
Wetland Delineation Report
~
Pink Elephant Investments LLC

Town of Vienna, Dane County
Wisconsin

January 6th, 2019



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Prepared for:

**Mr. Kory Anderson
General Engineering Company
916 Silver Lake Drive
Portage, WI 53901
(608) 742-2169**

Prepared by:

**Taylor Conservation, LLC
3856 Schneider Dr.
Stoughton, WI 53589
(608) 444-7483**



Scott Taylor
Owner & Principal
WDNR Assured Wetland Delineat

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Wetland Delineator Qualifications

Scott Taylor holds a Master of Science degree in Forest Ecology and Management from the University of Wisconsin-Madison (1999). Taylor has attended the “Critical Methods in Wetland Delineation” training course annually since 2006. Taylor is an **Assured Wetland Delineator** under Wisconsin Department of Natural Resources guidelines. Taylor also completed the following courses that prepared him for performing wetland determinations and delineations in Wisconsin using the Army Corps of Engineers 1987 Manual Method:

- Wetland Plant Identification (July 2003, Delafield, WI. – Biotic Consultants, Inc.)
- Basic Wetland Delineation Training (August 2006, Cable, WI. – University of Wisconsin, La Crosse Continuing Education & Extension)
- Advanced Wetland Delineation Training (August 2018, Wisconsin Rapids, WI – University of Wisconsin, La Crosse Continuing Education & Extension).
- Hydric Soils Identification (June 2014, UW-Waukesha Field Station - University of Wisconsin, La Crosse Continuing Education & Extension).

Introduction

On September 13th of 2019, Scott Taylor of Taylor Conservation, LLC performed wetland determinations and delineations on the Pink Elephant Investments LLC property in the Town of Vienna, Dane County, Wisconsin (Figures 1 & 2).

The property was located on the south side of County Highway V, immediately west of the entrance ramp to Interstate 39/90/94. It was a vacant parcel, consisting of open, grassy vegetation and scattered shrubs. The surrounding landscape consisted of crop fields, a 6-lane interstate highway and commercial buildings.

The property terrain was low and flat. However, the property was bounded by steep side slopes to the north, east and west where it adjoined roads and buildings. The low-lying portion of the property, which comprised most of the property, was found to be wetland.

The investigation area was approximately 2 acres (the property itself was 1.19 acre). One wetland area totaling approximately 1.4 acre was identified and delineated. The site is in Section 24 (NWNW), T9N, R9E.

Pink Elephant Investments LLC would like to expand its buildings, which sit immediately to the west, into the investigation area. It ordered a wetland delineation to learn the extent of the wetland impact of its proposed expansion.

The purpose of this report is to explain the results of the wetland delineation and to describe the features of the wetlands and non-wetlands (uplands) in the project area.

Methods

The following reference materials were reviewed prior to performing fieldwork:

- 1) Web Soil Survey (Natural Resource Conservation Service).
- 2) Wisconsin Wetland Inventory (WDNR Surface Water Data Viewer).
- 3) Wetland Indicators (WDNR Surface Water Data Viewer).
- 4) 24K Hydrography, Streams, Rivers & Intermittent Streams (WDNR Surface Water Data Viewer).
- 5) 7.5-minute quadrangle map, Arlington Quadrangle (north portion of site) & Waunakee Quadrangle (south portion of site) (United States Geological Survey).
- 6) Aerial Imagery (USDA Farm Service Agency).

The wetland determinations and the delineations followed the procedures for the Routine Method set forth in The Corps of Engineers Wetlands Delineation Manual (US Army Corps of Engineers 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral & Northeast Region. They also followed the methods set forth in the Guidance for Submittal of Delineation Reports to the St. Paul District Army Corps of Engineers & the Wisconsin DNR (WI Department of Natural Resources 2014). In agricultural areas, wetland determinations followed the methods in Guidance for Offsite Hydrology/Wetland Determinations (Army Corps of Engineers & Minnesota Board of Water & Soils Resources 2016).

Method of Data Collection

Vegetation, hydrology and soil information were gathered in sample plots and recorded on U.S. Army Corps of Engineers “Wetland Determination Data Forms” for the appropriate region. At each plot, a plot center was established and the presence or absence of normal circumstances or disturbances was noted. Next, herbaceous vegetation was sampled within a circular 5-foot radius plot. After that, vines, shrubs and trees were sampled within a circular 30-foot radius plot, centered on the herbaceous plot. Next, a 20 inch-deep (at minimum) soil pit was dug at the plot center. The presence or absence of hydrology indicators in the soil pit and within the surrounding 30-foot circular plot was noted. Finally, the soil profile in the pit was examined and described. A determination was then made as to whether the site was wetland or upland.

Location of Transects

Transect beginning points (sample plots) were located inside of areas that appeared to have potential to be wetlands based on maps and field observations. These areas included mapped hydric soil locations, Wisconsin Wetland Inventory-mapped wetlands, and areas that showed pronounced wetland signatures on more than one year of aerial photography. They also included field observed plant communities typical of wetlands or field observed landscape features that collect water, like swales, depressions and drainage-ways.

If the sample plot data suggested that the location was inside of a wetland, a second plot was placed in an upslope location with a different plant community. If data collected at

this plot suggested that the location was inside of the upland, no further plots were sampled. Otherwise, the process was repeated. A total of 6 plots were sampled, 3 inside of wetlands and 3 on the uplands (Figure 2).

Procedure for Locating Wetland Boundaries

The wetland boundaries were located by observing increases in elevation and changes in plant community composition. The presence of healthy, dominant populations of upland plants, such as brome grass (*Bromus inermis*-Upl) and Queen Anne's lace (*Daucus carota*-Upl), as one moved upslope, away from the wetland, was generally considered a reliable indicator of the wetland boundary.

The wetland boundaries were marked with pink "wetland delineation" wire-stake flags.

Results and Discussion

Soils of the Wetland Investigation Area

The Natural Resource Conservation Service-mapped soils of the wetland investigation area are (Figure 5):

Soil	Percent Hydric
Colwood silt loam (Co)	100%
Cut & fill land (Cu)	0%
Virgil silt loam (VwA)	10%

Wisconsin Wetland Inventory Map of the Investigation Area

The Wisconsin Wetlands Inventory (WWI) identifies a shrub and emergent plant-dominated wetland (S3/E1K; Figure 6). Mapped wetland boundaries matched the field-identified wetland boundaries loosely. Discrepancies between the W.W.I. and field-identified wetland boundaries reflect the greater accuracy of field methods over interpretation of wetland boundaries from aerial photographs, which is the method used in the W.W.I.

Topography

The 2-foot contour map shows level ground over most of the investigation area. Steep slopes surround the basin to the west, north and east (Figure 3). The United States Geological Survey Map does not identify any features in the investigation area (Figure 4).

Wetlands

Overview of Wetlands

The wetland was an open, grassy habitat.

Wetland ID Number (Figure 2)	Wetland Type	Wisconsin Wetland Inventory Wetland Type	Surface Water Connections	Wetland Quality (Susceptibility to Storm water Runoff Impacts)*	Approximate Area Delineated (Acres)
None	Fresh (Wet) Meadow	S3/E1K	Yahara River	Poor	1.4
					Total: 1.4

*Wetland quality is based on Taylor Conservation's best professional judgment. The Wisconsin Department of Natural Resources will determine the width of wetland and waterway protective areas, per NR 151, based on wetland quality.

	Wetlands (Plots 1A, 2A & 3A)
Normal Circumstances Present?	Yes
Significant Disturbance?	No
Naturally Problematic?	No

Wetland Boundary Characteristics

The wetland boundary was marked by vegetative transitions from ground layer vegetation heavily dominated by reed canary grass (*Phalaris arundinacea*-FacW) and cattails (*Typha angustifolia*-Obl), in the wetlands to ground layer vegetation dominated by Kentucky blue grass (*Poa pratensis*-FacU) and brome grass (*Bromus inermis*-Upl), among other species, in the uplands.

Wetland Vegetation

- ❖ The wetlands were dominated by reed canary grass and narrow-leaved cattails in the ground layer. The sapling/shrub layer was sparse but dominated by pussy willow (*Salix discolor*-FacW).
- ❖ Dominance values for hydrophytes in wetland sample plots ranged from 75%-100%.
- ❖ All wetland sample plots met the FAC-Neutral Test.

Wetland Hydrology

- ❖ The wetlands' chief water source is surface runoff from surrounding uplands. A large storm water culvert empties into the northwest corner of the wetland. The wetlands probably saturates from spring to early summer of most years and following rainy periods.
- ❖ Rainfall for the preceding 3 months would result in normal moisture conditions in the wetland (see analysis below). However, 3.6 inches of rain was recorded at the nearby Dane County Regional Airport weather station in the month of September

prior to fieldwork. Therefore moisture conditions were expected to be higher than average.

- ❖ As a result of above average antecedent rainfall (considering rainfall in the month of fieldwork), the investigator did expect to directly observe a primary wetland hydrology indicator. Accordingly, “Saturation” was noted in Plot 1A and “Surface Water” was noted in Plots 2A and 3A.
- ❖ All wetland sample plots showed the two secondary hydrology indicators, “Geomorphic Position” (because plots were located in the bottom of a low basin) and “FAC Neutral Test”. Plot 1A also showed the secondary indicator “Dry-Season Water Table”.

Prior Rainfall Analysis:

(USDA Field Office Climate Data – WETS Station: Dane County Regional Airport, Wisconsin.)

30% chance will have precipitation (inches)							
	less than:	more than:	2019 precipitation:	Condition	Condition value (Dry=1, Normal=2, Wet=3)	Month weight value	Product of previous two columns
June	2.99	6.13	5.2	Normal	2	1	2
July	3.14	5.00	5.8	Wet	3	2	6
August	2.67	5.25	2.9	Normal	2	3	6
Sum: 14							
Antecedent Moisture Conditions: NORMAL							

(If sum is 6-9, prior period dry; 10-14, prior period normal; 15-18, prior period wet. From USDA, Natural Resource Conservation Service. 1997. Hydrology Tools for Wetland Determination. Part 650. Engineering Field Handbook.)

Wetland Soils

- ❖ The soil was examined in only one wetland sample plot (1A). The soil surface layer was comprised of 10 YR 2/1-colored silt loam. The subsoil (B-horizon) was comprised of 10 YR 4/1-colored silty clay loam.
- ❖ Wetland sample plot 1A showed the hydric soil indicators “Thick Dark Surface” (A12). The remaining wetland sample plots (2A & 3A) possessed standing water and vegetation dominated by FacW & Obl-rated species, therefore no soil pits were dug and the soils were assumed hydric without direct examination.

Waterways

No waterways were present in the investigation area. However, the investigation area wetland extends to the south, where they connect with a ditch network that empties into the Yahara River.

Uplands

Overview of Uplands

The uplands (non-wetlands) were the grassy side slopes of the wetland basin. They were embankments leading up to road shoulders and other paved areas overlooking the wetland basin (Figure 2).

	Uplands (Plots 1B, 2B & 3B)
Normal Circumstances Present?	Yes
Significant Disturbance?	No
Naturally Problematic?	Not applicable to uplands.

Upland Vegetation

- ❖ The uplands were dominated by Kentucky blue grass (*Poa pratensis*-FacU), brome grass (*Bromus inermis*-Upl) and Canada goldenrod (*Solidago canadensis*-FacU) in the ground layer. The sapling/shrub layer was sparse but dominated by sandbar willow (*Salix interior*-FacW).
- ❖ Dominance values for non-hydrophytes in upland sample plots ranged from 50%-100%.

Upland Hydrology

- ❖ No hydrology indicators were noted in any of the upland sample plots with the exception of one secondary hydrology indicator (“Dry Season Water Table”) observed in upland Plot 1B. The presence of this indicator probably just reflected recent high rainfall (3.2 inches in the previous week) since the vegetation and landscape position of this plot strongly suggested wetland conditions did not exist.
- ❖ All parts of the uplands occupied high-lying or sloping ground where water would be unlikely to linger for long periods.

Upland Soils

- ❖ The soil surface layers in the upland sample plots were comprised of 10 YR 2/1-colored silt loam.
- ❖ The subsoils (B-horizons) in the upland sample plots were comprised of 10 YR 4/1-colored silty clay loam.
- ❖ Two of 3 upland sample plots showed hydric soil indicators, e.g. “Depleted Matrix” (F3), “Depleted Below Dark Surface” (A11), and “Thick Dark Surface” (A12). Nonetheless, the presence of upland vegetation and the absence of strong hydrology indicators at these sites suggested they were not wetlands.

Conclusion

One wetland area totaling 1.4 acre was found on the Pink Elephant Investments property on September 13th of 2019. The wetland boundary marked in the field is the best estimate of the location of the boundary based on the available vegetation, hydrology and soil evidence on September 13th of 2019. Wetland boundaries can change over time with changes in vegetation, precipitation, or regional hydrology. The wetlands identified for this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corp of Engineers, state regulation under the jurisdiction of Wisconsin Department of Natural Resources, and local jurisdiction under your local county, town, city or village. The U.S. Army Corps of Engineers and/or the Wisconsin DNR have authority to make the final decision regarding the wetland boundary. Personnel from these agencies may adjust the boundary upon field inspection.

Activities within or close to the delineated wetland boundaries generally require permits from the Army Corps of Engineers, WDNR or local authorities. If the client proceeds with any work within or close to the delineated wetland boundaries without authorization or permits from the appropriate regulatory authorities, Scott Taylor or Taylor Conservation LLC shall not be responsible or liable for any resulting damages.

Scott Taylor is an **Assured Wetland Delineator** under Wisconsin Department of Natural Resources guidelines (<http://dnr.wi.gov/topic/wetlands/assurance.html>). Taylor's wetland delineations are considered dependable by the WDNR for purposes of Wisconsin wetland and waterway permits, shoreland-wetland zoning or other state-mandated local wetland programs. Therefore Taylor's clients do not require concurrence letters from WDNR before project planning or permit applications that are based on Taylor's wetland delineations. However, concurrence from the Army Corps of Engineers is still necessary. The WDNR and Army Corps have final authority over wetlands in Wisconsin. They may adjust Taylor's wetland boundaries. Assurance does not change decisions about wetland fill. Assurance is not a guarantee of accuracy or relief from landowner responsibility in the event an error occurs and wetlands are filled. While it is unlikely for a professional whose work is assured, inadvertent wetland fill that may result from errors must be remedied.

References

Hurt, G.W., Vasilas, L.M. & Berkowitz, J.F. 2018. Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils, Version 8.2. Natural Resource Conservation Service, United States Department of Agriculture.

Lichvar, R.W., D.L Banks, N.C. Melvin, and W.N. Kirchner, US Army Corp of Engineers, 2016. State of Wisconsin 2016 Wetland Plant List.

US Army Corps of Engineers, Waterways Experiment Station. 1987. Corps of Engineers Wetlands Delineation Manual. Wetlands Research Program Technical Report Y-87-1.

USDA, Natural Resource Conservation Service. 1997. Hydrology Tools for Wetland Determination. Part 650. Engineering Field Handbook.

Wisconsin Department of Administration, Coastal Management Program. 1995. Basic Guide to Wisconsin's Wetlands and their Boundaries.

Figures

Figure 1: Landscape Overview.

Source: Imagery - National Agricultural Imagery Program, 2013; Roads & Waters – Wisconsin Department of Natural Resources.



Figure 2: Investigation Area, Wetlands & Sample Plots.

hImagery Source: National Agricultural Imagery Program, 2013.

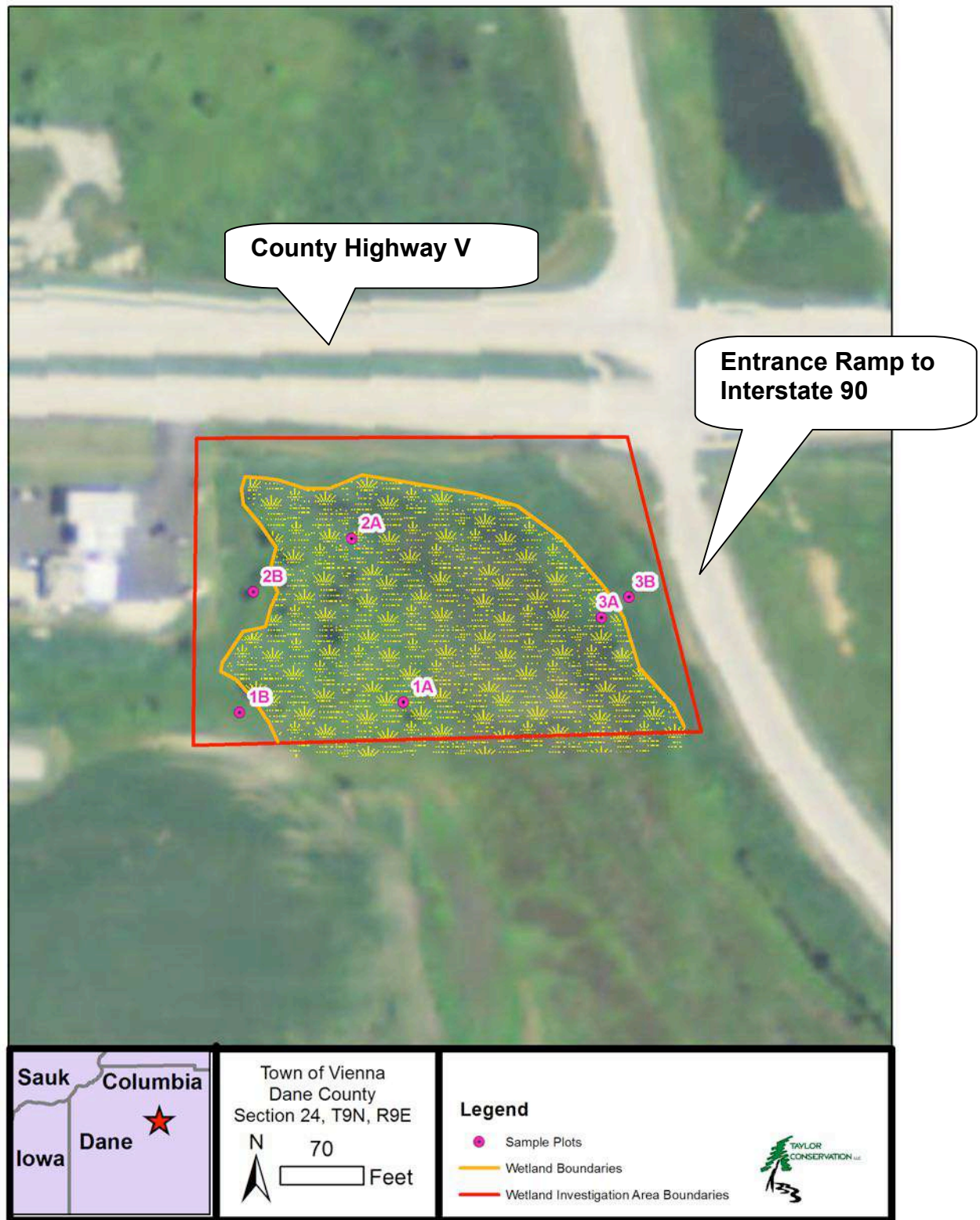


Figure 3: Topography – 2-foot Contour Map.

Imagery Source: Dane County.



Figure 4: Topography – United States Geological Survey Map.

Source: U.S. Geological Survey 7.5-Minute Quadrangle Map, Arlington Quadrangle.



Figure 5: Soils.

Source: Natural Resource Conservation Service.

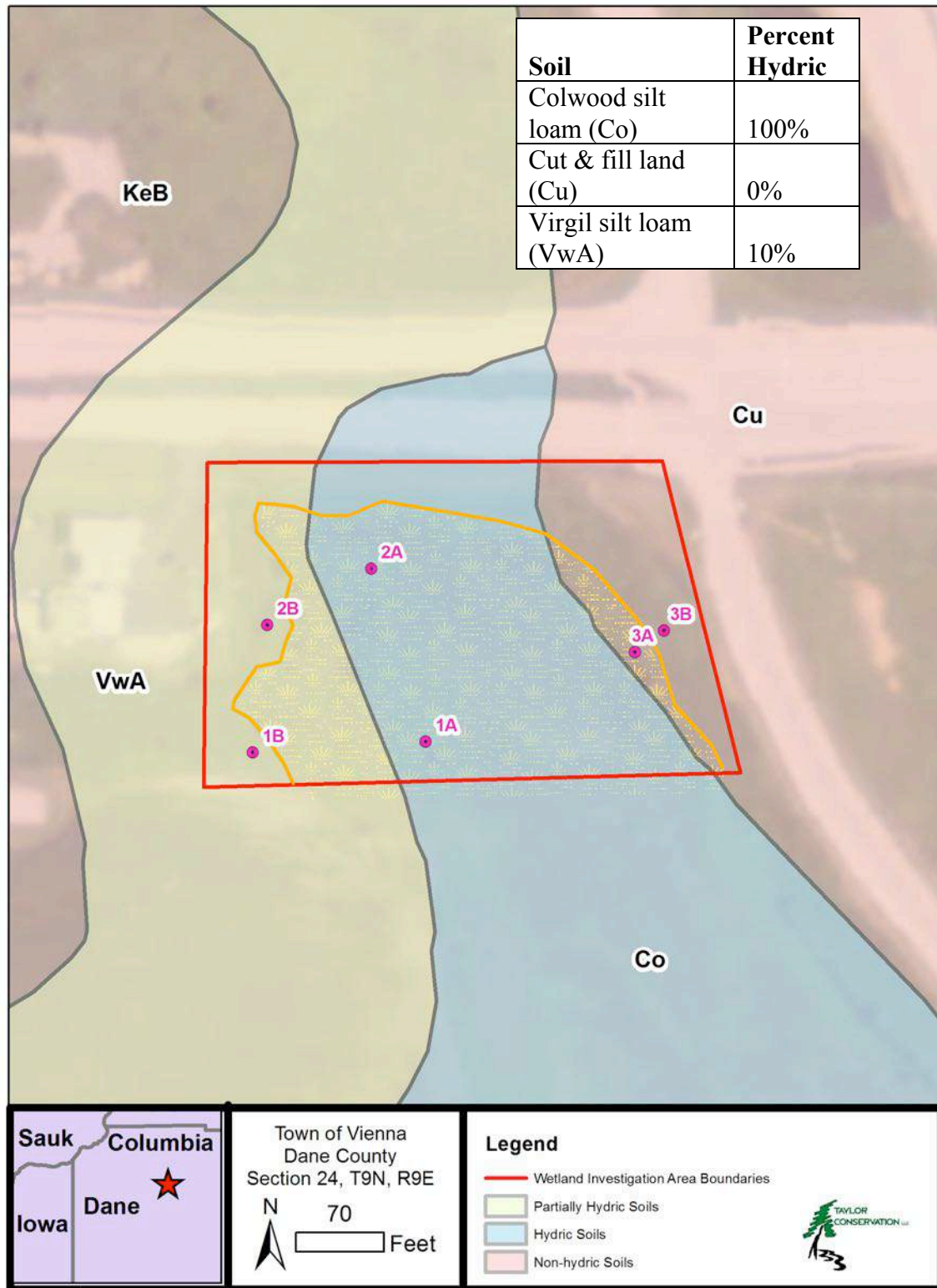
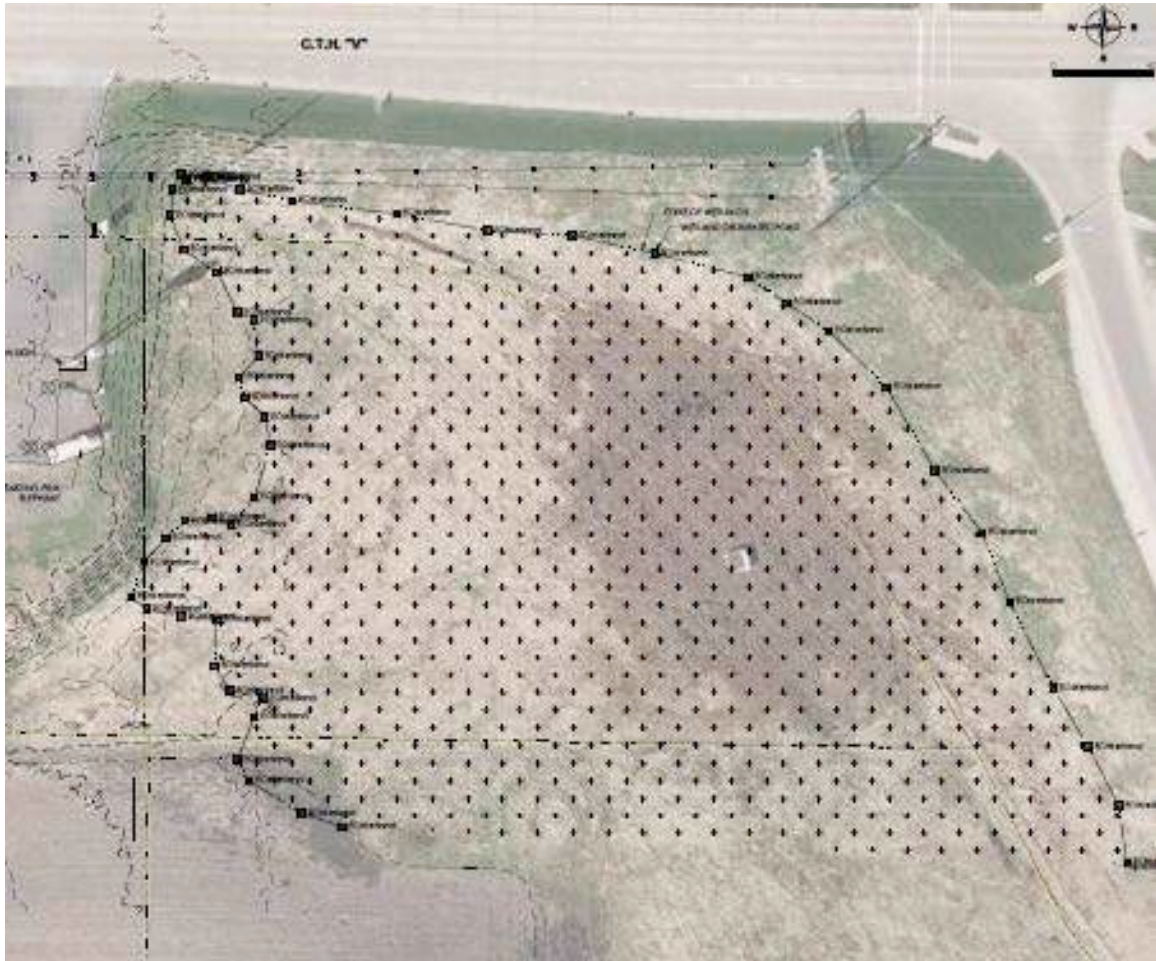


Figure 6: Wisconsin Wetland Inventory Map.

Source: Wisconsin Department of Natural Resources.



Appendix I: Survey Map of Wetland Boundary.



Appendix II: Investigation Area Photos

Wetland - Plot 1A



Upland - Plot 1B



Wetland - Plot 2A



Upland - Plot 2B



Wetland - Plot 3A



Upland - Plot 3B



Appendix III: Data Sheets

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Pink Elephant Investments LLC **City/County:** Twn. Vienna, Dane Co. **Sampling Date:** 13-Sep-19
Applicant/Owner: General Engineering, Co. **State:** Wisconsin **Sampling Point:** 01a
Investigator(s): Scott Taylor **Section, Township, Range:** S. 24 T. 9N R. 9E
Landform (hillslope, terrace, etc.): Toeslope **Local relief (concave, convex, none):** concave **Slope:** 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR K **Lat.:** 43.249892 **Long.:** -89.380042 **Datum:** NAD83
Soil Map Unit Name: Colwood silt loam (Co) **NWI classification:** S3/E1K

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

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Remarks: (Explain alternative procedures here or in a separate report.) Using the Natural Resource Conservation Service weighted-month method, antecedent moisture, based on total precipitation for the previous 3 months (June-Normal; July-Wet; August-Normal), was found to be AVERAGE. Total rainfall for the month of September preceding the fieldwork at the nearby Dane County Regional Airport, WI weather station was 3.6 inches.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of 2 required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input checked="" type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): 0 Water Table Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 13 Saturation Present? (includes capillary fringe) Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 5		Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: The plot occupied the bottom of a low basin.		

VEGETATION - Use scientific names of plants

Sampling Point: 01a

Tree Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Salix discolor</i>	5	<input checked="" type="checkbox"/>	FACW
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		5	= Total Cover	
Herb Stratum	(Plot size: 78.5 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Phalaris arundinacea</i>	80	<input checked="" type="checkbox"/>	FACW
2.	<i>Poa pratensis</i>	40	<input checked="" type="checkbox"/>	FACU
3.	<i>Typha angustifolia</i>	30	<input type="checkbox"/>	OBL
4.	<i>Symphyotrichum puniceum</i> var. <i>puniceum</i>	40	<input checked="" type="checkbox"/>	OBL
5.	<i>Solidago canadensis</i>	5	<input type="checkbox"/>	FACU
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
8.		0	<input type="checkbox"/>	
9.		0	<input type="checkbox"/>	
10.		0	<input type="checkbox"/>	
11.		0	<input type="checkbox"/>	
12.		0	<input type="checkbox"/>	
		195	= Total Cover	
Woody Vine Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of: 70 Multiply by: x 1 = 70

OBL species 70 x 1 = 70

FACW species 85 x 2 = 170

FAC species 0 x 3 = 0

FACU species 45 x 4 = 180

UPL species 0 x 5 = 0

Column Totals: 200 (A) 420 (B)

Prevalence Index = B/A = 2.100

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ 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.

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 3.28 ft (1m) tall..

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

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

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

The plot occupied an open, grassy area with widely scattered shrubs.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: 01a

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

[illegible]

¹Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated 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 Muck Mineral (S1)
 - ☐ Sandy Gleyed Matrix (S4)
 - ☐ Sandy Redox (S5)
 - ☐ Stripped Matrix (S6)
 - ☐ Dark Surface (S7) (LRR R, MLRA 149B)
 - ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
 - ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
 - ☐ 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)

Indicators for Problematic Hydric Soils : ³

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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 (TF12)
- ☐ 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 ☐

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Pink Elephant Investments LLC **City/County:** Twn. Vienna, Dane Co. **Sampling Date:** 13-Sep-19

Applicant/Owner: General Engineering, Co. **State:** Wisconsin **Sampling Point:** 01b

Investigator(s): Scott Taylor **Section, Township, Range:** S. 24 T. 9N R. 9E

Landform (hillslope, terrace, etc.): Foothills **Local relief (concave, convex, none):** convex **Slope:** 1.0 % / 0.6 °

Subregion (LRR or MLRA): LRR K **Lat.:** 43.249892 **Long.:** -89.380042 **Datum:** NAD83

Soil Map Unit Name: Virgil silt loam (VwA) **NWI classification:** S3/E1K

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

Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐

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

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Remarks: (Explain alternative procedures here or in a separate report.) Using the Natural Resource Conservation Service weighted-month method, antecedent moisture, based on total precipitation for the previous 3 months (June-Normal; July-Wet; August-Normal), was found to be AVERAGE. Total rainfall for the month of September preceding the fieldwork at the nearby Dane County Regional Airport, WI weather station was 3.6 inches.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Drift deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of 2 required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input checked="" type="checkbox"/> Dry Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): 0 Water Table Present? Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 20 Saturation Present? (includes capillary fringe) Yes <input checked="" type="radio"/> No <input type="radio"/> Depth (inches): 14		Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: The plot occupied a high spot. The water probably just reflected recent high rainfall since water would not be likely to linger in this location for long periods.		

VEGETATION - Use scientific names of plants

Sampling Point: 01b

Tree Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Salix interior</i>	20	<input checked="" type="checkbox"/>	FACW
2.	<i>Ulmus americana</i>	5	<input type="checkbox"/>	FACW
3.	<i>Viburnum dentatum</i>	5	<input type="checkbox"/>	FAC
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		30	= Total Cover	
Herb Stratum	(Plot size: 78.5 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Poa pratensis</i>	100	<input checked="" type="checkbox"/>	FACU
2.	<i>Daucus carota</i>	30	<input type="checkbox"/>	UPL
3.	<i>Asclepias syriaca</i>	10	<input type="checkbox"/>	UPL
4.	<i>Phalaris arundinacea</i>	20	<input type="checkbox"/>	FACW
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
8.		0	<input type="checkbox"/>	
9.		0	<input type="checkbox"/>	
10.		0	<input type="checkbox"/>	
11.		0	<input type="checkbox"/>	
12.		0	<input type="checkbox"/>	
		160	= Total Cover	
Woody Vine Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
		0	= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of: 0 Multiply by: 1

OBL species 0 x 1 = 0

FACW species 45 x 2 = 90

FAC species 5 x 3 = 15

FACU species 100 x 4 = 400

UPL species 40 x 5 = 200

Column Totals: 190 (A) 705 (B)

Prevalence Index = B/A = 3.711

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ 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.

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 3.28 ft (1m) tall..

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

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

The plot was in an open, grassy area with scattered shrubs.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: 01b

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

[illegible]

¹Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated 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 Muck Mineral (S1)
 - ☐ Sandy Gleyed Matrix (S4)
 - ☐ Sandy Redox (S5)
 - ☐ Stripped Matrix (S6)
 - ☐ Dark Surface (S7) (LRR R, MLRA 149B)
 - ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
 - ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
 - ☐ 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)

Indicators for Problematic Hydric Soils : ³

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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 (TF12)
- ☐ 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 ☐

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**Project/Site:** Pink Elephant Investments LLC**City/County:** Twn. Vienna, Dane Co.**Sampling Date:** 13-Sep-19**Applicant/Owner:** General Engineering, Co.**State:** Wisconsin**Sampling Point:** 02a**Investigator(s):** Scott Taylor**Section, Township, Range:** S. 24

T. 9N

R. 9E

Landform (hillslope, terrace, etc.): Toeslope**Local relief (concave, convex, none):** concave**Slope:** 0.0 % / 0.0 °**Subregion (LRR or MLRA):** LRR K**Lat.:** 43.249892**Long.:** -89.380042**Datum:** NAD83**Soil Map Unit Name:** Colwood silt loam (Co)**NWI classification:** None**Are climatic/hydrologic conditions on the site typical for this time of year?** Yes ☒ No ☐ (If no, explain in Remarks.)**Are Vegetation** ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?****Are "Normal Circumstances" present?** Yes ☒ No ☐**Are Vegetation** ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?**

(If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks: (Explain alternative procedures here or in a separate report.) Using the Natural Resource Conservation Service weighted-month method, antecedent moisture, based on total precipitation for the previous 3 months (June-Normal; July-Wet; August-Normal), was found to be AVERAGE. Total rainfall for the month of September preceding the fieldwork at the nearby Dane County Regional Airport, WI weather station was 3.6 inches.	

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)	
Primary Indicators (minimum of one required; check all that apply)			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches):	5
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches):	0
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: The plot occupied the bottom of a low basin. No soil pit was dug but the water tables and soil saturation were assumed to be at the surface.			

VEGETATION - Use scientific names of plants

Sampling Point: 02a

Tree Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		0	= Total Cover	
Herb Stratum	(Plot size: 78.5 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Phalaris arundinacea</i>	100	<input checked="" type="checkbox"/>	FACW
2.	<i>Typha angustifolia</i>	30	<input checked="" type="checkbox"/>	OBL
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
8.		0	<input type="checkbox"/>	
9.		0	<input type="checkbox"/>	
10.		0	<input type="checkbox"/>	
11.		0	<input type="checkbox"/>	
12.		0	<input type="checkbox"/>	
		130	= Total Cover	
Woody Vine Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
		0	= Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

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

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL species 30 x 1 = 30
FACW species 100 x 2 = 200
FAC species 0 x 3 = 0
FACU species 0 x 4 = 0
UPL species 0 x 5 = 0
Column Totals: 130 (A) 230 (B)
Prevalence Index = B/A = 1.769

Hydrophytic Vegetation Indicators:
☒ Rapid Test for Hydrophytic Vegetation
☒ 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.

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 3.28 ft (1m) tall..

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

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)
The plot was in an open, grassy area.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: 02a

Sampling Point: 02a

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

[illegible]

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

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <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) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils : ³

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)
- ☒ 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 ☐

Remarks:

No soil data were collected; the soil was assumed hydric since standing water was present and all of the dominant plants were FacW or Obl-rated.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**Project/Site:** Pink Elephant Investments LLC**City/County:** Twn. Vienna, Dane Co.**Sampling Date:** 13-Sep-19**Applicant/Owner:** General Engineering, Co.**State:** Wisconsin**Sampling Point:****02b****Investigator(s):** Scott Taylor**Section, Township, Range:** S. 24**T.** 9N**R.** 9E**Landform (hillslope, terrace, etc.):** Foothills**Local relief (concave, convex, none):** convex**Slope:** 1.0 % / 0.6 °**Subregion (LRR or MLRA):** LRR K**Lat.:** 43.249892**Long.:** -89.380042**Datum:** NAD83**Soil Map Unit Name:** Virgil silt loam (VwA)**NWI classification:** None**Are climatic/hydrologic conditions on the site typical for this time of year?** Yes ☒ No ☐ (If no, explain in Remarks.)**Are Vegetation** ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?****Are "Normal Circumstances" present?** Yes ☒ No ☐**Are Vegetation** ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?**

(If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
Remarks: (Explain alternative procedures here or in a separate report.) Using the Natural Resource Conservation Service weighted-month method, antecedent moisture, based on total precipitation for the previous 3 months (June-Normal; July-Wet; August-Normal), was found to be AVERAGE. Total rainfall for the month of September preceding the fieldwork at the nearby Dane County Regional Airport, WI weather station was 3.6 inches.	

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)	
Primary Indicators (minimum of one required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	0
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches):	15
Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: No hydrology indicators. The plot occupied a well elevated landscape position. Water would not be likely to linger here for long periods.			

VEGETATION - Use scientific names of plants

Sampling Point: 02b

Tree Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Salix interior</i>	5	<input checked="" type="checkbox"/>	FACW
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		5	= Total Cover	
Herb Stratum	(Plot size: 78.5 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Poa pratensis</i>	90	<input checked="" type="checkbox"/>	FACU
2.	<i>Sonchus arvensis</i>	10	<input type="checkbox"/>	FACU
3.	<i>Daucus carota</i>	5	<input type="checkbox"/>	UPL
4.	<i>Solidago canadensis</i>	60	<input checked="" type="checkbox"/>	FACU
5.	<i>Asclepias syriaca</i>	15	<input type="checkbox"/>	UPL
6.	<i>Vitis riparia</i>	15	<input type="checkbox"/>	FAC
7.	<i>Phalaris arundinacea</i>	40	<input type="checkbox"/>	FACW
8.	<i>Bromus inermis</i>	10	<input type="checkbox"/>	UPL
9.		0	<input type="checkbox"/>	
10.		0	<input type="checkbox"/>	
11.		0	<input type="checkbox"/>	
12.		0	<input type="checkbox"/>	
		245	= Total Cover	
Woody Vine Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
		0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of: 0 Multiply by:

OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>45</u>	x 2 =	<u>90</u>
FAC species	<u>15</u>	x 3 =	<u>45</u>
FACU species	<u>160</u>	x 4 =	<u>640</u>
UPL species	<u>30</u>	x 5 =	<u>150</u>
Column Totals:	<u>250</u>	(A)	<u>925</u> (B)

Prevalence Index = B/A = 3.700

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ 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.

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 3.28 ft (1m) tall..

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

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

The plot was in an open, grassy, herbaceous area with scattered shrubs.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: 02b

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

[illegible]

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

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input checked="" type="checkbox"/> Depleted Matrix (F3) |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <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) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils :

- ☐ 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)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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 (TF12)
- ☐ 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 ☐

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**Project/Site:** Pink Elephant Investments LLC**City/County:** Twn. Vienna, Dane Co.**Sampling Date:** 13-Sep-19**Applicant/Owner:** General Engineering, Co.**State:** Wisconsin**Sampling Point:** 03a**Investigator(s):** Scott Taylor**Section, Township, Range:** S. 24

T. 9N

R. 9E

Landform (hillslope, terrace, etc.): Toeslope**Local relief (concave, convex, none):** concave**Slope:** 0.0 % / 0.0 °**Subregion (LRR or MLRA):** LRR K**Lat.:** 43.249892**Long.:** -89.380042**Datum:** NAD83**Soil Map Unit Name:** Colwood silt loam (Co)**NWI classification:** S3/E1K**Are climatic/hydrologic conditions on the site typical for this time of year?** Yes ☒ No ☐ (If no, explain in Remarks.)**Are Vegetation** ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?****Are "Normal Circumstances" present?** Yes ☒ No ☐**Are Vegetation** ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?**

(If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="radio"/> No <input type="radio"/>
Hydric Soil Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>	
Remarks: (Explain alternative procedures here or in a separate report.) Using the Natural Resource Conservation Service weighted-month method, antecedent moisture, based on total precipitation for the previous 3 months (June-Normal; July-Wet; August-Normal), was found to be AVERAGE. Total rainfall for the month of September preceding the fieldwork at the nearby Dane County Regional Airport, WI weather station was 3.6 inches.	

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)	
Primary Indicators (minimum of one required; check all that apply)			
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input checked="" type="checkbox"/> FAC-neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches):	4
Water Table Present?	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="radio"/> No <input type="radio"/>	Depth (inches):	0
Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/>			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: The plot occupied the bottom of a low basin. No soil pit was dug but the water tables and soil saturation were assumed to be at the surface.			

VEGETATION - Use scientific names of plants

Sampling Point: 03a

Tree Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		0	= Total Cover	
Herb Stratum	(Plot size: 78.5 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Typha angustifolia</i>	100	<input checked="" type="checkbox"/>	OBL
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
8.		0	<input type="checkbox"/>	
9.		0	<input type="checkbox"/>	
10.		0	<input type="checkbox"/>	
11.		0	<input type="checkbox"/>	
12.		0	<input type="checkbox"/>	
		100	= Total Cover	
Woody Vine Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
		0	= Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
Total % Cover of: 100 Multiply by: 1
OBL species 100 x 1 = 100
FACW species 0 x 2 = 0
FAC species 0 x 3 = 0
FACU species 0 x 4 = 0
UPL species 0 x 5 = 0
Column Totals: 100 (A) 100 (B)
Prevalence Index = B/A = 1.000

Hydrophytic Vegetation Indicators:
☒ **Rapid Test for Hydrophytic Vegetation**
☒ **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.

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 3.28 ft (1m) tall..
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)
The plot occupied a cattail-dominated marsh.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: 03a

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

[illegible]

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

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Muck Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <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) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils : ³

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L, M)
- ☐ 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)
- ☒ 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 ☐

Remarks:

No soil data were collected; the soil was assumed hydric since standing water was present and all of the dominant plants were Obl-rated.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Pink Elephant Investments LLC **City/County:** Twn. Vienna, Dane Co. **Sampling Date:** 13-Sep-19

Applicant/Owner: General Engineering, Co. **State:** Wisconsin **Sampling Point:** 03b

Investigator(s): Scott Taylor **Section, Township, Range:** S. 24 T. 9N R. 9E

Landform (hillslope, terrace, etc.): Foothills **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °

Subregion (LRR or MLRA): LRR K **Lat.:** 43.249892 **Long.:** -89.380042 **Datum:** NAD83

Soil Map Unit Name: Cut & Fill Land (Cu) **NWI classification:** None

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

Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐

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

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	
Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>	

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

Using the Natural Resource Conservation Service weighted-month method, antecedent moisture, based on total precipitation for the previous 3 months (June-Normal; July-Wet; August-Normal), was found to be AVERAGE. Total rainfall for the month of September preceding the fieldwork at the nearby Dane County Regional Airport, WI weather station was 3.6 inches.

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)	
Primary Indicators (minimum of one required; check all that apply)			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-neutral Test (D5)	

Field Observations:			
Surface Water Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	0
Water Table Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	0
Saturation Present? (includes capillary fringe)	Yes <input type="radio"/> No <input checked="" type="radio"/>	Depth (inches):	0
Wetland Hydrology Present?		Yes <input type="radio"/> No <input checked="" type="radio"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: No hydrology indicators. The plot occupied a high area on a steep slope.			

VEGETATION - Use scientific names of plants

Sampling Point: 03b

Tree Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
		0	= Total Cover	
Herb Stratum	(Plot size: 78.5 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<i>Bromus inermis</i>	100	<input checked="" type="checkbox"/>	UPL
2.	<i>Cirsium arvense</i>	40	<input checked="" type="checkbox"/>	FACU
3.	<i>Sonchus asper</i>	10	<input type="checkbox"/>	FACU
4.		0	<input type="checkbox"/>	
5.		0	<input type="checkbox"/>	
6.		0	<input type="checkbox"/>	
7.		0	<input type="checkbox"/>	
8.		0	<input type="checkbox"/>	
9.		0	<input type="checkbox"/>	
10.		0	<input type="checkbox"/>	
11.		0	<input type="checkbox"/>	
12.		0	<input type="checkbox"/>	
		150	= Total Cover	
Woody Vine Stratum	(Plot size: 2,826 sf)	Absolute % Cover	Dominant Species?	Indicator Status
1.		0	<input type="checkbox"/>	
2.		0	<input type="checkbox"/>	
3.		0	<input type="checkbox"/>	
4.		0	<input type="checkbox"/>	
		0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of: Multiply by:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	50	x 4 =	200
UPL species	100	x 5 =	500
Column Totals:	150	(A)	700 (B)

Prevalence Index = B/A = 4.667

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ 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.

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 3.28 ft (1m) tall..

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

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

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

The plot was in an open, grassy, herbaceous area.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: 03b

Sampling Point: 03b

[illegible]

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

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) (LRR R, MLRA 149B)

- ☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)
- ☐ 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)

☐ 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)

☐ Dark Surface (S7) (LRR K, L, M)

☐ 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 (TF12)

☐ Other (Explain in Remarks)

- Indicators for Problematic Hydraulic Soils :**
- ☐ 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)
 - ☐ Dark Surface (S7) (LRR K, L, M)
 - ☐ 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 (TF12)
 - ☐ Other (Explain in Remarks)

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

Type: _____

Depth (inches): _____

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

No hydric indicators. The soil pit was only dug to 14 inches due to a dense bed of rocks.