> Algal Mat or Crust (B4)</p> <p><input type="checkbox"/> Iron Deposits (B5)</p> <p><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</p> <p><input type="checkbox"/> Water-Stained Leaves (B9)</p>	<p><input type="checkbox"/> Aquatic Fauna (B13)</p> <p><input type="checkbox"/> True Aquatic Plants (B14)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Gauge or Well Data (D9)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><u>Secondary Indicators (minimum of two required)</u></p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Stunted or Stressed Plants (D1)</p> <p><input type="checkbox"/> Geomorphic Position (D2)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>

<p>Field Observations:</p> <p>Surface water present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u></p> <p>Water table present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u></p> <p>Saturation present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u></p> <p>(includes capillary fringe)</p>	<p>Indicators of wetland hydrology present? <u>N</u></p>
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Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: