WETLAND DELINEATION REPORT

Gateway Business Park

City of Beloit, Rock County, WI

October 12, 2012

Delineation #17.2012

Thompson & Associates
WETLAND SERVICES

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PROFESSIONAL WETLAND SCIENTIST

Gateway Business Park, City of Beloit, Rock County, WI

Wetland Delineation Report
10/12/12

1. INTRODUCTION

The Gateway Business Park study area was delineated by Alice Thompson of Thompson and Associates Wetland Services at the request of the Andrew Jahnke, City of Beloit. The site consists of 155 acres of land, located in Sections 28, 29, 32, and 33 of Township 1 North, Range 13 East in the City of Beloit, Rock County, WI.

This delineation was conducted on 10/12/12. Precipitation maps from the National Weather Service indicate that average precipitation 90 days prior to 10/17/12 was 4 to 6 inches below normal (see Appendix 1, Figure 2).

I waited to do the delineation until the corn was harvested as it would have been too difficult to view the landforms and look for subtle variation with a tall corn crop.

A wetland delineation of "Gateway Project", Beloit was done by me in 2001. At that time the project area was much larger than the current project area. The wetland areas identified in the 2001 delineation are outside the current project area (01-04841-DJP).

2. SITE DESCRIPTION

The study area consists primarily of farmland, which was planted to corn in 2012 with hedgerows growing along the parcel boundaries and between fields. Colley Road runs laterally through the site, and an intermittent drainage way passes through the site's southeast corner, and another in the site's northwest corner along Gateway Blvd. A rectangular piece of land is disturbed on the north side of Colley Road. Upon review this is an active spoils pile.

The site is bordered to the west and north by Gateway Boulevard and to the east, south, and west by farmland.

3. RESOURCE REVIEW

The **USGS Topographic Map** (Appendix 1, Figure 1) indicates that the site is hilly, with elevations ranging between 830 feet above sea level to 900 feet above sea level. In the northeastern corner of the site, the land slopes upward from 850 feet above sea level to 900 feet above sea level. The elevation dips to 830 feet above sea level in the

southeastern corner of the site. The southern half of the site features a hill that reaches 890 feet above sea level.

According to the **NRCS Soil Survey** (Appendix 1, Figure 3), the site is comprised of seven upland soils and one partially hydric soil. The upland soils include Durand silt loam, Griswold loam, Ogle silt loam, Plano silt loam, Ringwood silt loam, Rockton loam, and Rotamer loam. The partially hydric soil is Wauconda silt loam.

The **Wisconsin Wetlands Inventory** (Appendix 1, Figure 4) shows no mapped wetlands within the site.

The NRCS Wetland Inventory (Appendix 1, Figure 5) shows one area of Prior Converted Wetland along the western edge of the site, south of Colley Road. We attempted to look at FSA crop history slides for the site, however the slides are in Madison being digitized. A set of maps for 2008 and 2010 were sent to us, but they are so grainy that crop health/stress is not apparent.

Historical Aerial Photographs (Appendix 1, Figure 6) indicate that development of the site and surrounding area has gradually increased in the past 12 years. The 2000 aerial photograph shows the property and vicinity dominated by farmland, with few roads or buildings. Between 2000 and 2006, Gateway Boulevard was constructed along the western border of the site and two commercial buildings were built along that road. During this time a rectangular area in the northern half of the site was cleared, perhaps to establish foundations for a building. Between 2006 and 2010, another commercial building was constructed along Gateway Road, just south of the site. Little change is visible on the property between 2006 and 2010.

4. RESULTS AND CONCLUSION

- One maintained road side ditch on the northwest side of the site, adjacent Gateway Blvd was in the vicinity of a mapped intermittent drainageway (Figure 8). The vegetation consisted of mowed reed canary grass and red footed spike rush. The soils were upland, however hydrology was met by oxidized rhisopheres in the upper 8 inches and a positive FAC neutral test. Water flows from the north towards a large culvert that carries water off site to the west under Gateway Blvd (see photo pages 4 and 5) .
- I spoke on the phone with Stacey Marshall, US Army Corps of Engineers and she suggested I flag it in case she determined the Corps had jurisdiction over it. The wetland flags extend within the maintained ditch from the large culvert to the point where reed canary grass is replaced by common brome grass. The WI DNR has a wetland exemption for maintained roadside ditches.
- The ditch area to the south of this large culvert also receives water from three culverts that are carrying stormwater off the drive (Figure 8). Because that portion of the ditch is not mapped as an intermittent stream I did not stake it.
- The mapped intermittent drainageway on the southeast corner of the site was not

staked as there were upland soils and vegetation throughout, no waterway, drainageway or indication that water ponded in the woodlot (Data points 9 and 10). There is a grassed (common brome) drainageway south of the site boundary in the adjacent alfalfa field. The drainageway is wide and slopes south (photo page 6 and 7).

- The final area of possible wetland conditions is the area of Prior Converted farmland on the west side in the vicinity of data points 11 and 12. There were upland soils, uniform corn stalks and no indication of wetland conditions (photo page 6).
- With the exception of the roadside ditch area staked on the northwest side of the site the entire project area of 155 acres is **Upland**. The soils are brown 10YR 3/2 or 10YR 4/3 silt loams throughout. Although I was not able to view the FSA crop history slides as they are currently unavailable, the unequivocal upland soils, high landscape positions and uniform corn stubble did not indicate any concern that wetlands could revert in these areas once agriculture ceased.

The wetland line staked in the field by Thompson and Associates Wetland Services is an estimate of the wetland boundary and the opinions presented in this report are best estimates of the conditions at the time the wetlands were delineated. The final decision on wetland boundaries and connectiveness rests with the U.S. Army Corps of Engineers and, in some cases, the Wisconsin Department of Natural Resources, or a local unit of government. As a result, there may be adjustments to boundaries based upon review of a regulatory agency.

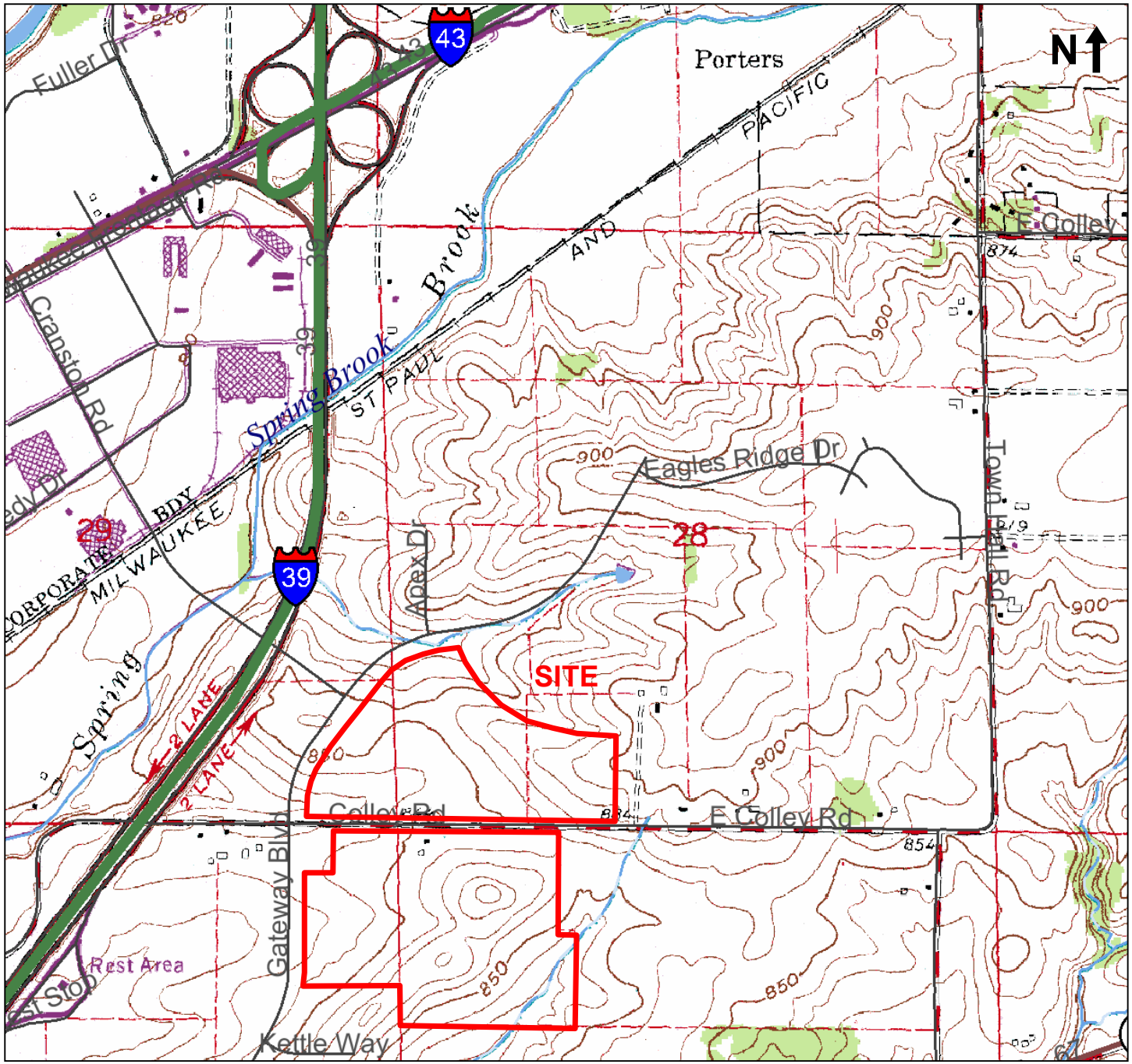
Alice Thompson, lead delineator, is an Assured Delineator as explained at the Wisconsin Department of Natural Resources' (the "WDNR") web site, at http://www.dnr.state.wi.us/org/water/fhp/wetlands/boundaries.html . The WDNR considers Thompson's wetland delineation work to be "Assured" for purposes of Wisconsin waterway and wetland permits and shoreland-wetland zoning, such that Thompson's clients do not need to wait for concurrence letters from the WDNR before relying on such delineations and may expect that wetland delineation issues should not be the cause of delays in state waterway and wetland permit decisions.

The completion of an Assured Wetland Delineation does not change decisions about wetland fill and wetland fill that may result from incorrectly determined boundaries must still be remedied. An Assured Wetland Delineation is not a guarantee of accuracy or relief from landowner responsibility in the event an error occurs and wetlands are filled. As such, there may be risks related to relying on an Assured Wetland Delineation without obtaining the WDNR's prior authorization to fill wetlands.

Any activity in the delineated wetland may require U.S. Army Corps of Engineers permits and State of Wisconsin Department of Natural Resources Water Quality Certification, and local government permits. The final authority of wetland delineation and protection resides with these agencies. If the Client proceeds to change, modify or utilize the property in question without obtaining authorization from the appropriate regulatory agency, it will be done at the Client's own risk and Thompson and Associates Wetland Services shall not be responsible or liable for any resulting damages.

APPENDICES:

1. Figures
    - Figure 1. Site Location and Topographic Map
    - Figure 2. NWS Departure from Normal Precipitation Maps
    - Figure 3. Soil Map
    - Figure 4. Wisconsin Wetland Inventory
    - Figure 5. NRCS Wetland Inventory
    - Figure 6. Historical Aerial Photographs
2. Field Data and Results
    - Figure 7. Data Point Locations
    - Figure 8. Close-up of Wetland Drainage Way
    - Wetland Informational Sheet with Corresponding Data Sheets
3. Routine Methodology for Delineating Wetlands
4. Investigator Biographies



Gateway Business Park

Sections 28, 29, 32, and 33 of Township 1 North, Range 13 East in the City of Beloit, Rock County, WI.

Figure 1:
Site Location and Topographic Map

Source:
Wisconsin DNR Surface Water Data Viewer

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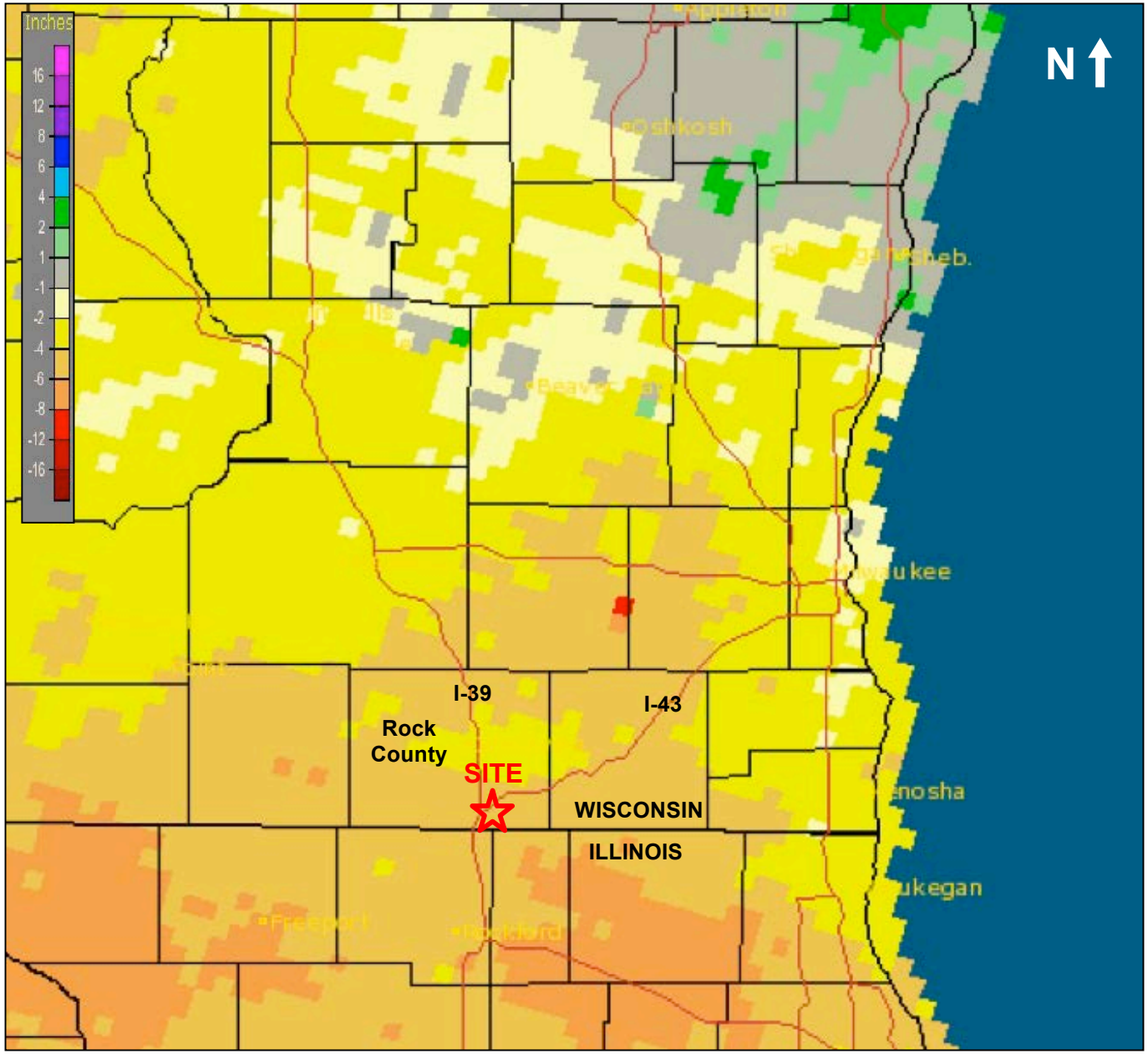


Gateway
Business Park

Sections 28, 29, 32, and 33 of Township 1 North, Range 13 East in the City of Beloit, Rock County, WI.

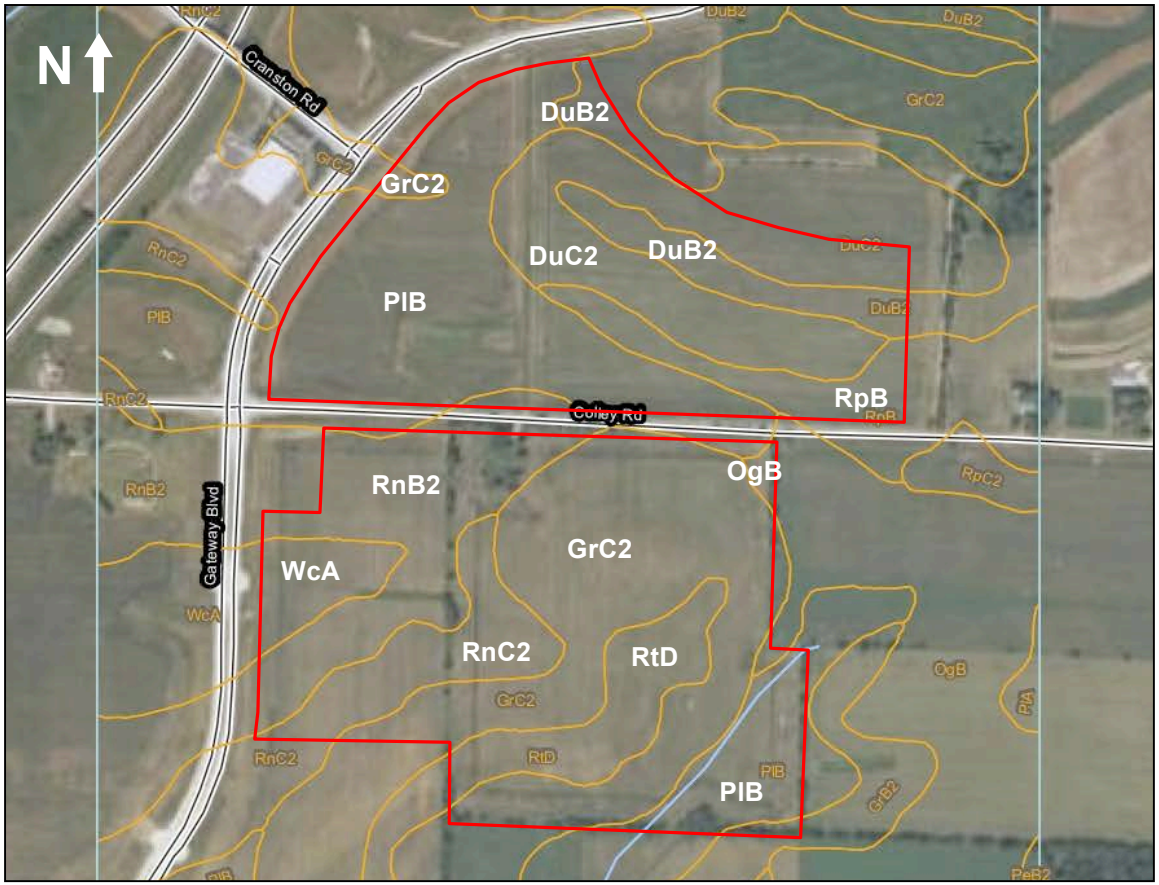
Figure 2:
90-day Departure from Normal Precipitation

Calculated from 10/17/12

Milwaukee/Sullivan Weather Forecast Office

Source:
Advanced Hydrologic Prediction Service Website, National Weather Service

Thompson & Associates
Wetland Services



Key:

Soil	Symbol	Hydric Class	Taxonomy
Durand silt loam, 2 to 6 percent slopes, eroded	DuB2	Upland	Typic Argiudolls
Durand silt loam, 6 to 12 percent slopes, eroded	DuC2	Upland	Typic Argiudolls
Griswold loam, 6 to 12 percent slopes, eroded	GrC2	Upland	Typic Argiudolls
Ogle silt loam, 2 to 6 percent slopes	OgB	Upland	Typic Argiudolls
Plano silt loam, 2 to 6 percent slopes	PlB	Upland	Typic Argiudolls
Ringwood silt loam, 2 to 6 percent slopes, eroded	RnB2	Upland	Typic Argiudolls
Ringwood silt loam, 6 to 12 percent slopes, eroded	RnC2	Upland	Typic Argiudolls
Rockton loam, 2 to 6 percent slopes	RpB	Upland	Typic Argiudolls
Rotamer loam, 12 to 20 percent slopes	RtD	Upland	Typic Argiudolls
Wauconda silt loam, 0 to 3 percent slopes	WcA	Partially Hydric	Udollic Endoaqualfs

Gateway Business Park

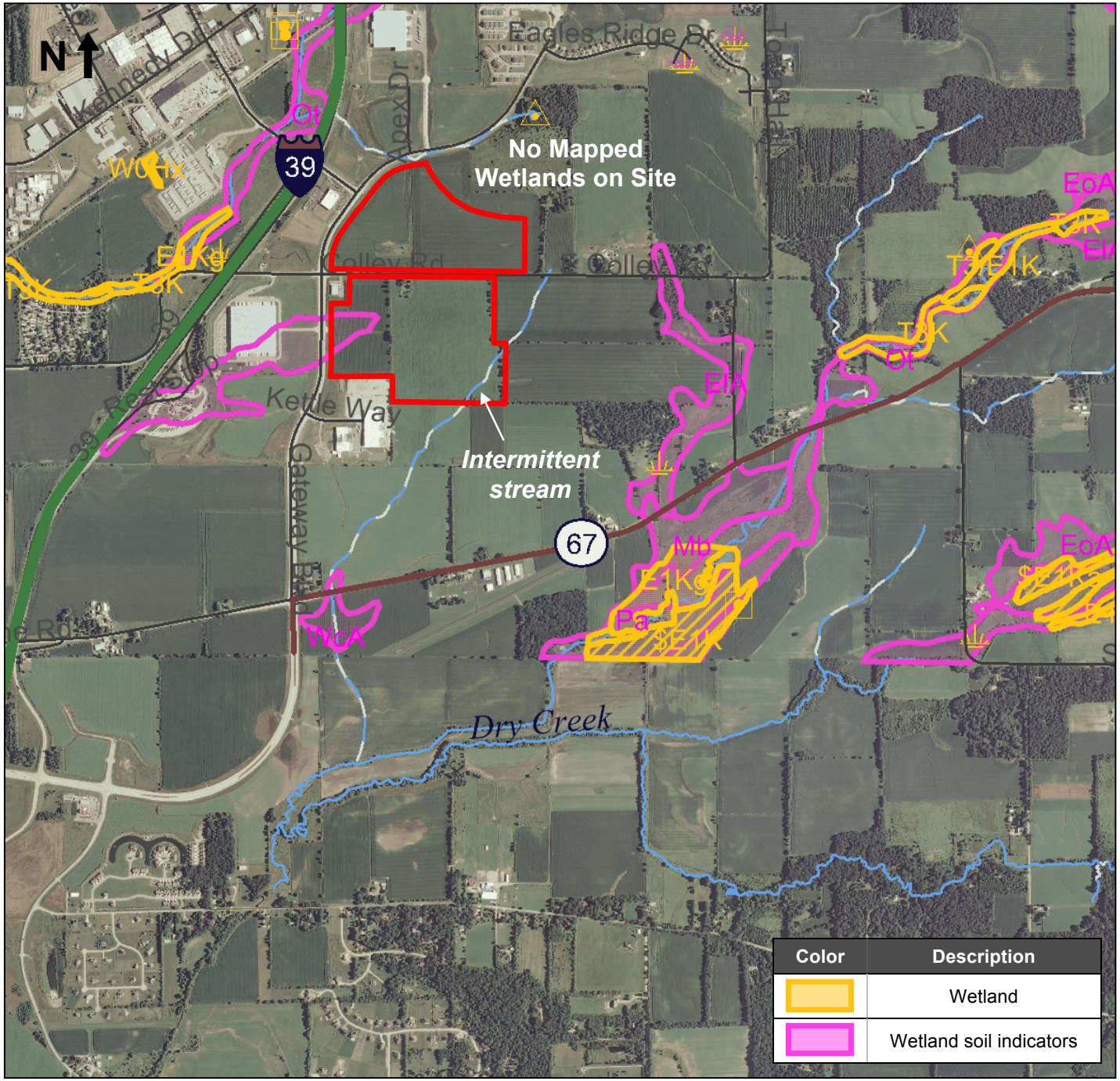
Sections 28, 29, 32, and 33 of Township 1 North, Range 13 East in the City of Beloit, Rock County, WI.

Figure 3: NRCS Soil Survey

2010 Aerial Photograph

Source:
USDA National Resource Conservation Service
Web Soil Survey

Thompson & Associates
Wetland Services



Gateway Business Park

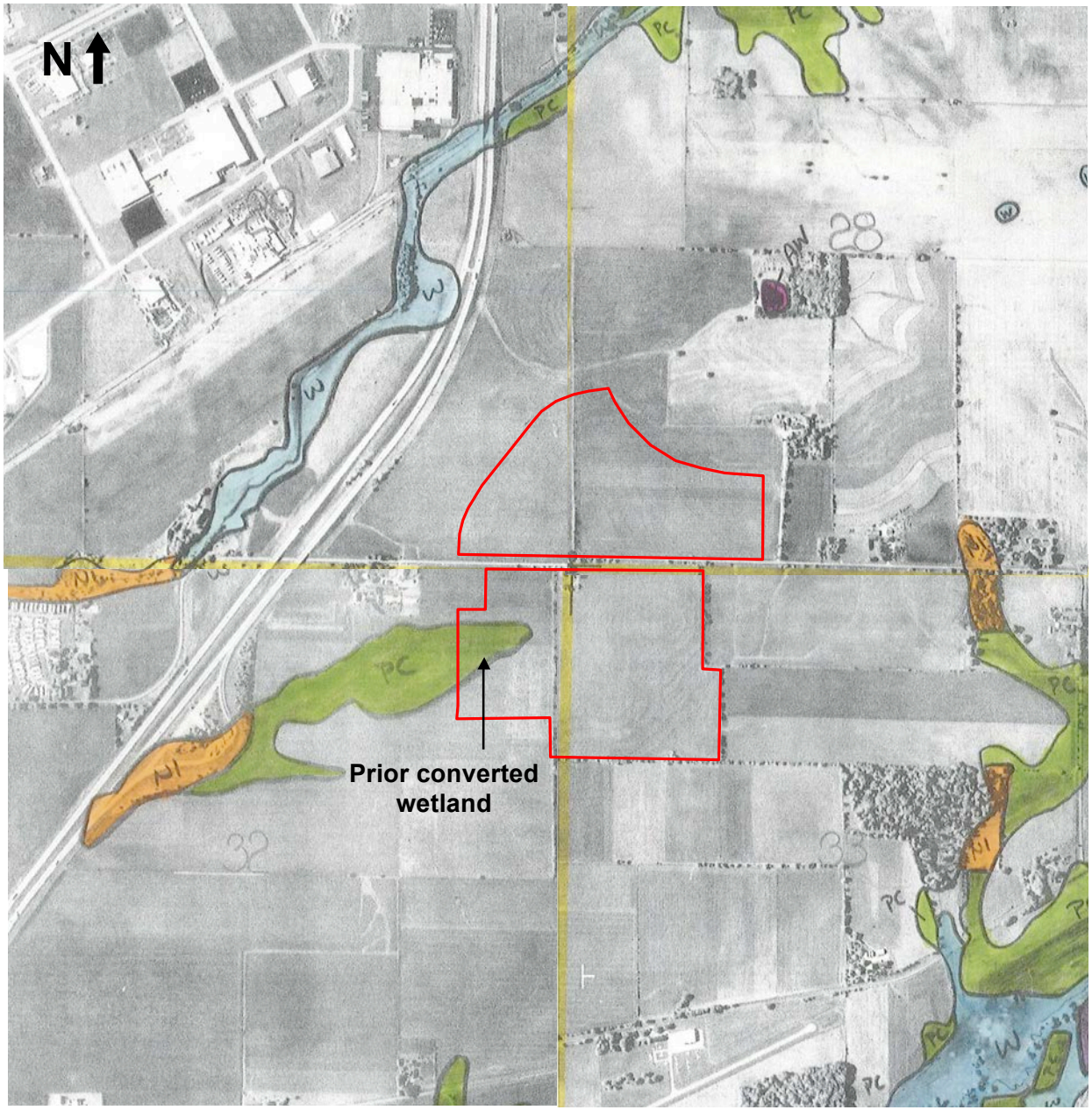
Sections 28, 29, 32, and 33 of Township 1 North, Range 13 East in the City of Beloit, Rock County, WI.

Figure 4:
Wisconsin Wetland Inventory

2008 aerial photograph with DNR waterways layer

Source:
Wisconsin DNR Surface Water Data Viewer

Thompson & Associates
Wetland Services



Gateway
Business Park

Sections 28, 29, 32, and 33 of
Township 1 North, Range 13
East in the City of Beloit,
Rock County, WI.

Figure 5:
NRCS Wetland Inventory

Image Source:
Janesville USDA Service Center

Thompson & Associates
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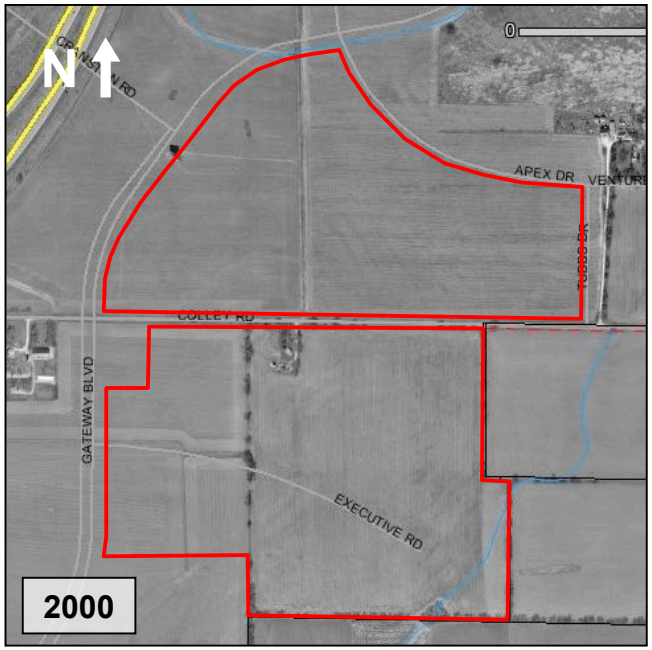
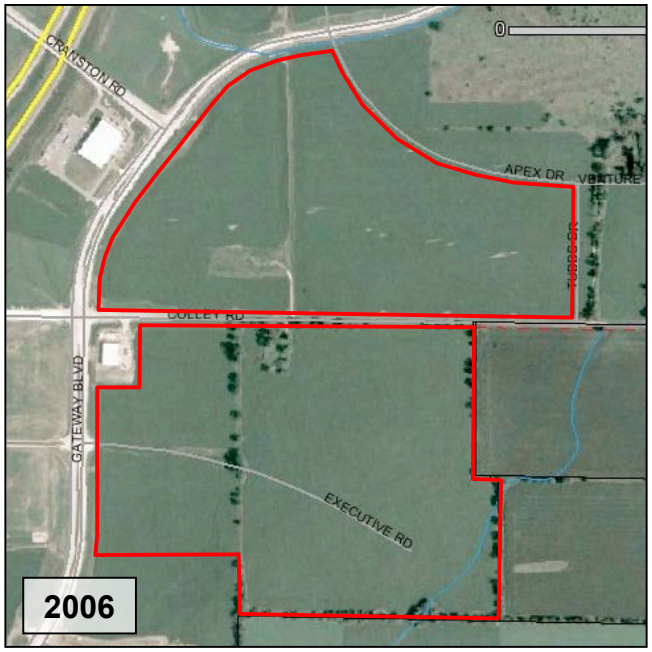
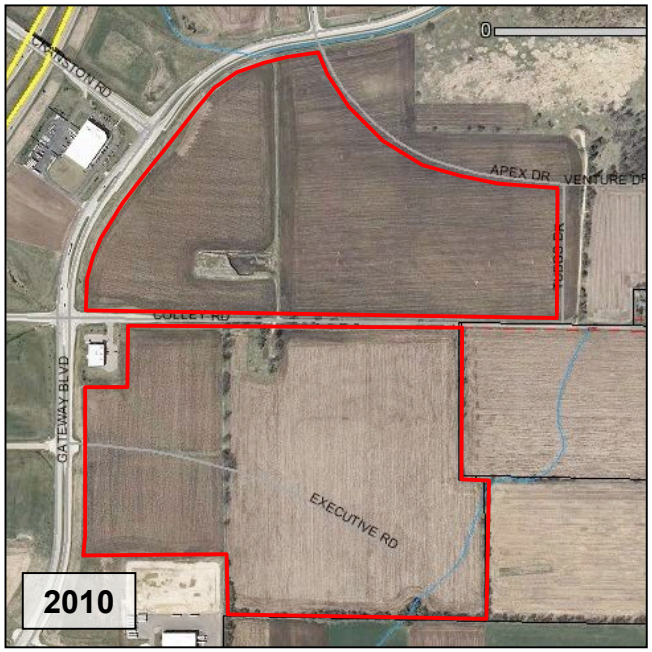






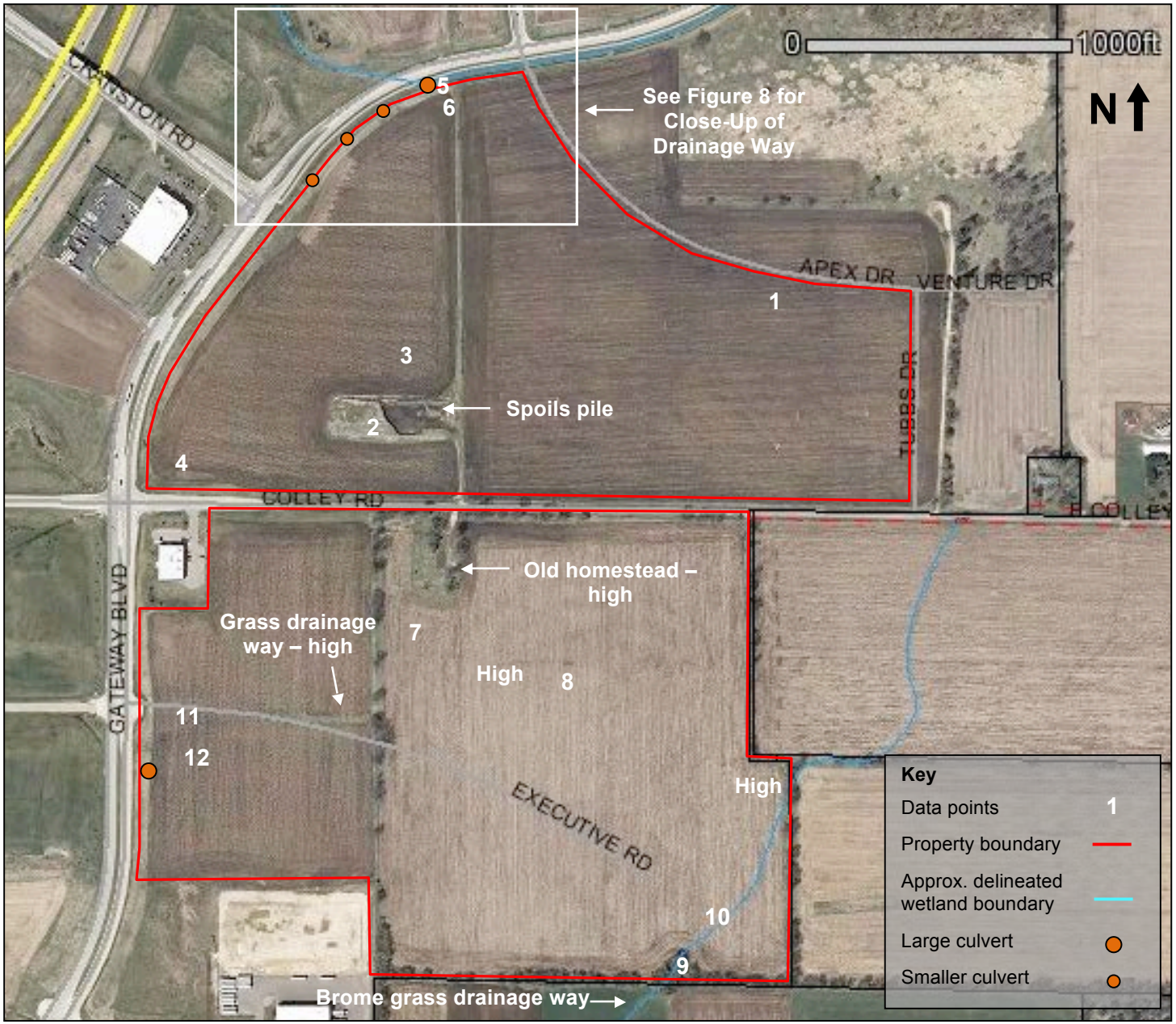
Gateway Business Park

Sections 28, 29, 32, and 33 of Township 1 North, Range 13 East in the City of Beloit, Rock County, WI.

Figure 6: Historic Aerials

Image Source:
Rock County GIS

Thompson & Associates
Wetland Services



Gateway Business Park

Sections 28, 29, 32, and 33 of Township 1 North, Range 13 East in the City of Beloit, Rock County, WI.

Figure 7: Data Point Locations and Site Overview

2010 aerial photograph

Image Source:
Rock County GIS

Thompson & Associates
Wetland Services

Gateway Business Park

Sections 28, 29, 32, and 33 of Township 1 North, Range 13 East in the City of Beloit, Rock County, WI.

Figure 8: Close-up of Drainage way

2010 aerial photograph

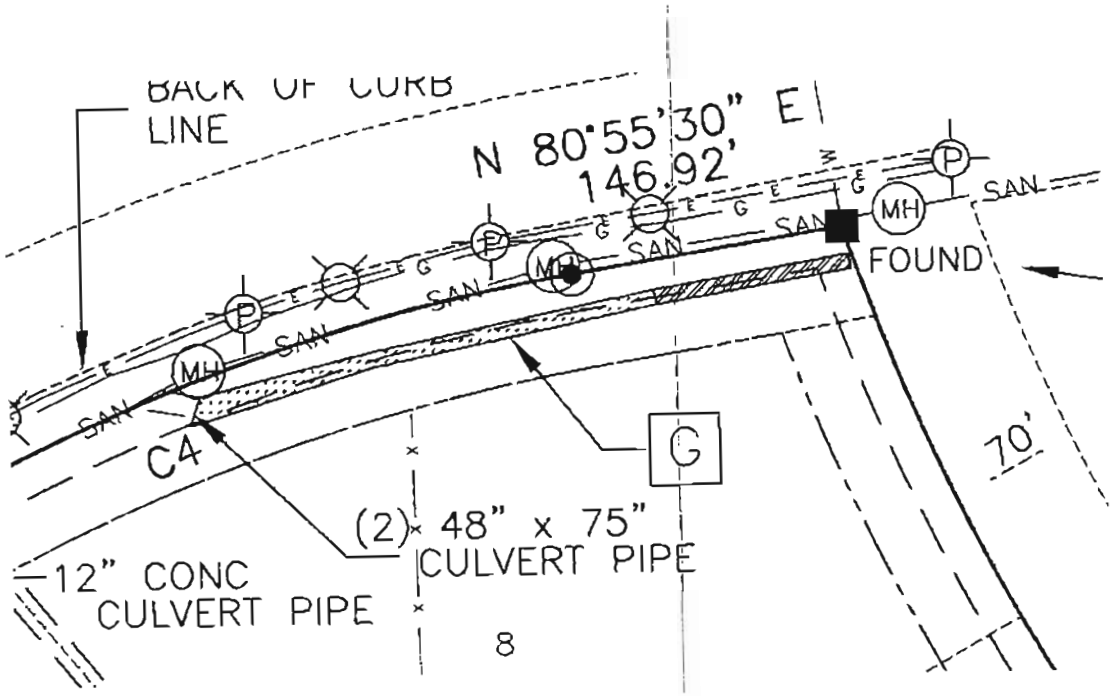
Image Source:
Rock County GIS

Thompson & Associates
Wetland Services

[G]— LOCATION OF WETLAND CONDITIONS AS DELINEATED BY THOMPSON & ASSOCIATES

WETLAND CONDITIONS IN MAPPED INTERMITTENT STREAM

MAPPED DRAINAGE SWALE WITHOUT WETLAND CONDITIONS



Batterman Survey Close-Up 10/23/2012

Gateway Business Park, Beloit, WI
Field Photographs 10/12/12

View from northeast corner of site near data point #1

View of farm field, facing southeast

View of road along eastern border of site, facing south

Landscape of farm field, facing south

Pictures taken from northwest corner of site

View of old homestead from data point #2, facing south

View of roadside ditch near data point #4, facing west. Northeast corner of Colley Rd and Gateway Blvd in background

Culverts along Gateway Blvd in northern part of site

Riprap below small culvert – right side of photo

View of small culvert that drains Gateway Blvd

Large culvert that flows under Gateway Blvd. Note the grate at the culvert's mouth.

View of large culvert from roadside

Drainage ways along Gateway Blvd in northern part of site

Wetland drainage way – wetland flags not yet added

Wetland drainage swale with delineation flags

Facing north – ditch loses wetland vegetation

Drainage ways along Gateway Blvd

Looking east along Gateway Blvd. Wetland drainage swale visible on right with pink delineation flags. Drainage way loses wetland characteristics toward back of photo.

Water flows off the site to the drainage way above, northwest of the intersection between Gateway Blvd. and Cranston Rd. I-39 in far background.

Features in southern half of site

View near data point #7, looking southwest

View from high ridge of field looking to SE corner of site

View of culverts under Gateway Blvd near data points 11 and 12, facing west

Prior-converted wetland area in western part of site near data points 11 and 12

Features in southern half of site

Stand of trees along southern border of site near data point #9

View of trees and other vegetation within tree stand

View of tree stand near data point #9, facing south

View at data point #9, looking south at grass drainage way through alfalfa field with brome grass

Site: Gateway Business Park

Wetland ID: *wetland drainage way*

Wetland Data Point(s): *5*

Adjacent Upland Data Point(s): *6*

Date(s) of Field Assessment: *10/12/12*

Investigator(s): *A. Thompson*

General Description:

155 acres of farm fields dominated by corn stubble, and upland soils. A small area of a wetland (2 of 3 criteria)intermittent drainage way runs through northwestern corner of the site. It was mapped as an intermittant drainageway. A mapped intermittant drainageway on the southeast corner of the site was not associated with wetland vegetation, soils or hydrology.

Is the wetland identified on the following resources?

Yes	No	Inconclusive		Description:
☐	☒	☐	USGS topographic map	*No wetland shown; 2 intermittent streams identified*
☐	☒	☐	WWI	*No wetland shown; 2 intermittent streams identified*
☐	☐	☒	NRCS Wetland Inventory	*One area of Prior Converted Wetland is shown along the western edge of the site. Crop history slides not available.*
☐	☒	☐	Aerial photographs	*No wetland visible*

Wetland Vegetation

Community Type(s) and Dominant Species:

Small area of reed canary grass and red-footed spike rush in ditch.

Adjacent Upland Vegetation

Community Type(s) and Dominant Species:

Farm field dominated by corn stubble

Wetland Soils

H = hydric
I = hydric inclusions

Mapped Soil Type(s):

Plano silt loam (upland)

General Soil Description:

10YR 3/2 and 10YR 4/3 silt loam

Adjacent Upland Soils

Mapped Soil Type(s):

Durand silt loam
Griswold loam
Ogle silt loam
Plano silt loam
Ringwood
Rockton loam
Rotamer loam
Wauconda silt loam - I

General Soil Description:

10YR 4/3 silt loam

Hydrology

(source, permanence, direction of flow, depth, groundwater signatures, etc.)

Hydrology indicators included geomorphic position (D2), FAC-Neutral test (D5) and oxidized rhizospheres (C3) in ditch on NW side.

Boundary determined by:

The drainage way was distinguished by its lower landscape position and was staked where it met vegetatation and hydrology indicators.

Site: Gateway Business Park

Atypical Areas	Corresponding Data Points	Description:
☒ Farmed Field	*1,3,4,7,8,10,11,12*	*Uniform corn stubble*
☐ Soil Removal		
☒ Fill	*2*	*adjacent spoils pile*
☐ Subsurface Plow		
☒ Surface Layer Removed	*5*	*roadside ditch cut*
☐ Man-Made Structure		
☐ Dam/Levee		
☐ Channelization		
☐ Drainage		
☐ Beaver Dam		
☐ Change in River		

Problem Areas:	Corresponding Data Points	Description:
☐ Highly seasonal wetland		
☐ Vegetated flats		
☐ FACU dominated wetland		
☐ Human-induced wetland		
☐ Problem soils		
☐ Prairie pothole		
☐ Wetland on drumlin		
☐ Multi-year wet/dry cycle		
☐ Managed plant community		
☐ White pine swamp		

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gateway Business Park City/County: Beloit / Rock Sampling Date: 10/12/14
Applicant/Owner: City of Beloit State: WI Sampling Point: 1
Investigator(s): TAWS - Alice Thompson Section, Township, Range: S.28 T 1 N R 13 E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex
Soil Map Unit Name: Durand silt loam WWI classification: ?
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No X Reason: drought year
Are Vegetation X, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? (Yes) X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ problematic?

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

Hydrophytic Vegetation Present?	Yes ___ No	X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___ No	X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___ No	X	

Remarks: Corn harvested this week - stubble throughout

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: equiv to 5' radius)			
1. Zea Mays - corn stubble	100		NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: equiv to 30' radius)			
1.			
2.			
3.			
	= Total Cover		

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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)
__ 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. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ___ No X

Remarks:

SOIL

Sampling Point: 1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-11"	10YR 4/3	100					silt loam	

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (If observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks:

Soil dry [illegible] at 11" [illegible]

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

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

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

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks:

High on slope

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gateway Business Park City/County: Beloit / Rock Sampling Date: 10/12/12

Applicant/Owner: City of Beloit State: WI Sampling Point: 2

Investigator(s): TAWS - Alice Thompson Section, Township, Range: S 29 T 1N R 13E

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

Soil Map Unit Name: Plano silt loam WWI classification: Ø

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No X Reason: drought

Are Vegetation ___, Soil X, or Hydrology ___ significantly disturbed? near spoils Are "Normal Circumstances" present? (Yes) X No ___

Are Vegetation ___, Soil ___, or Hydrology ___ problematic?

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

Hydrophytic Vegetation Present?	Yes ___	No X	Is the Sampled Area within a Wetland? Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

Remarks:
Adjacent Apparent spoils piles - reason for no ODs

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	

Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		= Total Cover	

Herb Stratum (Plot size: equiv to 5' radius)			
1. Bromus inermis	70	Y	UPl
2. Conyza canadensis	15		FACU
3. Artemisia ludoviciana			FAC
4. Zea mays	5		NI
5. Physalis virginiana	5		FACW
6. Salix sericea	5		* FAC
7. Ambrosia artemisiifolia	5		FACU
8. Solidago canadensis	10		FACU
9. Linaria vulgaris	5		UPl
10.			
	130	= Total Cover	65/26

Woody Vine Stratum (Plot size: equiv to 30' radius)			
1.			
2.			
3.			
		= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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)

___ 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. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ___ No X

Remarks: * Swink & Wilhelm

Subdominants also tend FACU to UPl.

SOIL

Sampling Point: 2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 4/3	100					silt loam	

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks:

dug: compacted fill soil - adjacent large spoils pile - actively used.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

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

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

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Beloit Gateway Business Park City/County: Beloit / Rock Sampling Date: 10/12/12
Applicant/Owner: City of Beloit State: WI Sampling Point: 3
Investigator(s): TAWS - Alice Thompson Section, Township, Range: S29, T1N R13E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex
Soil Map Unit Name: Plano silt loam WWI classification: Ø
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ____ No X Reason: drought year
Are Vegetation X, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ problematic?

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
high landscape position

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		= Total Cover	
Herb Stratum (Plot size: equiv to 5' radius)			
1. corn stubble - Zea mays	100		NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	
Woody Vine Stratum (Plot size: equiv to 30' radius)			
1.			
2.			
3.			
		= Total Cover	

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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)
__ 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. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
corn stubble within

SOIL

Sampling Point: 3

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 - 10"	10YR 4/3	100					silt loam	

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

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

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

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks: no evidence of hydrology - high on landscape

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Beloit Gateway Business Park City/County: Beloit / Rock Sampling Date: 10/12/12

Applicant/Owner: City of Beloit State: WI Sampling Point: 4

Investigator(s): TAWS - A Thompson Section, Township, Range: S29 T 1 N R 13 E

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

Soil Map Unit Name: Plano silt loam WWI classification: Ø

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No X Reason: drought year

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

Are Vegetation ___, Soil ___, or Hydrology ___ problematic?

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

Hydrophytic Vegetation Present?	Yes ___ No X	Is the Sampled Area within a Wetland?	Yes ___ No X
Hydric Soil Present?	Yes ___ No X	If yes, optional Wetland Site ID:	
Wetland Hydrology Present?	Yes ___ No X		

Remarks: Lower point of N field

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: equiv to 5' radius)			
1. Corn stubble - Zea mays	100		NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: equiv to 30' radius)			
1.			
2.			
3.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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)

__ 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. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ___ No X

Remarks: Corn stubble very dense

SOIL

Sampling Point: 4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/3	100					silt loam	
10-11	10YR 5/2	100					silt loam	

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

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

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

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gateway Business Park City/County: Rock / Beloit Sampling Date: 10/12/12

Applicant/Owner: City of Beloit State: WI Sampling Point: 5

Investigator(s): TAWS - A Thompson Section, Township, Range: S 28 T 1 N R 13 E

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

Soil Map Unit Name: Plano silt loam WWI classification: intermittent drainageway

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No X Reason: drought year

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

Are Vegetation ___, Soil ___, or Hydrology ___ problematic?

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

Hydrophytic Vegetation Present?	Yes X No ___	Is the Sampled Area within a Wetland?	Yes ___ No ___
Hydric Soil Present?	Yes ___ No X	If yes, optional Wetland Site ID:	
Wetland Hydrology Present?	Yes X No ___		

drainageway w/ wetland vegetation & hydrology

Remarks:

Mowed roadside ditch - w/ multiple rip rap outlets, inlets intermittent stream on multiple maps flows under Gateway Blvd. to North

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: equiv to 5' radius) mowed			
1. Phalaris arundinacea	80	y	FACW
2. Glechoma hederacea	5	y	Obl
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	85 = Total Cover		42.5/17
Woody Vine Stratum (Plot size: equiv to 30' radius)			
1.			
2.			
3.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks)

___ 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. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes X No ___

Remarks: ruttd ditch at road side - mowed weed removed grass.

above area flagged vegetation changes to common brome. Runs into Joose Eleocharis

SOIL

Sampling Point: 5

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/3	100					Silt loam	
10-13	10YR 3/2	100					silt clay loam	

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks: upland soils w/in maintained road side ditch

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1) 0 v 6"
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)
- X Geomorphic Position (D2) ditch
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5) 1/1 = 100%

Field Observations:

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

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

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

Is Wetland Hydrology Present? Yes X No ___

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

Remarks: Drainage Swale [illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gateway Business Park City/County: Beloit / Rock Sampling Date: 10/12/12
Applicant/Owner: City of Beloit State: WI Sampling Point: 6
Investigator(s): TAWS - AThompson Section, Township, Range: S 28 T 1N R 13E
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): flat
Soil Map Unit Name: Plano silt loam WWI classification: none
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ____ No X Reason: drought
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ problematic?

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

Hydrophytic Vegetation Present?	Yes ____	No X	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ____	No X	

Remarks: edge of farm field / hedgerow adjacent road side ditch

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		= Total Cover	
Herb Stratum (Plot size: equiv to 5' radius)			
1. Bromus inermis	80	Y	UPl
2. Solidago canadensis	10		FACU
3. Ambrosia trifida	5		FAC
4. Solidago canadensis	10		FACU
5. Phalaris arundinacea	15		FACW
6. Cirsium discolor	5		UPl
7.			
8.			
9.			
10.			
	120	= Total Cover	60/24
Woody Vine Stratum (Plot size: equiv to 30' radius)			
1.			
2.			
3.			
		= Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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)
__ 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. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ____ No X

Remarks:
dominated by bromus grass

SOIL

Sampling Point: 6

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/3	100					silt loam	

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks:

Upland soils

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

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

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

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks:

high- [illegible] adjacent [illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Beloit Gateway Business Park City/County: Beloit / Rock Sampling Date: 10/12/12

Applicant/Owner: City of Beloit State: WI Sampling Point: 7

Investigator(s): TAWS - Mike Thompson Section, Township, Range: S 32 T 1N R 13E

Landform (hillslope, terrace, etc.): top of slope Local relief (concave, convex, none): flat

Soil Map Unit Name: Ringwood silt loam WWI classification: Ø

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No X Reason: drought

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

Are Vegetation ___, Soil ___, or Hydrology ___ problematic?

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

Hydrophytic Vegetation Present?	Yes ___	No X	Is the Sampled Area within a Wetland? Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: equiv to 5' radius)			
1. Zea Mays	100		NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: equiv to 30' radius)			
1.			
2.			
3.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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)

__ 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. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ___ No X

Remarks:

SOIL

Sampling Point: 7

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13"	10YR 4/3	100					Silt loam	

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required) ___

- ___ 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)

Field Observations:

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

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

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks: Top of hill slope

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Beloit Gateway Business Park City/County: Beloit / Rock Sampling Date: 10/12/12
Applicant/Owner: City of Beloit State: WI Sampling Point: 8
Investigator(s): TAWS - A Thompson Section, Township, Range: S3 T1N R 13E
Landform (hillslope, terrace, etc.): top of hill Local relief (concave, convex, none): convex %
Soil Map Unit Name: Gigsold, silt loam WWI classification: Ø
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No X Reason: drought
Are Vegetation X, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No X
Are Vegetation ___, Soil ___, or Hydrology ___ problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

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

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		= Total Cover	
Herb Stratum (Plot size: equiv to 5' radius)			
1. Reed canary grass - Phalaris arundinacea	100		NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: equiv to 30' radius)			
1			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: ___ (A)
Total Number of Dominant Species Across All Strata: ___ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
___ Rapid Test for Hydrophytic Vegetation
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0¹
___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
___
___ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:
Tree - Woody plants 3 in. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ___ No X

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

SOIL

Sampling Point: 8

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 11	10YR 4/3	100					S L	

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

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

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

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Beloit Gateway Business Park City/County: Beloit / Rock Sampling Date: 10/12/17

Applicant/Owner: City of Beloit State: WI Sampling Point: 9

Investigator(s): TAWS - Marc Thompson Section, Township, Range: S 33 T1 R13E

Landform (hillslope, terrace, etc.): Mid Slope Local relief (concave, convex, none): [illegible]

Soil Map Unit Name: Plano silt loam WWI classification: drainageway (intermittent) overland flow

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ____ No X Reason: drought

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

Are Vegetation ____, Soil ____, or Hydrology ____ problematic?

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

Hydrophytic Vegetation Present? Yes ____ No X		Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present? Yes ____ No X		If yes, optional Wetland Site ID:
Wetland Hydrology Present? Yes ____ No X		

Remarks: Area not farmed ~ 30-50 yr [illegible] trees - slight suggestion of V shape but no [illegible] signs of flow (drift, wrack, cut, shallow roots etc). w/ [illegible] ([illegible]) [illegible] from field off site

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. [illegible]	80	Y	FACW
2. Prunus serotina	10		FACU
3.			
4.			
5.			
	90	= Total Cover	45 / 18

Sapling/Shrub Stratum (Plot size: equiv to 15' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. [illegible]	30	Y	Upl
2. Lonicera tatarica	10	Y	Upl
3.			
4.			
5.			
6.			
7.			
	40	= Total Cover	20 / 8

Herb Stratum (Plot size: equiv to 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alliaria petiolata	80	Y	FACU
2. [illegible] album	20		FACU
3. Rhamnus cathartica	10		FAC
4. Ambrosia trifida	5		FAC
5. Solanum dulcamara	5		FAC
6. Arctium minus	15		Upl
7.			
8.			
9.			
10.			
	135	= Total Cover	67.5 / 27

Woody Vine Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
		= Total Cover	

Remarks:

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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)

__ 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. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ____ No X

SOIL

Sampling Point: 9

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/3	100						silt loam

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

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

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

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Beloit Gateway Business Park City/County: Beloit / Rock Sampling Date: 10/12/12

Applicant/Owner: City of Beloit State: Sampling Point: 10

Investigator(s): TAWS - A Thompson Section, Township, Range: Sec 33 T 1N R 13 E

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

Soil Map Unit Name: Plano silt loam WWI classification: drained intermittent

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No X Reason: drought drainage

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

Are Vegetation ___, Soil ___, or Hydrology ___ problematic?

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

Hydrophytic Vegetation Present?	Yes ___	No X	**Is the Sampled Area within a Wetland?** Yes ___ No X
Hydric Soil Present?	Yes ___	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___	No X	

Remarks: wide field - no obvious drainageway large sloping field - slopes to wooded area # 9 - No swale or water route - yield is uniform

VEGETATION - Use scientific names of plants. Suggestion of

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: equiv to 5' radius)			
1. corn stubble - 24 plants	100		NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: equiv to 30' radius)			
1.			
2.			
3.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

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)

__ 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. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ___ No X

Remarks: Uniform corn stalks

SOIL

Sampling Point: 10

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 4/3	90					silt loam	
	10YR 5/3	10						

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks: wet fall - [illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Beloit Gateway Business Park City/County: Beloit / Rock Sampling Date: 8/12/12

Applicant/Owner: City of Beloit State: WI Sampling Point: 1

Investigator(s): TAWS - A Thompson Section, Township, Range: Sec 32, T1N R13E

Landform (hillslope, terrace, etc.): N towards base of slope Local relief (concave, convex, none): Flat

Soil Map Unit Name: Wawconda silt loam WWI classification: Ø Mapped "PC" on NRCS map

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ____ No X Reason: drought

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

Are Vegetation ____, Soil ____, or Hydrology ____ problematic?

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

Hydrophytic Vegetation Present?	Yes ____	No X	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____	No X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Former P-C area on NRCS soil survey map & hydric inclusion soils

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Herb Stratum (Plot size: equiv to 5' radius)			
1. Corn stubble Zea Mays	100		NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	= Total Cover		
Woody Vine Stratum (Plot size: equiv to 30' radius)			
1.			
2.			
3.			
	= Total Cover		

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

__ Rapid Test for Hydrophytic Vegetation

__ Dominance Test is >50%

__ Prevalence Index is ≤3.0¹

__ Morphological Adaptations¹ (Provide supporting data in Remarks)

__ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ____ No X

Remarks: Corn stubble Unharvested

SOIL

Sampling Point: 1S

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 4/3	100					SiH loam	

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Is Hydric Soil Present? Yes ___ No X

Remarks:

Upland Soils

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

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

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

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks:

Fringe P-C area on (NRCS) USDA maps

uniform field - upland driveway (bare grass) upslope

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gateway Business Park City/County: Beloit / Rock Sampling Date: 10/12/12
Applicant/Owner: City of Beloit State: WI Sampling Point: 12
Investigator(s): TAWS - A. Thompson Section, Township, Range: Sec. 32, T 1 N R 13 E
Landform (hillslope, terrace, etc.): gentle slope in west Local relief (concave, convex, none): flat
Soil Map Unit Name: Waucousta silt loam WWI classification: Ø PC on NRCS maps
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ___ No X Reason: drought
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ problematic?

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

Hydrophytic Vegetation Present?	Yes ___ No	X	Is the Sampled Area within a Wetland? Yes ___ No Y
Hydric Soil Present?	Yes ___ No	X	If yes, optional Wetland Site ID:
Wetland Hydrology Present?	Yes ___ No	X	

Remarks: Local low point - [illegible]

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: equiv to 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: equiv to 15' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		= Total Cover	
Herb Stratum (Plot size: equiv to 5' radius) 2 x mows			
1. Cool season grasses	100		NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
		= Total Cover	
Woody Vine Stratum (Plot size: equiv to 30' radius)			
1.			
2.			
3.			
		= Total Cover	

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

Prevalence Index worksheet:

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

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:
__ Rapid Test for Hydrophytic Vegetation
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0¹
__ Morphological Adaptations¹ (Provide supporting data in Remarks)
__ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:
Tree - Woody plants 3 in. (7.6cm) 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 (1m) 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.

Is Hydrophytic Vegetation Present? Yes ___ No X

Remarks: Weeds [illegible] - Nothing indicative of wetland [illegible]

SOIL

Sampling Point: 12

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14"	10YR 4/3	60					silt loam	
	10YR 3/2	40						

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

Hydric Soil Indicators: *(For LRR K)*

- ___ 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)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Coast Prairie Redox (A16)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8)
- ___ Thin Dark Surface (S9)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):
Type: ______
Depth (inches): ______

Is Hydric Soil Present? Yes ___ No X

Remarks:
Mixed matrix of 10YR 4/3 & 10YR 3/2 likely due to [illegible] mixing original soil w/ spoils that are deposited [illegible] topsoil [illegible] - Upland - No redox

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ 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)

Field Observations:

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

Is Wetland Hydrology Present? Yes ___ No X

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

Remarks:
Corn uniform

APPENDIX 3.
ROUTINE METHODOLOGY FOR DELINEATING WETLANDS

This delineation was performed according to guidelines set by the U.S. Army Corps of Engineers 1987 Manual and either the 2012 Regional Supplement to the Corp of Engineers Wetland Delineation Manual: Northcentral and Northeastern Region, or the 2010 Regional Supplement to the Corp of Engineers Wetland Delineation Manual: Midwest Region, depending on which region the site occurs within per US Army Corps of Engineers guidance. Additional DNR requirements and guidance that were presented at wetland delineation training courses offered by the Wisconsin Department of Administration, Coastal Management Program have also been incorporated. The most recent of these workshops we attended that provided current guidance was the Critical Methods in Wetland Delineation Workshop in March of 2011.

Maps used during the delineation included site location map, NRCS County soil maps, U.S.G.S. topographic map, Wisconsin Wetland Inventory Map, and aerial photography. NRCS Wetland Inventory Maps are provided when available and pertinent. The indicator plant status was taken from the 2009 North American Digital Flora: National Wetland Plant List, version 2.4.0 (approved 6/1/2012 and authored by Robert W. Lichvar and John T. Kartesz, U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH, and BONAP, Chapel Hill, NC). When an indicator was not given then the indicator listed in the "Plants of the Chicago Region," by Floyd Swink and Gerould Wilhelm (1994) was used.

Data points were set in areas that exhibited obvious wetland and obvious upland characteristics. At each data point, vegetation was identified, soils described, and hydrology noted. Vegetation was recorded as species and absolute percent cover. Herbaceous vegetation, shrub, and tree cover were estimated in circular plots of approximately 5, 15, and 30 feet in radius, respectively, with the center point being the soil pit. If the entire circular plot was not located within a single plant community, then the plot shape was adjusted accordingly with the total plot area remaining equivalent to the circular plot area. The cover was estimated in increments of 5%, and the appropriate test (Rapid Assessment, Dominance, Prevalence or Morphological Adaptations test) was used to determine dominant vegetation. The wetland boundary was staked and located between the wetland and upland data points, at a consistent break in vegetation, topography, and soils.

APPENDIX 4.
BIOGRAPHIES OF FIELD INVESTIGATORS

Alice L. Thompson, Owner, Assured Wetland Delineator
Alice L. Thompson is an independent wetland consultant and is certified by the Society of Wetland Scientists as a Professional Wetland Scientist (PWS). She obtained a masters degree in biological sciences at the University of Wisconsin-Milwaukee in 1995. Her professional interests include wetland restoration, mitigation, and the control of invasive plant species, especially reed canary grass. Ms. Thompson has satisfactorily completed the Wetland Delineation course offered by the Wisconsin Department of Administration, Coastal Management Program in 1998, the Advanced Wetland Delineation Training Workshop offered by the University of Wisconsin-La Crosse in 2002, the Primary Environmental Corridor Delineation Workshop offered by the Southeastern Wisconsin Regional Planning Commission in 2004, Critical Methods in Wetland Delineation offered by the Wisconsin Department of Natural Resources in 2006, 2008, 2010, & 2011, and the Midwest Supplement Training offered by the US Army Corps of Engineers in 2009. Ms. Thompson has delineated over 350 wetlands and is a member of the Society of Wetland Scientists.