Minnesota Wetland Conservation Act
Notice of Application

Item 7D.
BCWMC 3-16-17

Local Government Unit (LGU)	Address
City Of Golden Valley	**7800 Golden Valley Road** **Golden Valley, MN 55427**

1. PROJECT INFORMATION

Applicant Name	Project Name	Date of Application	Application Number
John Ekola	**CSAH 66 (Golden Valley Road)/Bassett Creek Culvert Replacement**	**3/8/17**	**NA**

Type of Application (check all that apply):

☒ Wetland Boundary or Type Sequencing ☒ No-Loss ☐ Exemption ☐

☐ Replacement Plan ☐ Banking Plan

Summary and description of proposed project (attach additional sheets as necessary):

The culvert on CSAH 66 (Golden Valley Rd) over Bassett Creek is structurally deficient and is in need of replacement. An attempt to develop repair plans was made but was deamed unfeasable. The culvert will be replaced with a three sided bridge in the same location.

2. APPLICATION REVIEW AND DECISION

Signing and mailing of this completed form to the appropriate recipients in accordance with 8420.0255, Subp. 3 provides notice that an application was made to the LGU under the Wetland Conservation Act as specified above. A copy of the application is attached. Comments can be submitted to:

Name and Title of LGU Contact Person	Comments must be received by (minimum 15 business-day comment period):
Jeff Oliver	**3/31/17**
Address (if different than LGU)	Date, time, and location of decision: **April 5, 2017**
Phone Number and E-mail Address **763-593-8034**	Decision-maker for this application: ☒ Staff ☐ Governing Board or Council

Signature: _____ Date: 3/8/17

3. LIST OF ADDRESSEES

- ☒ SWCD TEP member: **Stacey Lijewski**
- ☒ BWSR TEP member: **Ben Meyer**
- ☐ LGU TEP member (if different than LGU Contact):
- ☒ DNR TEP member: **Kate Drewry, Becky Horton**
- ☐ DNR Regional Office (if different than DNR TEP member)
- ☒ WD or WMO (if applicable): **Laura Jester**
- ☒ Applicant (notice only) and Landowner (if different)
- ☐ Members of the public who requested notice (notice only):

- ☒ Corps of Engineers Project Manager (notice only)
- ☐ BWSR Wetland Bank Coordinator (wetland bank plan applications only)

4. MAILING INFORMATION

➢For a list of BWSR TEP representatives: www.bwsr.state.mn.us/contact/WCA_areas.pdf

➢For a list of DNR TEP representatives: www.bwsr.state.mn.us/wetlands/wca/DNR_TEP_contacts.pdf

➢Department of Natural Resources Regional Offices:

NW Region:	NE Region:	Central Region:	Southern Region:
Reg. Env. Assess. Ecol. Div. Ecol. Resources 2115 Birchmont Beach Rd. NE Bemidji, MN 56601	Reg. Env. Assess. Ecol. Div. Ecol. Resources 1201 E. Hwy. 2 Grand Rapids, MN 55744	Reg. Env. Assess. Ecol. Div. Ecol. Resources 1200 Warner Road St. Paul, MN 55106	Reg. Env. Assess. Ecol. Div. Ecol. Resources 261 Hwy. 15 South New Ulm, MN 56073

For a map of DNR Administrative Regions, see: http://files.dnr.state.mn.us/aboutdnr/dnr_regions.pdf

➢For a list of Corps of Project Managers: www.mvp.usace.army.mil/regulatory/default.asp?pageid=687
or send to:

➢

US Army Corps of Engineers
St. Paul District, ATTN: OP-R
180 Fifth St. East, Suite 700
St. Paul, MN 55101-1678

➢For Wetland Bank Plan applications, also send a copy of the application to:

Minnesota Board of Water and Soil Resources
Wetland Bank Coordinator
520 Lafayette Road North
St. Paul, MN 55155

5. ATTACHMENTS

In addition to the application, list any other attachments:

- ☒ **Location Map and Delienation Report**
- ☐
- ☐
- ☐
- ☐

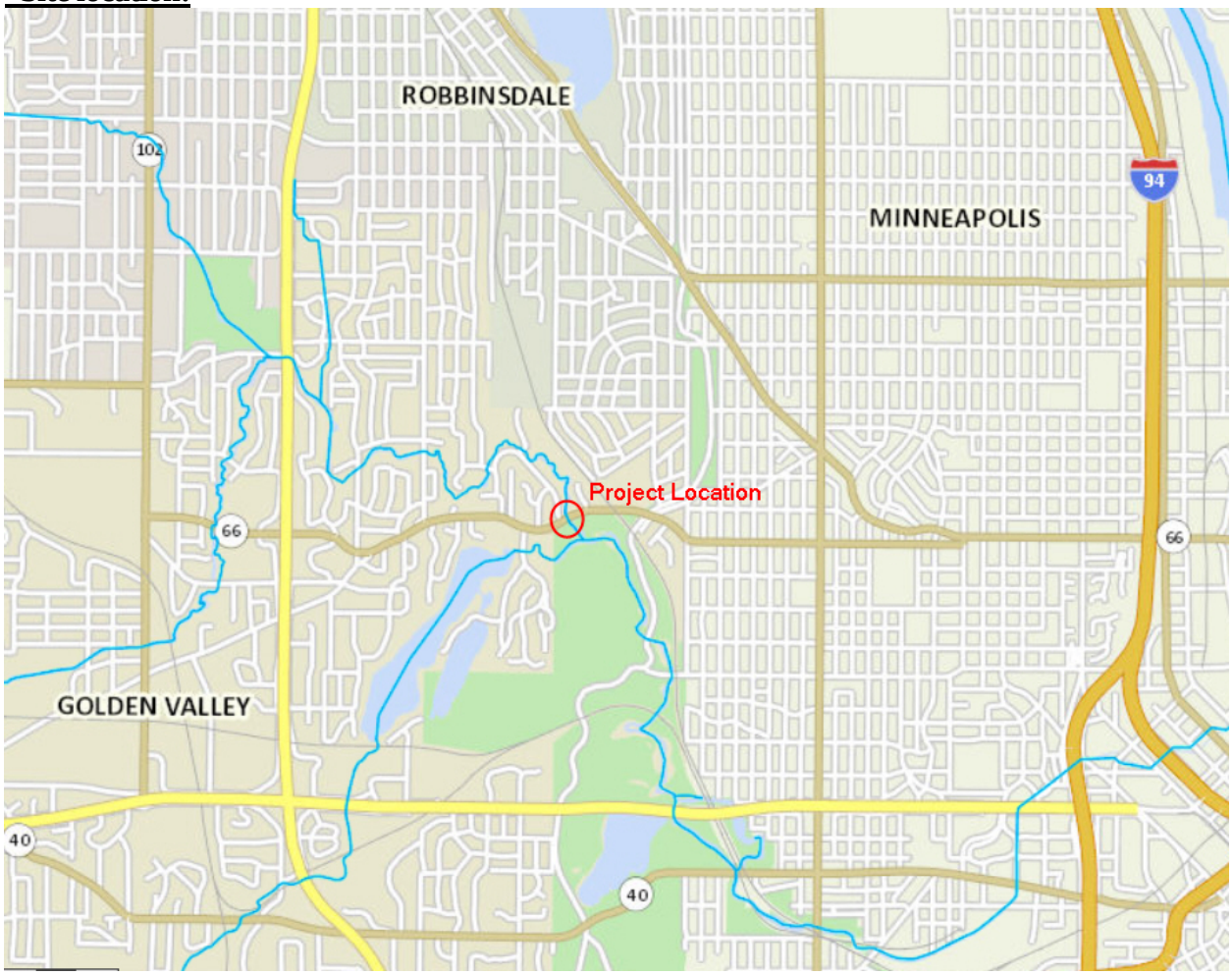
WETLAND DELINEATION REPORT

CSAH 66
City of Golden Valley, MN
August, 2016

Prepared by:

Hennepin County Environmental Services.
Attn: Tony Brough,
1600 Prairie Dr.
Medina, MN 55340
612-348-4378

***Site location:**



***Description of conditions at the time of review:**

The project area was reviewed in the fall of 2015 and summer of 2016. Site conditions were basically normal for the time of the inspections.

***Purpose of the delineation**

This wetland assessment is to assist the Hennepin County Transportation Department design team with necessary wetland information to base permitting determinations. The primary project is a culvert replacement along Bassett Creek, CSAH 66.

***Methodology**

Wetlands were delineated in accordance with the *Corps of Engineers* (USACE) *Wetland Delineation Manual* (Waterways Experiment Station, 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Regional Supplement as required by Section 404 of the Clean Water Act and the Minnesota Wetland Conservation Act.

Wetland boundaries were identified as the upper-most extent of wetlands, which met criteria for hydric soils, hydrophytic vegetation, and wetland hydrology. Soils, vegetation and hydrology were documented at representative locations following typical guidance using the Routine Determination methodology. Soil colors are described in accordance with *Munsell Soil Color Charts* (1992 Revised Edition).

The Wetland classifications are based on the United States Fish and Wildlife Service (USFWS) publications *Wetlands and Deepwater Habitats of the United States* (Cowardin, 1979), *Wetlands of the United States* (Circular 39), and the *Wetlands Plants and Plant Communities of Minnesota & Wisconsin* (Eggers & Reed).

***Mapping resources & data forms**

Attached: Four data sheets document the conditions about 25 ft downslope and 25 ft upslope of the boundary. Basic in-office mapping resources are attached.

***Results and discussion**

Flowing from north to south is a DNR Public Water - Bassett Creek. The Creek itself is to be mapped as a Riverine System and under the DNR regulation.

There are floodplain wetlands delineated on both side of CSAH 66. The primary hydrology for the identified wetlands are flood waters from Bassett Creek.

The vegetation and hydrology are generally exhibiting "normal circumstances." All three parameters have been historically altered in portions of the project from the original road construction and maintenance (includes fill, culverts, etc.). The original road construction hydrologic alterations have stabilized and remained consistent for numerous years, so the vegetation is representative of current growing hydrologic conditions.

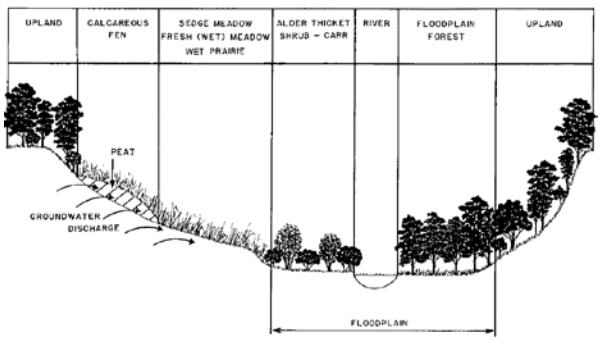


FIGURE 6 — GENERALIZED CROSS SECTION OF WETLAND PLANT COMMUNITIES IN A RIVER VALLEY

North Side of CSAH 66: Type 1 (PFO1A) – Hardwood Swamp

This delineated boundary follows a typical "simple slope" with the herbaceous vegetation layer changing from FacU to FacW species along a fairly steep slope. This includes a well-defined shoulder, slope, foot-slope, and toe-slope typical of roadside wetland delineations.

The first 40 feet north of the culvert has extremely steep slopes and no discernable floodplain wetland. This area will be mapped as riverine system only. As you continue north the slope flattens out to create a floodplain wetland dominated by reed canary grass, exposed soils due to flooding, a mixture of boxelder/green ash trees and an understory of common buckthorn.

South Side of CSAH 66: Type 1 (PEM1A) – Fresh (wet) Meadow & Shrub-Carr

South of the road, there is a narrow floodplain wetland on both sides of Bassett Creek. The creek bank has been riprapped and it also appears to have been historically re-seeded with native vegetation. With that, the dominate vegetation consists of sandbar willow and reed canary grass. Some other native herbaceous vegetation is mixed into these dominates. There appears to have been a previous wetland/upland delineation in this area utilizing orange flagging. My delineation concurred with this determination.

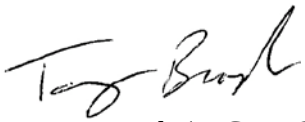
***Jurisdiction**

WCA - The City of Golden Valley - Eric Eckman and Jeff Oliver (763-593-8084).
USACOE - Melissa Jenny (melissa.m.jenny@usace.army.mil)
DNR – MPARS – Public Waters Work Permit http://www.dnr.state.mn.us/mpars/index.html

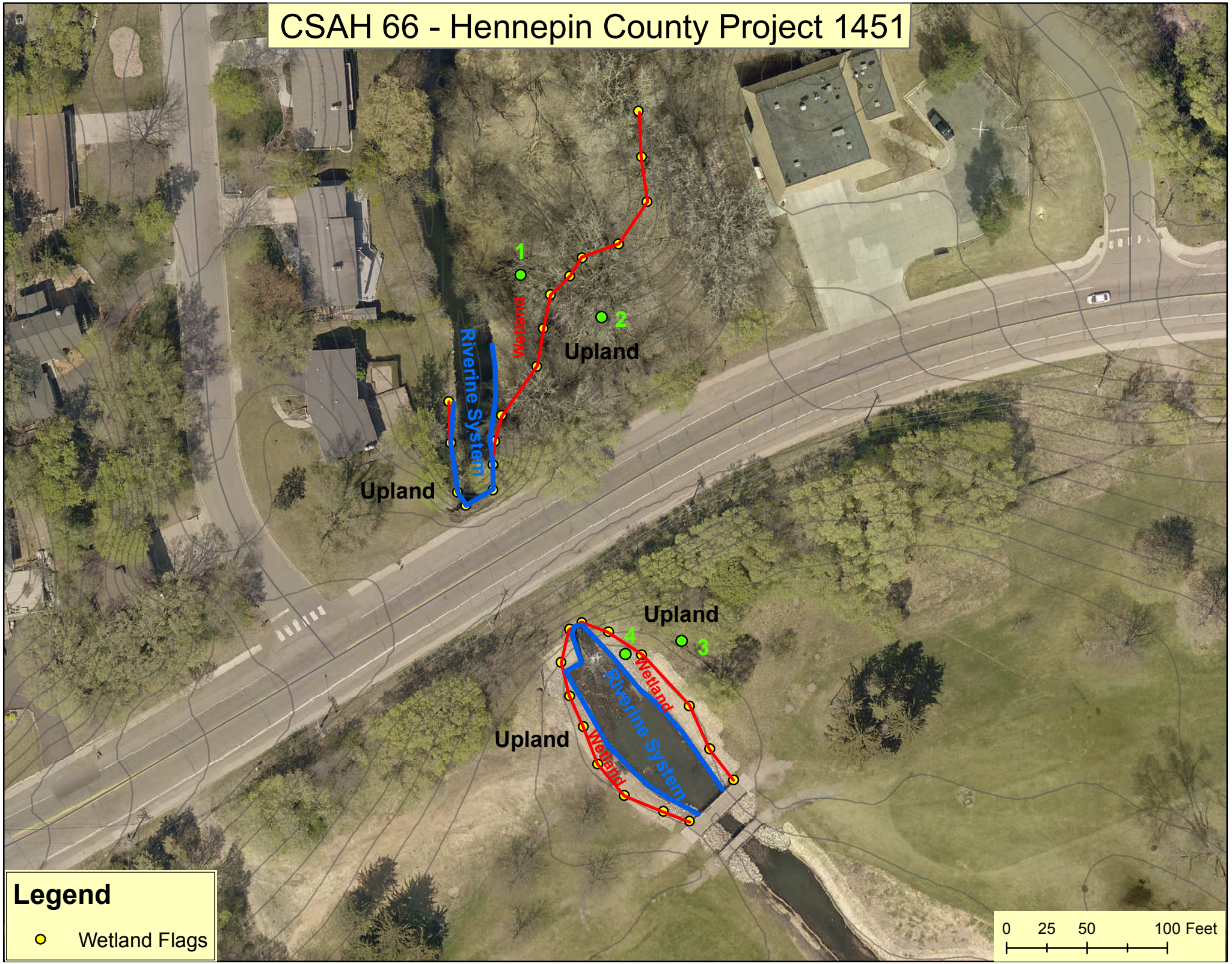
***Conclusion**

Wetland delineation services were performed with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions, including, but not limited to, time, proposed project, and budgetary constraints. No other warranty, express or implied, is made. Wetland boundaries and regulatory interpretations are subject to verification and/or corroboration by jurisdictional authorities. This report does not represent approval for any activities on the property. The ultimate responsibility for obtaining permits and approvals remains with the client.

If you have questions or would like further information, please contact me (612-348-4378).



Tony Brough (WCDP Cert #1082)
Hennepin County Environmental and Energy


CSAH 66 - Hennepin County Project 1451
1
2
Wetland
Riverine System
Upland
Upland
Upland
3
4
Wetland
Riverine System
Wetland
Upland
Legend
Wetland Flags
0
25
50
100 Feet

U.S. Fish and Wildlife Service

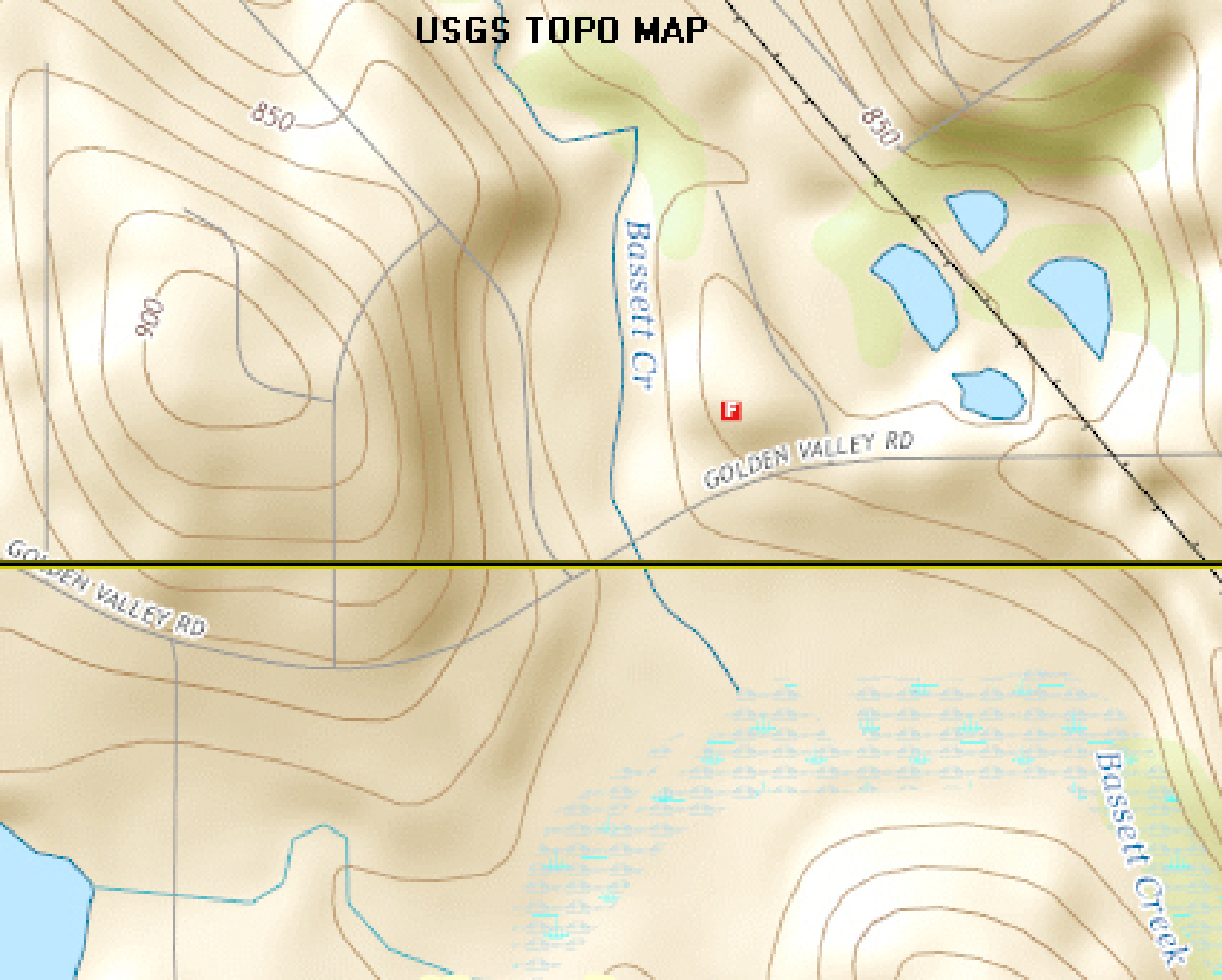
National Wetlands Inventory

Aug 20, 2015

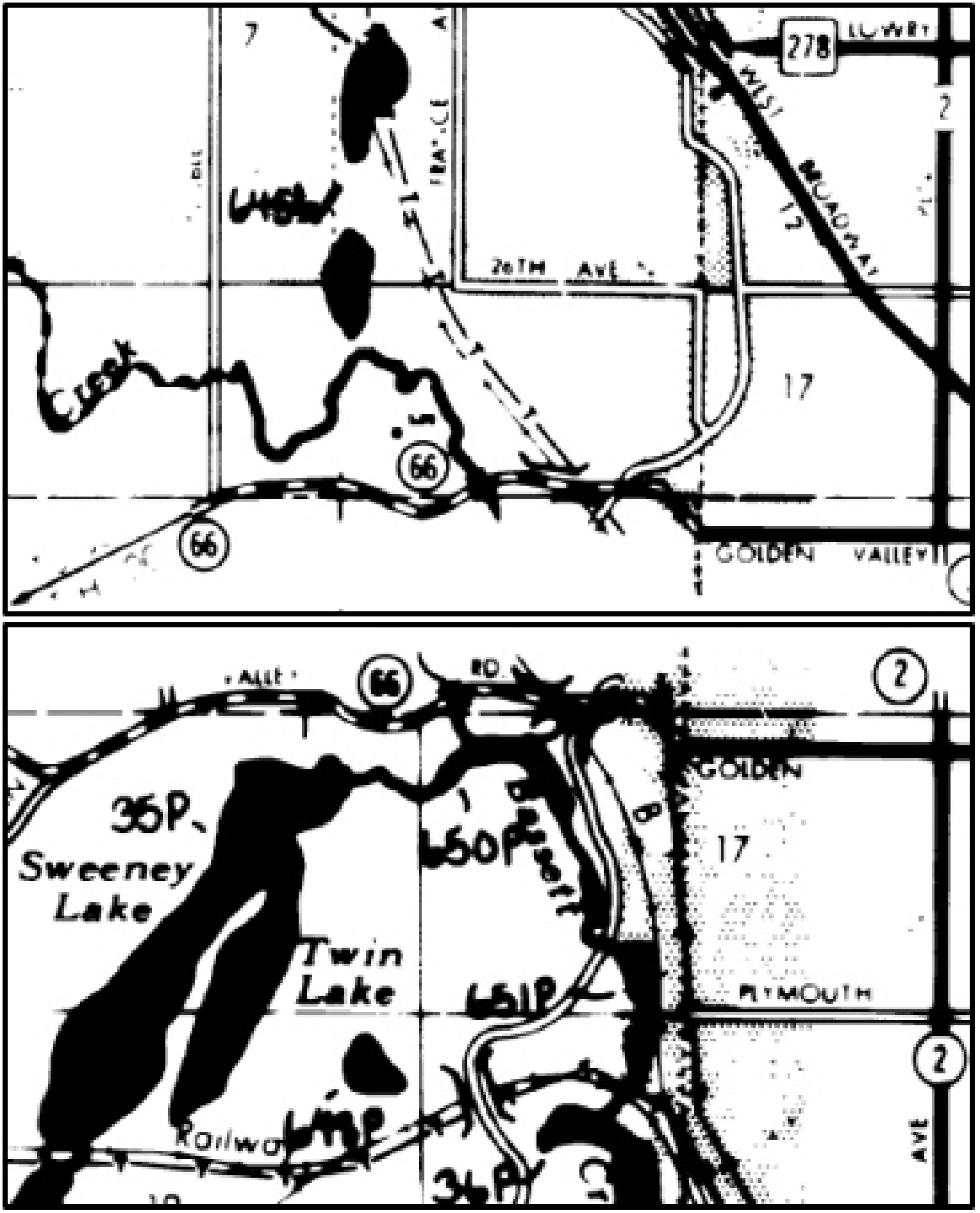
Wetlands

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

User Remarks:


USGS TOPO MAP
850
900
850
Bassett Cr
GOLDEN VALLEY RD
GOLDEN VALLEY RD
Bassett Creek

Public Water Inventory – MN DNR



Map Scale: 1:1,260 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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: http://websoilsurvey.nrcs.usda.gov
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: Hennepin County, Minnesota
Survey Area Data: Version 10, Sep 16, 2014

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

Date(s) aerial images were photographed: Aug 26, 2014—Sep 7, 2014

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

Map Unit Legend

Hennepin County, Minnesota (MN053)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
L28A	Suckercreek fine sandy loam, 0 to 2 percent slopes, occasionally flooded	3.2	56.1%
L52C	Urban land-Lester complex, 2 to 18 percent slopes	0.0	0.8%
L52E	Urban land-Lester complex, 18 to 35 percent slopes	1.2	20.2%
U2A	Udorthents, wet substratum, 0 to 2 percent slopes	1.3	23.0%
Totals for Area of Interest		**5.8**	**100.0%**

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CSAH 66 - Golden Valley City/County: Hennep / Go. V.ully Sampling Date: 9-1-15

Applicant/Owner: ______ State: MN Sampling Point: (1)

Investigator(s): T. Brogh Section, Township, Range: 17, T. 118N, R. 21W.

Landform (hillslope, terrace, etc.): \ Local relief (concave, convex, none): ______

Slope (%): 0-5 Lat: ______ Long: 514394.771 (HC) 176376.224 ft Datum: Hen. Cnty

Soil Map Unit Name: L28A - Seelcreek fine s. loam NWI or WWI classification: PFO1A

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

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

Are Vegetation ______, Soil ______, or Hydrology ______ naturally problematic? No (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 X No ______	Is the Sampled Area within a Wetland? Yes X No ______
Hydric Soil Present?	Yes X No ______	
Wetland Hydrology Present?	Yes X No ______	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1. Green Ash "Fraxinus pensylvanica"	40	Y	FacW
2. Boxelder "~~Boxelder~~ "Acer negundo"	50	Y	FAC
3.			
4.			
5.			
	______ = Total Cover		
Sapling/Shrub Stratum (Plot size: ______)			
1. European Buckthorn "Rhamnus cathartica"	100	Y	FAC
2.			
3.			
4.			
5.			
	______ = Total Cover		
Herb Stratum (Plot size: ______)			
1. Reed canary grass "Phalaris arundinacea"	70	Y	FacW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	______ = Total Cover		
Woody Vine Stratum (Plot size: ______)			
1.			
2.			
	______ = 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	______	x 1 = 0
FACW species	______	x 2 = 0
FAC species	______	x 3 = 0
FACU species	______	x 4 = 0
UPL species	______	x 5 = 0
Column Totals:	______ (A)	0 (B)

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

__ Prevalence Index is ≤3.0[1]

__ 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 X No ______

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

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/1						(Sandy loam mix) mucky	Sandy loam mix
18-20	10YR 5/2		2.5Y 4/4				sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- X Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X 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)
- ___ Iron-Manganese Masses (F12)
- ___ 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 X No ____

Remarks:

Floodplain west of Beech Creek

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X 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 on 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)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

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

Water Table Present? Yes X No ____ Depth (inches): 17"

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 15"

Wetland Hydrology Present? Yes X No ____

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

Remarks:

Floodplain areas of exposed soils due to ponding for long durations

Creek #1

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CSAH 66- Golden Valley City/County: Hern. Co. Golden Valley Sampling Date: 9-1-15 (2)
Applicant/Owner: ______ State: ______ Sampling Point: ______
Investigator(s): T. Bray Section, Township, Range: 17, T. 118N R. 21W
Landform (hillslope, terrace, etc.): ______ Local relief (concave, convex, none): ______
Slope (%): 10-15 Lat: 514447.162 ft Long: 176347.717 ft Datum: Hen. Cnty
Soil Map Unit Name: L28A Sebrosed Grc Sand loam NWI or WWI classification: —
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ______ (If no, explain in Remarks.)
Are Vegetation ______, Soil X, or Hydrology ______ significantly disturbed? Yes Are "Normal Circumstances" present? Yes X No ______
Are Vegetation ______, Soil ______, or Hydrology ______ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ______ No X	Is the Sampled Area within a Wetland? Yes ______ No X
Hydric Soil Present?	Yes ______ No X	
Wetland Hydrology Present?	Yes ______ No X	

Remarks:
Historic Road fill

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1. Boxelder "Acer negundo"	90	Y	FAC
2.			
3.			
4.			
5.			
	______ = Total Cover		
Sapling/Shrub Stratum (Plot size: ______)			
1. European Buckthorn "Rhamnus cathartica"	90	Y	FAC
2.			
3.			
4.			
5.			
	______ = Total Cover		
Herb Stratum (Plot size: ______)			
1. Garlic mustard "Alliaria petiolata"	30	Y	FAC
2. Virginia creeper "P. quinquefolia"	30	Y	FACU
3. Stickseed "Hackelia virginiana"	20	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	______ = Total Cover		
Woody Vine Stratum (Plot size: ______)			
1.			
2.			
	______ = 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: 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	x 1 = 0
FACW species	0	x 2 = 0
FAC species	2	x 3 = 0 6
FACU species	2	x 4 = 0 8
UPL species	0	x 5 = 0
Column Totals:	4 (A)	14 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1] (Nope)
___ 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 X

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

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	mucl	90	mottles					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 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)
- ___ Iron-Manganese Masses (F12)
- ___ 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 (circled)

Remarks:

Based off of veg. + hydr criteria. Soils disturbed

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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 X Depth (inches): ___

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

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

Wetland Hydrology Present? Yes ___ No X

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

Remarks:

No wetland met or indicators present. Steep slope up to plot from creek bed

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CSAH 66 – Golden Valley City/County: Henn. County Golden Valley Sampling Date: 9-1-15 (3)

Applicant/Owner: / State: MN Sampling Point: ______

Investigator(s): T. Brown Section, Township, Range: 17, T. 118N, R. 21W

Landform (hillslope, terrace, etc.): ✓ Local relief (concave, convex, none): ______

Slope (%): ______ Lat: 514460.045 Ft Long: 176140672 Ft Datum: Henn. County

Soil Map Unit Name: L28A – Seelyeville ... loam NWI or WWI classification: ______

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

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

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

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

Hydrophytic Vegetation Present?	Yes ______	No X
Hydric Soil Present?	Yes ______	No X
Wetland Hydrology Present?	Yes ______	No X

Is the Sampled Area within a Wetland? Yes ______ No X

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1. Boxelder "Acer negundo"	30	Y	FAC
2. Green ash "Fraxinus pennsylvanica"	60	Y	FACW
3.			
4.			
5.			
= Total Cover			

Sapling/Shrub Stratum (Plot size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
= Total Cover			

Herb Stratum (Plot size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1. Giant ragweed "Ambrosia trifida"		Y	FAC
2. Creeping charlie "Glechoma hederacea"		Y	FACU
3. White snakeroot "Ageratina altissima"		Y	FACU
4. Virginia stickseed "Hackelia virginiana"		Y	FACU
5.			
6.			
7.			
8.			
9.			
10.			
= Total Cover			

Woody Vine Stratum (Plot size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
= 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: 3 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	—	x 1 = 0
FACW species	1	x 2 = 2
FAC species	2	x 3 = 6
FACU species	3	x 4 = 12
UPL species	—	x 5 = 0
Column Totals:	6 (A)	20 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

- ___ Dominance Test is >50%
- ✓ Prevalence Index is ≤3.0[1]
- ___ 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 X

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

Strong upland herbaceous layer.

SOIL

Sampling Point: 3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/3						loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 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)
- ___ Iron-Manganese Masses (F12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

No criteria met or indicators identified

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ 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 X Depth (inches): — 11

Water Table Present? Yes _____ No X Depth (inches): — 16

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): — 16

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

No criteria met or indicators identified

Reset Form | Print Form

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CSAH 66 - Golden Valley City/County: Hennepin County / Golden Valley Sampling Date: 9-1-15

Applicant/Owner: State: MN Sampling Point: (4)

Investigator(s): T. Bry Section, Township, Range: 17, T. 118N, R. 21W

Landform (hillslope, terrace, etc.): Local relief (concave, convex, none):

Slope (%): 5-10 Lat: 514447.160 ft Long: 1716347.710 ft Datum: N.C. county

Soil Map Unit Name: L28A NWI or WWI classification:

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

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

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

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

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

Remarks: Riprap next to creek stretch

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. Sandbar willow "Salix interior"	40	Y	FACW
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Reed canary grass "Phalaris arundinacea"	75	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = 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 ____	x 1 =	0
FACW species ____	x 2 =	0
FAC species ____	x 3 =	0
FACU species ____	x 4 =	0
UPL species ____	x 5 =	0
Column Totals: ____ (A)		0 (B)

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

- ✓ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ 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 X No ____

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

[redacted]

SOIL

Sampling Point: 4'

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 %	Type[1]	Loc[2]	Texture	Remarks
Riprap	Structure	- dist						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 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)
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- ___ 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)
- ___ Iron-Manganese Masses (F12)
- ___ 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 X No ___

Remarks:
Based off of hydrology + vegetation

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

	Yes	No	Depth (inches)
Surface Water Present?		X	
Water Table Present?	X		6"
Saturation Present? (includes capillary fringe)	X		6"

Wetland Hydrology Present? Yes X No ___

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

Remarks: