Wetland Delineation Report

Prescott Eagle Ridge Business Park

Prepared for: Cedar Corporation

Prescott, Wisconsin

August 24, 2012

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BES Project No. 2012.028

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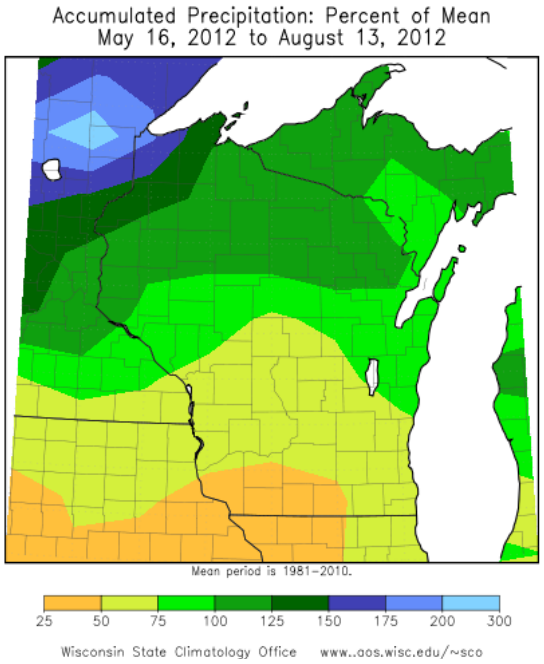
Background

Bopray Environmental Services LLC (BES) has completed a wetland delineation on the approximately 80 acre site located in parts of Sections 2 and 3, T26N, R20W Pierce County, Wisconsin (**Figure 1**). The site consists of corn and soybean fields with a small area of hay on the west end and a new stormwater treatment pond (SWTP). The topography of the east side of the site is rolling, and on the west side is gently sloping to the west according to the U.S.G.S. quadrangle topographic map **(Figure 2**). On August 17, 2012 BES completed a delineated of one SWTP/wetlands on the site. The approximate site and wetland boundaries are shown on an aerial photo in **Figure 3**. The surveyed site and wetland boundaries are provided by Cedar Corporation in **Appendix A**. The purpose of this delineation was to identify any wetlands that may have to be considered during the development of the Business Park.

Methodologies

The site was evaluated for wetlands based on the methods contained in the "Routine Determinations" section of the U.S. Army Corps of Engineers "Wetland Delineation Manual" (Technical Report Y87-1, 1987) and the Northcentral and Northeast Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region. This is the methodology currently used to determine wetlands by both the U.S. Army Corps of Engineers for implementation of Section 404 of the Clean Water Act and by the Wisconsin DNR. The wetland determinations were also conducted in accordance with the "Basic Guide to Wisconsin Wetlands and Their Boundaries" a publication of the State of Wisconsin. Soil colors described herein follow "Munsell Soil color Charts". According to the Wisconsin State Climatology Office's



webpage, the area was at 75-100% of average precipitation for the preceding 30 days and 100-125% of average precipitation for the preceding 90 day periods.

Results

SWTP/Wetland A

This pond is located in the northwest part of the site and was not present in the 2010 aerial but was evident in the 2011 aerial photo. Wetland A is shallow open water, mud bottom, Palustrine, excavated basin (W3Hx, PUBFx) with a narrow shallow marsh fringe. The wetland edge (sample point SA-1) is dominated by sandbar willow (*Salix interior*), black willow (*Salix nigra*), crack willow (*Salix fragilis*), eastern cottonwood (*Populus deltoids*), saw tooth sunflower (*Helianthus grosseserratus*), barnyard grass (*Echinochloa crus-galli*) and Kentucky bluegrass (*Poa pratensis*). The wetland soils consisted of more than 16 inches of mixed 10YR 2/1, 10YR 4/2 and 10YR 4/1 sandy loam fill material. The wetland hydrology indicators observed in the wetland included surface water (A1) and a positive FAC-neutral test (D5). Water or saturated soil was not observed in the soil pit even though it was only 12 inches from the surface water and below the water level. The adjacent upland vegetation (sample point SA-2) is dominated by white sweet clover (*Melilotus alba*), yellow foxtail grass (*Setaria faberi*) and alfalfa (*Medicago sative*). The upland soils consisted of more than 14 inches of mixed 10YR 2/1, 10YR 2/2 and 10YR 3/3 sandy loam fill material. There was no free water or saturated soil in the upland soil pit at the time of the site visit. The wetland boundary was generally staked along a break in the topography and vegetation community.

Miscellaneous Areas

Aerial photographs identified a small area in the eastern part of the site where crop planting skipped nearly every year. This area was investigated (Data sheet SS) and determined not to have any wetland features. Corn (*Zea maze*) was planted all around this area in 2012 but this area was not tilled and planted. The skip spot is dominated by timothy grass (*Phleum pratese*) and Kentucky bluegrass. The sub-dominant species were also FACU and UPL species. The soils consisted of one inch of 10YR 3/3 sandy loam, over two inches 10YR 4/3 sandy loam, over 10YR 4/4 sandy clay loam. The soil was extremely rocky to the surface which is likely why the area is not cultivated. There was no free water or saturated soil in the upland soil pit at the time of the site visit. A few other locations in the northeast part of the site showed evidence of crop stress on aerial photos. In the field the crop stress was evident but appeared to also be related to extremely rocky and droughty soils and not a result of excess water.

The aerial photographs showed evidence of a linear feature through the central part of the site that extended from the south, off-site to the north. Often features like this are grassed waterways which can have wetland characteristics. On this site there was no waterway in the area but there was a conservation strip crop field with a small erosion control terrace. In 2012 the area was planted to soybeans (*Glycene max*) which showed no signs of crop stress due to wetness.

Resource Maps Review

The Wisconsin Wetlands Inventory (WWI) (**Figure 4**) does not identify any wetlands or potential wetland area on the site. The Pierce County Soils Survey (**Figure 5**) shows the site is predominantly mapped as Dakota loam (401A), Rockton silt loam (170B), Wykoff loam (843C2), Vlasaty silt loam (816C2), Kasson silt loam (866B) and Lamont fine sandy loam (503B2) soil map units. All of these soil map units are listed as non-hydric soils. Several historical aerial photos were reviewed and the SWTP/Wetland A is not evident until 2011. The aerial photos showed consistent signatures of crop stress in the northeast corner of the site, and the linear features through the center of the site.

Wetland Classification

BES' classification of the wetlands is based on observations of the site and is include in Table 1 below.

Table 1. Summary of Wetland Characteristics

Basin	Class	Circ. 39 Type	Isolated Y/N	Comments
SWTP/Wetland A	W3Hx Shallow open water PUBFx	3	N	This SWTP was excavated in an upland area in the last year or two. It has relatively steep embankments and hydrophytic vegetation has begun to colonize the shallow areas of the pond.

Jurisdiction

Table 1 indicates whether the wetlands are isolated or not for purposes of U.S. Army Corps of Engineers (COE) jurisdiction under Section 404 of the Clean Water Act. This determination is made by BES in the field at the time of the delineation and is essentially our best professional opinion based on the portion of the particular wetland we observed. In some cases, only a small portion of the wetland edge that is present on the property being delineated is evaluated. If no inlets or outlets are observed in the evaluated area, and none are evident on topographic maps or aerial photos, we are inclined to determine the wetland is isolated. However, since the entire wetland is sometimes not assessed, it is possible that inlets and/or outlets do exist and that the wetland has a surface connection to a federal "navigable" water and, thus, falls within the jurisdiction of Section 404. Therefore, a determination by BES of whether a particular wetland is isolated or not should not be considered a final determination with regard to COE jurisdiction until the COE concurs with the determination. The COE will likely **not** take jurisdiction over SWTP/Wetland A because it is clearly a recently excavated, stormwater

treatment pond constructed in an upland area that was not intended to create wetland conditions.

SWTP/Wetland A is not designated as Areas of Special Natural Resource Interest (ASNRI) by the Wisconsin Department of Natural Resources (DNR). Activities within an ASNRI are very limited and/or require a permit from the DNR. If the COE determines any of the wetlands are isolated, then the DNR would have jurisdiction over SWTP/Wetland A based on Wisconsin Statutes Chapter 299. However, stormwater ponds such as this one are generally exempted under Wisconsin NR 103. Stormwater management on this site may need to comply with standards under Wisconsin Statutes Chapter 151.

A copy of this report should be submitted to the Corps of Engineers and the DNR when site plans are prepared for the proposed project. Supplying these agencies with reports will serve the dual purpose of determining which agencies have jurisdiction and beginning the process of obtaining concurrence with the delineated wetland boundaries. If the on-site wetlands may be affected during site construction, all necessary permits should be obtained prior to construction.

Additional information regarding the wetland vegetation, soils and hydrology and the site survey is included in **Appendices A and B**. Ground level photos of the wetlands are included in **Figures 6 and 7.**

The information contained herein represents the findings of BES during wetland evaluation activities conducted on August 17, 2012 at the referenced site.

Respectfully,

Bopray Environmental Services LLC

_____ _____

Kelly J. Bopray
Professional Soil Scientist
Certified Wetland Delineator

Date

Enclosures

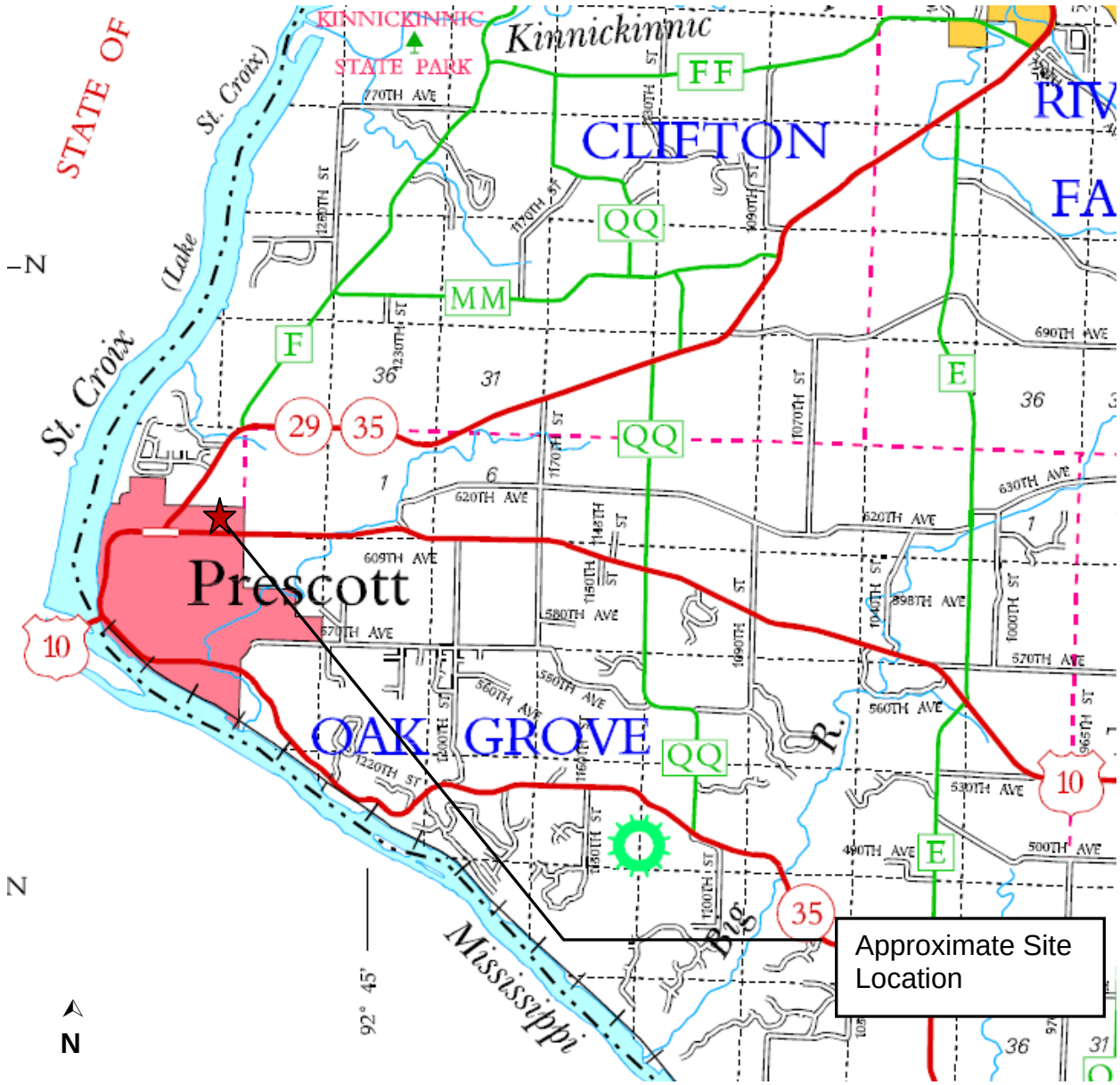


Figure 1. Location Map
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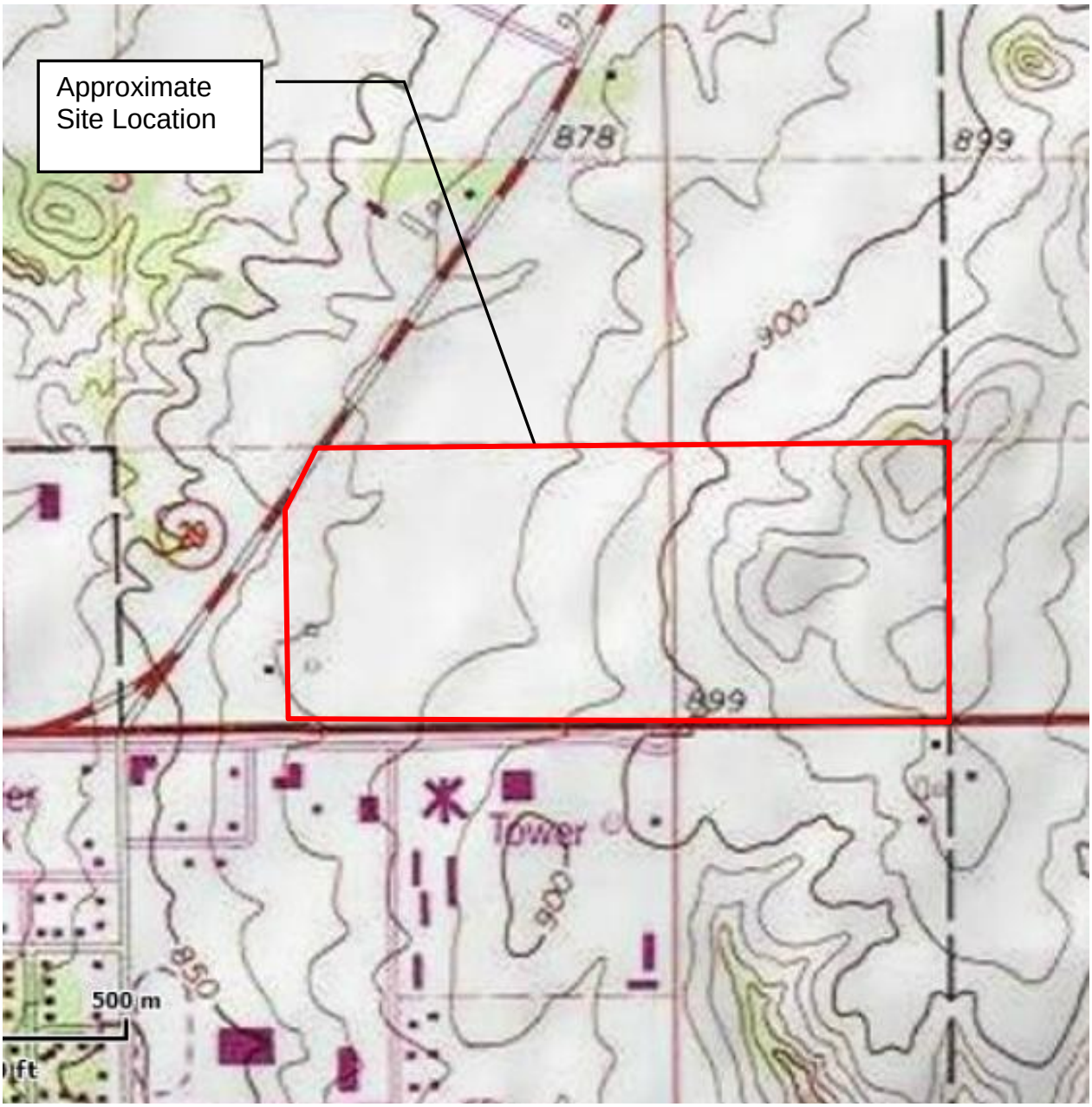

N

Not to Scale

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Figure 2. U.S.G.S. Quadrangle Map

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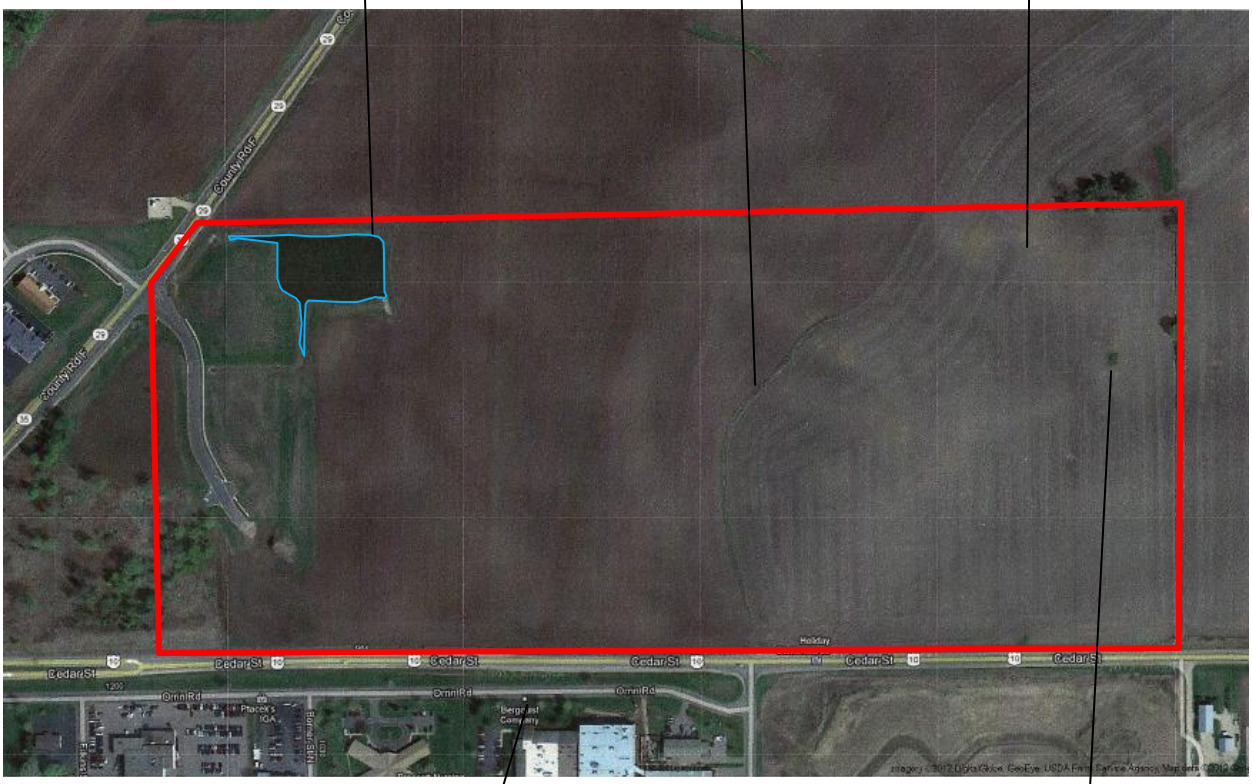
SWTP/Wetland A

Field contour strip

Crop stress area



Approximate Site Boundaries

Crop Skip spot

N

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Figure 3. Aerial Photo With Approximate Wetland Boundaries

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Figure 4. Wisconsin Wetland Inventory Map

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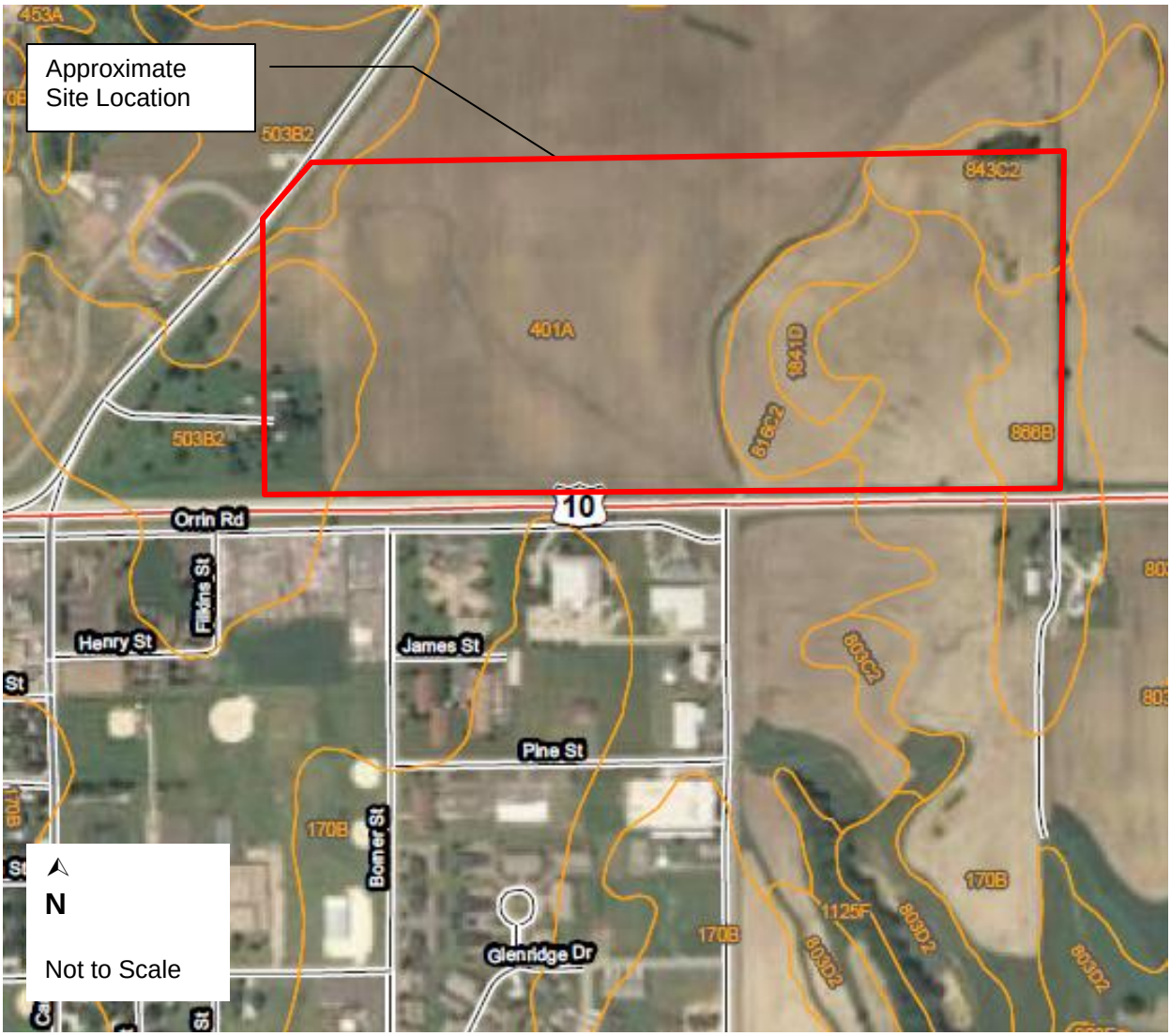

Soil Map Unit Legend

170B	Rockton silt loam, strath terrace, 1-6% slopes, Non-Hydric
401A	Dakota loam, strath terrace, 0-3% slopes, Non-Hydric
503B2	Lamont fine sandy loam, 2-6% slopes, Non-Hydric
816C2	Vlasaty silt loam, dissected, 6-12% slopes, Non-Hydric
843C2	Wykoff loam, 6-12% slopes, Non-Hydric
866B	Kasson silt loam, 2-6% slopes, Non-Hydric
1841D	Lilah-Wykoff complex, 12-20% slopes, Non-Hydric

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Figure 5. Pierce County Soil Survey Map

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The stormwater treatment pond/Wetland A looking north. This pond was constructed in an upland area after 2010. It has taken on wetland characteristics but was clearly built for the purpose of treating stormwater from the surrounding development.

This is a soybean field on a contour strip, in the center of the site (looking north). The strip is evident in aerial photos and was investigated to confirm that it was not a wet grassed waterway. There was no evidence of a water way in the area.

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Figure 6. Ground Photos
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Area on the east side of the site that shows up on aerial photos consistently as not being farmed. The area is an extremely rocky area that shows no signs of being wet.

Stressed corn crop in the northeast part of the site. Aerial photos regularly show crop stress in this area of the site. The crop stress appears to be a result of extremely rocky and droughty soils. There was no evidence of wetness problems.

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Figure 7. Ground Photos
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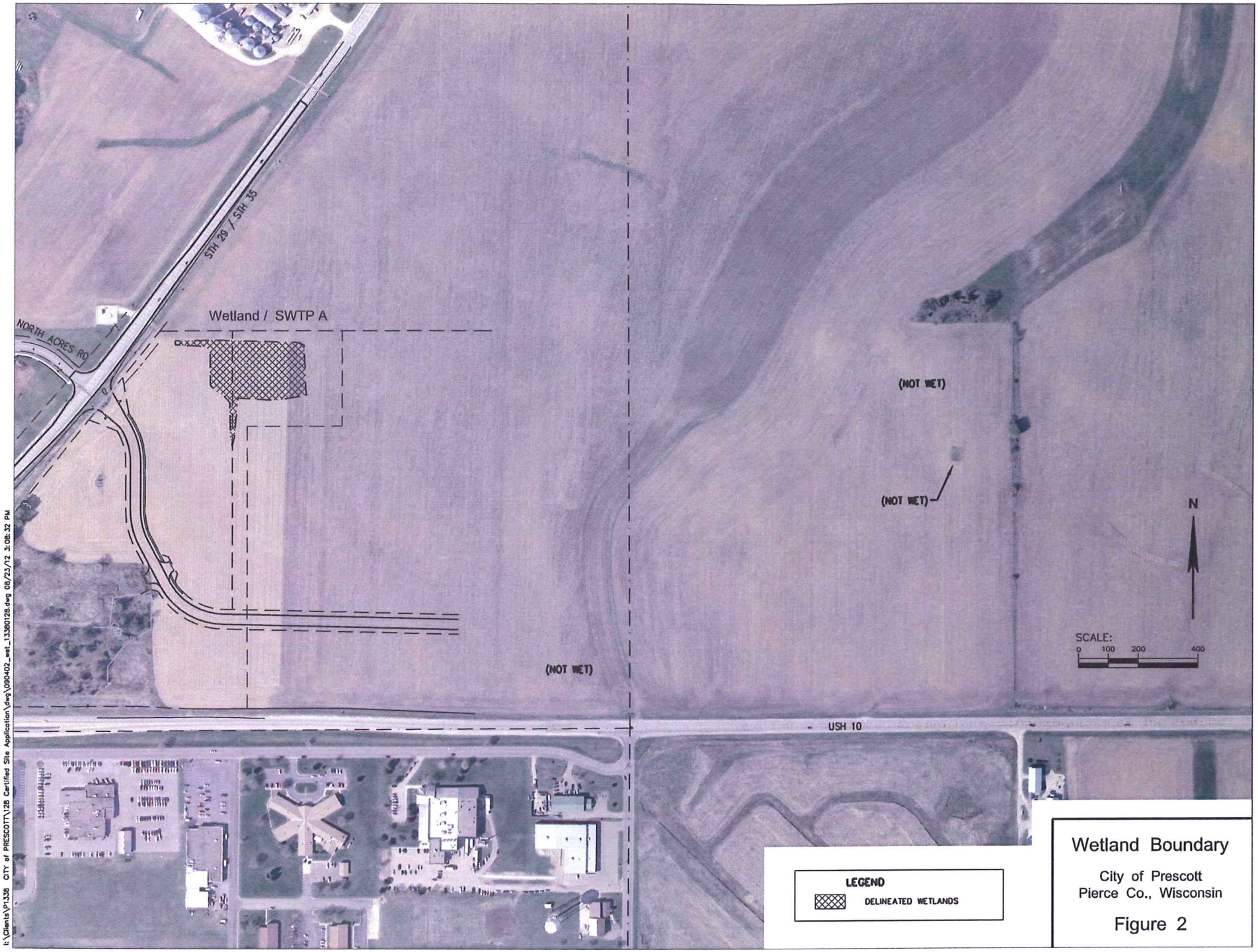
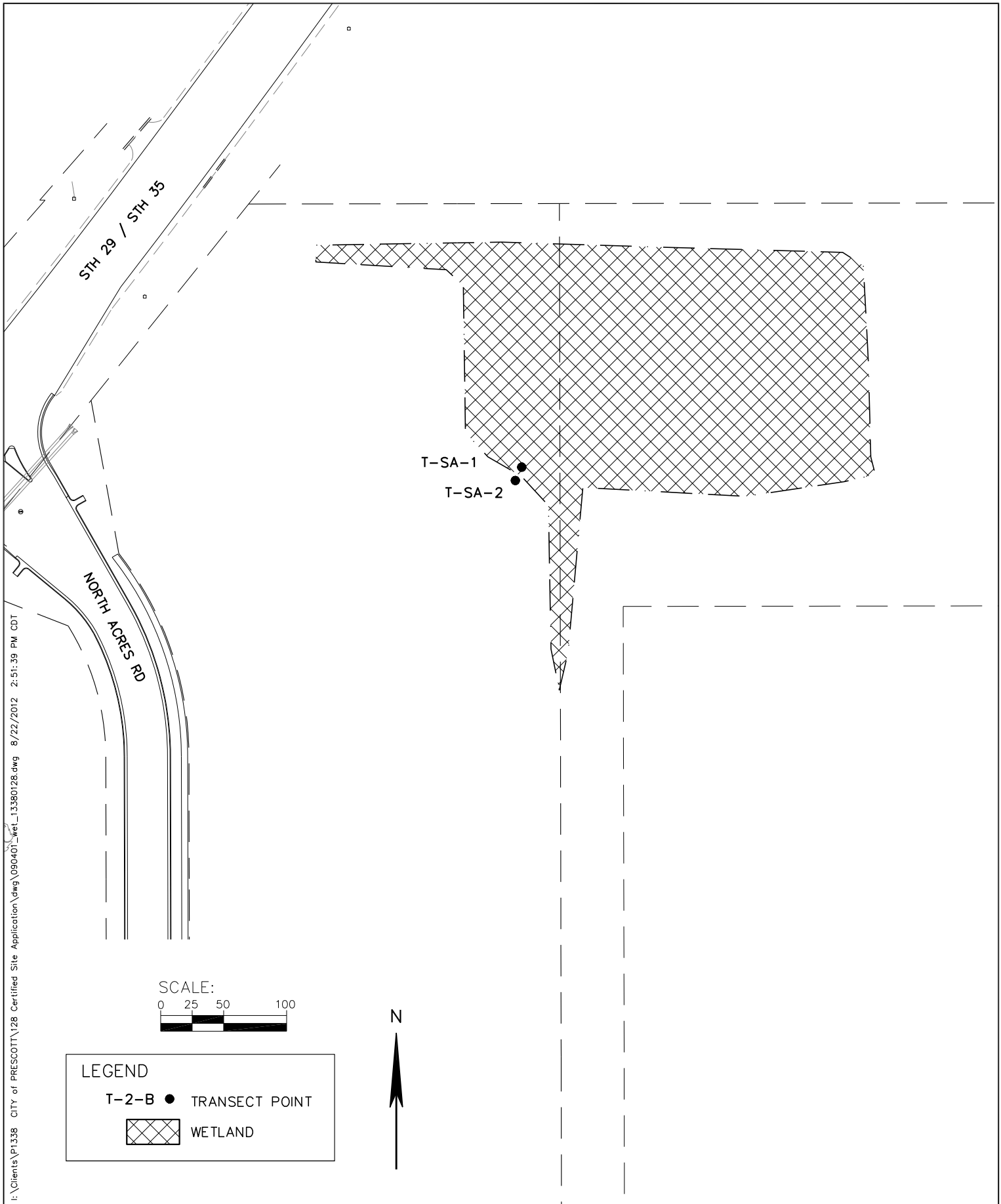
Appendix A





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DATE: AUG 2012		604 Wilson Avenue Menomonie, Wisconsin 54751 715-235-9081 800-472-7372 FAX 715-235-2727 www.cedarcorp.com	JOB NO.: P1338-128
REFERENCE FILE: 00base_*			FIGURE: X
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Appendix B