

October 19, 2018

Mr. Peter Sachs
3285 Nelson Road
Sun Prairie, WI, 53590

RE: Wetland Determination Summary – Sachs Parcel, Town of Burke, Dane County, Wisconsin

Dear Mr. Sachs:

Heartland Ecological Group, Inc. (“Heartland”) completed an assured wetland determination at the Project Site on August 30th, 2018 at the request of Mr. Peter Sachs. Fieldwork was completed by Jeff Kraemer, an assured delineator qualified via the Wisconsin Department of Natural Resources (WDNR) Wetland Delineation Assurance Program and Scott Fuchs, Environmental Technician. The 11.1-acre site (the “Study Area”) lies southwest of the intersection of Nelson Road and Sunnyburke Drive, in the southeast ¼ of Section 24, T8N, R10E, Town of Burke, Dane County, Wisconsin (Attachment 1, Figure 1). The purpose of the wetland delineation was to determine the location and extent of wetlands within the Study Area. There were no wetlands identified within the Study Area (Attachment 1, Figure 5).

Methods

Wetland determinations were based upon the criteria and methods described in the USACE Wetlands Delineation Manual, T.R. Y-87-1 (“1987 Corps Manual”) and the applicable Regional Supplement to the Corps of Engineers Wetland Delineation Manual. In addition, the Guidance for Submittal of Delineation Reports to the St. Paul District USACE and the WDNR (WDNR, 2015) was followed in completing the wetland delineation and report.

Determinations and delineations utilized available resources including the U.S. Geological Survey (USGS) WI 7.5 Minute Series (Topographic) Map (Attachment 1, Figure 2), the Soil Survey Geographic (SSURGO) Database, Web Soil Survey (Attachment 1, Figure 3), the National Wetland Inventory mapping (Attachment 1, Figure 4), and aerial imagery available through the U.S. Department of Agriculture (USDA) Farm Service Agency’s (FSA) National Agriculture Imagery Program (NAIP) and Dane County’s interactive mapping. The USGS National Hydrography Dataset is included on Figures 2 and 4.

Results

According to the WETS analysis using the previous three (3) months of precipitation data, conditions encountered at the time of the fieldwork were expected to be normal for the time of year (Attachment 2, WETS Analysis). Site conditions observed during the field investigation were determined to be wetter than normal given the time of year due to high precipitation events occurring approximately 10 days prior to the field investigation and over 10 inches of precipitation recorded through the preceding month.



The topography within the Study Area was generally gently sloping, with the exception of an excavated swale in the northcentral portion of the Study Area. A topographic high of approximately 982 feet above mean sea level (msl) was observed in the southeastern corner of the Study Area. A topographic low of approximately 950 feet above msl was observed within the excavated swale in the northcentral portion of the Study Area (Attachment 1, Figures 2 and 5). Land use within the Study Area is primarily residential; with portions of old field, woodland, and agricultural row cropping also present in the Study Area and surrounding properties.

Soils mapped by the NRCS Soil Survey within the Study Area and their hydric status are summarized in Table 1 and illustrated on Figure 3. Those areas of the Study Area with hydric or potentially hydric soils mapped on by the NRCS were the primary focus of the field wetland determination. The National Wetlands Inventory (NWI) mapping (Attachment 1, Figure 4) does not identify wetlands within the Study Area.

Table 1. Summary of NRCS Mapped Soils within the Study Area

Soil symbol: Soil Unit Name	Soil Unit Component	Soil Unit Component Percentage	Landform	Hydric status
DnB: Dodge silt loam, 2 to 6 percent slopes	Dodge	80-95	Drumlins	No
	St. Charles	3-10	Drumlins	No
	Mayville	2-7	Drumlins	No
	Lamartine	0-3	Drumlins	No
DsC2: Dresden silt loam, 6 to 12 percent slopes, eroded	Dresden-Eroded	85-95	Plains	No
	Casco-Eroded	3-8	Moraines	No
	Kegonsa	2-7	Plains	No
KeB: Kegonsa silt loam, 2 to 6 percent slopes	Kegonsa	100	Outwash plains	No
MdC2: McHenry silt loam, 6 to 12 percent slopes, eroded	McHenry-Eroded	85-95	Moraines	No
	Kendall	2-7	Drainageways	No
	Kidder-Eroded	3-8	Moraines	No
ScB: St. Charles silt loam, 2 to 6 percent slopes	St. Charles	80-90	Till plains	No
	St. Charles-Moderately well drained	5-10	Till plains	No
	Virgil	3-5	Till plains	No
	Pella	2-5	Drainageways	Yes



Soil symbol: Soil Unit Name	Soil Unit Component	Soil Unit Component Percentage	Landform	Hydric status
TrB: Troxel silt loam, 0 to 3 percent slopes	Troxel-Wet substratum	80-90	Depressions, moraines	No
	Elburn	5-11	Drainageways	No
	Plano	5-9	Till plains	No

Wetland determination data sheets (Attachment 3) were completed at three (3) sample points where potential wetlands may be present based on the desktop review and field reconnaissance. Attachment 3 provides photographs, typically at the sample point locations. The sample point locations are shown on Figure 5.

Vegetation at sample point P1 was comprised of an old field plant community dominated by smooth brome grass (*Bromus inermis*, FACU) and box elder (*Acer negundo*, FAC). Canada goldenrod (*Solidago canadensis*, FACU), common thistle (*Cirsium vulgare*, FACU), and stickseed (*Hackelia virginiana*, FACU) were also present. Therefore, the hydrophytic vegetation criteria was not satisfied. No field indicators of hydric soils or indicators of wetland hydrology were observed.

Vegetation at sample point P2 was comprised of a disturbed mesic woodland plant community dominated by wood violet (*Viola hirsutula*, FACU), buckthorn (*Rhamnus cathartica*, FAC), mulberry (*Morus alba*, FACU), and green ash (*Fraxinus pennsylvanica*, FACW). Therefore, the hydrophytic vegetation criteria was not satisfied. No field indicators of hydric soils or indicators of wetland hydrology were observed.

Sample point P3 was recorded within a swale/old farm dump area excavated in approximately historically. Vegetation at sample point P3 was comprised of a disturbed mesic/lowland woodland plant community dominated by stickseed (*H. virginiana*, FACU), garlic mustard (*Allaria petiolata*, FACU), silver maple (*Acer saccharinum*, FACW), and American elm (*Ulmus Americana*, FACW). The dominance test for hydrophytic vegetation was not satisfied. The vegetation did not pass the prevalence index test due to the absence of hydric soils. The wetland hydrology indicators of "Saturation" (A3), "Drainage Patterns" (B10), and "Geomorphic Position" (D2) were observed. No field indicators of hydric soils were observed. Although wetland hydrology indicators were present, consideration of the recent extreme precipitation patterns, the absence of hydric soils and mixture of hydrophytic and non-hydrophytic vegetation has led the investigator to determine that this area does not qualify as a wetland.

Based on the results of the wetland determination, no wetlands are present within the limits of the Study Area.

Heartland recommends that all applicable regulatory agency reviews and permits are obtained prior to beginning work within the Study Area. Heartland can assist with evaluating the need for additional environmental reviews, surveys, or regulatory agency coordination in consideration of the proposed activity and land use as requested but is outside of the scope of the wetland determination.



Mr. Peter Sachs
Sachs Parcel
Project #:20180094
October 19, 2018

Experienced and qualified professionals completed the wetland determination using standard practices and professional judgment. Wetland determinations may be affected by conditions present within the Study Area at the time of the fieldwork. All final decisions on wetlands are made by the USACE, the WDNR, and/or sometimes a local unit of government. Wetland determination reviews by regulatory agencies may result in modifications to the findings presented to the Client. These modifications may result from varying conditions between the time the wetland determination was completed and the time of the review. Factors that may influence the findings may include but not limited to precipitation patterns, drainage modifications, changes or modification to vegetation, and the time of year.

Please feel free to contact me if you have any questions regarding this wetland determination.

Regards,

Jeff Kraemer, Principal
Heartland Ecological Group, Inc.
jeff@heartlandecological.com
608.433.9864

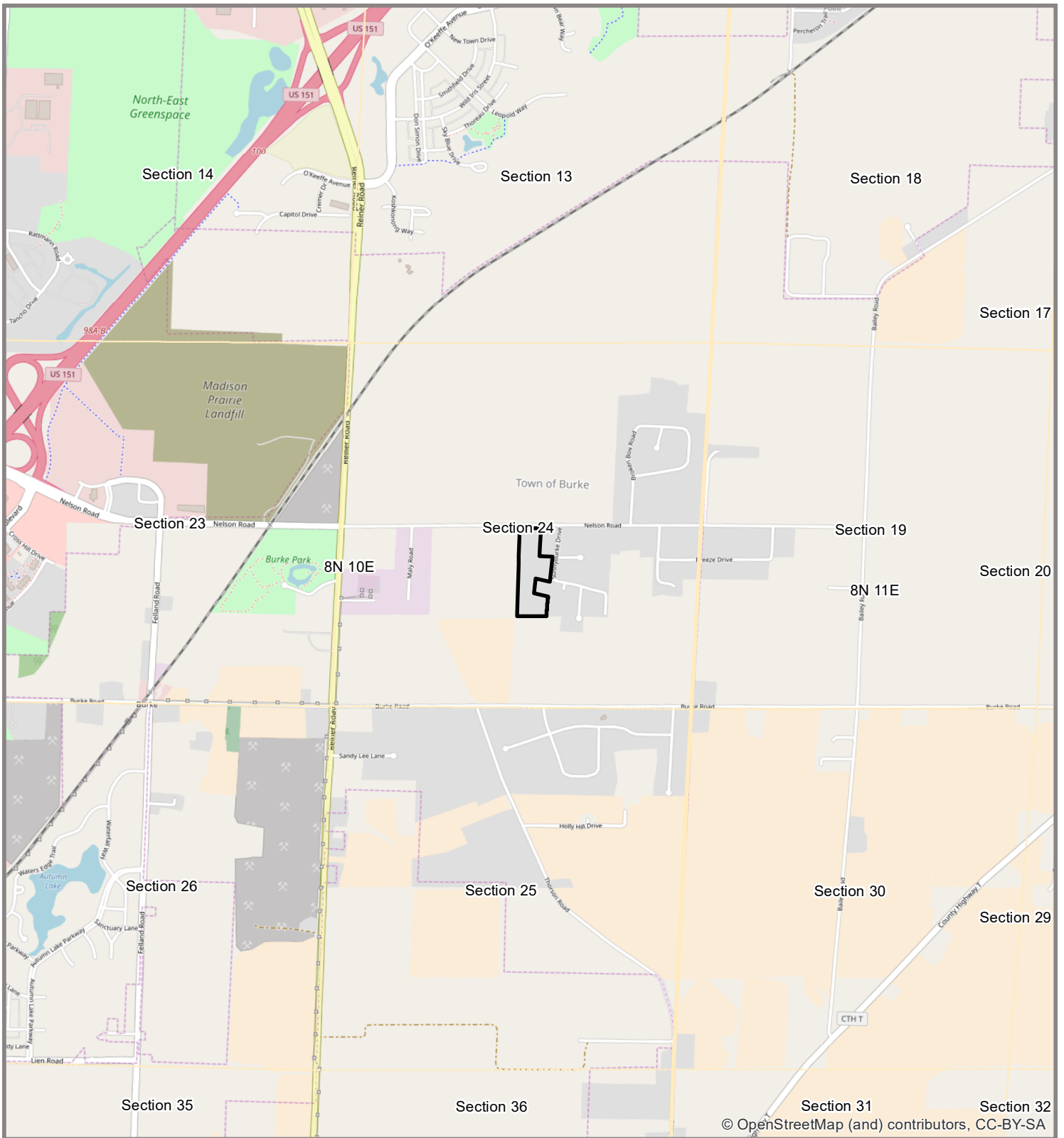
Attachments:

- 1 – Figures 1-5
- 2 – WETS Analysis
- 3 – Wetland Determination Data Sheets
- 4 – Site Photographs

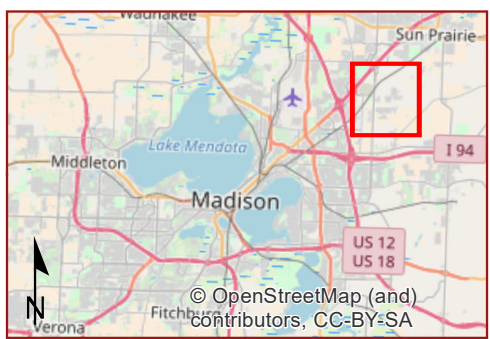


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Attachment 1 | Figures

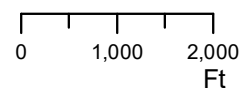


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- Study Area (11.1 ac)
- Township
- Section

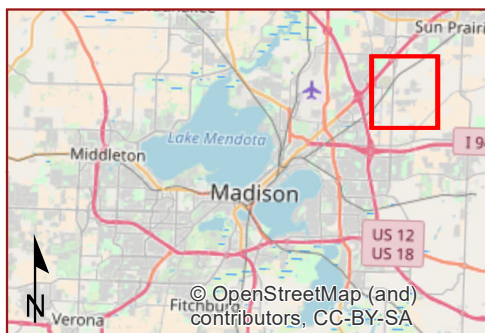
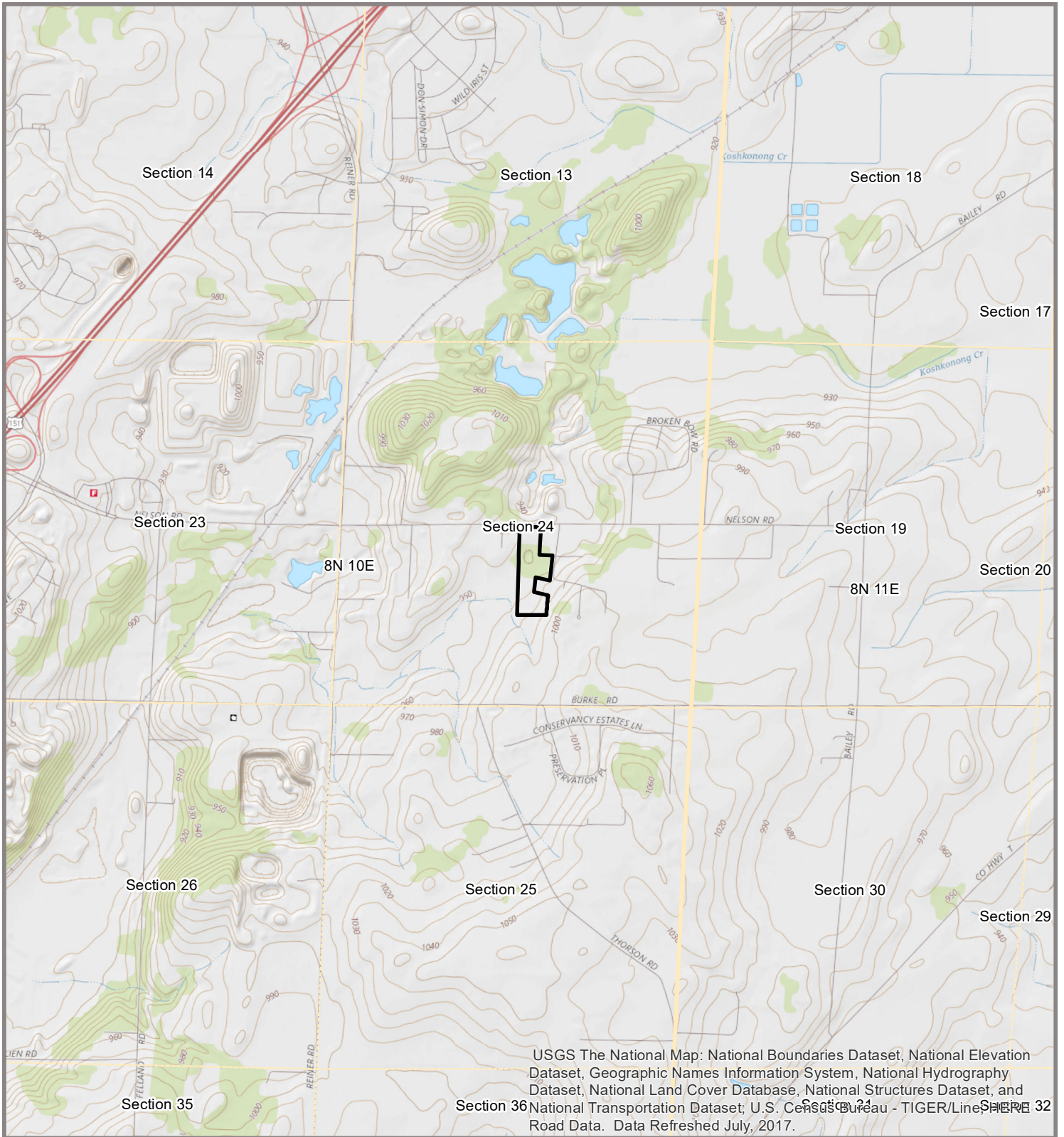


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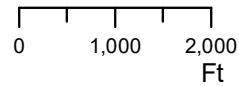
Figure 1. Project Location

Sachs Parcel
Project #20180094
T8N, R10E, S24
T Burke, Dane Co., WI

OpenStreetMap
Data: HEG 8/16/2018



- Study Area (11.1 ac)
- Township
- Section



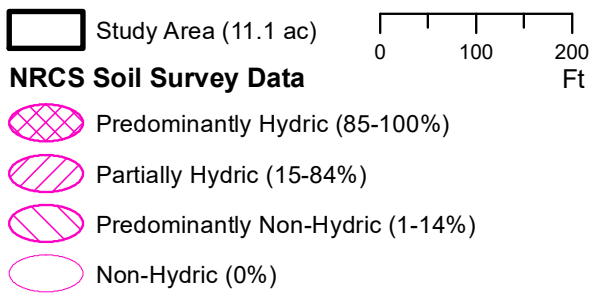
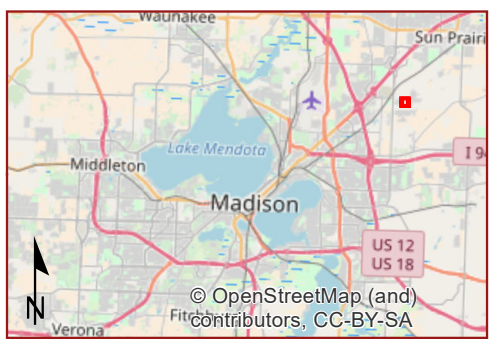
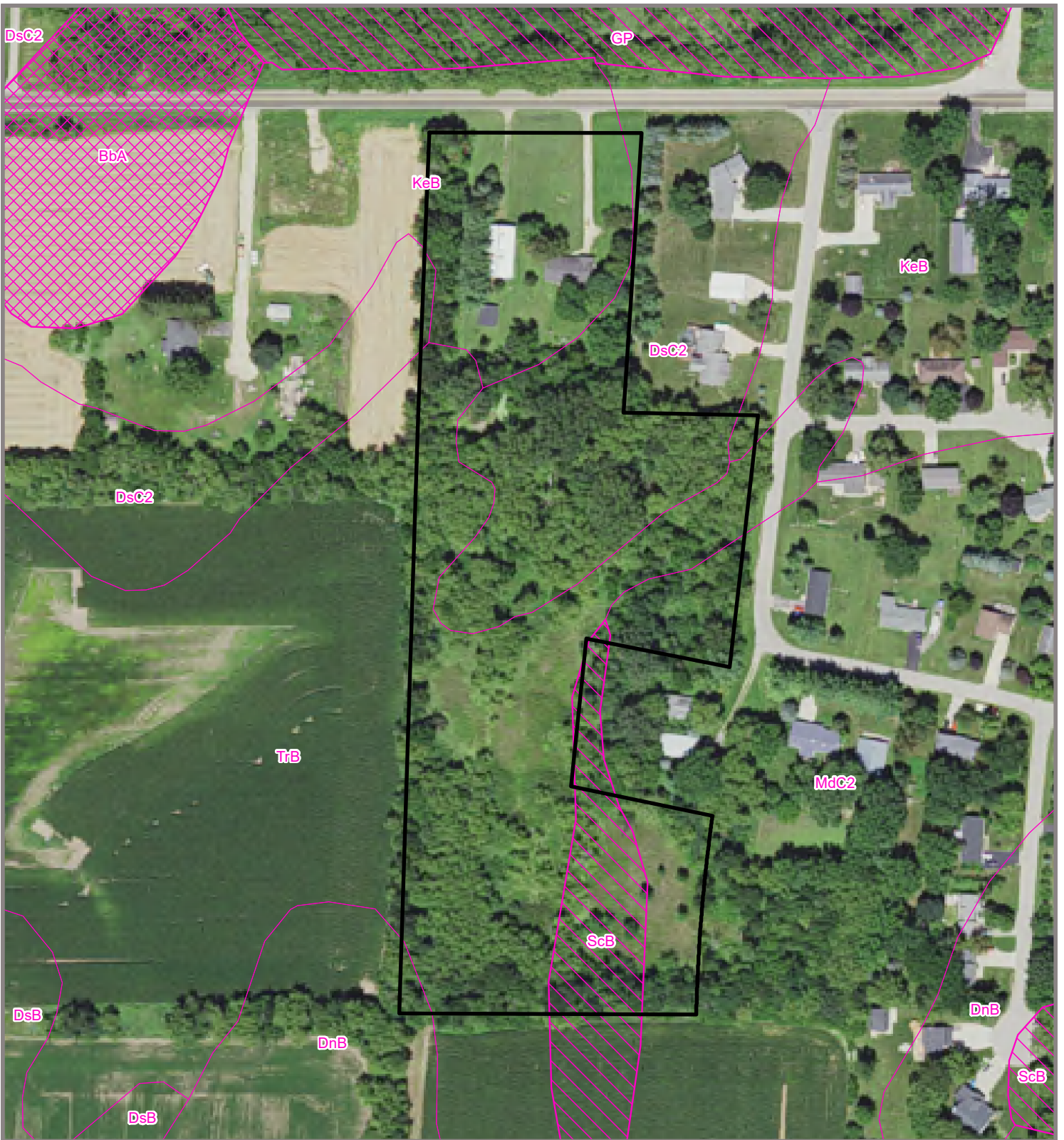
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Figure 2. USGS Topography

Sachs Parcel
Project #20180094
T8N, R10E, S24
T Burke, Dane Co., WI

USGS Topo
Data: USGS

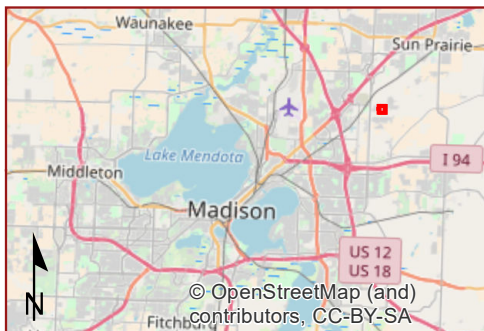
8/16/2018






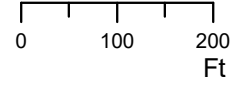
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Figure 3. NRCS Hydric Soils
 Sachs Parcel
 Project #20180094
 T8N, R10E, S24
 T Burke, Dane Co., WI

2017 NAIP
 Data: NRCS, HEG 8/16/2018



-  Study Area (11.1 ac)
-  NHD Waterway
-  NWI Wetlands

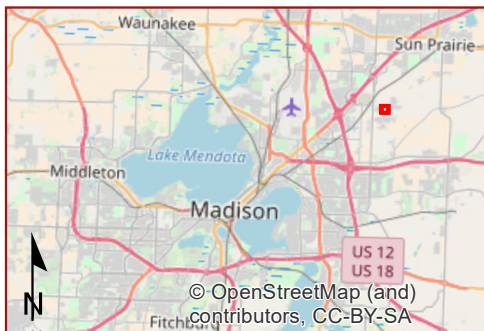
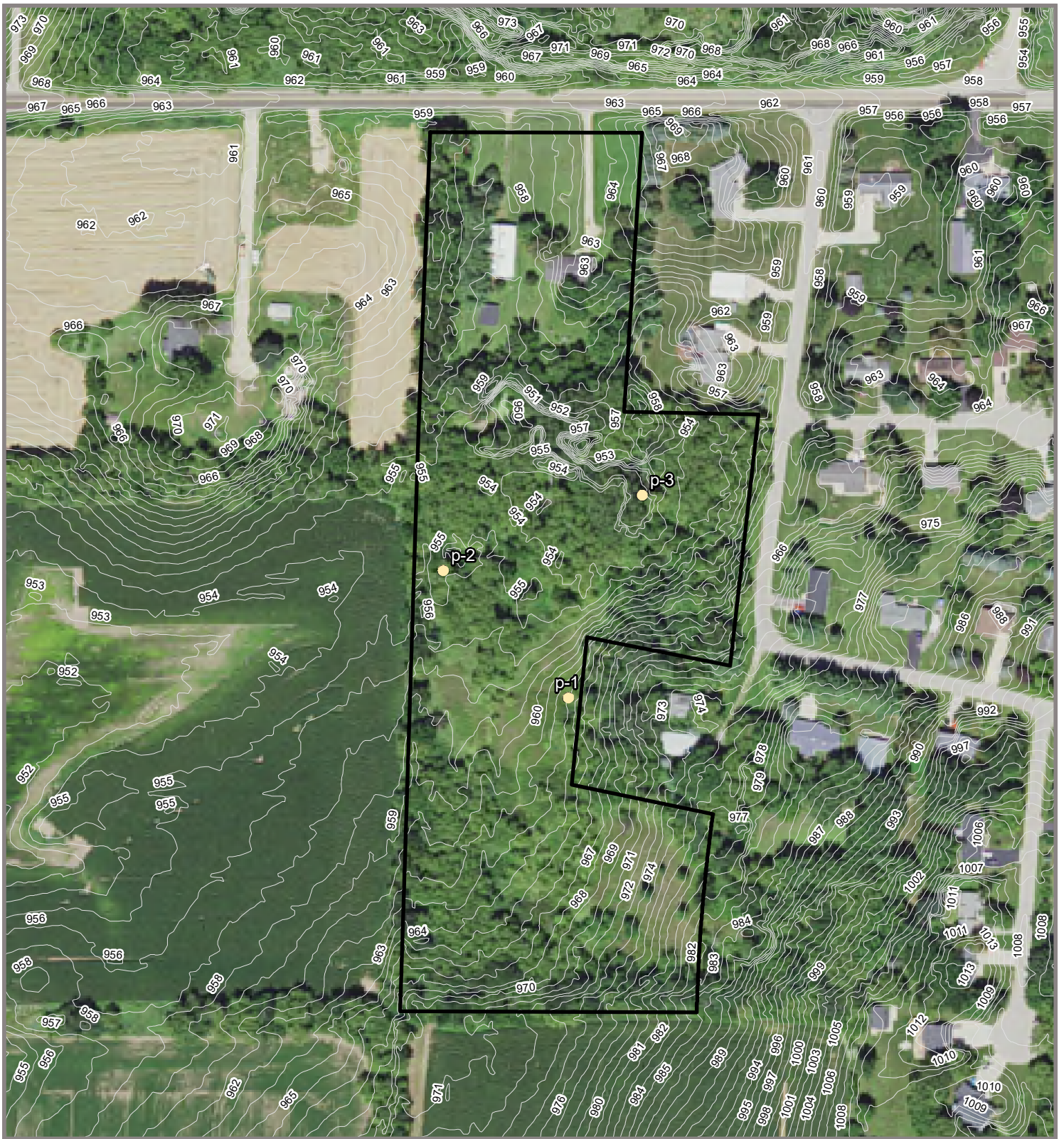




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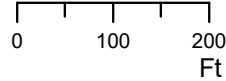
Figure 4. National Wetland Inventory

Sachs Parcel
 Project #20180094
 T8N, R10E, S24
 T Burke, Dane Co., WI

2017 NAIP
 Data: USGS, HEG 8/16/2018



 Study Area (11.1 ac)
 Dane County Contours



Sample Points

 Upland

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Figure 5. Field Map

Sachs Parcel
 Project #20180094
 T8N, R10E, S24
 T Burke, Dane Co., WI

2017 NAIP
 Data: Dane County, HEG 9/4/2018



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Project #: 20180094
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Attachment 2 | WETS Analysis

WETS Analysis Worksheet

Project Name: Sachs Parcel
 Project Number: 20180094
 Period of interest: June - August 2018
 Station: Dane County Regional Airport
 County: Dane

Long-term rainfall records (from WETS table)

	Month	3 years in 10 less than	Normal	3 years in 10 greater than
1st month prior:	August	2.67	4.34	5.25
2nd month prior:	July	3.14	4.26	5.00
3rd month prior:	June	2.99	5.05	6.13
		Sum =	13.65	

Site determination

Site Rainfall (in)	Condition Dry/Normal*/Wet	Condition** Value	Month Weight	Product
10.40	Wet	3	3	9
3.12	Dry	1	2	2
5.67	Normal	2	1	2
Sum =		19.19	Sum*** =	13

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

Determination: _____ Wet
 _____ Dry
X Normal

**Condition value:

Dry = 1
 Normal = 2
 Wet = 3

***If sum is:

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

Precipitation data source: Midwest Regional Climate Center, cli-MATE: MRCC Application Tools Environment

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



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Attachment 3 | Wetland Determination Data Sheets

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Sachs Parcel City/County: T Burke/Dane Sampling Date: 8/30/2018
 Applicant/Owner: Peter Sachs State: WI Sampling Point: P1
 Investigator(s): Jeff Kraemer, Scott Fuchs, Heartland Ecological Group Section, Township, Range: T8N, R10E, S24
 Landform (hillside, terrace, etc.): Till Plain Local relief (concave, convex, none): linear Slope %: 3-5
 Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: ScB: St. Charles silt loam, 2 to 6 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes <u>0</u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Sample point recorded within an old field, directly adjacent to area mapped as partially hydric Saint Charles silt loam. Although a WETS analysis indicates that conditions are normal for the time of year, the previous two weeks have experienced abnormally high amounts of precipitation. Conditions are likely wetter than normal for the time of year.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	---

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

Remarks:
 No wetland hydrology indicators observed.

VEGETATION – Use scientific names of plants.

Sampling Point: P1

<u>Tree Stratum</u> (Plot size: <u>30ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer negundo</u>	<u>20</u>	<u>Yes</u>	<u>FAC</u>	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>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>20</u> =Total Cover			Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>23</u></td> <td>x 3 = <u>69</u></td> </tr> <tr> <td>FACU species <u>4</u></td> <td>x 4 = <u>16</u></td> </tr> <tr> <td>UPL species <u>100</u></td> <td>x 5 = <u>500</u></td> </tr> <tr> <td>Column Totals: <u>127</u> (A)</td> <td><u>585</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>4.61</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>23</u>	x 3 = <u>69</u>	FACU species <u>4</u>	x 4 = <u>16</u>	UPL species <u>100</u>	x 5 = <u>500</u>	Column Totals: <u>127</u> (A)	<u>585</u> (B)	Prevalence Index = B/A = <u>4.61</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>23</u>	x 3 = <u>69</u>																			
FACU species <u>4</u>	x 4 = <u>16</u>																			
UPL species <u>100</u>	x 5 = <u>500</u>																			
Column Totals: <u>127</u> (A)	<u>585</u> (B)																			
Prevalence Index = B/A = <u>4.61</u>																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15ft</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ =Total Cover																			
<u>Herb Stratum</u> (Plot size: <u>5ft</u>)				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u> </u> No <u> X </u>																
1. <u>Bromus inermis</u>	<u>100</u>	<u>Yes</u>	<u>UPL</u>																	
2. <u>Cirsium vulgare</u>	<u>2</u>	<u>No</u>	<u>FACU</u>																	
3. <u>Solidago canadensis</u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
4. <u>Hackelia virginiana</u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>104</u> =Total Cover																			
<u>Woody Vine Stratum</u> (Plot size: <u>30ft</u>)																				
1. <u>Vitis riparia</u>	<u>3</u>	<u>No</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>3</u> =Total Cover																			

Remarks: (Include photo numbers here or on a separate sheet.)
 Old field/disturbed vegetation.

SOIL

Sampling Point P1

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 ¹	Loc ²		
0 - 14	10YR 3/2	100					Loamy/Clayey	Silty Clay Loam
14 - 18	10YR 3/2	60					Loamy/Clayey	Silty Clay
	10YR 4/4	40						
18 - 24	10YR 4/4	80	10YR 4/6	10	C	M	Loamy/Clayey	Silty Clay
	10YR 5/3	10						

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators 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 hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Sachs Parcel City/County: T Burke/Dane Sampling Date: 8/30/2018
 Applicant/Owner: Peter Sachs State: WI Sampling Point: P2
 Investigator(s): Jeff Kraemer, Scott Fuchs, Heartland Ecological Group Section, Township, Range: T8N, R10E, S24
 Landform (hillside, terrace, etc.): Moraine Local relief (concave, convex, none): None Slope %: 0-2
 Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: TrB: Troxel silt loam, 0 to 3 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Sample point recorded within low spot of a disturbed mesic woodland. Although a WETS analysis indicates that conditions are normal for the time of year, the previous two weeks have experienced abnormally high amounts of precipitation. Conditions are likely wetter than normal for the time of year.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 No wetland hydrology indicators observed.

VEGETATION – Use scientific names of plants.

Sampling Point: P2

<u>Tree Stratum</u> (Plot size: <u> 30ft </u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Morus alba</u>	60	Yes	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u> 2 </u> (A) Total Number of Dominant Species Across All Strata: <u> 4 </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u> 50.0% </u> (A/B)																
2. <u>Fraxinus pennsylvanica</u>	15	Yes	FACW																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u> 75 </u> =Total Cover																			
<u>Sapling/Shrub Stratum</u> (Plot size: <u> 15ft </u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Rhamnus cathartica</u>	5	Yes	FAC	Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u> 0 </u></td> <td>x 1 = <u> 0 </u></td> </tr> <tr> <td>FACW species <u> 15 </u></td> <td>x 2 = <u> 30 </u></td> </tr> <tr> <td>FAC species <u> 15 </u></td> <td>x 3 = <u> 45 </u></td> </tr> <tr> <td>FACU species <u> 126 </u></td> <td>x 4 = <u> 504 </u></td> </tr> <tr> <td>UPL species <u> 0 </u></td> <td>x 5 = <u> 0 </u></td> </tr> <tr> <td>Column Totals: <u> 156 </u> (A)</td> <td><u> 579 </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u> 3.71 </u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u> 0 </u>	x 1 = <u> 0 </u>	FACW species <u> 15 </u>	x 2 = <u> 30 </u>	FAC species <u> 15 </u>	x 3 = <u> 45 </u>	FACU species <u> 126 </u>	x 4 = <u> 504 </u>	UPL species <u> 0 </u>	x 5 = <u> 0 </u>	Column Totals: <u> 156 </u> (A)	<u> 579 </u> (B)	Prevalence Index = B/A = <u> 3.71 </u>	
Total % Cover of:	Multiply by:																			
OBL species <u> 0 </u>	x 1 = <u> 0 </u>																			
FACW species <u> 15 </u>	x 2 = <u> 30 </u>																			
FAC species <u> 15 </u>	x 3 = <u> 45 </u>																			
FACU species <u> 126 </u>	x 4 = <u> 504 </u>																			
UPL species <u> 0 </u>	x 5 = <u> 0 </u>																			
Column Totals: <u> 156 </u> (A)	<u> 579 </u> (B)																			
Prevalence Index = B/A = <u> 3.71 </u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u> 5 </u> =Total Cover																			
<u>Herb Stratum</u> (Plot size: <u> 5ft </u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Ageratina altissima</u>	10	No	FACU	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Geum canadense</u>	10	No	FAC																	
3. <u>Viola hirsutula</u>	50	Yes	FACU																	
4. <u>Ribes cynosbati</u>	3	No	FACU																	
5. <u>Hackelia virginiana</u>	3	No	FACU																	
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	<u> 76 </u> =Total Cover																			
<u>Woody Vine Stratum</u> (Plot size: <u> 30ft </u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
2. _____																				
3. _____																				
4. _____																				
	<u> =Total Cover </u>																			

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

SOIL

Sampling Point P2

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 ¹	Loc ²		
0 - 18	10YR 3/2	100					Loamy/Clayey	Silt Loam

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

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histosol (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"/> 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"/> 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"/> Dark Surface (S7)</p>	<p><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)</p> <p><input type="checkbox"/> High Chroma Sands (S11) (LRR K, L)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)</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><input type="checkbox"/> Marl (F10) (LRR K, L)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)</p> <p><input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)</p> <p><input type="checkbox"/> Red Parent Material (F21)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (F22)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p>Restrictive Layer (if observed):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Remarks:
No hydric soil indicators observed.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Sachs Parcel City/County: T Burke/Dane Sampling Date: 8/30/2018
 Applicant/Owner: Peter Sachs State: WI Sampling Point: P3
 Investigator(s): Jeff Kraemer, Scott Fuchs, Heartland Ecological Group Section, Township, Range: T8N, R10E, S24
 Landform (hillside, terrace, etc.): Moraine Local relief (concave, convex, none): Concave Slope %: 0-5
 Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: DsC2: Dresden silt loam, 6 to 12 percent slopes, eroded NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Sample point recorded within a swale excavated in approximately 1970. Although a WETS analysis indicates that conditions are normal for the time of year, the previous two weeks have experienced abnormally high amounts of precipitation. Conditions are likely wetter than normal for the time of year.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) <u>X</u> Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) <u>X</u> Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>16</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>12</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Excavated swale, approximately two feet from bed to bank. Although saturated soils were observed, recent heavy rainfall and generally wetter than normal conditions are present.

VEGETATION – Use scientific names of plants.

Sampling Point: P3

<u>Tree Stratum</u> (Plot size: <u> 30ft </u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Ulmus americana</u>	<u>80</u>	<u>Yes</u>	<u>FACW</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u> 2 </u> (A) Total Number of Dominant Species Across All Strata: <u> 5 </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u> 40.0% </u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>80</u>	=Total Cover																		
<u>Sapling/Shrub Stratum</u> (Plot size: <u> 15ft </u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Acer saccharinum</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>	Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of:</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species <u> 0 </u></td> <td>x 1 = <u> 0 </u></td> </tr> <tr> <td>FACW species <u> 87 </u></td> <td>x 2 = <u> 174 </u></td> </tr> <tr> <td>FAC species <u> 2 </u></td> <td>x 3 = <u> 6 </u></td> </tr> <tr> <td>FACU species <u> 20 </u></td> <td>x 4 = <u> 80 </u></td> </tr> <tr> <td>UPL species <u> 2 </u></td> <td>x 5 = <u> 10 </u></td> </tr> <tr> <td>Column Totals: <u> 111 </u> (A)</td> <td><u> 270 </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u> 2.43 </u></td> </tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u> 0 </u>	x 1 = <u> 0 </u>	FACW species <u> 87 </u>	x 2 = <u> 174 </u>	FAC species <u> 2 </u>	x 3 = <u> 6 </u>	FACU species <u> 20 </u>	x 4 = <u> 80 </u>	UPL species <u> 2 </u>	x 5 = <u> 10 </u>	Column Totals: <u> 111 </u> (A)	<u> 270 </u> (B)	Prevalence Index = B/A = <u> 2.43 </u>	
Total % Cover of:	Multiply by:																			
OBL species <u> 0 </u>	x 1 = <u> 0 </u>																			
FACW species <u> 87 </u>	x 2 = <u> 174 </u>																			
FAC species <u> 2 </u>	x 3 = <u> 6 </u>																			
FACU species <u> 20 </u>	x 4 = <u> 80 </u>																			
UPL species <u> 2 </u>	x 5 = <u> 10 </u>																			
Column Totals: <u> 111 </u> (A)	<u> 270 </u> (B)																			
Prevalence Index = B/A = <u> 2.43 </u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>5</u>	=Total Cover																		
<u>Herb Stratum</u> (Plot size: <u> 5ft </u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Hackelia virginiana</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Alliaria petiolata</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u>Solanum dulcamara</u>	<u>2</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Pilea pumila</u>	<u>2</u>	<u>No</u>	<u>FACW</u>																	
5. <u>Parthenocissus quinquefolia</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
6. <u>Leonurus cardiaca</u>	<u>2</u>	<u>No</u>	<u>UPL</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>26</u>	=Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: <u> 30ft </u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	_____	=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)
 Little vegetation within excavated swale, vegetation data taken from banks of excavation

SOIL

Sampling Point P3

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 ¹	Loc ²		
0 - 4	10YR 3/2	100					Loamy/Clayey	Loam
4 - 12	10YR 5/3	60					Loamy/Clayey	Silt Loam
	10YR 3/2	40						
12 - 18	10YR 5/3	95	10YR 5/6	5	C	M	Loamy/Clayey	Silt Loam
18 - 24	10YR 3/2	100					Loamy/Clayey	Silt Loam

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

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> High Chroma Sands (S11) (LRR K, L)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Marl (F10) (LRR K, L)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			
<input type="checkbox"/> Sandy Redox (S5)			
<input type="checkbox"/> Stripped Matrix (S6)			
<input type="checkbox"/> Dark Surface (S7)			

³Indicators 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 <u> X </u>
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Remarks:
 No hydric soil indicators observed.



Mr. Peter Sachs
Sachs Parcel
Project #: 20180094
October 19, 2018

Attachment 4 | Site Photographs



Photo #1 Sample point P1



Photo #2 Sample point P1



Photo #3 Sample point P1



Photo #4 Sample point P1



Photo #5 Sample point P2



Photo #6 Sample point P2



Photo #7 Sample point P2



Photo #8 Sample point P2



Photo #9 Sample point P3



Photo #10 Sample point P3



Photo #11 Sample point P3



Photo #12 Sample point P3



Photo #13 Disturbed area behind garage



Photo #14 Disturbed area behind garage



Photo #15 Disturbed area behind garage



Photo #16 Disturbed area behind garage



Disturbed area behind garage