300-3000
ITEM 3

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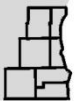

January 26, 2016

Mr. Alex Damien, P.E.
Project Manager
City of Waukesha
Department of Public Works - Engineering Division
130 Delafield Street
Waukesha, WI 53188

Re: SEWRPC No. CA-737-272

Dear Mr. Damien:

This will respond to your email message of June 2, 2015, requesting that the Commission staff conduct a field inspection of a city-owned property (Tax Key: WAKC1352999) known as the "Milky Way Fill Site" where a new city park is proposed. The property is located in parts of the Southeast one-quarter of U.S. Public Land Survey Section 14, Township 6 North, Range 19 East, City of Waukesha, Waukesha County, Wisconsin. The purpose of the field inspection was to identify and stake the boundaries of any wetlands contained on the subject property.

Pursuant to your request, Commission staff identified and staked the wetland boundaries on the subject property on August 25 and 27, 2015. A copy of the wetland delineation report is attached for your reference.

Should you have any questions regarding this information, please do not hesitate to contact Mr. Christopher J. Jors, Senior Specialist-Biologist (*cjors@sewrpc.org* or 262-953-3246).

Sincerely,

Kenneth R. Yunker, P.E.
Executive Director

KRY/TMS/CJJ/kmd
#229961 – CA737-272 Proposed City Park at Milky Way Fill Site Letter

Enclosure (#230061)

cc: Mr. Jason Fruth, Waukesha County Department of Parks & Land Use (w/enclosure)
Ms. Geri Radermacher, Wisconsin Department of Natural Resources (w/enclosure)
Mr. Neil Molstad, Wisconsin Department of Natural Resources (w/enclosure)
Ms. Marie Kopka, U.S. Army Corps of Engineers (w/enclosure)

WETLAND DELINEATION REPORT

CITY OF WAUKESHA PROPOSED PARK AT FORMER MILKY WAY FILL SITE
Southeast One-quarter, Section 14, T6N, R19E
CITY OF WAUKESHA
WAUKESHA COUNTY
WISCONSIN

Prepared by:

Christopher Jors
Jennifer Dietl
Daniel Carter
Zofia Noe

Southeastern Wisconsin Regional Planning Commission
W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607

WETLAND DELINEATION REPORT OVERVIEW

(Based upon WDNR WETLAND Delineation Confirmation Request Check List)

INTRODUCTION

- Who requested the delineation – **Alex Damien, P.E., City of Waukesha Department of Public Works**
- Why the delineation was undertaken – **Proposed park site at former Milky Way fill site**
- Date the field work was completed – **August 25 and 27, 2015**
- Who conducted field work – **Christopher Jors, Jennifer Dietl, Daniel Carter**
- Statement of Qualifications

METHODS

- Description of Methods
- Sources Reviewed
    - Topographic Map – **Exhibit 1**
    - WDNR Surface Water Data Viewer - Wisconsin Wetland Inventory (WWI) Map – **Exhibit 2**
    - Soil Survey and Floodplain Map – **Exhibit 3**
    - Historical Aerial Photos – **Exhibits 4A-4L (2015, 2010, 2007, 2005, 2000, 1995, 1990, 1980, 1970, 1963, 1950, and 1941)**
    - Sanitary Sewer Service Map – **Exhibit 5**
    - ADID Wetland Map – **Exhibit 6**

RESULTS AND DISCUSSION

- Antecedent hydrologic condition analysis – **Normal**
- Previous wetland delineation mapping – **Dave Meyer, Wetland & Waterway Consulting, LLC**
- Existing environmental mapping (WWI mapping, Soil survey, etc.)
- Description of any site specific agency guidance (site meetings, etc.)
- Amount and types of wetland located within the project area
- Wetland/upland boundary explanation
- Disturbed and problematic areas encountered
- Other water resources located in the project area
- Other considerations

Wetland Delineation Map – **Exhibit 7**

Vegetation Survey, Wetland Delineation Data Forms, and Site Photos

- Preliminary Vegetation Survey – **Exhibit 8**
- Wetland Determination Data Forms – NE/NC Region – **Exhibit 9**
- Site Photos – **Exhibit 10**

Farm Service Agency Slide Review

- Completed wetland documentation form (NRCS form NRCS-CPA-32A) – **Exhibit 11**
- FSA Slide Review Map – **Exhibit 12**
- Copies or photos of slides – **Exhibit 13**
- Copy of the draft NRCS Wetland Inventory map – **Exhibit 14**

LITERATURE CITED

INTRODUCTION

This wetland delineation report responds to an email request from Alex Damien, P.E., City of Waukesha Department of Public Works, Engineering Division, to identify and stake the boundaries of any wetlands contained within the former Milky Way Fill site for the purpose of creating a future park. The project area is located in the Southeast one-quarter of U.S. Public Land Survey Section 14, Township 6 North, Range 19 East, City of Waukesha, Waukesha County, Wisconsin.

Statement of Qualifications

Christopher Jors, Senior Specialist-Biologist, has worked at SEWRPC since 1993, and has been part of the wetland delineation team since 1994. He received a Bachelor's degree in Conservation Aspects of Biology from the University of Wisconsin – Milwaukee in 1992. Prior to working at SEWRPC, Chris worked at the UWM Field Station at the Cedarburg Bog in Saukville, WI, where he learned methods of sampling wetland plant communities within the Bog. Chris has attended various wetland training workshops including the UW-La Crosse Basic and Advanced Wetland Delineation Workshops on August 10-15, 2015; a Wisconsin Dept. of Natural Resources Wetland Delineation & Wetland Rapid Assessment Methodology Workshop on April 23, 2014; and a U.S. Army Corps of Engineers Workshop on the Midwest Supplement to the 1987 Wetland Delineation Manual on February 3, 2009.

Jennifer Dietl, Specialist-Biologist, earned a Bachelor's degree in Biology and Environmental Science from Carroll University in 1992. She has worked at the Commission from 1992 to 1997 and from 2006 to the present conducting wetland delineations, primary environmental corridor delineations, and vegetation surveys. In between years of service at the Commission she worked for the Wisconsin Department of Transportation – Green Bay as an LTE Environmental Analysis and Review Specialist – and the Wisconsin Department of Natural Resources – Green Bay as an LTE Hydrologist. Jennifer attended a Wisconsin Dept. of Natural Resources Wetland Delineation & Wetland Rapid Assessment Methodology Workshop on April 23, 2014 and the UW-La Crosse Basic and Advanced Wetland Delineation Workshops on August 10-15, 2015.

Daniel Carter, PhD, Principal Biologist, has worked at SEWRPC since 2013. He graduated with honors from Grinnell College with a Bachelor's degree in Biology. He later received a PhD in Biology from Kansas State University. Daniel has published several plant ecology articles in peer-reviewed journals, served on the botany team for the Wisconsin Wildlife Action Plan, and co-teaches the UW-La Crosse Basic Wetland Plant Identification course. He has completed both basic and advanced wetland delineation training as well as Wisconsin Natural Heritage Inventory training. Prior to working for the Commission, Daniel served as project coordinator for a grassland restoration project overseen jointly by the United States Department of Agriculture and The Nature Conservancy and taught high school Biology.

Zofia Noe, Specialist-Biologist, earned a Bachelor's degree in Biology and Chemistry from St. Mary's College of Maryland in 2003. She earned a Master's Degree in Coastal Marine and Wetland Studies from Coastal Carolina University in 2009 and completed an Aquatic Plant Identification course in 2015. Zofia has experience in a variety of environmental assessments including water quality, aquatic plant, and upland vegetation surveys. Zofia began assisting with wetland delineations in the summer of 2013.

METHODS

Description of Methods

The wetland boundary determinations were based upon the criteria and methodologies set forth in the 1987 *Corps of Engineers Wetlands Delineation Manual*; the January, 2012, *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0); the March 4, 2015, *Guidance for Submittal of Delineation Reports to the St. Paul District Army Corps of Engineers and the Wisconsin Department of Natural Resources;* and the State of Wisconsin 2014 Wetland Plant List.

Specific methods used to field identify wetland boundaries included the U.S. Department of the Army Corps of Engineers Routine Onsite Determination Method – Plant Community Assessment Procedure. This procedure requires an initial identification of representative plant community types followed by a characterization of vegetation, soils, and hydrology for each type.

Sources Reviewed

Prior to conducting field work, Commission staff reviewed the following data sources: Waukesha County's topographic mapping (Exhibit 1), WDNR Surface Water Data Viewer (WWI) Map (Exhibit 2), Natural Resource Conservation Service's (NRCS) soil survey and FEMA Floodplains (Exhibit 3), Commission aerial photography (Exhibits 4A – 4L), Sanitary Sewer Service Area Map (Exhibit 5), the Advanced Identification (ADID) wetland mapping (Exhibit 6), the draft NRCS Wetland Inventory Map (Exhibit 15), and precipitation data from the NRCS "WETS" tables and the Global Historical Climatology Network (GHCN).

RESULTS AND DISCUSSION

Christopher Jors, lead investigator, Jennifer Dietl, and Dr. Daniel Carter, identified and staked the boundaries of the wetlands contained within the project area on August 25 and 27, 2015. Wetland boundaries were marked with orange wire flags and ribbon. City of Waukesha staff were responsible for surveying the wetland boundary markers.

The results of the wetland delineation field inspection for this project area are shown on Exhibit 7, which includes staked wetland boundaries, sample site numbers and locations, and plant community areas and numbers.

Antecedent Hydrologic Conditions

WETS Station: WAUKESHA, WI8937 GHCN Station: Waukesha 2.1SSW, WI US GHCND:US1WIWK0004

Climatological data and observed precipitation amounts with monthly summaries were taken from the nearest WETS and GHCN stations with relevant data.

	Month	3 yrs. In 10 less than	Normal	3 yrs. In 10 more than	Observed precip.	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns
1st prior month	August	3.28	4.77	5.69	4.54	Normal	2	3	6
2nd prior month	July	2.82	3.83	4.49	1.79	Dry	1	2	2
3rd prior month	June	2.46	3.78	4.54	3.14	Normal	2	1	2
								sum	10

If sum is	
6 - 9	drier than normal
10 - 14	normal
15 - 18	wetter than normal
Conclusion	Normal

Previous Wetland Delineation Mapping

On September 27 and 28, 2007, a wetland delineation was completed by David Meyer of Wetland & Waterway Consulting, LLC. The delineation was completed at that time when residential development was being proposed.

Existing Environmental Mapping

The Waukesha County topographic map (Exhibit 1) shows that the project area contains a northwest facing slope ranging from a high elevation of approximately 890 feet above sea level in the southeastern corner of the property to a low of 838 feet in the northwest part of the property. A small creek on the northern portion of the property flows off the property in a northwesterly direction into an unnamed tributary that eventually drains into Pebble Brook. Pebble brook eventually drains into the Fox River. The small creek contained on the property is not identified on the Surface Water Data Viewer. The unnamed tributary just north of the subject property is identified as a first order stream. However, currently, WDNR does not have any information available on the unnamed tributary.

The WDNR Surface Water Data Viewer (WWI) Map (Exhibit 2) indicates forested/scrub-shrub wetlands (T3/S3K) in the northern portion and southwestern corner of the project area. A small T3K is mapped in the northcentral part of the property. Emergent wet meadows (E1K and E2K) are located in the eastern and southeastern portions of the project area. A scrub-shrub/emergent wet meadow (S3/E2K) is located in the western portion of the project area. In addition, three farmed wetlands (F0Kf) are interspersed within the project area.

The NRCS Soil Survey map (Exhibit 3) shows the following soils in the project area:

Soil Name	Slope %	Drainage Class	% Soil in Project Area	Sample Sites
Brookston silt loam (BsA)	0-2	Predominantly hydric	3.4	21, 26, 27, and 28
Casco loam (CeB)	2-6	Nonhydric	27.3	2, 3, 5, 9, and 13
Colwood silt loam (Cw)	0-2	Hydric	1.7	22 and 23
Drummer silt loam, gravelly substratum (Dt)	- -	Hydric	10.2	8, 17, 19, and 20
Fox silt loam (FsB)	2-6	Nonhydric	6.2	
Hochheim loam (HmB)	2-6	Nonhydric	0.1	
Hochheim loam (HmC2)	6-12, eroded	Nonhydric	13.5	18, 24, and 31
Hochheim loam (HmE2)	20-30	Nonhydric	3.7	29
Houghton muck (HtA)	0-2	Hydric	14.1	1, 4, 6, 7, and 10
Lamartine silt loam (LmB)	0-3	Predominantly nonhydric	2.2	25 and 30
Matherton silt loam (MmA)	1-3	Predominantly nonhydric	12.2	14, 15, and 16
Ogden muck (Oc)	- -	Hydric	0.6	
Sebewa silt loam (Sm)	0-2	Predominantly hydric	4.9	11 and 12

No floodplain is mapped on the subject property as shown on Exhibit 3. However, floodplain is mapped just north of the property associated with the unnamed tributary.

Historical aerial photos of the project area were reviewed back to 1941. Aerial photos for years 2015, 2010, 2005, 2000, 1995, 1990, 1980, 1970, 1963, 1950, and 1941 are attached (Exhibits 4A to 4L). This review is summarized in the table below.

CHANGES IN LAND USE OBSERVED ON AERIAL PHOTOGRAPHY FROM 1941 TO 2015

Year	
1941	The subject farmstead and surrounding lands are in agricultural production. A farmhouse and barn structure are present on the far southeastern corner of the property. The northwestern part of the property appears to be pasture with scattered trees. An excavated area (possible gravel pit) is evident in northcentral part of the property (PCA 2). Wetland (PCA 5) at west edge of property appears vegetated on this photo. Ditching of Pebble Brook and unnamed tributary north of property is evident.
1950	Trees cut down in northwest corner of property in the vicinity of PCA 1.
1963	Portions of pasture in NW part of property have been converted to row crops. Wetness signature evident in PCA 3, coming from a ditched wetland east of the property. Residence built immediately east of property
1970	Another residence built adjacent to northeast corner of property.

Year	
1980	State Highway 164/59 (Les Paul Parkway) built northwest of project area. Unnamed tributary directed through culvert under highway.
1990	Barn and farmhouse on property razed down to foundation with only a silo remaining. Much of eastern part of property now fallow. Dark soils appear saturated in farmed wetland areas associated with PCA's 1, 5, 6, 7, and 8. Church built north of project area. Significant earth moving activities and pond creation along Pebble Brook for development east of church. Wetness signatures evident for much of the farmed wetland in the project area.
1995	Residential subdivision well underway northeast of project area. Vegetated portion of wetland (PCA 8) in southwest corner of property appears to be expanding. Wetness signatures evident for much of the farmed wetland in the project area.
2000	Part of fallow lands on east part of property converted back to cropland. State Highway 164/59 (Les Paul Parkway) expanded to a 4-lane, divided highway.
2005	Wetness signatures evident for much of the farmed wetland in the project area. Subdivision built southeast of project area, including a widened Milky Way Road.
2007	Wetness signatures evident for much of the farmed wetland in the project area.
2010	Earth-moving activities visible in east central portion of project area.
2015	Earth-moving activities within project area expanded westward including creation of a detention pond with an overflow outlet. Wetness signatures evident for much of the farmed wetland in the project area. Baseball Park developed immediately west of project area.

SEWRPC's sanitary sewer service map (Exhibit 5) shows that the entire project area is contained in the planned sanitary sewer service area for the City of Waukesha and Environs.

The ADID wetland map (Exhibit 6) indicates that the forested/scrub-shrub wetland in the northern portion of the property, and the forested and farmed wetland in the southwest corner of the project area are located within a designated Primary Environmental Corridor (PEC) and have been designated as ADID wetlands under the Section 404(b)(1) Guidelines of the Clean Water Act. The remaining farmed wetlands and emergent wet meadow wetlands are not located within a PEC.

Description of any site specific agency guidance

During the initial field inspection by the Commission staff on August 25, 2015, it was noted that the filling and grading activities had been expanded westward. For that reason, it was decided that delineation of potential wetland areas within and immediately adjacent to the filled areas would be postponed until Commission staff could seek guidance from WDNR staff. Accordingly, later that day, Commission staff spoke with Ms. Maureen McBroom, WDNR Water Management Specialist. Ms. McBroom has since left the WDNR. Ms. McBroom indicated that past filling and grading activities on the site had been authorized by WDNR based upon the 2007 wetland delineation findings. However, this authorization had expired in early 2015, and WDNR required an updated wetland delineation before the City could proceed with additional filling and grading activities. Ms. McBroom indicated that the Commission staff should proceed with the wetland delineation, including identifying and staking areas which currently meet the wetland criteria on or adjacent to the fill material. The fill material was considered to be the "New Normal Circumstance" because it had been authorized.

Amount and Types of Wetlands in the Project Area

Eight wetland plant community areas (PCA) were identified and inventoried during the field inspections. A list of vascular plant species observed during the field inspection was prepared for each plant community area as well as plant community type(s), dominant plant species, disturbances, and any critical plant and animal species (Exhibit 8). The table below summarizes characteristics for each PCA.

PCA Number	Acreage	PCA Type(s)	Dominant Species	Critical Species
1	3.14	Second growth, Southern wet to wet-mesic lowland hardwoods Atypical (farmed) wetland	*Boehmeria cylindrica*--False nettle *Cornus obliqua*--Silky dogwood *Fraxinus pennsylvanica*--Green ash *Glyceria striata*--Fowl manna grass *Panicum dichotomiflorum*--Knee grass *Rhamnus cathartica*--Common buckthorn	None
2	0.10 0.004	Ephemeral ponds with second-growth, Southern wet to wet-mesic lowland hardwoods	*Salix fragilis*--Crack willow	None
3	1.69	Shallow marsh Fresh (wet) meadow Atypical (farmed) wetland	*Juncus dudleyi*--Dudley's rush *Scirpus atrovirens*--Green bulrush *Solidago gigantea*--Giant goldenrod *Typha angustifolia*--Narrow-leaved cat-tail	None
4	0.03	Fresh (wet) meadow Shrub-carr (willow thicket)	*Juncus dudleyi*--Dudley's rush *Salix amygdaloides*--Peach-leaved willow *Scirpus atrovirens*--Green bulrush *Typha angustifolia*--Narrow-leaved cat-tail	None
5	1.00	Shallow marsh Fresh (wet) meadow Atypical (farmed) wetland	*Panicum capillare*--Witch grass *Phalaris arundinacea*-Reed canary grass *Typha angustifolia*--Narrow-leaved cat-tail	None
6	1.23	Fresh (wet) meadow Atypical (farmed) wetland Constructed stormwater detention pond with open water	*Echinochloa crusgalli*--Barnyard grass *Panicum capillare*--Witch grass *Panicum dichotomiflorum*--Knee grass	None
7	3.45	Hillside seeps with Fresh (wet) meadow Atypical (farmed) wetland Shrub-carr Second growth, Southern wet to wet-mesic lowland hardwoods	*Agrostis gigantea*--Redtop grass *Equisetum hyemale*--Scouring-rush *Erigeron philadelphicus*--Marsh fleabane *Juncus dudleyi*--Dudley's rush *Juncus torreyi*--Torrey's rush *Plantago rugelii*--Red-stalked plantain *Phalaris arundinacea*--Reed canary grass *Salix amygdaloides*--Peach-leaved willow *Scirpus atrovirens*--Green bulrush *Solidago altissima*--Tall goldenrod *Solidago gigantea*--Giant goldenrod *Symphyotrichum puniceum*--Red-stemmed aster *Typha angustifolia*--Narrow-leaved cat-tail	None
8	0.97	Fresh (wet) meadow Atypical (farmed) wetland Second growth, Southern wet to wet-mesic lowland hardwoods	*Cyperus esculentus*—Chufa *Impatiens capensis*—Jewelweed *Salix amygdaloides*--Peach-leaved willow *Symphyotrichum lanceolatum*--Marsh aster	None

Wetland/Upland Boundary Explanation

Thirty-one representative sample sites were identified within the project area. The Wetland Determination Data Forms describing the findings at each sample site are attached as Exhibit 9. The locations of the sample sites are shown on Exhibit 7. The wetland boundary was determined using breaks in topography, changes in vegetation composition, visual identification of wetland hydrology, and presence of hydric soils.

Disturbed and Problematic Areas Encountered

Sample sites 1, 3, 11, 20, and 22 were determined to have "significantly disturbed" vegetation due to agricultural land management activities (managed plant community) which obscured hydrophytic plant communities. These

five sample sites were determined to be wetland due to the presence of hydric soils, wetland hydrology, and problematic hydrophytic vegetation.

Sample sites 6 and 16 were determined to have "significantly disturbed" soils due obscured hydric soil indicators. In the case of site 6, an impenetrable layer of trash was found at 6 inches deep. While none of the standard hydric soils indicators were met, the presence of 6 inches of peat at the surface led to a finding of a problematic hydric soil. This finding, combined with the presence of hydrophytic vegetation and wetland hydrology, led the Commission staff to conclude that site 6 meets the wetland criteria. At site 16, recent sedimentation from runoff has covered the soil surface. The soil profile would meet the A12 (Thick Dark Surface) indicator if not for the layer of sediment. Due to these circumstances and the presence of wetland hydrology and hydrophytic vegetation, site 16 was determined to be wetland.

Sample sites 14, 17, and 18, were all determined to have "significantly disturbed" vegetation, hydrology, and soils due to the large amount of fill material placed at these sites. In the cases of sites 14 and 17, Commission staff determined that these were not wetland samples. While site 14 met a hydrophytic vegetation indicator, hydric soils and wetland hydrology were not present. Site 17 did not meet any of the three wetland indicators. Site 18 was determined to be a wetland sample due to the presence of all three wetland parameters.

Sample site 27 was found to have "naturally problematic" soils. The soil profile just misses an A12-Thick Dark Surface indicator by one inch. Given the presence of wetland hydrology and hydrophytic vegetation, Commission staff determined it was appropriate to identify this soil as a problematic hydric soil, leading to a determination of wetland at site 27.

Finally, sample site 28 was determined to have naturally problematic vegetation due to Kentucky bluegrass (*Poa pratensis),* a FACU species, being one the dominant species in the plot. However, due to the presence of wetland hydrology and hydric soils at this sample, it was determined that it would be appropriate to identify the vegetation as problematic hydrophytic vegetation and call it a wetland sample.

Farm Service Area Slide Review

A Farm Service Area slide review was conducted for potential farmed wetland areas on the site with the results provided on Exhibit 11. A map of the areas of concern is attached as Exhibit 12. Slides of these areas from 1992 to 2013 were reviewed. Slides from years with normal precipitation have been included in this report (2006, 2004, 2003, 2002, 2000, 1998, 1997, 1996, and 1993) as shown in Exhibit 13.

Areas A, B, and D, were found to have wetness signatures in 9 out of 9 (100%) normal precipitation years and 15 out of 18 (83%) years for all slides reviewed. Area A includes part of PCA Number 5 and Sample Site 11. Area B includes part of PCA Number 6 and Sample Site 16. Area D includes part of PCA Number 8 and Sample Site 22.

Area C was found to have wetness signatures in 7 out of 9 (78%) normal precipitation years and 13 out of 18 (72%) years for all slides reviewed. Area C includes part of PCA Number 7 and Sample Sites 19 and 20.

Draft NRCS Wetland Inventory Maps

A draft NRCS wetland inventory map (Exhibit 14) was reviewed. NRCS mapped features within the project area include Wetlands (W) which coincide with PCA's 1, 2, 3, and 4 and Sample Site Numbers 1, 3, 4, 5, 6, 7, 8, 10, 17, and 18; and Prior Converted (PC) areas which coincide with PCA's 5, 6, 7, and 8 and Sample Site Numbers 11, 12, 14, 15, 16, 19, 20, 22, 23, 24, 25, and 30. According to NRCS, PC is defined as wetland converted to cropland before December 1985 and was capable of being cropped and did not meet farmed wetland hydrology.

Other Water Resources Located in the Project Area

No other water resources are located in the project area.

Other Considerations

Please be advised that no Federal or State regulatory jurisdiction determinations relative to any wetland permits or certifications are made under this report. The wetlands located within the Primary Environmental Corridor shown on Exhibit 7, including PCA Numbers 1, 2, and 8, have been designated as Advanced Delineation and Identification (ADID) wetlands under the Section 404(b)(1) Guidelines of the Clean Water Act. ADID wetlands are deemed generally unsuitable for the discharge of dredge and fill material. In addition, recent revisions of the nonagricultural performance standards set forth in Section NR 151.125 of the *Wisconsin Statutes*, requires establishment of a 75-foot impervious surface protective area to protect these "highly susceptible" wetlands. PCA 3, the western portion of PCA 5, and the eastern portion of PCA 7 would require a 50-foot protective area for the "moderately susceptible" wetland types including fresh (wet) meadow, shallow marsh, shrub-carr, and early-successional lowland hardwoods contained in these PCA's. The remainder of the wetlands on the site, including the farmed wetlands and recently filled and graded wetlands in PCA 4, 5, 6, and 7, require a 10-foot protective area due to the presence of "less susceptible" wetland. This protective area boundary is measured horizontally from the delineated wetland boundary to the closest impervious surface. The protective area requirements should be taken into consideration for any planned improvements on the subject property and it is suggested that you contact WDNR regarding approaches to meet the requirements.

LITERATURE CITED

U.S. Army Corps of Engineers, 2015, Special Public Notice: *Guidance for Submittal of Delineation Reports to the St. Paul District Corps of Engineers and the Wisconsin Department of Natural Resources*, U.S. Army Corps of Engineers, March 2015.

U.S. Army Corps of Engineers, 2014, State of Wisconsin Wetland Plant List

U.S. Army Corps of Engineers, 2012, *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0). U.S. Army Engineer Research and Development Center, January 2012.

U.S. Army Corps of Engineers, 1987, U.S. Army Corps of Engineers wetlands delineation manual. Wetlands Research Program Technical Report Y-87-1.

WDNR, Surface Water Data Viewer, website at http://dnrmaps.wi.gov/sl/?Viewer=SWDV

CJJ/JLD/ZN/kmd
#227512 – CA737-272 City of Waukesha Proposed City Park (Former Milky Way Fill Site)
300-3000

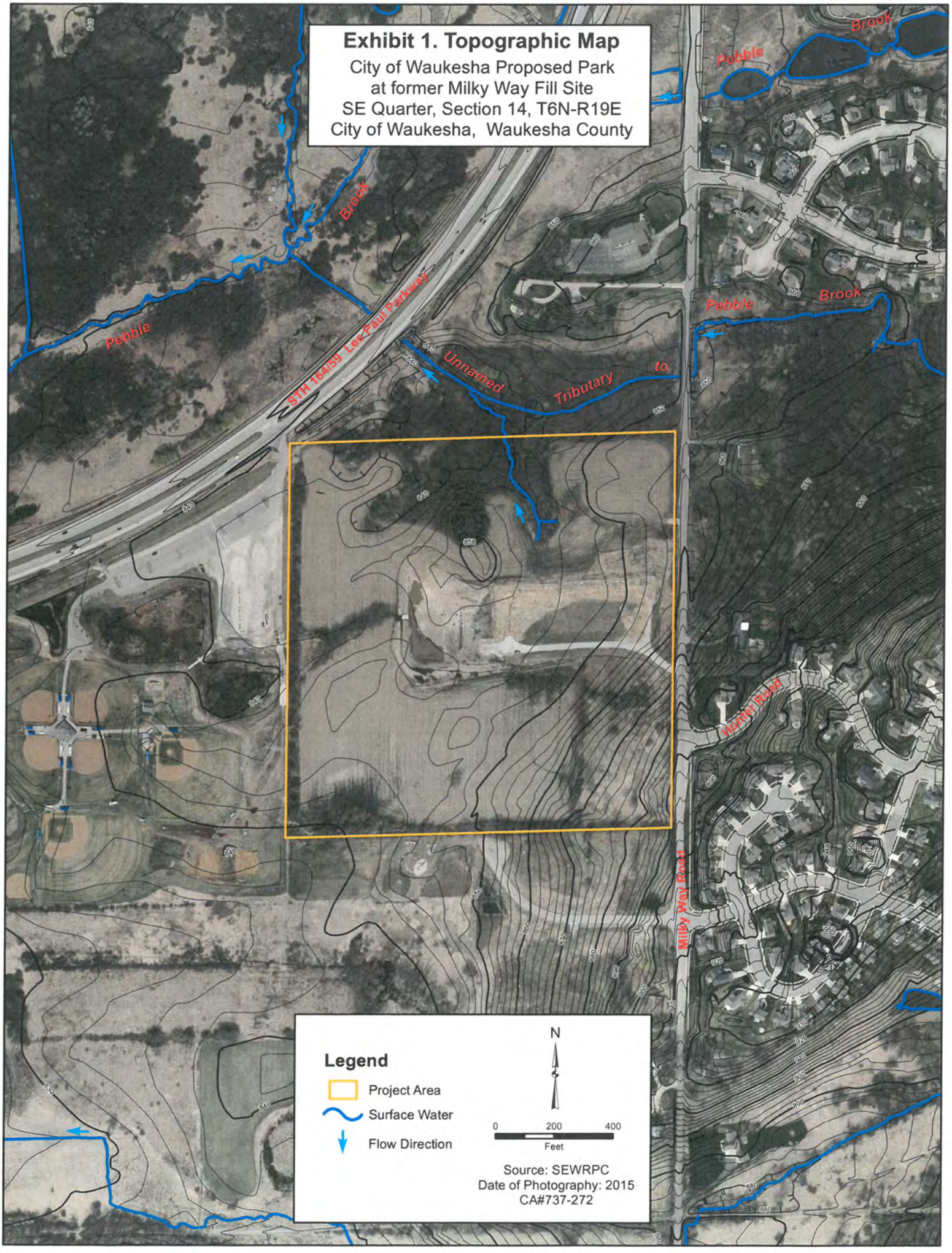
Exhibit 1. Topographic Map
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
Pebble Brook
Pebble Brook
Pebble Brook
STH 164/59 Les Paul Parkway
Unnamed Tributary to
Milky Way Road
Milky Way Road
Legend
Project Area
Surface Water
Flow Direction
N
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Feet
Source: SEWRPC
Date of Photography: 2015
CA#737-272

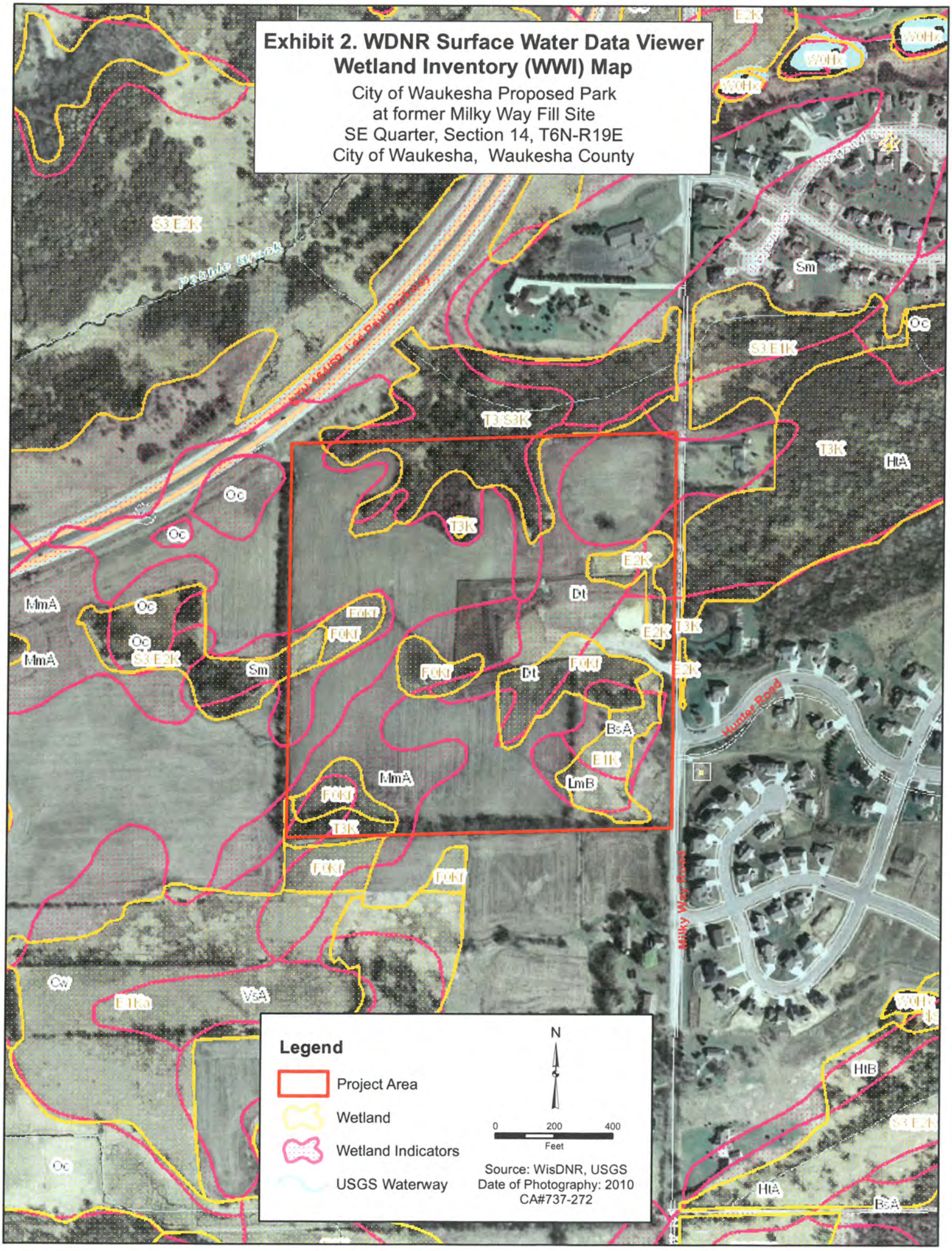


Exhibit 2. WDNR Surface Water Data Viewer
Wetland Inventory (WWI) Map
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/USH 18/Les Paul Parkway
Pebble Creek
Hunter Road
Milky Way Road
Legend
Project Area
Wetland
Wetland Indicators
USGS Waterway
N
0
200
400
Feet
Source: WisDNR, USGS
Date of Photography: 2010
CA#737-272


Exhibit 3. Soils and Floodplain Map
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/59 Lee Paul Parkway
Milky Way Road
Hunter Road
CeB
HtA
Oc
HmB2
HmB
Sm
LmB
MoB
W
FsB
Dt
MmA
BsA
HmE2
HoD3
HmD2
HmC2
Cw
Gl
HtB
Rv
Legend
Project Area
Floodway
100 Year Floodplain
Other Soils
Poorly drained or Very poorly drained
Somewhat poorly drained
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 2015
CA#737-272


Exhibit 4A. 2015 Orthophotograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/59 Les Paul Parkway
Hunter Road
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 2015
CA#737-272


Exhibit 4B. 2010 Orthophotograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/59 Les Paul Parkway
Hunter Road
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 2010
CA#737-272

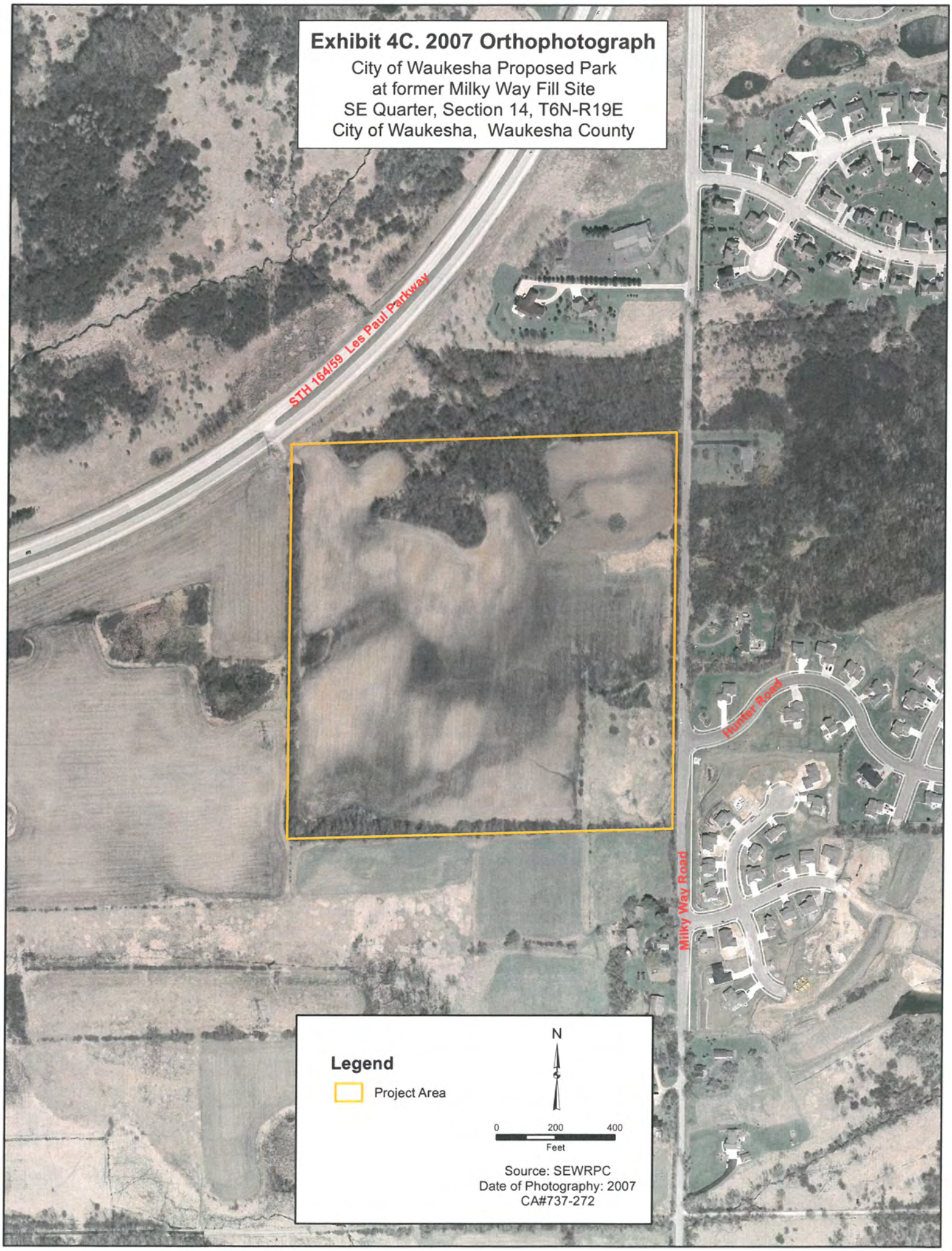


Exhibit 4C. 2007 Orthophotograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/59 Les Paul Parkway
Hunter Road
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 2007
CA#737-272


Exhibit 4D. 2005 Orthophotograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/59 Les Paul Parkway
Hunter Road
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 2005
CA#737-272

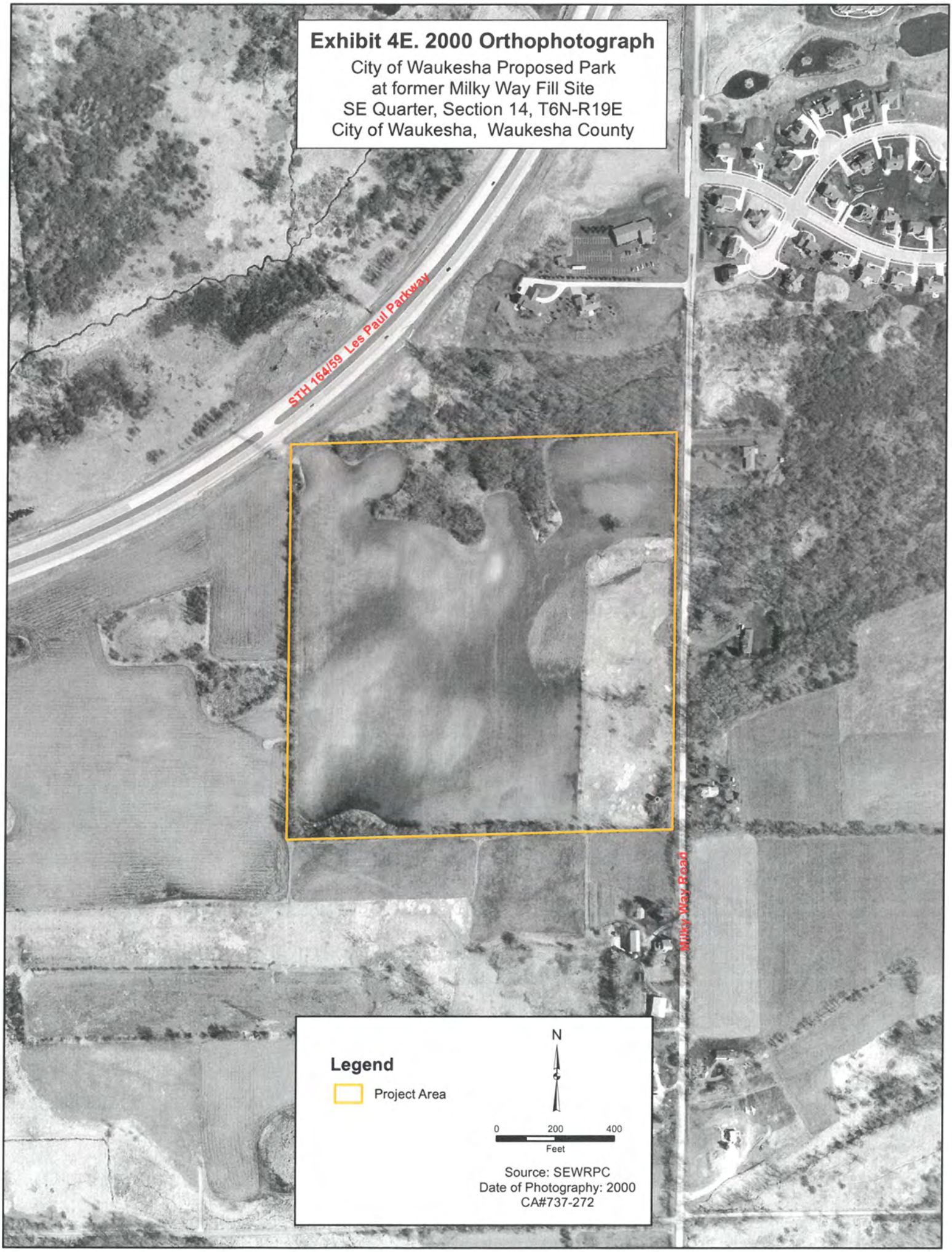


Exhibit 4E. 2000 Orthophotograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/59 Les Paul Parkway
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 2000
CA#737-272

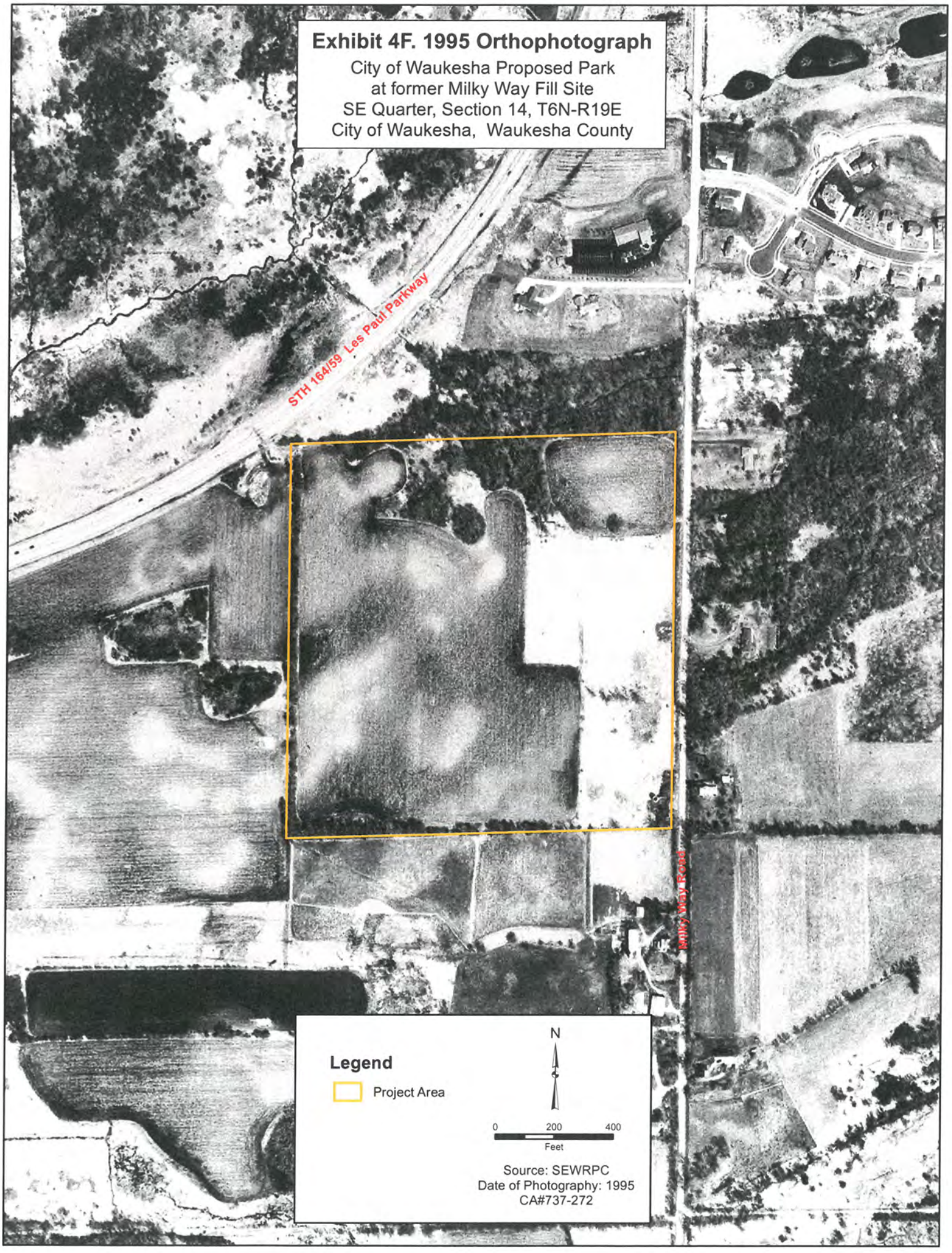


Exhibit 4F. 1995 Orthophotograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/59 Les Paul Parkway
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 1995
CA#737-272

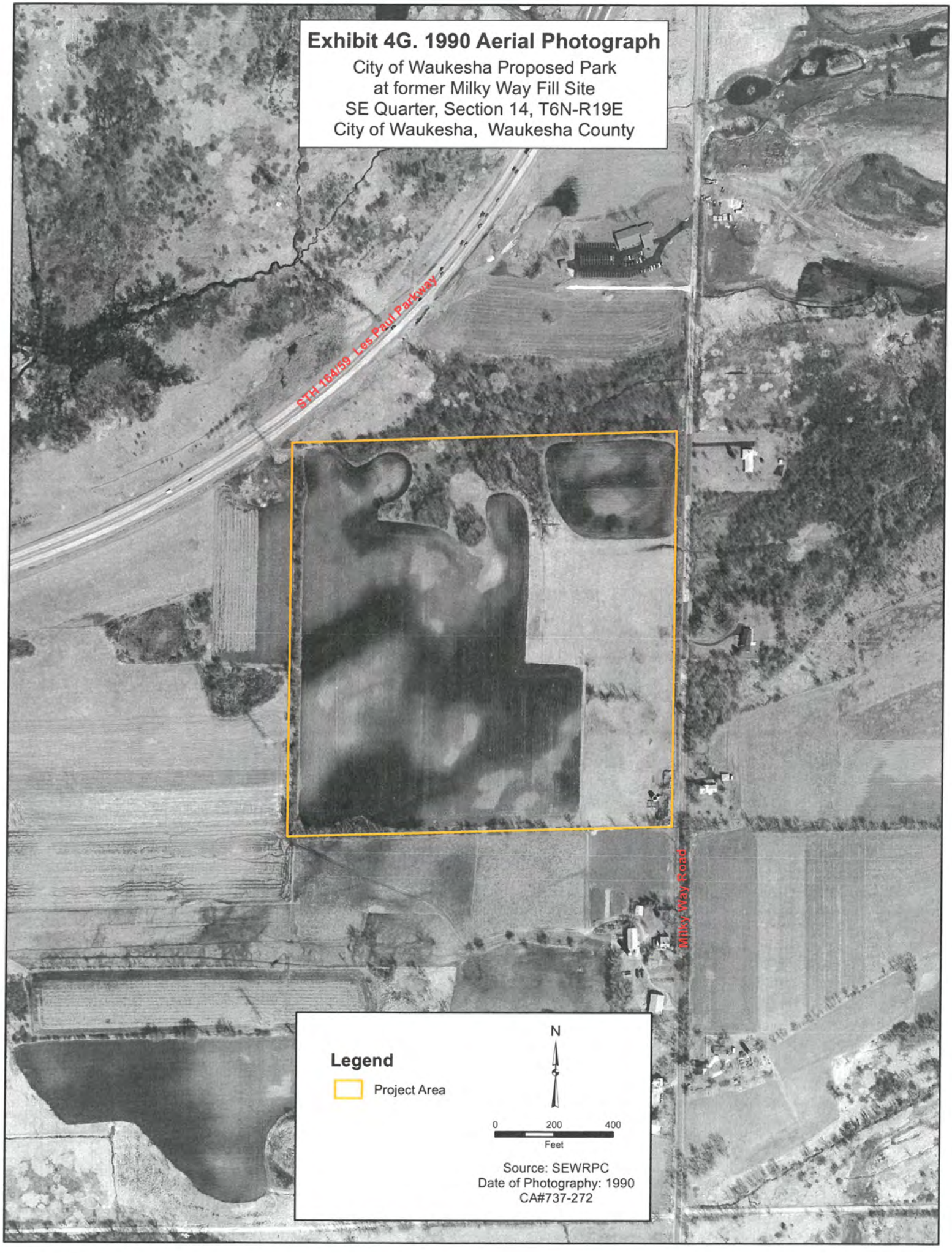


Exhibit 4G. 1990 Aerial Photograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/59 Les Paul Parkway
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 1990
CA#737-272

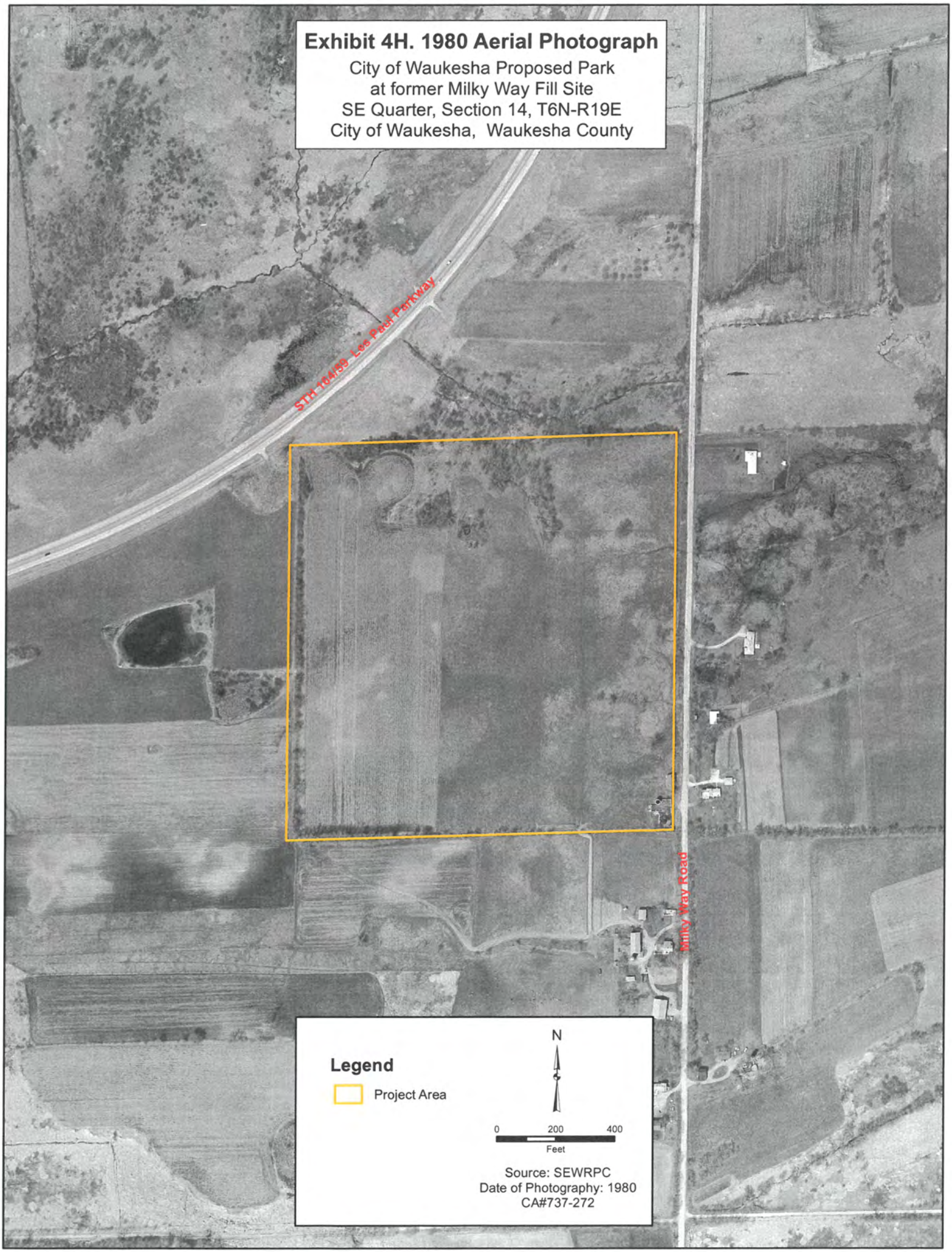


Exhibit 4H. 1980 Aerial Photograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/59 - Lee Paul Parkway
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 1980
CA#737-272

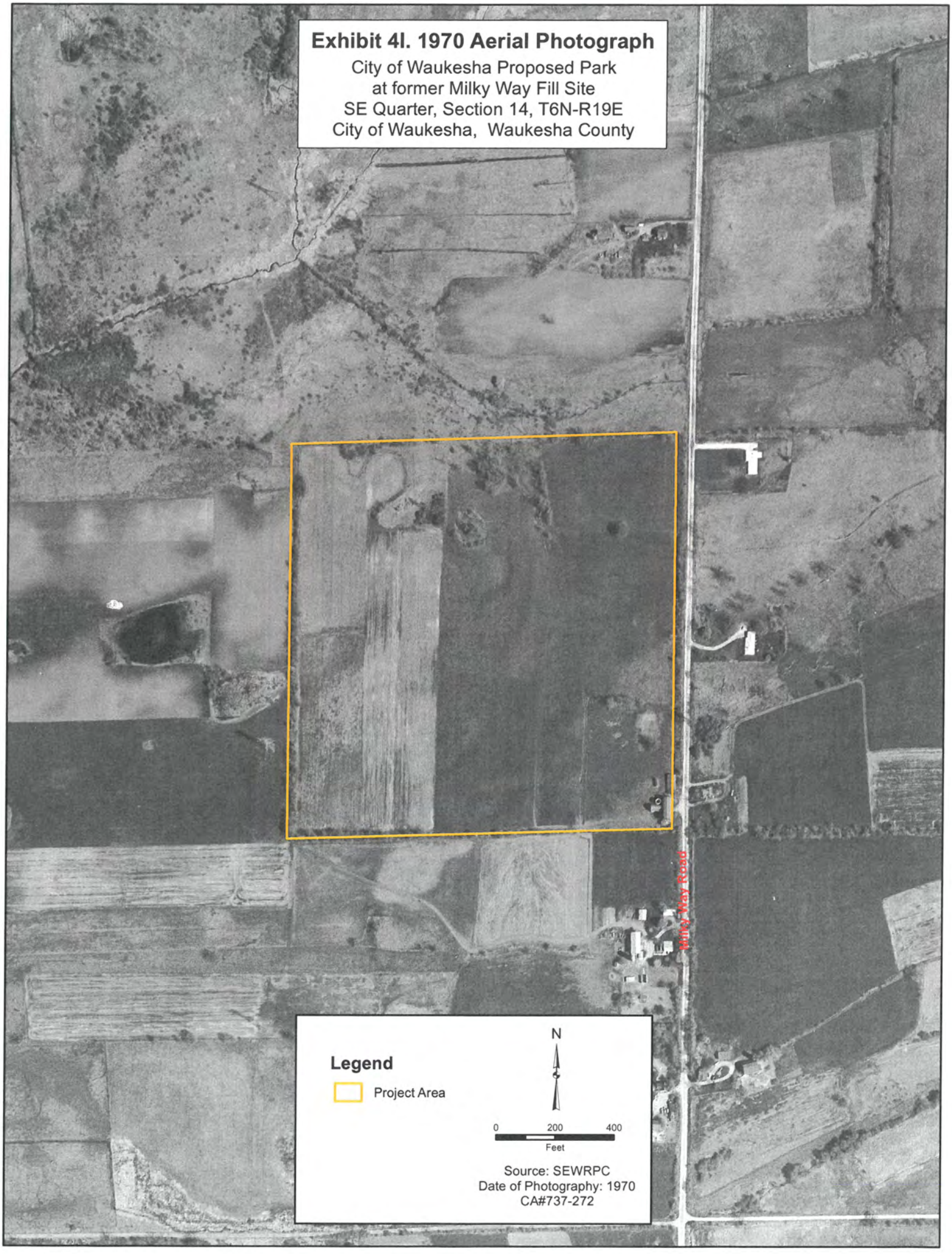


Exhibit 4I. 1970 Aerial Photograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 1970
CA#737-272

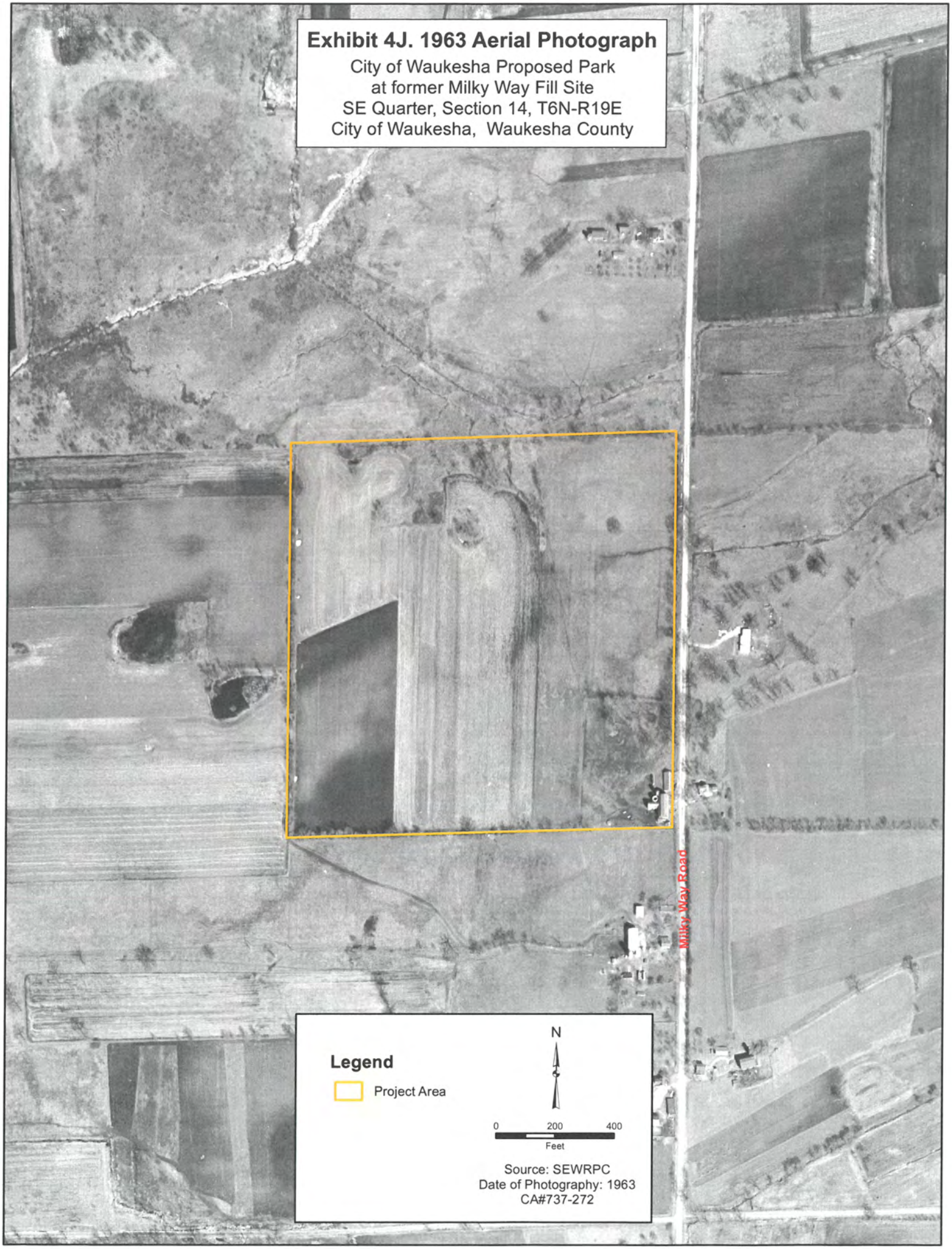


Exhibit 4J. 1963 Aerial Photograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 1963
CA#737-272

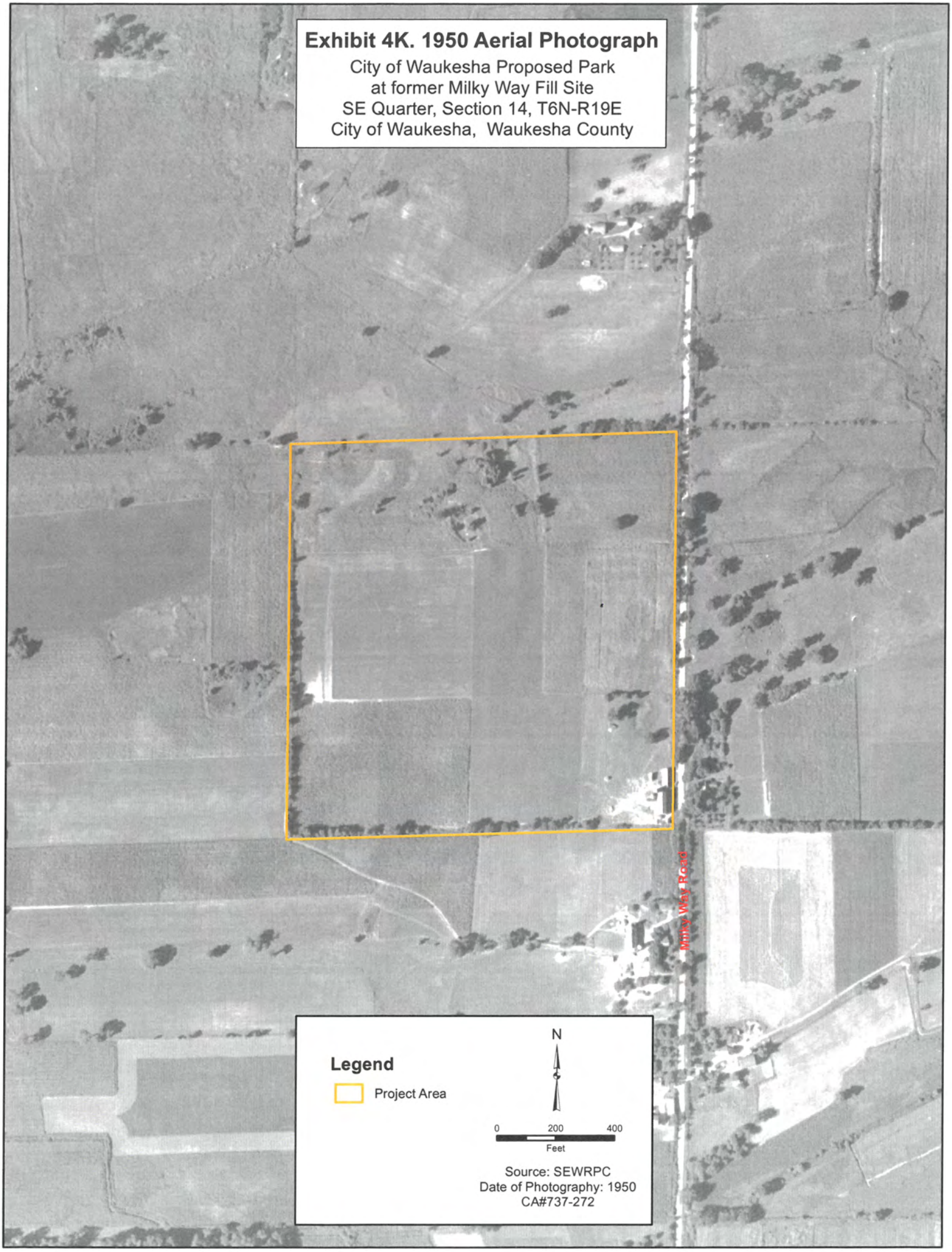


Exhibit 4K. 1950 Aerial Photograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 1950
CA#737-272

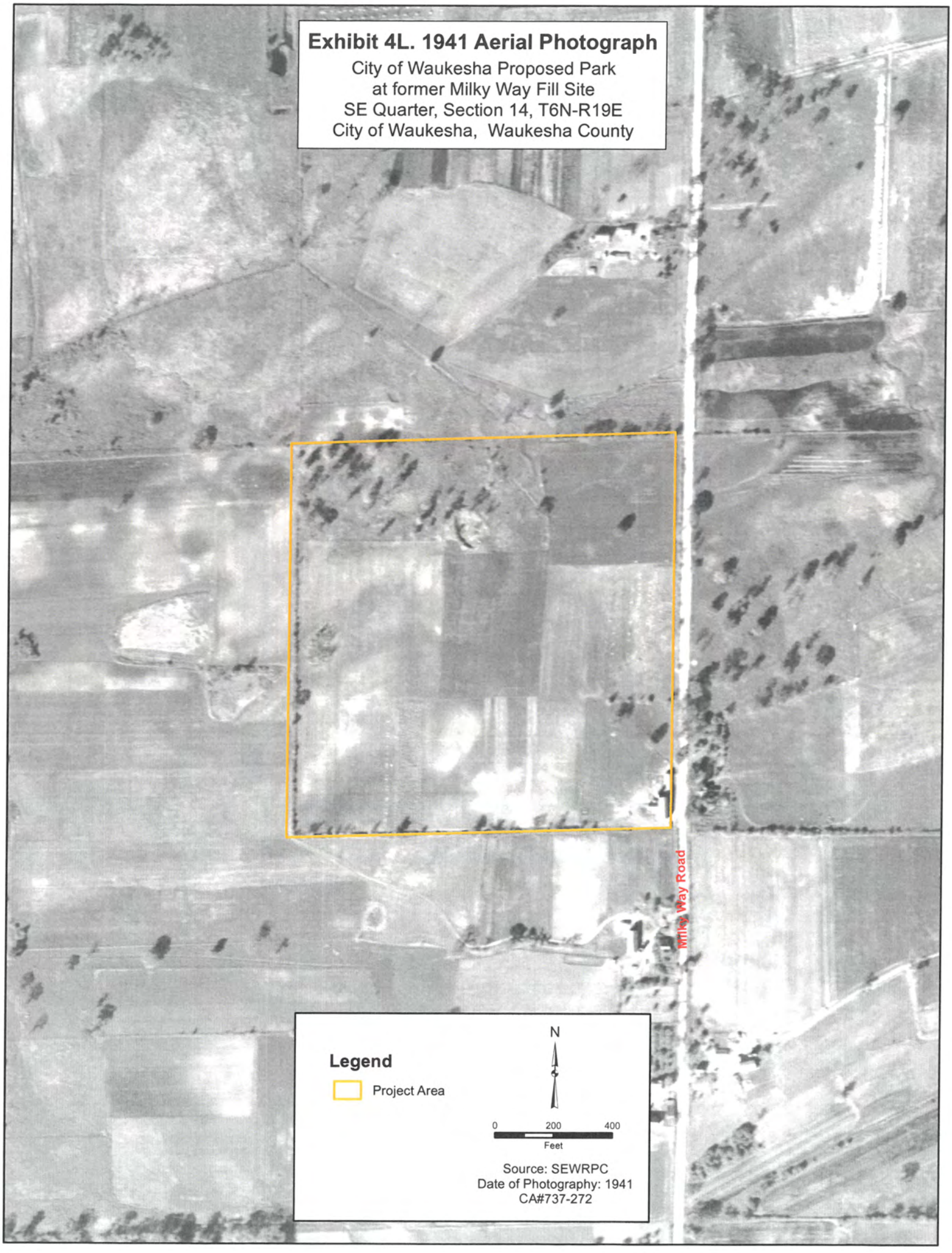


Exhibit 4L. 1941 Aerial Photograph
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
Milky Way Road
Legend
Project Area
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 1941
CA#737-272

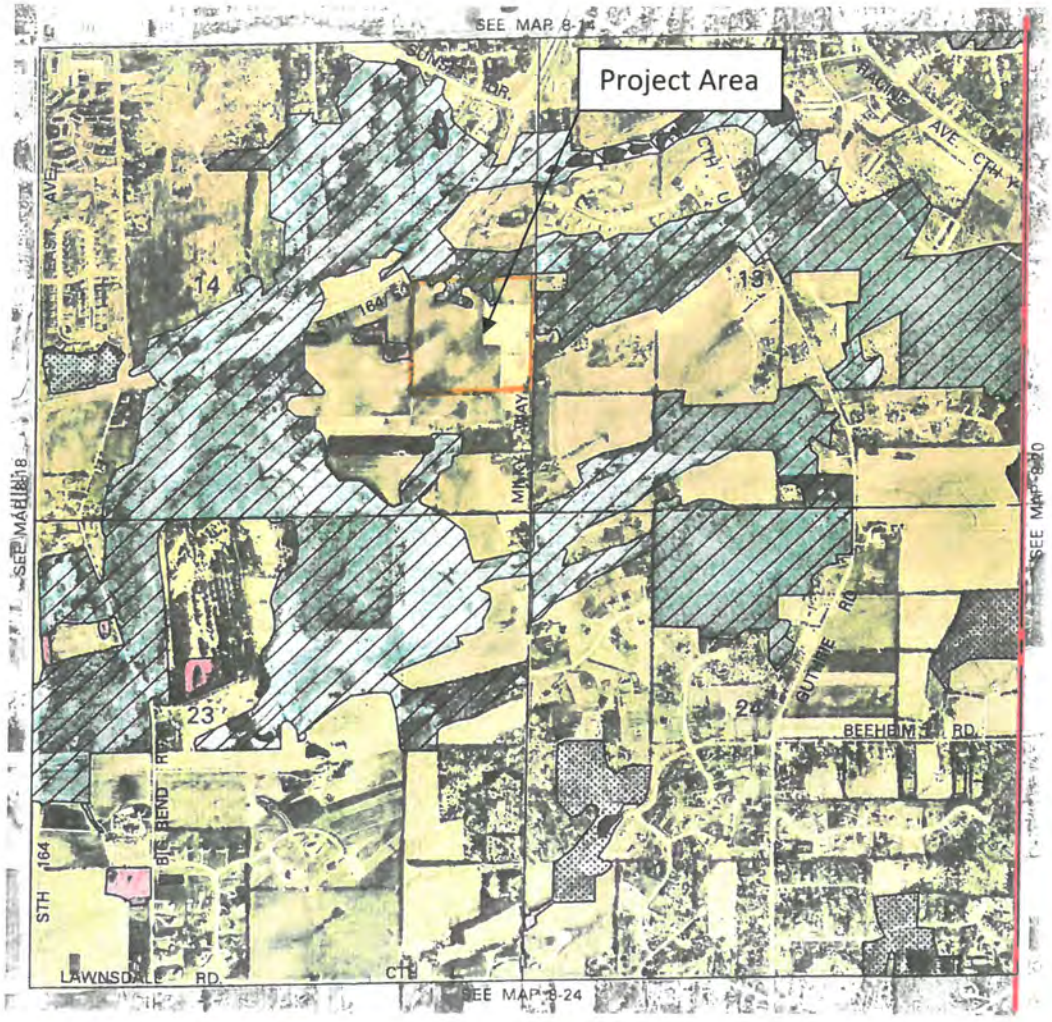
EXHIBIT 5. Sanitary Sewer Service Map

City of Waukesha Proposed Park Site
(Former Milky Way Fill Site)
SE Quarter Section 14, T6N-R19E
City of Waukesha, Waukesha County

Map 8-19

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED
SANITARY SEWER SERVICE AREA FOR THE CITY OF WAUKESHA AND ENVIRONS

U. S. Public Land Survey Sections 13, 14, 23, and 24
Township 6 North, Range 19 East



PRIMARY ENVIRONMENTAL CORRIDOR
SECONDARY ENVIRONMENTAL CORRIDOR
ISOLATED NATURAL RESOURCE AREA
WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE
SURFACE WATER WITHIN ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS
PLANNED SANITARY SEWER SERVICE AREA
GROSS SANITARY SEWER SERVICE AREA BOUNDARY
LANDS WITHIN THE PLANNED SANITARY SEWER SERVICE AREA INELIGIBLE FOR SEWER SERVICE

GRAPHIC SCALE
0 400 800 1200 FEET

Source: SEWRPC.

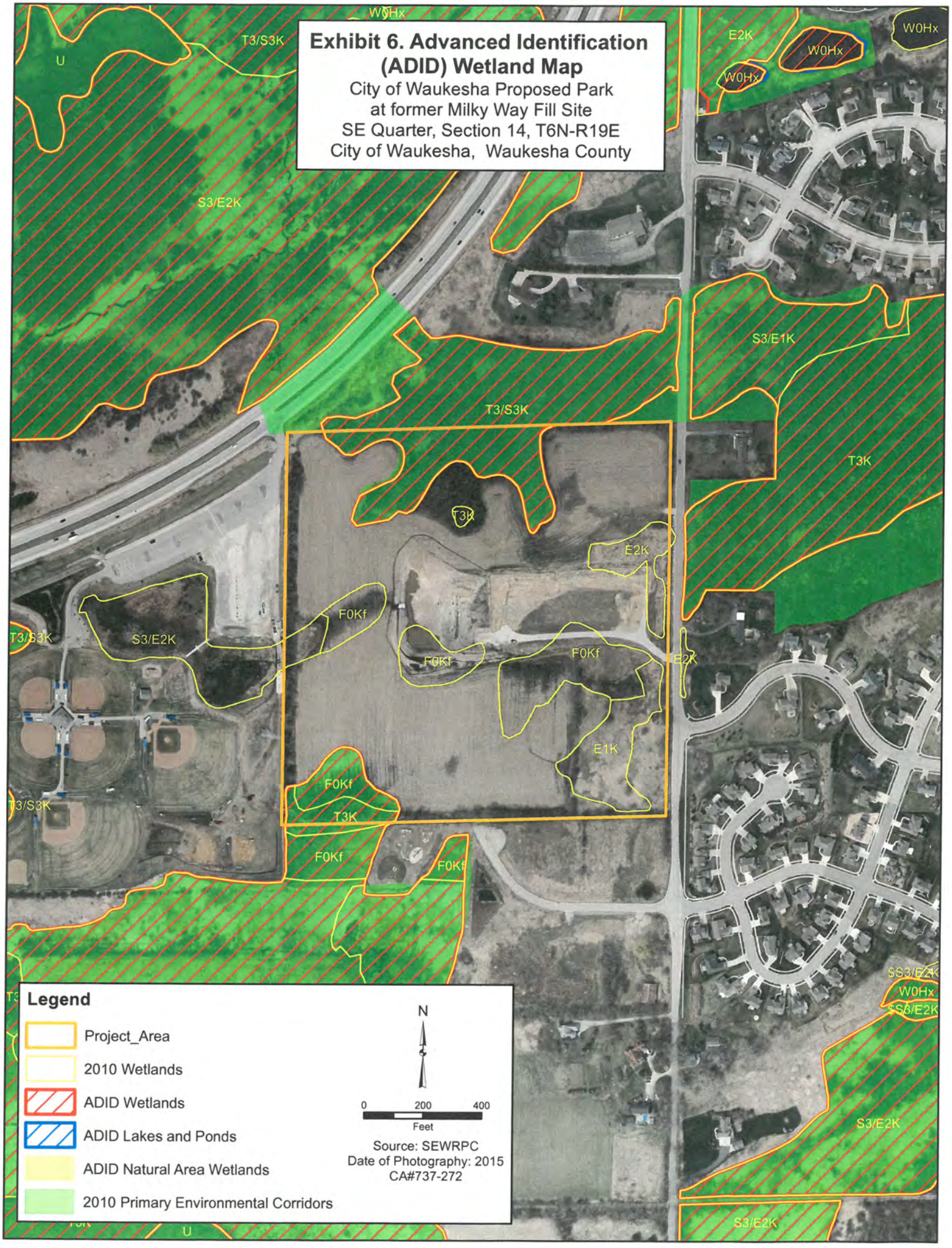


Exhibit 6. Advanced Identification (ADID) Wetland Map
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
W0Hx
T3/S3K
U
E2K
W0Hx
W0Hx
W0Hx
S3/E2K
S3/E1K
T3/S3K
T3K
T3K
E2K
F0Kf
T3/S3K
S3/E2K
F0Kf
F0Kf
E2K
E1K
F0Kf
T3/S3K
T3K
F0Kf
F0Kf
$S3/E2K
W0Hx
$S3/E2K
S3/E2K
S3/E2K
U
Legend
Project_Area
2010 Wetlands
ADID Wetlands
ADID Lakes and Ponds
ADID Natural Area Wetlands
2010 Primary Environmental Corridors
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 2015
CA#737-272


Exhibit 7. Wetland Delineation Map
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
Pebble Brook
STH 164/59 - Les Paul Parkway
Unnamed Tributary to Pebble Brook
Hunter Road
Milky Way Road
Legend
Project Area
Primary Environmental Corridor
Wetland Boundary Staked by SEWRPC on 8/25/15 and 8/27/15
Wetland
Plant Community Number
Plant Community Boundary
Sample Site
Sample Number
Surface Water
Flow Direction
N
0 100 200
Feet
Source: SEWRPC
Date of Photography: 2015
CA#737-272

SVY4203
CA737-272

EXHIBIT 8

PRELIMINARY VEGETATION SURVEY
CITY OF WAUKESHA PROPOSED PARK AT FORMER MILKY WAY FILL SITE

Dates: August 25 and 27, 2015

Observers: Daniel L. Carter, Ph.D., Principle Biologist
Christopher J. Jors, Senior Biologist
Jennifer Dietl, Biologist
Southeastern Wisconsin Regional Planning Commission

Location: City of Waukesha in parts of the Southeast one-quarter of U.S. Public Land Survey Section 14, Township 6 North, Range 19 East, Waukesha County, Wisconsin.

Species List: Plant Community Area (PCA) No. 1 – Native Plant Species
Co-dominant plant species

Acer negundo--Boxelder
Amaranthus retroflexus--Redroot pigweed
Ambrosia artemisiifolia--Common ragweed
Ambrosia trifida--Giant ragweed
Bidens vulgata--Tall beggar-ticks
***Boehmeria cylindrica*--False nettle**
Circaea canadensis--Enchanter's nightshade
Chenopodium album—Lamb's quarters
Clematis virginiana--Virgins bower
Cornus alba--Red-osier dogwood
***Cornus obliqua*--Silky dogwood**
Echinocystis lobata--Wild cucumber
Epilobium coloratum--Willow-herb
Eutrochium maculatum--Joe-Pye weed
***Fraxinus pennsylvanica*--Green ash**
Geum aleppicum--Yellow avens
***Glyceria striata*--Fowl manna grass**
Impatiens capensis--Jewelweed
Juglans nigra--Black walnut
Panicum capillare--Witch grass
***Panicum dichotomiflorum*--Knee grass**
Parthenocissus quinquefolia--Virginia creeper
Quercus macrocarpa--Bur oak
Ribes americanum--Wild black currant
Salix discolor--Pussy willow
Scirpus atrovirens--Green bulrush
Solidago altissima--Tall goldenrod
Symphyotrichum lanceolatum--Marsh aster
Symphyotrichum puniceum--Red-stemmed aster
Ulmus americana--American elm
Urtica dioica--Stinging nettle
Veronica peregrina--Purslane speedwell

Viburnum lentago--Nannyberry
PCA No. 1 Cont. - NON-Native Plant Species

Vitis riparia--Riverbank grape
Xanthium strumarium--Cocklebur
Abutilon theophrasti--Velvet-leaf
Alliaria petiolata--Garlic-mustard
Artemisia biennis--Biennial wormwood
Barbarea vulgaris--Yellow rocket
Cirsium arvense--Canada thistle
Daucus carota--Queen Anne's lace
Glycine max--Soy-bean (planted)
Morus alba--White mulberry
Phalaris arundinacea--Reed canary grass
Portulaca oleracea--Purslane
***Rhamnus cathartica*--Common buckthorn**
Salix fragilis--Crack willow
Solanum dulcamara--Deadly nightshade
Sonchus arvensis--Sow thistle
Taraxacum officinale--Common dandelion
Typha angustifolia--Narrow-leaved cat-tail

Total number of plant species: 52
Number of alien, or non-native, plant species: 16 (31 percent)

This approximately 3.14-acre plant community area is part of a larger wetland complex and consists of second growth, Southern wet to wet-mesic lowland hardwoods with small areas of atypical (farmed) wetland along the woodland edge. Disturbances to the plant community area include siltation and sedimentation due to stormwater runoff from adjacent lands and agricultural land management activities such as plowing. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 2 – Native Plant Species

Fraxinus pennsylvanica--Green ash
Ulmus americana--American elm
Vitis riparia--Riverbank grape

Non-native Plant Species

Rhamnus cathartica--Common buckthorn
***Salix fragilis*--Crack willow**

Total number of plant species: 5
Number of alien, or non-native, plant species: 2 (40 percent)

These approximately 0.10 and 0.004-acre wetland plant community areas consist of ephemeral ponds with, second growth, Southern wet lowland hardwoods. Disturbances to the plant community area include dumping and filling. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 3 – Native Plant Species

Acer negundo--Boxelder
Amaranthus retroflexus--Redroot pigweed
Ambrosia artemisiifolia--Common ragweed
Bidens vulgata--Tall beggar-ticks
Carex pellita--Woolly sedge
Carex vulpinoidea--Fox sedge
Epilobium coloratum--Willow-herb
Equisetum arvense--Common horsetail
Erigeron annuus--Annual fleabane
Erigeron philadelphicus--Marsh fleabane
Euthamia graminifolia--Grass-leaved goldenrod
Eutrochium maculatum--Joe-Pye weed
***Juncus dudleyi*--Dudley's rush**
Juncus torreyi--Torrey's rush
Oenothera biennis--Common evening-primrose
Panicum capillare--Witch grass
Panicum dichotomiflorum--Knee grass
Persicaria lapathifolia--Heart's-ease
Plantago rugelii--Red-stalked plantain
Ranunculus pensylvanicus--Pennsylvania buttercup
Ranunculus sceleratus--Cursed crowfoot
Salix amygdaloides--Peach-leaved willow
Schoenoplectus tabernaemontani--Soft-stemmed bulrush
***Scirpus atrovirens*--Green bulrush**
Solidago altissima--Tall goldenrod
***Solidago gigantea*--Giant goldenrod**
Symphyotrichum lanceolaturm--Marsh aster
Symphyotrichum lateriflorum--Calico aster
Symphyotrichum pilosum--Frost aster
Symphyotrichum puniceum--Red-stemmed aster
Typha latifolia--Broad-leaved cat-tail
Veronica peregrina--Purslane speedwell
Xanthium strumarium--Cocklebur

NON-Native Plant Species

Agrostis gigantea--Redtop grass
Cirsium arvense--Canada thistle
Daucus carota--Queen Anne's lace
Echinochloa crusgalli--Barnyard grass
Phalaris arundinacea--Reed canary grass
Plantago major--Common plantain
Poa pratensis--Kentucky bluegrass
Portulaca oleracea--Purslane
Rumex crispus--Curly dock
Salix fragilis--Crack willow
Trifolium hybridum--Alsike clover
***Typha angustifolia*--Narrow-leaved cat-tail**

Total number of plant species: 45

Number of alien, or non-native, plant species: 12 (27 percent)

PCA No. 3 cont.

This approximately 1.69-acre plant community area is part of a larger wetland complex and consists of shallow marsh, fresh (wet) meadow, and atypical (farmed) wetland. Disturbances to the plant community area include recent filling and grading, siltation and sedimentation due to stormwater runoff from adjacent lands, and agricultural land management activities such as plowing. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 4 – Native Plant Species

Ambrosia trifida--Giant ragweed
Equisetum arvense--Common horsetail
Euthamia graminifolia--Grass-leaved goldenrod
***Juncus dudleyi*--Dudley's rush**
Juncus torreyi--Torrey's rush
***Salix amygdaloides*--Peach-leaved willow**
Salix bebbiana--Beaked willow
Salix interior--Sandbar willow
***Scirpus atrovirens*--Green bulrush**
Solidago altissima--Tall goldenrod
Solidago gigantea--Giant goldenrod
Symphyotrichum lanceolatum--Marsh aster
Symphyotrichum pilosum--Frost aster
Symphyotrichum puniceum--Red-stemmed aster

NON-Native Plant Species

Agrostis gigantea--Redtop grass
Dipsacus laciniatus--Cut-leaved teasel
Elymus repens--Quack grass
Plantago lanceolata--English plantain
Poa pratensis--Kentucky bluegrass
Sonchus arvensis--Sow thistle
Trifolium pratense--Red clover
***Typha angustifolia*--Narrow-leaved cat-tail**

Total number of plant species: 22
Number of alien, or non-native, plant species: 8 (36 percent)

This approximately 0.03-acre wetland plant community consists of fresh (wet) meadow and shrub-carr (willow thicket). Disturbances to the plant community area include recent filling and grading activities. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 5 – Native Plant Species

Amaranthus retroflexus--Redroot pigweed
Ambrosia trifida--Giant ragweed
Asclepias incarnata--Marsh milkweed
Mimulus ringens--Monkey flower
***Panicum capillare*--Witch grass**
Ranunculus pensylvanicus--Pennsylvania buttercup
Rorippa palustris--Rough marsh cress
Verbena hastata--Blue vervain
Vitis riparia--Riverbank grape

NON-Native Plant Species

Abutilon theophrasti--Velvet-leaf
Echinochloa crusgalli--Barnyard grass
Glycine max--Soy-bean (planted)
***Phalaris arundinacea*--Reed canary grass**
Portulaca oleracea--Purslane
Rumex crispus--Curly dock
Solanum dulcamara--Deadly nightshade
***Typha angustifolia*--Narrow-leaved cat-tail**

Total number of plant species: 17
Number of alien, or non-native, plant species: 8 (47 percent)

This approximately 1.0-acre plant community area is part of a larger wetland complex and consists of shallow marsh, fresh (wet) meadow, and atypical (farmed) wetland. Disturbances to the plant community area include siltation and sedimentation due to stormwater runoff from adjacent lands and agricultural land management activities such as plowing. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 6 – Native Plant Species

Amaranthus retroflexus--Redroot pigweed
Ambrosia artemisiifolia--Common ragweed
Ambrosia trifida--Giant ragweed
Bidens frondosa--Common beggar-ticks
Chenopodium album—Lamb's quarters
Euthamia graminifolia--Grass-leaved goldenrod
***Panicum capillare*--Witch grass**
***Panicum dichotomiflorum*--Knee grass**
Persicaria lapathifolia--Heart's-ease
Persicaria pensylvanica--Pinkweed
Solidago altissima--Tall goldenrod
Solidago gigantea--Giant goldenrod
Symphyotrichum puniceum--Red-stemmed aster

PCA No. 6 cont. NON-Native Plant Species

Abutilon theophrasti--Velvet-leaf
Agrostis gigantea--Redtop grass
Artemisia biennis--Biennial wormwood
Daucus carota--Queen Anne's lace
***Echinochloa crusgalli*--Barnyard grass**
Portulaca oleracea--Purslane
Puccinellia distans--Alkali grass
Setaria faberi--Giant foxtail
Setaria pumila--Yellow foxtail
Sonchus arvensis--Sow thistle
Taraxacum officinale--Common dandelion
Trifolium pratense--Red clover

Total number of plant species: 25
Number of alien, or non-native, plant species: 12 (48 percent)

This approximately 1.23-acre plant community area is part of a larger wetland complex and consists of fresh (wet) meadow and atypical (farmed) wetland with a constructed stormwater detention pond with open water. Disturbances to the plant community area include recent filling and grading activities including pond excavation, side casting of dredge spoil materials, and berm construction; siltation and sedimentation due to stormwater runoff from adjacent lands, water level changes due to ditching and draining, and agricultural land management activities such as plowing. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 7 – Native Plant Species

Acer negundo--Boxelder
Ambrosia artemisiifolia--Common ragweed
Ambrosia trifida--Giant ragweed
Bidens vulgata--Tall beggars-ticks
Carex granularis--Pale sedge
Carex stipata--Common fox sedge
Cornus alba--Red-osier dogwood
Echinocystis lobata--Wild cucumber
Epilobium coloratum--Willow-herb
***Equisetum hyemale*--Scouring-rush**
Erigeron annuus--Annual fleabane
Erigeron canadensis--Horseweed
***Erigeron philadelphicus*--Marsh fleabane**
Erigeron strigosus--Daisy fleabane
Eupatorium perfoliatum--Boneset
Euthamia graminifolia--Grass-leaved goldenrod
Fraxinus pennsylvanica--Green ash
Geum aleppicum--Yellow avens
Juncus bufonius--Toad rush
***Juncus dudleyi*--Dudley's rush**
***Juncus torreyi*--Torrey's rush**
Panicum capillare--Witch grass
Persicaria lapathifolia--Heart's-ease
Persicaria pensylvanica—Pinkweed
***Plantago rugelii*--Red-stalked plantain**
Rorippa palustris--Rough marsh cress
***Salix amygdaloides*--Peach-leaved willow**
Salix bebbiana--Beaked willow
Salix discolor--Pussy willow
***Scirpus atrovirens*--Green bulrush**
Scirpus pendulus--Red bulrush
***Solidago altissima*--Tall goldenrod**
***Solidago gigantea*--Giant goldenrod**
Symphyotrichum lanceolatum--Marsh aster
Symphyotrichum lateriflorum--Calico aster
Symphyotrichum novae-angliae--New England aster
Symphyotrichum pilosum--Frost aster
***Symphyotrichum puniceum*--Red-stemmed aster**
Typha latifolia--Broad-leaved cat-tail
Verbena hastata--Blue vervain
Veronica peregrina--Purslane speedwell
Vitis riparia--Riverbank grape
Xanthium strumarium--Cocklebur

NON-Native Plant Species

Abutilon theophrasti--Velvet-leaf
***Agrostis gigantea*--Redtop grass**
Artemisia biennis--Biennial wormwood
Chenopodium glaucum--Oakleaf goosefoot

PCA No. 7 cont. NON-Native Plant Species

Cirsium arvense--Canada thistle
Daucus carota--Queen Anne's lace
Echinochloa crusgalli--Barnyard grass
Elaeagnus umbellata--Autumn-olive
Epilobium hirsutum--Hairy willow-herb
Glycine max--Soy-bean (planted)
Lythrum salicaria--Purple loosestrife
Persicaria maculosa--Lady's thumb
***Phalaris arundinacea*--Reed canary grass**
Plantago major--Common plantain
Poa pratensis--Kentucky bluegrass
Portulaca oleracea--Purslane
Rhamnus cathartica--Common buckthorn
Rumex crispus--Curly dock
Solanum dulcamara--Deadly nightshade
Sonchus arvensis--Sow thistle
Taraxacum officinale--Common dandelion
Trifolium hybridum--Alsike clover
Trifolium pratense--Red clover
***Typha angustifolia*--Narrow-leaved cat-tail**

Total number of plant species: 67
Number of alien, or non-native, plant species: 24 (36 percent)

This approximately 3.45-acre plant community area is part of a larger wetland complex and consists of a hillside seep with fresh (wet) meadow, atypical (farmed) wetland, shrub-carr, and second growth, Southern wet to wet-mesic lowland hardwoods. Disturbances to the plant community area include recent filling and grading activities, past grazing, and agricultural land management activities such as plowing. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 8 – Native Plant Species

Ambrosia trifida--Giant ragweed
Apocynum cannabinum--Indian hemp
Chenopodium album—Lamb's quarters
Cornus alba--Red-osier dogwood
Cornus obliqua--Silky dogwood
***Cyperus esculentus*--Chufa**
Equisetum arvense--Common horsetail
***Impatiens capensis*--Jewelweed**
Panicum capillare--Witch grass
Parthenocissus quinquefolia--Virginia creeper
Penthorum sedoides--Ditch stonecrop
Rubus occidentalis--Black raspberry
***Salix amygdaloides*--Peach-leaved willow**
Salix discolor--Pussy willow
Scirpus atrovirens--Green bulrush
Solidago altissima--Tall goldenrod
Solidago gigantea--Giant goldenrod
***Symphyotrichum lanceolatum*--Marsh aster**
Symphyotrichum puniceum--Red-stemmed aster
Verbena hastata--Blue vervain
Veronica peregrina--Purslane speedwell
Vitis riparia--Riverbank grape

NON-Native Plant Specie

Agrostis gigantea--Redtop grass
Artemisia biennis--Biennial wormwood
Daucus carota--Queen Anne's lace
Echinochloa crusgalli--Barnyard grass
Glycine max--Soy-bean (planted)
Lythrum salicaria--Purple loosestrife
Poa pratensis--Kentucky bluegrass
Portulaca oleracea--Purslane
Rhamnus cathartica--Common buckthorn
Rumex crispus--Curly dock
Typha angustifolia--Narrow-leaved cat-tail

Total number of plant species: 33
Number of alien, or non-native, plant species: 11 (33 percent)

This approximately 0.97-acre wetland plant community area consists of fresh (wet) meadow, atypical (farmed) wetland, and second growth, Southern wet to wet-mesic lowland hardwoods. Disturbances to the plant community area include siltation and sedimentation due to stormwater runoff from adjacent lands and agricultural land management activities such as plowing. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

EXHIBIT 9

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: ____ State: WI Sampling Point: 1
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Houghton muck (HtA) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation **X**, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒**Yes**	☐No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐No
Hydric Soils Present?	☒**Yes**	☐No			
Wetland Hydrology Present?	☒**Yes**	☐No	If yes, optional Wetland Site ID: Plant Community Area (PCA) 1		

Remarks: (Explain alternative procedures here or in a separate report.) Vegetation is significantly disturbed and "Normal Circumstances" are not present because of agricultural land management activities (managed plant community/planted crop).

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): 23

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**80**	☒	**UPL**
2. Panicum dichotomiflorum	15	☐	FACW
3. Portulaca oleracea	10	☐	FACU
4. Amaranthus retroflexus	5	☐	FACU
5. Chenopodium album	3	☐	FACU
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	113	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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	0	x 1 =	0	
FACW species	15	x 2 =	30	
FAC species	0	x 3 =	0	
FACU species	18	x 4 =	72	
UPL species	80	x 5 =	400	
Column Totals:	113	(A)	502	(B)

Prevalence Index = B/A = 4.44

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☒ **Problematic Hydrophytic Vegetation[1] (Explain)**

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Atypical (farmed) wetland. Vegetation is problematic because of agricultural land management activities (managed plant community). Indicators of hydric soils and wetland hydrology are present.

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
0-3	10YR 2/2	100					Loam	
3-8	10YR 2/1	98	10YR 3/6	2	C	PL M	Loam	
8-16	10YR 2/1	100					Loam	
16-20	10YR 2/1	30	10YR 5/8	10	C	PL M	Clay	
	10YR 4/1	60						
20-24	10YR 5/1	70	10YR 5/8	30	C	PL M	Clay	

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ **Redox Dark Surface (F6)**
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 2
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2-6
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Casco loam (CeB) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation_____, Soil_____, or Hydrology _____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☐Yes	☒**No**	**Is the Sampled Area within a Wetland?**	☐ Yes	☒**No**
Hydric Soils Present?	☒**Yes**	☐No			
Wetland Hydrology Present?	☐Yes	☒**No**	If yes, optional Wetland Site ID: _____		

Remarks: (Explain alternative procedures here or in a separate report.) "Normal Circumstances" are not present because of agricultural land management activities (planted crop).

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): _____

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 2

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**90**	☒	**UPL**
2. Panicum dichotomiflorum	5	☐	FACW
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	95	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

Remarks: (include photo number here or on a separate sheet.) Agricultural field.

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
0-7	10YR 2/2	100					Loam	
7-11	10YR 2/1	100					Loam	
11-19	2.5Y 4/2	85	10YR 5/6	15	C	PL M	Clay	w/grit

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: disintegrating dolomite

Depth (inches): 19

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 3
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2-6
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Casco loam (CeB) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation **X**, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 1		

Remarks: (Explain alternative procedures here or in a separate report.) Vegetation is significantly disturbed and "Normal Circumstances" are not present because of agricultural land management activities (managed plant community/planted crop).

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): ____

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 3

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**80**	☒	**UPL**
2. Xanthium strumarium	20	☐	FAC
3. Portulaca oleracea	8	☐	FACU
4. Panicum dichotomiflorum	5	☐	FACW
5. Amaranthus retroflexus	5	☐	FACU
6. Abutilon theophrasti	5	☐	FACU
7. Taraxacum officinale	3	☐	FACU
8. Daucus carota	3	☐	UPL
9. Artemisia biennis	3	☐	FACW
10. Barbarea vulgaris	2	☐	FAC
11.		☐	
12.		☐	
	134	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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	0	x 1 =	0	
FACW species	8	x 2 =	16	
FAC species	22	x 3 =	66	
FACU species	21	x 4 =	84	
UPL species	83	x 5 =	415	
Column Totals:	134	(A)	581	(B)

Prevalence Index = B/A = 4.33

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☒ **Problematic Hydrophytic Vegetation[1] (Explain)**

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Atypical (farmed) wetland. Vegetation is problematic because of agricultural land management activities (managed plant community). Indicators of hydric soils and wetland hydrology are present.

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
0-11	10YR 2/1	100					Loam	
11-20	2.5Y 4/1	70	10YR 4/6	30	C	PL M	Clay	w/distintegrating dolomite
20-21	2.5Y 5/2	70	10YR 5/6	30	C	PL M	Sandy clay	w/gravel & dist. dolomite
21-26	2.5Y 4/1	65	10YR 4/6	35	C	PL M	Clay	w/distintegrating dolomite

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: ____ State: WI Sampling Point: 4
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Houghton muck (HtA) NWI classification: T3/S3K
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 1		

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

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): 21

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 4

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix X fragilis	**50**	☒	**FAC**
2. Fraxinus pennsylvanica	**30**	☒	**FACW**
3. Acer negundo	**20**	☒	**FAC**
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. Rhamnus cathartica	**20**	☒	**FAC**
2. Cornus alba	**10**	☒	**FACW**
3. Cornus obliqua	5	☐	FACW
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	35	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Impatiens capensis	**70**	☒	**FACW**
2. Phalaris arundinacea	15	☐	FACW
3. Parthenocissus quinquefolia	10	☐	FACU
4. Alliaria petiolata	10	☐	FACU
5. Circea canadensis	8	☐	FACU
6. Ambrosia trifida	5	☐	FAC
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
11. ____	____	☐	____
12. ____	____	☐	____
	118	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Vitis riparia	**10**	☒	**FAC**
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
	10	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (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
- ☒ **Dominance Test is >50%**
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Second growth, Southern wet to wet-mesic lowland hardwoods.

SOIL

Sampling Point: 4

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 2/1	98	10YR 3/6	2	C	PL M	Loam	
9-15	2.5Y 6/2	60	10YR 5/8	40	C	PL M	Silt loam	
15-21	10YR 3/2	50	10YR 3/6	20	C	PL M	Silty clay loam	
	10YR 2/1	30						
21-23.5	10YR 4/1	70	10YR 4/6	30	C	PL M	Sandy loam	w/gravel & dist. dolomite

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ **Depleted Matrix (F3)**
- ☒ **Redox Dark Surface (F6)**
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: gravel

Depth (inches): 23.5

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 5
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Linear hillslope Local relief (concave, convex, none): None Slope (%): 2-6
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Casco loam (CeB) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒**Yes**	☐No	**Is the Sampled Area within a Wetland?**	☐ Yes	☒**No**
Hydric Soils Present?	☐Yes	☒**No**			
Wetland Hydrology Present?	☐Yes	☒**No**	If yes, optional Wetland Site ID: _____		

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

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): _____

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 5

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Rhamnus cathartica	**30**	☒	**FAC**
2. Fraxinus pennsylvanica	**25**	☒	**FACW**
3. Prunus serotina	10	☐	FACU
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	65	= Total Cover	

Sapling/Shrub Stratum (Plot size: 30' radius)			
1. Rhamnus cathartica	**70**	☒	**FAC**
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	70	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Rhamnus cathartica	**50**	☒	**FAC**
2. Circaea canadensis	15	☐	FACU
3. Carex grisea	10	☐	FAC
4. Symphyotrichum lateriflorum	5	☐	FAC
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
11. ____	____	☐	____
12. ____	____	☐	____
	80	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. Vitis riparia	**5**	☒	**FAC**
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
	5	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (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
- ☒ **Dominance Test is >50%**
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Hardwoods and buckthorn thicket.

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)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2						Silt loam	
8-15	10YR 5/3						Silt loam	
15-22	10YR 5/4						Silt loam	

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: rocks

Depth (inches): 22

Hydric Soil Present? Yes ☐ **No** ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 6
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Houghton muck (HtA) NWI classification: T3K
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil **X** , or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology _____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒**Yes**	☐No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐No
Hydric Soils Present?	☒**Yes**	☐No			
Wetland Hydrology Present?	☒**Yes**	☐No	If yes, optional Wetland Site ID: PCA 2		

Remarks: (Explain alternative procedures here or in a separate report.) Former trash dump site. Area appears excavated on 1941 aerial photograph - possibly used for gravel.

HYDROLOGY

Wetland Hydrology Indicators:

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

☐ Surface Water (A1)	☒ **Water-Stained Leaves (B9)**	☐ Surface Soil Cracks (B6)
☒ **High Water Table (A2)**	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)
☒ **Saturation (A3)**	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)
☒ **Water marks (B1)**	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)
☒ **Drift Deposits (B3)**	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☒ **Geomorphic Position (D2)**
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)
		☒ **FAC-Neutral Test (D5)**

Secondary Indicators (minimum of two required)

Field Observations:

Surface Water Present? Yes ☐ **No** ☒ Depth (inches): _____
Water Table Present? **Yes** ☒ No ☐ Depth (inches): 4
Saturation Present? (includes capillary fringe) **Yes** ☒ No ☐ Depth (inches): 0

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 6

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix X fragilis	**75**	☒	**FAC**
2. Fraxinus pennsylvanica	15	☐	FACW
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	90	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. Fraxinus pennsylvanica	**10**	☒	**FACW**
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	10	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Vitis riparia	3	☐	FAC
2. Rhamnus cathartica	1	☐	FAC
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	4	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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 or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Ephemeral pond with second growth, Southern wet to wet-mesic lowland hardwoods.

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)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1						Peat	

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

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☒ **Other (Explain in Remarks)**

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

Restrictive Layer (if observed):

Type: trash

Depth (inches): 6

Hydric Soil Present? **Yes** ☒ No ☐

Remarks: Soil is problematic because site is a former trash dump. Lots of glass, plastic, concrete and rocks present. The presence of peat indicates that this is a hydric soil type, though the soil profile is obscured by fill.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 7
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Houghton muck (HtA) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 3		

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

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): 14
Saturation Present? (includes capillary fringe) **Yes** ☒ No ☐ Depth (inches): 0

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 7

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Juncus dudleyi	**35**	☒	**FACW**
2. Juncus torreyi	**25**	☒	**FACW**
3. Typha angustifolia	**20**	☒	**OBL**
4. Scirpus atrovirens	15	☐	OBL
5. Daucus carota	15	☐	UPL
6. Euthamia graminifolia	10	☐	FAC
7. Phalaris arundinacea	8	☐	FACW
8. Bidens vulgata	5	☐	FAC
9. Symphyotrichum puniceum	5	☐	OBL
10. Trifolium hybridm	5	☐	FACU
11. Ranunculus pensylvanicus	3	☐	OBL
12. Xanthium strumarium	3	☐	FAC
	149	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (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
- ☒ **Dominance Test is >50%**
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow and shallow marsh.

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)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	98	10YR 3/6	2	C	PL M	Silty clay loam	
10-17	10Y 5/1	50	10YR 5/8	50	C	PL M	Clay	
17-24	2.5Y 5/2	40	10YR 4/6	60	C	PL M	Clay	

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ **Redox Dark Surface (F6)**
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 8
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): - -
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Drummer silt loam, gravelly substratum (Dt) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation_____, Soil_____, or Hydrology _____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☐Yes	☒**No**	**Is the Sampled Area within a Wetland?**	☐ Yes	☒**No**
Hydric Soils Present?	☐Yes	☒**No**			
Wetland Hydrology Present?	☐Yes	☒**No**	If yes, optional Wetland Site ID: _____		

Remarks: (Explain alternative procedures here or in a separate report.) "Normal Circumstances" are not present because of agricultural land management activities (planted crop).

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): _____

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 8

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**60**	☒	**UPL**
2. Portulaca oleracea	15	☐	FACU
3. Chenopodium album	12	☐	FACU
4. Xanthium strumarium	10	☐	FAC
5. Panicum capillare	8	☐	FAC
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	105	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

Remarks: (include photo number here or on a separate sheet.) Agricultural field.

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)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/2	100					Loam	
6-10	10YR 2/1	100					Clay loam	
10-12	10YR 2/1	60	10YR 3/6	20	C	PL M	Clay	
	10YR 3/2	20						
12-18	5Y 5/2	60	7.5Y 4/6	40	C	PL M	Clay	
18-25	2.5Y 5/2	40	5G 5/1	20	D	PL	Clay	
			10YR 4/6	40	C	PL M		

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ **No** ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 9
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Shallow hillslope Local relief (concave, convex, none): Linear concave Slope (%): 2-6
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Casco loam (CeB) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 3		

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

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): ____

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: Sample point located just inside wetland boundary. Oxidized rhizospheres between 2-12" deep.

VEGETATION – Use scientific names of plants. Sampling Point: 9

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Symphyotrichum pilosum	**25**	☒	**FACU**
2. Juncus dudleyi	**20**	☒	**FACW**
3. Daucus carota	**20**	☒	**UPL**
4. Euthamia graminifolia	**15**	☒	**FAC**
5. Xanthium strumarium	**15**	☒	**FAC**
6. Oenothera biennis	12	☐	FACU
7. Cirsium arvense	6	☐	FACU
8. Erigeron philadelphicus	6	☐	FAC
9. Poa pratensis	5	☐	FACU
10. Solidago gigantea	5	☐	FACW
11. Symphyotrichum lateriflorum	5	☐	FAC
12. Epilobium coloratum	3	☐	OBL
	147*	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow. Additional species in herb stratum include: Plantago major FACU 3; Erigeron annuus FACU 2; Equisetum arvense FAC 2; Symphyotrichum puniceum OBL 2; and Scirpus atrovirens OBL 1.

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
0-8	10YR 2/1.5	97	10YR 3/6	3	C	PL	Silt loam	
8-12	10YR 2/1	50	7.5YR 3/4	10	C	PL M	Clay loam	
	10YR 4/2	40						
12-16	10Y 5/1	95	10YR 4/6	5	C	PL M	Clay	w/ distintegrating dolomite
16-26	10Y 5/1	70	5G 5/1	15	D	PL M	Clay loam	
			10YR 4/6	15	C			

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ **Redox Dark Surface (F6)**
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 10
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Shallow hillslope Local relief (concave, convex, none): Linear concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Houghton muck (HtA) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 3		

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

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): 19
Saturation Present? (includes capillary fringe) **Yes** ☒ No ☐ Depth (inches): 18

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: Oxidized rhizospheres observed at 1" depth.

VEGETATION – Use scientific names of plants. Sampling Point: 10

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago altissima	**35**	☒	**FACU**
2. Solidago gigantea	**35**	☒	**FACW**
3. Poa pratensis	**20**	☒	**FACU**
4. Symphyotrichum puniceum	**20**	☒	**OBL**
5. Symphyotrichum lanceolatum	**20**	☒	**FACW**
6. Phalaris arundinacea	15	☐	FACW
7. Carex pellita	10	☐	OBL
8. Symphyotrichum lateriflorum	8	☐	FAC
9. Euthamia graminifolia	5	☐	FAC
10.		☐	
11.		☐	
12.		☐	
	168	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (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 or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow.

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)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/1	96	7.5YR 3/4	4	C	PL M	Silty clay loam	
15-22	10GY 5/1	75	10YR 3/6-4/6	25	C	PL M	Clay	

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ **Thick Dark Surface (A12)**
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ **Redox Dark Surface (F6)**
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: rock

Depth (inches): 22

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 11
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Drainage way Local relief (concave, convex, none): Linear concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Sebewa silt loam (Sm) NWI classification: F0Kf
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation **X**, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 5		

Remarks: (Explain alternative procedures here or in a separate report.) Vegetation is significantly disturbed and "Normal Circumstances" are not present because of agricultural land management activities (managed plant community/planted crop).

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): ____

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: FSA slide review indicates that 9 out of 9 (100%) normal years show signatures of saturation.

VEGETATION – Use scientific names of plants. Sampling Point: 11

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**95**	☒	**UPL**
2. Panicum capillare	10	☐	FAC
3. Amaranthus retroflexus	5	☐	FACU
4. Echinochloa crus-galli	3	☐	FAC
5.		☐	
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	113	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	13	x 3 =	39	
FACU species	5	x 4 =	20	
UPL species	95	x 5 =	475	
Column Totals:	113	(A)	534	(B)

Prevalence Index = B/A = 4.73

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☒ **Problematic Hydrophytic Vegetation[1] (Explain)**

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Atypical (farmed) wetland. Vegetation is problematic because of agricultural land management activities (managed plant community). Indicators of hydric soils and wetland hydrology are present.

SOIL

Sampling Point: 11

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
0-15	10YR 2/1	100					Clay loam	
15-20	10YR 4/1	97	10YR 5/6	3	C	PL M	Clay	
20-26	10YR 6/1	45	10YR 6/8	35	C	PL M	Clay	
	10YR 3/1	20						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ **Thick Dark Surface (A12)**
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 12
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Sebewa silt loam (Sm) NWI classification: F0Kf
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 5		

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

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): 25

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 12

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	**70**	☒	**FACW**
2. Typha angustifolia	**40**	☒	**OBL**
3. Asclepias incarnata	20	☐	OBL
4. Rumex crispus	10	☐	FAC
5. Ranunculus pensylvanicus	3	☐	OBL
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	143	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow.

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
0-8	10YR 2/1						Clay loam	
8-16	10YR 2/1	85	10YR 3/6	10	C	PL M	Clay loam	
	10YR 4/2	5						
16-24	10YR 4/1	50	10YR 6/8	50	C	PL M	Clay	
24-26	10YR 5/1	60	10YR 6/8	20	C	PL M	Clay	
	10YR 3/1	10	5G 5/1	10	D			

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ **Thick Dark Surface (A12)**
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ **Redox Dark Surface (F6)**
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: _____ State: WI Sampling Point: 13
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 2-6
Subregion (LRR or MLRA): LRR K Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Casco loam (CeB) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation_____, Soil_____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ **No** ☒
Are Vegetation_____, Soil_____, or Hydrology _____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☐Yes	☒**No**	**Is the Sampled Area within a Wetland?**	☐ Yes	☒**No**
Hydric Soils Present?	☐Yes	☒**No**			
Wetland Hydrology Present?	☐Yes	☒**No**	If yes, optional Wetland Site ID: _____		

Remarks: (Explain alternative procedures here or in a separate report.) "Normal Circumstances" are not present because of agricultural land management activities (planted crop).

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): _____

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 13

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**55**	☒	**UPL**
2. Portulaca oleracea	15	☐	FACU
3. Rumex crispus	5	☐	FAC
4. Chenopodium album	3	☐	FACU
5. Taraxacum offinale	1	☐	FACU
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	79	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

Remarks: (include photo number here or on a separate sheet.) Agricultural field.

SOIL

Sampling Point: 13

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-9	10YR 3/3	100					Sandy loam	
9-15	7.5YR 3/4	100					Sandy clay	w/gravel
15-21	7.5YR 4/3	100					Sandy loam	w/gravel

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Stones/gravel

Depth (inches): 21

Hydric Soil Present? Yes ☐ **No** ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/27/2015
Applicant/Owner: ____ State: WI Sampling Point: 14
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 1-3
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Matherton silt loam (MmA) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation **X**, Soil **X**, or Hydrology **X** significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

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

Remarks: (Explain alternative procedures here or in a separate report.) While all three parameters are considered "significantly disturbed" due to recent filling and grading activities, "Normal Circumstances" were determined to be present due to filling and grading authorized by WDNR.

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): ____

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 14

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Panicum capillare	**20**	☒	**FAC**
2. Setaria pumila	**15**	☒	**FAC**
3. Echinochloa crus-galli	5	☐	FAC
4. Chenopodium album	4	☐	FACU
5. Panicum dichotomiflorum	3	☐	FACW
6. Taraxacum offinale	2	☐	FACU
7. Puccinellia distans	1	☐	FACW
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	50	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Recently vegetated fill material.

SOIL

Sampling Point: 14

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
0-15	7.5YR 3/4						Sandy clay	w/rocks (fill)

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: rocks

Depth (inches): 15

Hydric Soil Present? Yes ☐ **No** ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/27/2015
Applicant/Owner: ____ State: WI Sampling Point: 15
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Low terrace Local relief (concave, convex, none): None Slope (%): 1-3
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Matherton silt loam (MmA) NWI classification: F0Kf
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 6		

Remarks: (Explain alternative procedures here or in a separate report.) While vegetation, soils, and hydrology have been disturbed by filling and grading, they have not been "significantly disturbed" since fill material is too thin to obscure indicators. "Normal circumstances" present because filling and grading were authorized by WDNR.

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): 11

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 15

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Panicum capillare	**25**	☒	**FAC**
2. Echinochloa crus-galli	**20**	☒	**FAC**
3. Persicaria lapathifolia	7	☐	FACW
4. Chenopodium album	5	☐	FACU
5. Setaria faberi	3	☐	FACU
6. Daucus carota	3	☐	UPL
7. Amaranthus retroflexus	1	☐	FACU
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	64	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow.

SOIL

Sampling Point: 15

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
0-5	7.5YR 3/4	100					Sandy loam	w/gravel fill
5-7	10YR 2/1	100					Clay loam	
7-15	2.5Y 4/2	98	10YR 5/8	2	C	PL M	Clay	w/gravel

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ **Depleted Matrix (F3)**
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: gravel

Depth (inches): 15

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/27/2015
Applicant/Owner: ____ State: WI Sampling Point: 16
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope (%): 1-3
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Matherton silt loam (MmA) NWI classification: F0Kf
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil **X** , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒**Yes**	☐No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐No
Hydric Soils Present?	☒**Yes**	☐No			
Wetland Hydrology Present?	☒**Yes**	☐No	If yes, optional Wetland Site ID: PCA 6		

Remarks: (Explain alternative procedures here or in a separate report.) Sedimentation of agricultural field runoff formed a layer over the original soil profile, obscuring a hydric soil indicator (A12) - Thick Dark Surface. "Normal Circumstances" are not present because of agricultural land management activities (planted crop).

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): ____

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: FSA slide review indicates that 9 out of 9 (100%) normal years show signatures of saturation.

VEGETATION – Use scientific names of plants. Sampling Point: 16

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Echinochloa crus-galli	**70**	☒	**FAC**
2. Agrostis gigantea	15	☐	FACW
3. Panicum dichotomiflorum	10	☐	FACW
4. Bidens frondosa	10	☐	FACW
5. Persicaria lapathifolia	5	☐	FACW
6. Trifolium pratense	3	☐	FACU
7. Euthamia graminifolia	3	☐	FAC
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	116	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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 or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow.

SOIL

Sampling Point: 16

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
0-2	10YR 3/2						Loam	sediment deposits
2-17	10YR 2/1						Loam	
17-20	2.5Y 4/1	98	10YR 4/6	2	C	PL M	Clay	
20-29	2.5Y 5/2	50	10YR 3/6-5/6	20	C	PL M	Clay	w/gravel
	10YR 2/1	15	5G 5/1	15	D	PL		

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☒ **Other (Explain in Remarks)**

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

Restrictive Layer (if observed):

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks: Recent sedimentation from agricultural field runoff formed a fill layer over 15 inches of dark soil. This soil would meet the A12 requirement if the fill were not present.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/27/2015
Applicant/Owner: ____ State: WI Sampling Point: 17
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): - -
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Drummer silt loam, gravelly substratum (Dt) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation **X**, Soil **X**, or Hydrology **X** significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

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

Remarks: (Explain alternative procedures here or in a separate report.) While all three parameters (soils, vegetation, and hydrology) are "significantly disturbed" due to filling and grading. "Normal Circumstances" are present due to authorization granted by WDNR.

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): ____

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 17

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Plantago lanceolata	**70**	☒	**FACU**
2. Melilotus officinalis	20	☐	FACU
3. Elymus repens	12	☐	FACU
4. Ambrosia artemisiifolia	10	☐	FACU
5. Taraxicum officinale	8	☐	FACU
6. Cichorium intybus	5	☐	FACU
7. Phleum pratense	3	☐	FACU
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	128	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

Remarks: (include photo number here or on a separate sheet.) Old field.

SOIL

Sampling Point: 17

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
0-6	10YR 3/2	60					Clay loam	fill material w/rocks
	10YR 2/1	30						
	10YR 3/3	10						
6-20	10YR 4/2	40	5YR 4/6	25	C	PL M	Clay loam	fill material w/rocks
	10YR 4/3	35						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: fill-rocks

Depth (inches): 20

Hydric Soil Present? Yes ☐ **No** ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: ____ State: WI Sampling Point: 18
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 6-12
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Hochheim loam (HmC2) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation **X**, Soil **X**, or Hydrology **X** significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 4		

Remarks: (Explain alternative procedures here or in a separate report.) Original soils, vegetation, and hydrology have been "significantly disturbed" due to extensive filling and grading. These activities, which were authorized by WDNR, resulted in a small depression adjacent to a large pile. This small depression holds water long enough to support wetland conditions.

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): 16

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: Water trapped by additional fill located to the east of sample point. Oxidized rhizospheres found from 1-16".

VEGETATION – Use scientific names of plants. Sampling Point: 18

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. Salix amygdaloides	**15**	☒	**FACW**
2. **Salix interior**	**5**	☒	**FACW**
3. Salix bebbiana	2	☐	FACW
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	22	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Scirpus atrovirens	**30**	☒	**OBL**
2. Typha angustifolia	**20**	☒	**OBL**
3. Symphyotrichum pilosum	**15**	☒	**FACU**
4. Agrostis gigantea	**15**	☒	**FACW**
5. Solidago altissima	10	☐	FACU
6. Salix interior	10	☐	FACW
7. Juncus dudleyi	5	☐	FACW
8. Salix amygdaloides	5	☐	FACW
9. Trifolium pratense	5	☐	FACU
10. Plantago lanceolata	5	☐	FACU
11. Elymus repens	5	☐	FACU
12. Symphyotrichum lanceolatum	3	☐	FACW
	134*	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Shallow marsh and shrub-carr. *Additional species in herb stratum include: Euthamia graminifolia FAC 3; Dipsacus sp. FACU 2; and Ambrosia trifida FAC 1.

SOIL

Sampling Point: 18

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
0-1	10YR 3/2						Clay loam	fill
1-16	10YR 2/1	25	7.5YR 3/4	25	C	PL M	Clay loam	fill w/rocks
	10YR 3/2	30						
	10YR 4/2	20						
16-20	10YR 4/3	100					Sandy clay loam	fill/gravel

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ **Redox Dark Surface (F6)**
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: ____ State: WI Sampling Point: 19
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): - -
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Drummer silt loam, gravelly substratum (Dt) NWI classification: F0Kf
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 7		

Remarks: (Explain alternative procedures here or in a separate report.) Agricultural field not plowed or planted in 2015.

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): 23

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: FSA slide review indicates that 7 out of 9 (78%) normal years show signatures of saturation.

VEGETATION – Use scientific names of plants. Sampling Point: 19

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Erigeron philadelphicus	**20**	☒	**FAC**
2. Scirpus atrovirens	**15**	☒	**OBL**
3. Bidens vulgata	**15**	☒	**FAC**
4. Daucus carota	**15**	☒	**UPL**
5. Juncus dudleyi	**12**	☒	**FACW**
6. Typha angustifolia	10	☐	OBL
7. Euthamia graminifolia	10	☐	FAC
8. Plantago major	10	☐	FACU
9. Panicum capillare	10	☐	FAC
10. Rumex crispus	8	☐	FAC
11. Erigeron strigosus	5	☐	FACU
12. Trifolium pratense	4	☐	FACU
	148*	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow in a fallow field. *Additional species in herb stratum include: Artemisia biennis FACW 3; Taraxicum officinale FACU 3; Erigeron canadensis FACU 3; Epilobium coloratum OBL 3; and Symphyotrichum pilosum FACU 2.

SOIL

Sampling Point: 19

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 2/1	100					Clay loam	
10-16	10YR 5/1	80	10YR 5/6	10	C	PL M	Clay	
	10YR 2/1	10						
16-25	5GY 5/1	40	10YR 6/8	50	C	PL M	Clay	
	5G 5/1	10						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: ____ State: WI Sampling Point: 20
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Low terrace Local relief (concave, convex, none): Slightly concave Slope (%): - -
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Drummer silt loam, gravelly substratum (Dt) NWI classification: F0Kf
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation **X**, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 7		

Remarks: (Explain alternative procedures here or in a separate report.) Vegetation is significantly disturbed and "Normal Circumstances" are not present because of agricultural land management activities (managed plant community/planted crop).

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): ____

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: FSA slide review indicates that 7 out of 9 (78%) normal years show signatures of saturation.

VEGETATION – Use scientific names of plants. Sampling Point: 20

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**100**	☒	**UPL**
2. Portulaca oleracea	5	☐	FACU
3. Panicum capillare	3	☐	FAC
4.		☐	
5.		☐	
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	108	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	3	x 3 =	9	
FACU species	5	x 4 =	20	
UPL species	100	x 5 =	500	
Column Totals:	108	(A)	529	(B)

Prevalence Index = B/A = 4.90

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☒ **Problematic Hydrophytic Vegetation[1] (Explain)**

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Atypical (farmed) wetland. Vegetation is problematic because of agricultural land management activities (managed plant community). Indicators of hydric soils and wetland hydrology are present.

SOIL

Sampling Point: 20

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
0-8	10YR 2/1	100					Loam	
8-12	2.5Y 4/1.5	97	10YR 5/8	3	C	PL M	Clay loam	
12-17	2.5Y 4/2	95	10YR 5/8	5	C	PL M	Clay loam	
17-25	2.5Y 5/2	80	10YR 5/6	15	C	PL M	Clay	
	10YR 2/1	5						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ **Depleted Matrix (F3)**
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/27/2015
Applicant/Owner: ____ State: WI Sampling Point: 21
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Linear hillslope Local relief (concave, convex, none): None Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Brookston silt loam (BsA) NWI classification: F0Kf
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 7		

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

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): 10

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 21

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Juncus dudleyi	**60**	☒	**FACW**
2. Euthamia graminifolia	**30**	☒	**FAC**
3. Solidago altissima	20	☐	FACU
4. Solidago gigantea	10	☐	FACW
5. Scirpus pendulus	10	☐	OBL
6. Poa pratensis	10	☐	FACU
7. Carex granularis	3	☐	FACW
8. Geum aleppicum	3	☐	FAC
9. Symphyotrichum novae-angliae	2	☐	FACW
10.		☐	
11.		☐	
12.		☐	
	148	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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 or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow.

SOIL

Sampling Point: 21

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
0-8	10YR 2/1						Loam	
8-12	2.5Y 4/1	98	10YR 3/6	2	C	PL M	Clay	
12-18	10Y 5/1	95	10YR 5/8	5	C	PL M	Clay	w/gravel

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ **Depleted Matrix (F3)**
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: ____ State: WI Sampling Point: 22
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Shallow hillslope Local relief (concave, convex, none): Linear concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Colwood silt loam (Cw) NWI classification: F0Kf
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation **X**, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 8		

Remarks: (Explain alternative procedures here or in a separate report.) Vegetation is significantly disturbed and "Normal Circumstances" are not present because of agricultural land management activities (managed plant community/planted crop).

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): ____

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: FSA slide review indicates that 9 out of 9 (100%) normal years show signatures of saturation.

VEGETATION – Use scientific names of plants. Sampling Point: 22

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**40**	☒	**UPL**
2. Veronica peregrina	5	☐	FAC
3. Rumex crispus	4	☐	FAC
4. Chenopodium album	4	☐	FACU
5. Portulaca oleracea	3	☐	FACU
6. Panicum capillare	2	☐	FAC
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	58	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	11	x 3 =	33	
FACU species	7	x 4 =	28	
UPL species	40	x 5 =	200	
Column Totals:	58	(A)	261	(B)

Prevalence Index = B/A = 4.50

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☒ **Problematic Hydrophytic Vegetation[1] (Explain)**

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Atypical (farmed) wetland. Vegetation is problematic because of agricultural land management activities (managed plant community). Indicators of hydric soils and wetland hydrology are present.

SOIL

Sampling Point: 22

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 2/1	100					Clay loam	
10-14	2.5Y 4/1	98	10YR 4/6	2	C	PL M	Clay	
14-20	2.5Y 4/2	95	10YR 5/8	5	C	PL M	Clay	
20-26	2.5Y 5/2	80	10YR 6/8	15	C	PL M	Clay	w/ disintegrating dolomite
	10YR 3/1	5						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: ____ State: WI Sampling Point: 23
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Colwood silt loam (Cw) NWI classification: F0Kf
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 8		

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

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): ____

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 23

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix amygdaloides	**60**	☒	**FACW**
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. Rubus occidentalis	**20**	☒	**UPL**
2. Cornus alba	**15**	☒	**FACW**
3. Cornus obliqua	**15**	☒	**FACW**
4. Salix discolor	**15**	☒	**FACW**
5. Rhamnus cathartica	5	☐	FAC
6.		☐	
7.		☐	
	70	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Solidago gigantea	**20**	☒	**FACW**
2. Ambrosia trifida	**15**	☒	**FAC**
3. Rubus occidentalis	**10**	☒	**UPL**
4. Poa pratensis	**10**	☒	**FACU**
5. Typha angustifolia	8	☐	OBL
6. Equisetum arvense	5	☐	FAC
7. Solidago altissima	5	☐	FACU
8. Symphyotrichum puniceum	3	☐	OBL
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	76	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Vitis riparia	4	☐	FAC
2.		☐	
3.		☐	
4.		☐	
	4	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow, shrubby thicket, and hardwood complex.

SOIL

Sampling Point: 23

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 2/1						Clay loam	
14-18	2.5Y 4/1	98	10YR 4/6	2	C	PL M	Clay	
18-24	10YR 6/1	30	10YR 6/8	70	C	PL M	Clay	

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☒ **Thick Dark Surface (A12)**
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: ____ State: WI Sampling Point: 24
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 6-12
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Hochheim loam (HmC2) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

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

Remarks: (Explain alternative procedures here or in a separate report.) "Normal Circumstances" are not present because of agricultural land management activities (planted crop).

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): ____

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 24

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**40**	☒	**UPL**
2. Abutilon theophrasti	5	☐	FACU
3. Portulaca oleracea	5	☐	FACU
4. Chenopodium album	4	☐	FACU
5. Panicum capillare	3	☐	FAC
6. Taraxacum officinale	2	☐	FACU
7. Epilobium coloratum	1	☐	OBL
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	60	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

Remarks: (include photo number here or on a separate sheet.) Agricultural field.

SOIL

Sampling Point: 24

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					Loam	
3-13	10YR 2/1	100					Loam	
13-17	10YR 3/2	85					Clay loam	
	10YR 2/1	15						
17-24	10YR 4/3	80	10YR 3/6	2	C	PL M	Clay	
	10YR 3/2	18						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ **No** ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: ____ State: WI Sampling Point: 25
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): Linear concave Slope (%): 0-3
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Lamartine silt loam (LmB) NWI classification: E1K
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 7		

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

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): 17
Saturation Present? (includes capillary fringe) **Yes** ☒ No ☐ Depth (inches): 3

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: Sample site is located at a groundwater seep.

VEGETATION – Use scientific names of plants. Sampling Point: 25

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus pennsylvanica	**35**	☒	**FACW**
2. Salix amygdaloides	**35**	☒	**FACW**
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	70	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. Rhamnus cathartica	**10**	☒	**FAC**
2. Cornus alba	**5**	☒	**FACW**
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	15	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Juncus dudleyi	**45**	☒	**FACW**
2. Erigeron philadelphicus	**45**	☒	**FAC**
3. Veronica peregrina	25	☐	FAC
4. Rumex crispus	8	☐	FAC
5. Echinochloa crus-galli	3	☐	FAC
6. Plantago major	3	☐	FACU
7. Solidago altissima	2	☐	FACU
8. Chenopodium glaucum	1	☐	FACW
9. ____	____	☐	____
10. ____	____	☐	____
11. ____	____	☐	____
12. ____	____	☐	____
	132	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (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
- ☒ **Dominance Test is >50%**
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow with Southern wet to wet-mesic lowland hardwoods.

SOIL

Sampling Point: 25

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
0-4	10YR 2/1	98	10YR 3/6	2	C	PL M	Clay loam	
4-8	2.5Y 4/2	80	10YR 5/8	2	C	PL M	Clay	
	10YR 3/1	18						
8-12	10Y 5/1	60	10YR 5/8	40	C	PL M	Clay	
12-17	2.5Y 5/2	70	10YR 4/6	30	C	PL M	Sandy clay	w/gravel
17-22								sand? too wet to pull up

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ **Depleted Matrix (F3)**
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: gravel

Depth (inches): 22

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/27/2015
Applicant/Owner: ____ State: WI Sampling Point: 26
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Brookston silt loam (BsA) NWI classification: E1K
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

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

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

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): ____

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 26

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Morus alba	**10**	☒	**FACU**
2. Fraxinus pennsylvanica	**5**	☒	**FACW**
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	15	= Total Cover	

Sapling/Shrub Stratum (Plot size: 30' radius)			
1. Zanthoxylum americanum	**60**	☒	**FACU**
2. Rhamnus cathartica	15	☐	FAC
3. Elaeagnus umbellata	5	☐	UPL
4. Fraxinus pennsylvanica	3	☐	FACW
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	83	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Poa pratensis	**90**	☒	**FACU**
2. Solidago altissima	20	☐	FACU
3. Euthamia graminifolia	5	☐	FAC
4. Bromus inermis	3	☐	UPL
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
11. ____	____	☐	____
12. ____	____	☐	____
	118	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. Parthenocissus quinquefolia	**4**	☒	**FACU**
2. Vitis riparia	**3**	☒	**FAC**
3. ____	____	☐	____
4. ____	____	☐	____
	7	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

Remarks: (include photo number here or on a separate sheet.) Old field with shrub thicket.

SOIL

Sampling Point: 26

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 2/1	100					Loam	
11-21	2.5Y 5/2	70	10YR 5/8	30	C	PL M	Clay	
21-24	2.5Y 6/2	70	10YR 5/8	30	C	PL M	Sandy clay	w/gravel

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/27/2015
Applicant/Owner: ____ State: WI Sampling Point: 27
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Brookston silt loam (BsA) NWI classification: E1K
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil **X** , or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒**Yes**	☐No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐No
Hydric Soils Present?	☒**Yes**	☐No			
Wetland Hydrology Present?	☒**Yes**	☐No	If yes, optional Wetland Site ID: PCA 7		

Remarks: (Explain alternative procedures here or in a separate report.) While this soil profile just misses an (A12) - Thick Dark Surface indicator by one inch, the presence of hydrophytic vegetation and wetland hydrology led toa finding of a problematic hydric soil.

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): 11

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: Hillside seeps located at sample site.

VEGETATION – Use scientific names of plants. Sampling Point: 27

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. Fraxinus pennsylvanica	**15**	☒	**FACW**
2. Cornus alba	**5**	☒	**FACW**
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	20	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Poa pratensis	**90**	☒	**FACU**
2. Symphyotrichum puniceum	10	☐	OBL
3. Cirsium arvense	10	☐	FACU
4. Sonchus arvensis	8	☐	FACU
5. Daucus carota	7	☐	UPL
6. Fraxinus pennsylvanica	4	☐	FACW
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	129	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow.

SOIL

Sampling Point: 27

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 2/1	100					Loam	
11-13	10YR 3/1	100					Clay	
13-25	10Y 5/1	60	10YR 5/8	40	C	PL M	Clay	w/ rocks & dist. dolomite

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☒ **Other (Explain in Remarks)**

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

Restrictive Layer (if observed):

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks: While this soil profile just misses an (A12) - Thick Dark Surface indicator by one inch, the presence of hydrophytic vegetation and wetland hydrology led toa finding of a problematic hydric soil.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/27/2015
Applicant/Owner: ____ State: WI Sampling Point: 28
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Brookston silt loam (BsA) NWI classification: E1K
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation__**X**__, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒**Yes**	☐No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐No
Hydric Soils Present?	☒**Yes**	☐No			
Wetland Hydrology Present?	☒**Yes**	☐No	If yes, optional Wetland Site ID: PCA 7		

Remarks: (Explain alternative procedures here or in a separate report.) Vegetation is naturally problematic as it is a Poa pratensis-dominated wetland.

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): 10

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: Hillside seeps located at sample site.

VEGETATION – Use scientific names of plants. Sampling Point: 28

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. Cornus alba	**5**	☒	**FACW**
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	5	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Poa pratensis	**90**	☒	**FACU**
2. Cirsium arvense	10	☐	FACU
3. Sonchus arvensis	10	☐	FACU
4. Symphyotrichum lateriflorum	1	☐	FACW
5.		☐	
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	111	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:			Multiply by:	
OBL species		x 1 =		
FACW species	6	x 2 =	12	
FAC species		x 3 =		
FACU species	110	x 4 =	440	
UPL species		x 5 =		
Column Totals:	117	(A)	452	(B)

Prevalence Index = B/A = 3.86

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☒ **Problematic Hydrophytic Vegetation[1] (Explain)**

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow. Vegetation is problematic hydrophytic as it is a Poa pratensis-dominated wetland. Typha angustifolia is growing upslope of the sample site. Professional judgement has been used to determine that this is a wetland based on hydric soils and wetland hydrology that is present.

SOIL

Sampling Point: 28

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 2/1	100					Clay	
10-14	2.5Y 4/1	90	10YR 5/8	10	C	PL M	Clay	
14-24	10Y 5/1	50	10YR 3/6-5/6	50	C	PL M	Clay	w/gravel

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/27/2015
Applicant/Owner: ____ State: WI Sampling Point: 29
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 20-30%
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Hochheim loam (HmE2) NWI classification: None
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

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

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

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): ____

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 29

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	**60**	☒	**FACW**
2. Agrostis stolonifera	**30**	☒	**FACW**
3. Cirsium arvense	20	☐	FACU
4. Sonchus arvensis	20	☐	FACU
5. Poa pratensis	10	☐	FACU
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	140	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Upland meadow/old field.

SOIL

Sampling Point: 29

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
0-9	10YR 2/2	100					Loam	
9-12	10YR 3/2	80					Loam	w/gravel
	10YR 2/2	20						
12-17	10YR 3/2	50					Clay loam	w/gravel
	10YR 3/4	50						
17-24	7.5YR 3/3	50					Clay	w/gravel & dist. dolomite
	7.5YR 3/4	50						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ **No** ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/25/2015
Applicant/Owner: ____ State: WI Sampling Point: 30
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 0-3
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Lamartine silt loam (LmB) NWI classification: E1K
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No	If yes, optional Wetland Site ID: PCA 7		

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

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): 11

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks: Hillside seeps located at sample site.

VEGETATION – Use scientific names of plants. Sampling Point: 30

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	**80**	☒	**FACW**
2. Cirsium arvense	**30**	☒	**FACU**
3. Echinocystis lobata	20	☐	FACW
4.		☐	
5.		☐	
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	130	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:			Multiply by:	
OBL species		x 1 =		
FACW species	100	x 2 =	200	
FAC species		x 3 =		
FACU species	30	x 4 =	120	
UPL species		x 5 =		
Column Totals:	130	(A)	320	(B)

Prevalence Index = B/A = 2.46

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☒ **Prevalence Index is ≤3.0[1]**
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow.

SOIL

Sampling Point: 30

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					Silt loam	
4-23	10YR 2/2	97	7.5YR 3/4	3	C	PL M	Silty clay loam	
23-29	10YR 3/2	80					Clay loam	
	2.5Y 3/2	20						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: City of Waukesha Park/Former Milky Way Fill City/County: City of Waukesha/Waukesha County Sampling Date: 08/27/2015
Applicant/Owner: ____ State: WI Sampling Point: 31
Investigator(s): Daniel Carter, PhD and Jennifer Dietl; SEWRPC Section, Township, Range: T6N, R19E, SE1/4 S14
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 6-12
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Hochheim loam (HmC2) NWI classification: E1K
Are climatic/hydrologic conditions on the site typical for this time of year? **Yes** ☒ No ☐ (If no, explain in Remarks)
Are Vegetation____, Soil____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation____, Soil____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

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

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

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): 23

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), Aerial photographs (Exhibit 4), Site photos (Exhibit 10), FSA slide review (Exhibits 11-13), WETS tables (Exhibit 14), Draft NRCS map (Exhibit 15)

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: 31

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix matsudana	**40**	☒	**UPL**
2. Fraxinus pennsylvanica	**10**	☒	**FACW**
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	0	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundinacea	**90**	☒	**FACW**
2. Parthenocissus inserta	10	☐	FACU
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
8.		☐	
9.		☐	
10.		☐	
11.		☐	
12.		☐	
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.		☐	
2.		☐	
3.		☐	
4.		☐	
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (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 or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

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

Definitions of Vegetation Strata:

Tree – Woody plants 3in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height

Sapling/shrub – Woody plants less than 3in. DBH and greater than 3.28 ft (1 m) tall.

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

Woody vines – All woody vines greater than 3.28 ft in height

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (include photo number here or on a separate sheet.) Fresh (wet) meadow.

SOIL

Sampling Point: 31

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 3/2	100					Loam	
14-25	10YR 4/3	50	5YR 3/4	50	C	M	Clay	w/gravel

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B**)
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B**)
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B**)
- ☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B**)
- ☐ Coast Prairie Redox (A16) (**LLR K, L, R**)
- ☐ 5 cm Mucky Peat or Peat (S3) (**LLR K, L, R**)
- ☐ Dark Surface (S7) (**LRR K, L**)
- ☐ Polyvalue Below Surface (S8) (**LRR K, L**)
- ☐ Thin Dark Surface (S9) **(LRR K, L**)
- ☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ☐ Red Parent Material (F21)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ **No** ☒

Remarks:

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 1. Atypical (farmed) wetland at sample point 1 representative of wetland found at sample points 3, 11, 20, 22.

Photo 2. Northwest view of agricultural field from southeast corner of field. Representative of *Glycine max* field found at sample points 2, 8, 13 and 24.

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 3. Second growth, Southern wet to wet-mesic lowland hardwoods with Jewelweed dominant in understory at sample point 4 in Plant Community Area 1.

Photo 4. Lowland hardwoods with buckthorn thicket at sample point 5.

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 5. Second growth, Southern wet to wet-mesic lowland hardwoods at sample point 6 in Plant Community Area 2.

Photo 6. Fresh (wet) meadow and shallow marsh at sample point 7 in Plant Community Area 3.

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 7. Fresh (wet) meadow at sample point 9 and 10.

Photo 8. Fresh (wet) meadow/shallow marsh at sample point 12 in Plant Community Area 5.

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 9. Old field at sample point 14.

Photo 10. Fresh (wet) meadow at sample point 15 and 16 in Plant Community Area 6.

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 11. Old field at sample point 17 facing east toward fill pile.

Photo 12. Shallow marsh and shrub-carr at sample point 18 in Plant Community Area 4 located at base of fill pile.

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 13. Fresh (wet) meadow at sample point 19 in Plant Community Area 7.

Photo 14. Fresh (wet) meadow at sample point 21.

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 15. Fresh (wet) meadow, shrub thicket, and hardwood complex at sample point 23 in Plant Community Area 8.

Photo 16. Fresh (wet) meadow at sample point 25.

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 17. Old field at sample point 26.

Photo 18. Fresh (wet) meadow at sample points 27 and 28.

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 19. *Phalaris arundinacea* in upland field at sample points 29 and 31.

Photo 20. Erosion in newly created stormwater detention pond in center of project area.

Exhibit 10. Site Photos
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

Photo 21. East view of newly created stormwater detention pond in center of project area and fill pile visible in background.

#230057

NRCS-CPA-32W
(6-9-06)

EXHIBIT 11
WETLAND DOCUMENTATION RECORD
Remotely Sensed Data Summary

Owner/Operator: City of Waukesha County: Waukesha State: WI

Slide Reviewer: Jennifer Dietl Date: 08/19/2015

Site Identification No. CA737-272 - _____ (Tract No. + Site No.)

Farm Service Agency (or Other) Aerial Slide Data

Date (Mo./Yr)	Rainfall (in) +D/N/W (Apr-June ave. = _)	Interpretation- (codes listed in box below) A	B	C	D
2013	3	CRY(3)	CRY+1	CRY(6b)	CRY(3)
2010	3	CRY3part 6bpart	CRY+1,3	CRY3, 6b	CRY-6b
July 08	3	CRY-6d?	CRY-6d	CRY-6d	CRN
June 06	2	CRY-6e?	CRY-6d?	CRY-6d?	CRY or NC? 6d?
June 05	1	CRY 6b	CRY6b	CRY6b	CRY6b
Aug 04	2	CRY+6b	CRY+6b	CRY+6b	CRY+6b
June 03	2	CRY-	CRY	CRN	CRY
2002	2	CRY6a(5?)	CRY6a(5?)	CRY6a(5?)	CRY6a(5?)
June 01	3	CRY6d	CRY6d	CRY6d	CRY6d
June 00	2	CRY+6a	CRY+1	CRY6a	CRY6a
June 99	3	CRY+6a	CRY+6a	CRY6d	CRY-6d
June 98	2	CRY6d	CRY6a	CRY-6d	CRY-6d
June 97	2	CRY6d	CRY6d	CRY6d	CRY6d
Aug 96	2	CRY+3	CRY+3	CRY+3	CRY+3
June 95	1	CR?	CR?	CR?	CR? Bad photo? don't score
1994	1	CRN 6a	CRN 6a	CRN 6a	CRY-6b
1993	2	CRY-3	CRY+3	CRN	CRY-6b
1992	1	CRN	CRN	CRN	CRN
	a normal yr	9/9 100%	9/9 100%	7/9 78%	9/9 100%
		15/18 83%	15/18 83%	13/18 72%	15/18 83%
Air Photo					

Y = Yes, signal indicates wetness (+ = strong, - = weak)
N = No wetness signature
CR = cropped (row crop or tilled)
NC = not cropped (hay, pasture, idle, etc.)

Feature	Color	Manipulation (year of installation)	Other
1 = water	6a = dark green	7a = ditched	write explanation
2 = mud flat	6b = light green	7b = tiled	
3 = bare spot	6c = yellow	7c = filled	
4 = drowned crop	6d = brown	7d = tree/brush removal	
5 = planted late	6e = black	8 = plowed/tilled	

Does slide/air photo data indicate the site is a wetland? ☒ Yes ☐ No

A total of 0 years out of 0 most normal years (100%) have wet (Y) signatures.
A total of 0 years out of 0 years (0%) observed have wet (Y) signatures.

00227513


Exhibit 12. FSA Slide Review Map
City of Waukesha Proposed Park
at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County
STH 164/59 Les Paul Parkway
Hunter Road
Milky Way Road
A
B
D
Legend
Project Area
A FSA Areas of Concern
N
0 200 400
Feet
Source: SEWRPC
Date of Photography: 2015
CA#737-272

Exhibit 13. FSA Slides for Normal Years
City of Waukesha Proposed Park at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

2006

2004

2003

2002

Exhibit 13. FSA Slides for Normal Years
City of Waukesha Proposed Park at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

2000

1998

1997

1996

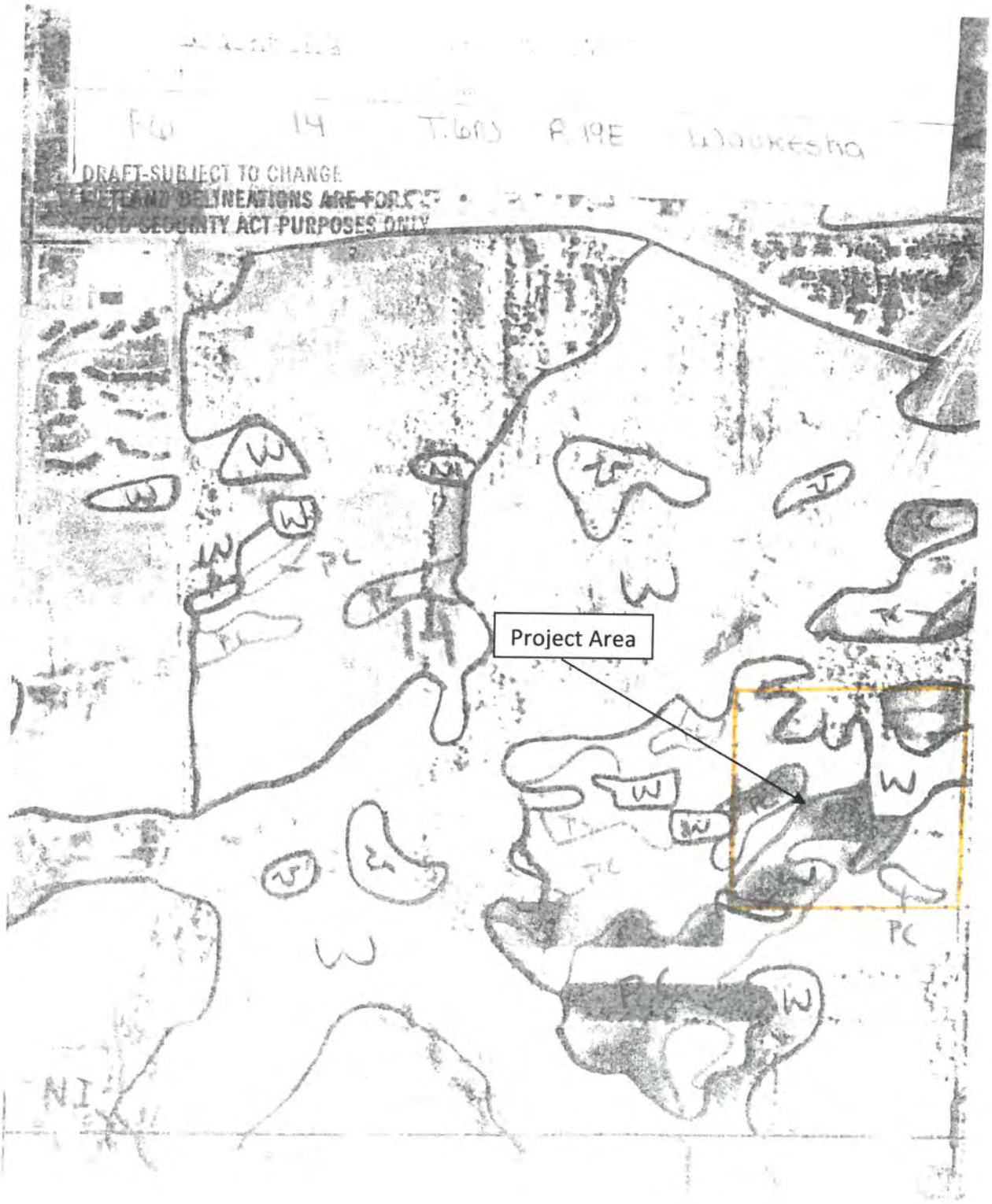
Exhibit 13. FSA Slides for Normal Years
City of Waukesha Proposed Park at former Milky Way Fill Site
SE Quarter, Section 14, T6N-R19E
City of Waukesha, Waukesha County

1993

DOC# 00227518

EXHIBIT 14. Draft NRCS Wetland Inventory Map

City of Waukesha Proposed Park Site
(Former Milky Way Fill Site)
SE Quarter Section 14, T6N-R19E
City of Waukesha, Waukesha County



SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
W239 N1812 ROCKWOOD DRIVE • PO BOX 1607 • WAUKESHA, WI 53187-1607•
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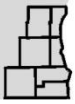

December 22, 2015

Ms. Violet V. Razzo, P.E.
Project Engineer
Ruekert & Mielke, Inc.
W233 N2080 Ridgeview Parkway
Waukesha, WI 53188-1020

Re: SEWRPC No. CA-306-222

Dear Ms. Razzo:

This will respond to your letter of October 2, 2014, requesting that the Commission staff conduct a field inspection of the western portion the CTH V right-of-way between CTH C and the northern Village of Mount Pleasant limits related to proposed water main extension proposed by Racine Water and Wastewater Utilities. The project area is located in parts of U.S. Public Land Survey Sections 6 and 7, Township 3 North, Range 22 East, Village of Mount Pleasant, Racine County, Wisconsin. The purpose of the field inspection was to identify and stake the boundaries of any wetlands contained within the project area.

Pursuant to your request, Commission staff identified and staked the wetland boundaries within the project areas on September 22, 2015. A copy of the wetland delineation report is attached for your reference.

Should you have any questions regarding this information, please do not hesitate to contact Mr. Christopher J. Jors, Senior Specialist-Biologist (*cjors@sewrpc.org* or 262-953-3246).

Sincerely,

Kenneth R. Yunker, P.E.
Executive Director

KRY/TMS/CJJ/kmd
#229560 – CA306-222 CTH V Watermain Extension

Enclosure (#229620)

cc: Mr. Joseph Eberle, P.E., Ruekert & Mielke, Inc. (via email)
Ms. Maureen McBroom, Ruekert & Mielke, Inc. (via email)
Mr. Keith E. Haas, P.E., Racine Water & Wastewater Utility (w/enclosure)
Ms. Elaine Johnson, Wisconsin Department of Natural Resources (w/enclosure)
Ms. Marie Kopka, U.S. Army Corps of Engineers (w/enclosure)

WETLAND DELINEATION REPORT

RACINE WATER AND WASTEWATER UTILITIES
PROPOSED 20-INCH TRANSMISSION MAIN
Along west side of CTH V from CTH C North to Village Limits

Sections 6 and 7, T3N, R22E
VILLAGE OF Mt. PLEASANT
RACINE COUNTY,
WISCONSIN

Prepared by:

Jennifer Dietl
Christopher Jors
Daniel Carter

Southeastern Wisconsin Regional Planning Commission
W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607

WETLAND DELINEATION REPORT OVERVIEW

(Based upon WDNR WETLAND Delineation Confirmation Request Check List)

INTRODUCTION

- Who requested the delineation – **Violet Razo, Project Engineer, Ruekert-Mielke**
- Why the delineation was undertaken – **Proposed 20" transmission main along west side CTH V**
- Date the field work was completed – **September 22, 2015**
- Who conducted field work – **Jennifer Dietl, Christopher Jors, Daniel Carter**
- Statement of Qualifications

METHODS

- Description of Methods
- Sources Reviewed
    - Topographic Map – **Exhibit 1 (Maps 1 and 2)**
    - WDNR Surface Water Data Viewer – Wisconsin Wetland Invetory (WWI) Map – **Exhibit 2 (Maps 1 and 2)**
    - Soil Survey and Floodplain Map – **Exhibit 3 (Maps 1 and 2)**
    - Historical Aerial Photos – **Exhibits 4A to 4E (2015, 2010, 2005, 2000, 1995)**
    - Sanitary Sewer Service Map – **Exhibit 5**
    - Advanced Identification (ADID) Wetland Map – **No ADID wetlands within project area**
- Description of any site specific agency guidance (site meetings, etc.) – **None**

RESULTS AND DISCUSSION

- Antecedent hydrologic condition analysis – **Drier than normal**
- Previous wetland delineation mapping – **None**
- Existing environmental mapping (WWI mapping, Soil survey, etc.)
- Amount and types of wetland in the project area
- Wetland/upland boundary explanation
- Disturbed and problematic areas encountered
- Other water resources located in the project area
- Other Considerations

LITERATURE CITED

Wetland Delineation Map – **Exhibit 6**

Vegetation Survey and Wetland Delineation Data Forms

- Preliminary Vegetation Survey – **Exhibit 7**
- Wetland Determination Data Forms – MW Region – **Exhibit 8**

Site Photos – **Exhibit 9**

Farm Service Agency Slide Review

- Completed wetland documentation form – **Exhibit 10**
- FSA Slide Review Map – **Exhibit 11**
- Copies or photos of slides if available – **Exhibit 12**
- Draft NRCS Wetland Inventory Map – **Not available**

INTRODUCTION

This wetland delineation report responds to Ruekert & Mielke's letter of request on behalf of the Racine Water and Wastewater Utilities to identify the boundaries of any wetlands along CTH V (centerline to 40' west of centerline) between CTH C and the northern limits of the Village of Mount Pleasant. The project area is located in U.S. Public Land Survey Sections 6 and 7, Township 3 North, Range 22 East, Village of Mount Pleasant, Racine County, Wisconsin.

Statement of Qualifications

Jennifer Dietl, Specialist-Biologist, earned a Bachelor's degree in Biology and Environmental Science from Carroll University in 1992. She has worked at the Commission from 1992 to 1997 and from 2006 to the present conducting wetland delineations, primary environmental corridor delineations, and vegetation surveys. In between years of service at the Commission she worked for the Wisconsin Department of Transportation – Green Bay as an LTE Environmental Analysis and Review Specialist – and the Wisconsin Department of Natural Resources – Green Bay as an LTE Hydrologist. Jennifer attended the UW-La Crosse Basic and Advanced Wetland Delineation Workshops on August 10-15, 2015 and a Wisconsin Dept. of Natural Resources Wetland Delineation & Wetland Rapid Assessment Methodology Workshop on April 23, 2014.

Christopher Jors, Senior Specialist-Biologist, has worked at SEWRPC since 1993, and has been part of the wetland delineation team since 1994. He received a Bachelor's degree in Conservation Aspects of Biology from the University of Wisconsin – Milwaukee in 1992. Prior to working at SEWRPC, Chris worked at the UWM Field Station at the Cedarburg Bog in Saukville, WI, where he learned methods of sampling wetland plant communities within the Bog. Chris has attended various wetland training workshops including the UW-La Crosse Basic and Advanced Wetland Delineation Workshops on August 10-15, 2015; a Wisconsin Dept. of Natural Resources Wetland Delineation & Wetland Rapid Assessment Methodology Workshop on April 23, 2014; and a U.S. Army Corps of Engineers Workshop on the Midwest Supplement to the 1987 Wetland Delineation Manual on February 3, 2009.

Daniel Carter, PhD, Senior Biologist, has worked at SEWRPC since 2013. He graduated with honors from Grinnell College with a Bachelor's degree in Biology. He later received a PhD in Biology from Kansas State University. Daniel has published several plant ecology articles in peer-reviewed journals, served on the botany team for the Wisconsin Wildlife Action Plan, and co-teaches the UW-La Crosse Basic Wetland Plant Identification course. He has completed both basic and advanced wetland delineation training as well as Wisconsin Natural Heritage Inventory training. Prior to working for the Commission, Daniel served as project coordinator for a grassland restoration project overseen jointly by the United States Department of Agriculture and The Nature Conservancy and taught high school Biology.

METHODS

Description of Methods

The wetland boundary determinations were based upon the criteria and methodologies set forth in the 1987 *Corps of Engineers Wetlands Delineation Manual*; the January 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (Version 2.0); the March 4, 2015, *Guidance for Submittal of Delineation Reports to the St. Paul District Army Corps of Engineers and the Wisconsin Department of Natural Resources*; and the State of Wisconsin 2014 Wetland Plant List.

Specific methods used to field identify wetland boundaries included the U.S. Department of the Army Corps of Engineers Routine Onsite Determination Method – Plant Community Assessment Procedure. This procedure requires an initial identification of representative plant community types in the project area followed by a characterization of vegetation, soils, and hydrology for each type.

Sources Reviewed

Prior to conducting field work, Commission staff reviewed the following data sources: Racine County's topographic mapping (Exhibit 1), WDNR Surface Water Data Viewer (WWI) Mapping (Exhibit 2), Natural Resource Conservation Service's (NRCS) soil survey and FEMA Floodplains (Exhibit 3), Commission aerial photography (Exhibits 4A – 4E), Sanitary Sewer Service Map (Exhibit 5), and United States Department of Agriculture (USDA) and National Climatic Data Center (NCDC) data for antecedent and observed precipitation.

RESULTS AND DISCUSSION

Jennifer Dietl, lead investigator, Christopher Jors, and Daniel Carter, identified and staked the boundaries of the wetlands contained within the project area on September 22, 2015. Wetland boundaries were marked in the field using orange wire flags and ribbon. Ruekert & Mielke was responsible for surveying the Commission's wetland boundary markers. Sample Site locations and the centerlines of any wet roadside ditches were captured by Commission staff during the field inspection using a sub-meter GPS unit. It should be noted that the wet ditch on the north end of the project had been staked with pink flags by a private consultant prior to the Commission field inspection (see Exhibit 6 – Map 1 of 3). Ruekert & Mielke indicated that they would survey the pink flags in that area.

The results of the wetland delineation field inspection for this project area are shown on Exhibit 6, which includes sample site numbers and locations, approximate staked wetland boundaries, plant community area number and locations, as well as GPS-located wet ditches.

Antecedent Hydrologic Conditions

WETS Station: RACINE RACINE (WI6922)

Climatological data and observed precipitation amounts with monthly summaries were taken from the nearest WETS station with relevant data.

	Month	3 yrs. In 10 less than	Normal	3 yrs. In 10 more than	Observed precip.	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns
1st prior month	Sept	1.75	3.70	4.52	3.03	Normal	2	3	6
2nd prior month	Aug	2.76	4.08	4.88	2.69	Dry	1	2	2
3rd prior month	July	2.58	3.57	4.22	2.14	Dry	1	1	1
								sum	9

If sum is	
6 - 9	drier than normal
10 - 14	normal
15 - 18	wetter than normal

Conclusion Drier than normal

Previous wetland delineation mapping – None

Existing Environmental Mapping

The Racine County topographic map (Exhibit 1) shows that the route of the project area has slight rolling topography ranging from highs of about 770 feet above sea level near the north end of the project area to lows of 736 feet at the south end. No surface waters are mapped within the project area.

The WDNR Surface Water Data Viewer (WWI) Mapping (Exhibit 2) indicates that the project route crosses one wetland complex just north of Kraut Road consisting of Emergent/wet meadow - farmed (E2Kf) and Flats/unvegetated wet soil – farmed (FOKf). No waterways are indicated within the project area on this mapping.

The NRCS Soil Survey map (Exhibit 3) shows the following soils in the project area:

Soil Name	Slope %	Drainage Class	Comments
Ashkum silty clay loam (AtA)	0-3%	Poorly drained	Sample sites: 1, 2, 4, 5, and 7
Elliot silty clay loam (EtB)	2-6%	Somewhat poorly drained	Sample site: 6
Markham silt loam (MeB)	2-6%	Well drained to moderately well drained	
Markham silt loam (MeC2)	6-12%, eroded	Well drained to moderately well drained	
Morley silt loam (MzdC2)	6-12%, eroded	Well drained to moderately well drained	
Varna silt loam (VaB)	2-6%	Well drained to moderately well drained	Sample site: 8
Wallkill silt loam (Wa)	0-2%	Very poorly drained	Sample site: 3

Historical aerial photos of the project area were reviewed back to 1995 (see table below). Aerial photos for years 2015, 2010, 2005, 2000, 1995 are attached (Exhibits 4A to 4E). This review indicated that very little has changed in land use history over that time period.

Photo year	Review of Project Area
1995	Large network of drain tiles evident in agricultural field in northwest corner of project area. Strong wetness signatures in farmed wetland northwest of CTH V and Kraut Road.
2000	No changes noted.
2005	Strong wetness signatures at farmed wetlands northwest and southwest of CTH V-Kraut Road intersection.
2010	Large area of standing water at farmed wetland northwest of CTH V-Kraut Road intersection.
2015	Standing water northwest and southwest of CTH V-Kraut Road intersection.

SEWRPC's sanitary sewer service area map (Exhibit 5) shows that the entire project area is located within the City of Racine and Environs planned sanitary sewer service area.

Amount and Types of Wetlands in the Project Area

Five wetland plant community areas were identified within the project area. A list of vascular plant species observed during the field inspection was prepared for each plant community area as well as plant community type(s), dominant plant species, disturbances, and any critical plant and animal species (Exhibit 7). The table below summarizes characteristics for each plant community area (PCA):

PCA Number	Acreage*	PCA Type(s)	Dominant Species	Critical Species
1	NA	Wet roadside ditch with Fresh (wet) meadow	*Phalaris arundinacea*-Reed canary grass	None

2	0.05	Atypical (mowed) wetland and Fresh (wet) meadow	*Agrostis stolonifera*-Creeping bentgrass *Phalaris arundinacea*-Reed canary grass *Poa pratensis*-Kentucky bluegrass	None
3	0.9	Atypical (farmed) wetland	*Persicaria pensylvanica*-Pinkweed	None
4	0.08	Atypical (farmed) wetland	*Persicaria pensylvanica*-Pinkweed	None
5	0.08	Atypical (farmed) wetland	*Panicum dichotomiflorum*-Knee grass *Sonchus arvensis*-Sow thistle	None

*Acreages not calculated for wet roadside ditches since the wetlands contained in them were not staked.

Wetland/Upland Boundary Explanation

Eight representative sample sites were identified within the project area. The Wetland Determination Data Forms describing the findings at each sample site are attached as Exhibit 8. The locations of the sample sites are shown in Exhibit 6. The wetland boundaries were determined using breaks in topography, changes in vegetation composition, visual identification of wetland hydrology, and presence of hydric soils.

Disturbed and Problematic Areas Encountered

Wetland sample sites 5 and 7 had significantly disturbed vegetation due to agricultural land management activities which obscured a hydrophytic plant community. Indicators of hydric soils and wetland hydrology were present at both sample sites.

Farm Service Agency Slide Review

A Farm Service Agency slide review was conducted for portions of the project area where farmed wetland was suspected. Slide review observation forms and a map of areas of concern are included as Exhibits 10 and 11. Copies of slides for normal precipitation years (2006, 2003, 1998, 1997, 1995, 1994, 1993, 1991, and 1990) have been included in the report (Exhibit 12).

Wetland sample sites 3 and 5 had wet signatures in 8 out of 9 (89%) normal precipitation years. Wetland sample site 7 had wet signatures in 5 out of 9 (55%) normal precipitation years. While sample site 6 had wet signatures in 6 out of 9 (67%) normal precipitation years, it was determined that this site did not support wetland conditions. No other wetland hydrology indicators were observed at site 6. In addition, no hydrophytes were observed at this site where Smooth brome grass (*Bromus inermis),* a Facultative Upland species, was dominant.

Other Water Resources Located in the Project Area

None

Other Considerations

Please be advised that no Federal or State regulatory jurisdiction determinations relative to any wetland permits or certifications are made under this report. The nonagricultural performance standards set forth in Section NR 151.125 of *Wisconsin Statutes* requires establishment of an impervious surface protective area measured horizontally from the delineated wetland boundary to the closest impervious surface. The protective area requirements should be taken into consideration for any planned improvements along CTH V and it is suggested that you contact WDNR regarding approaches to meet these requirements. Plant Community Area (PCA) No. 1, a wet roadside ditch, was designed for storm water conveyance purposes and is exempt from protective area performance standards. Due to the presence of less-susceptible mowed and farmed wetlands dominated by non-native species, the remainder of the wetlands within the project area require protective area setbacks between 10 and 30 feet, depending on average width measurements. PCA Numbers 2, 3, 4, and 5, require establishment of 10-foot, 20-foot, 12-foot, and 10-foot impervious surface protective areas, respectively.

LITERATURE CITED

U.S. Army Corps of Engineers, 2015, Special Public Notice: *Guidance for Submittal of Delineation Reports to the St. Paul District Corps of Engineers and the Wisconsin Department of Natural Resources*, U.S. Army Corps of Engineers, March 2015.

U.S. Army Corps of Engineers, 2014, State of Wisconsin Wetland Plant List

U.S. Army Corps of Engineers, 2010, *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0). U.S. Army Engineer Research and Development Center, August 2010.

U.S. Army Corps of Engineers, 1987, U.S. Army Corps of Engineers wetlands delineation manual. Wetlands Research Program Technical Report Y-87-1.

WDNR, Surface Water Data Viewer, website at http://dnrmaps.wi.gov/sl/?Viewer=SWDV

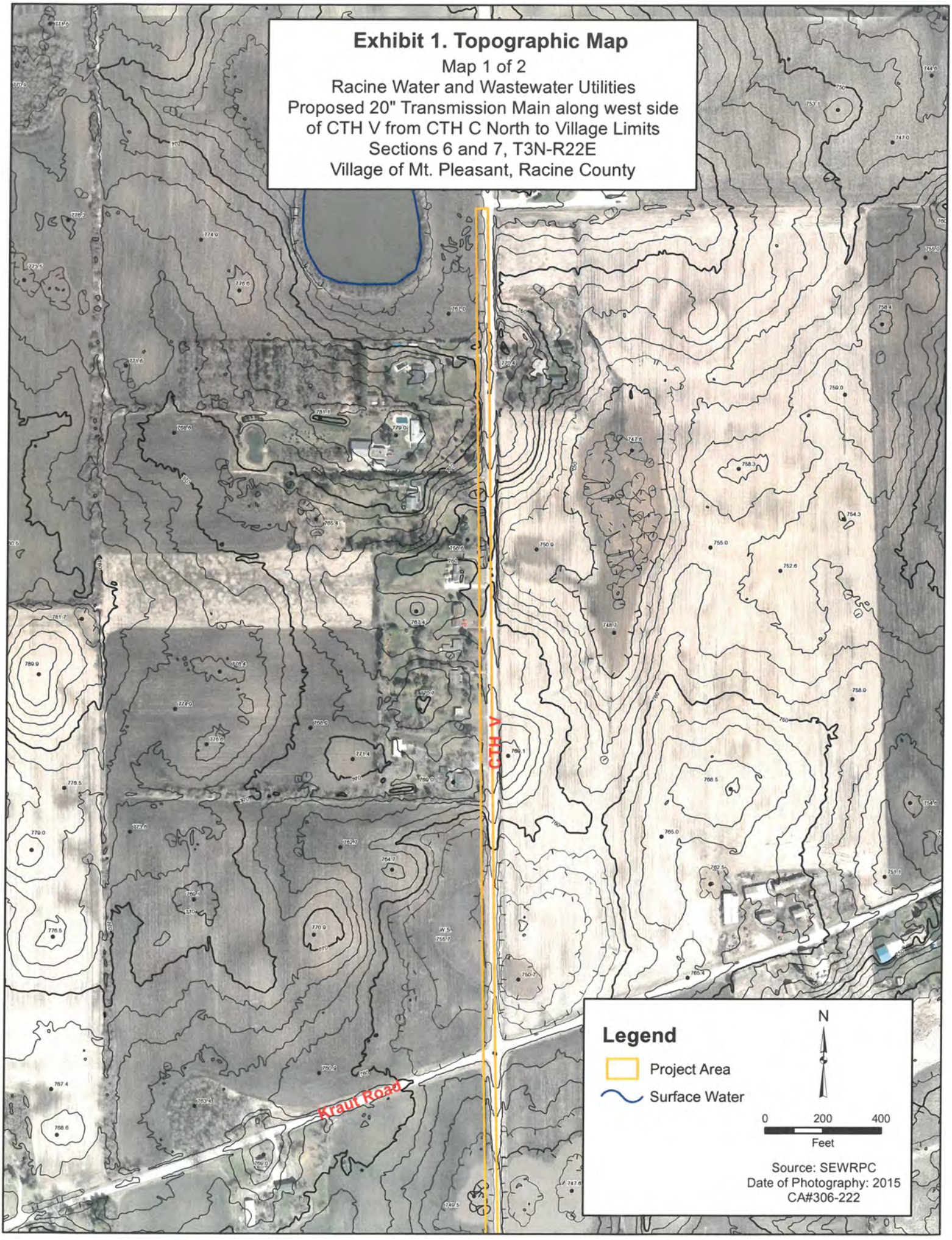
Exhibit 1. Topographic Map
Map 1 of 2
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
CTH V
Kraut Road
Legend
Project Area
Surface Water
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 2015
CA#306-222

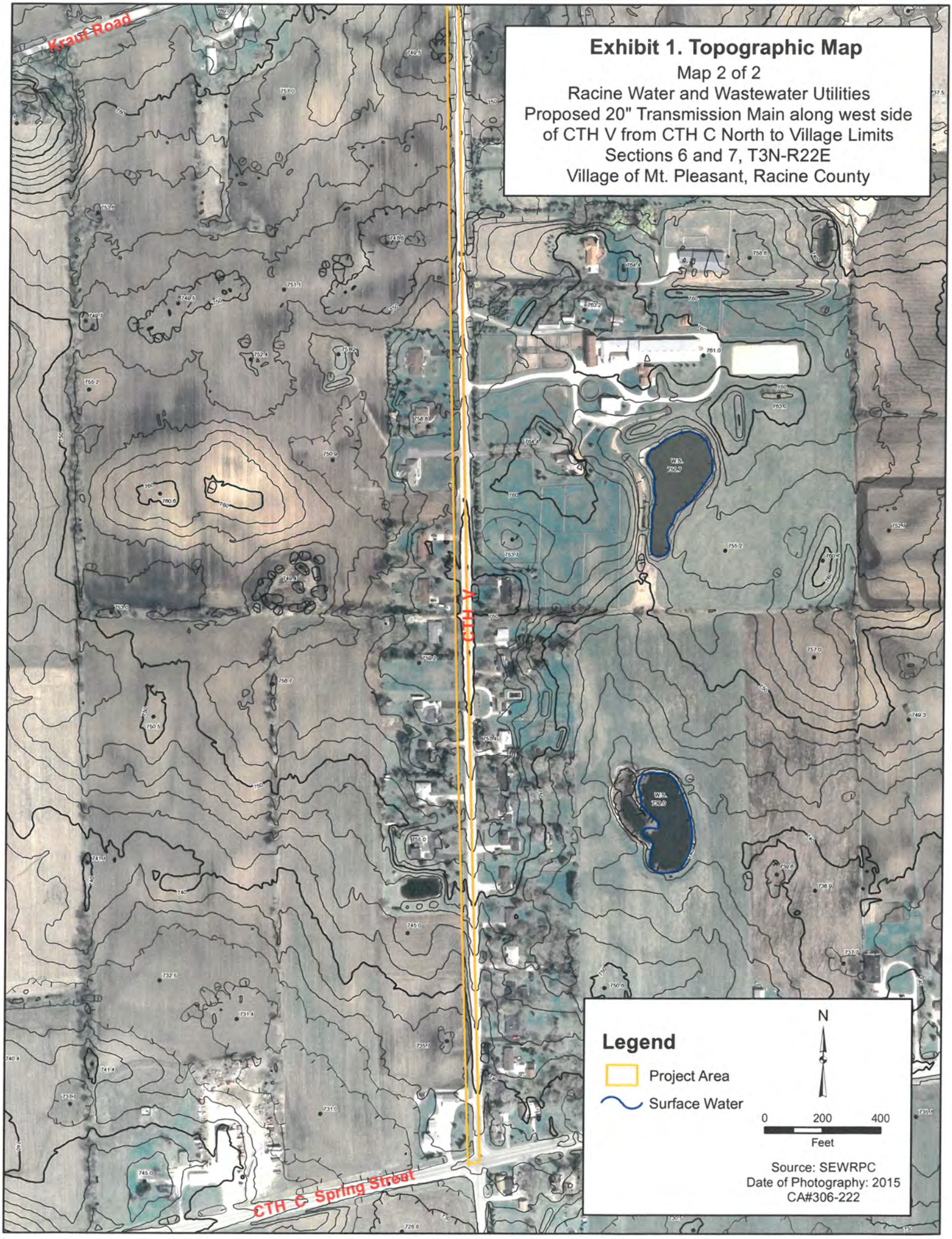

Exhibit 1. Topographic Map

Map 2 of 2
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County

Legend

- Project Area
- Surface Water

N

0 200 400
Feet

Source: SEWRPC
Date of Photography: 2015
CA#306-222

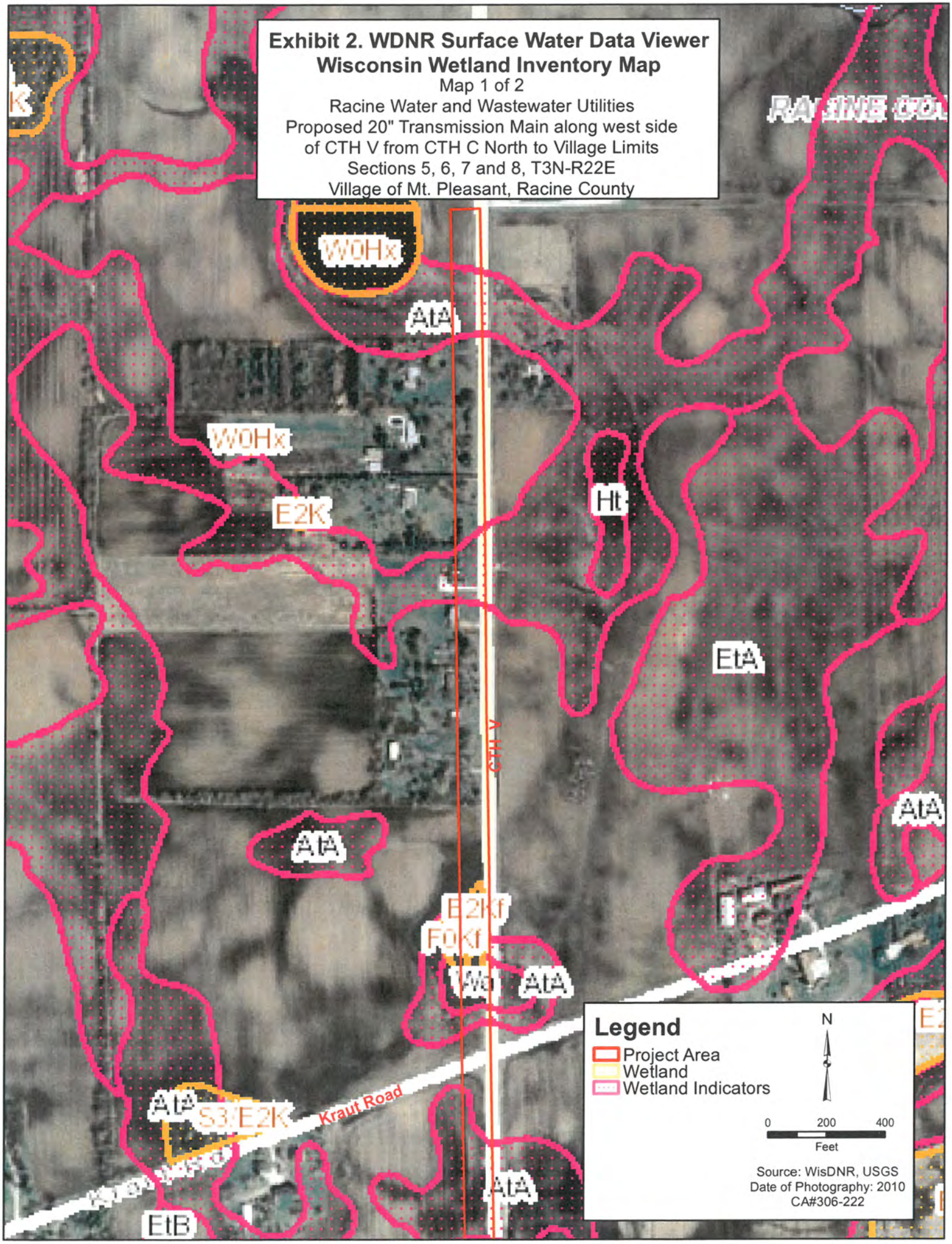
Exhibit 2. WDNR Surface Water Data Viewer
Wisconsin Wetland Inventory Map
Map 1 of 2
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 5, 6, 7 and 8, T3N-R22E
Village of Mt. Pleasant, Racine County
W0Hx
AtA
W0Hx
E2K
Ht
EtA
CTH V
AtA
AtA
E2Kf
F0Kf
Wb
AtA
AtA
S3E2K
Kraut Road
AtA
EtB
Legend
Project Area
Wetland
Wetland Indicators
N
0
200
400
Feet
Source: WisDNR, USGS
Date of Photography: 2010
CA#306-222

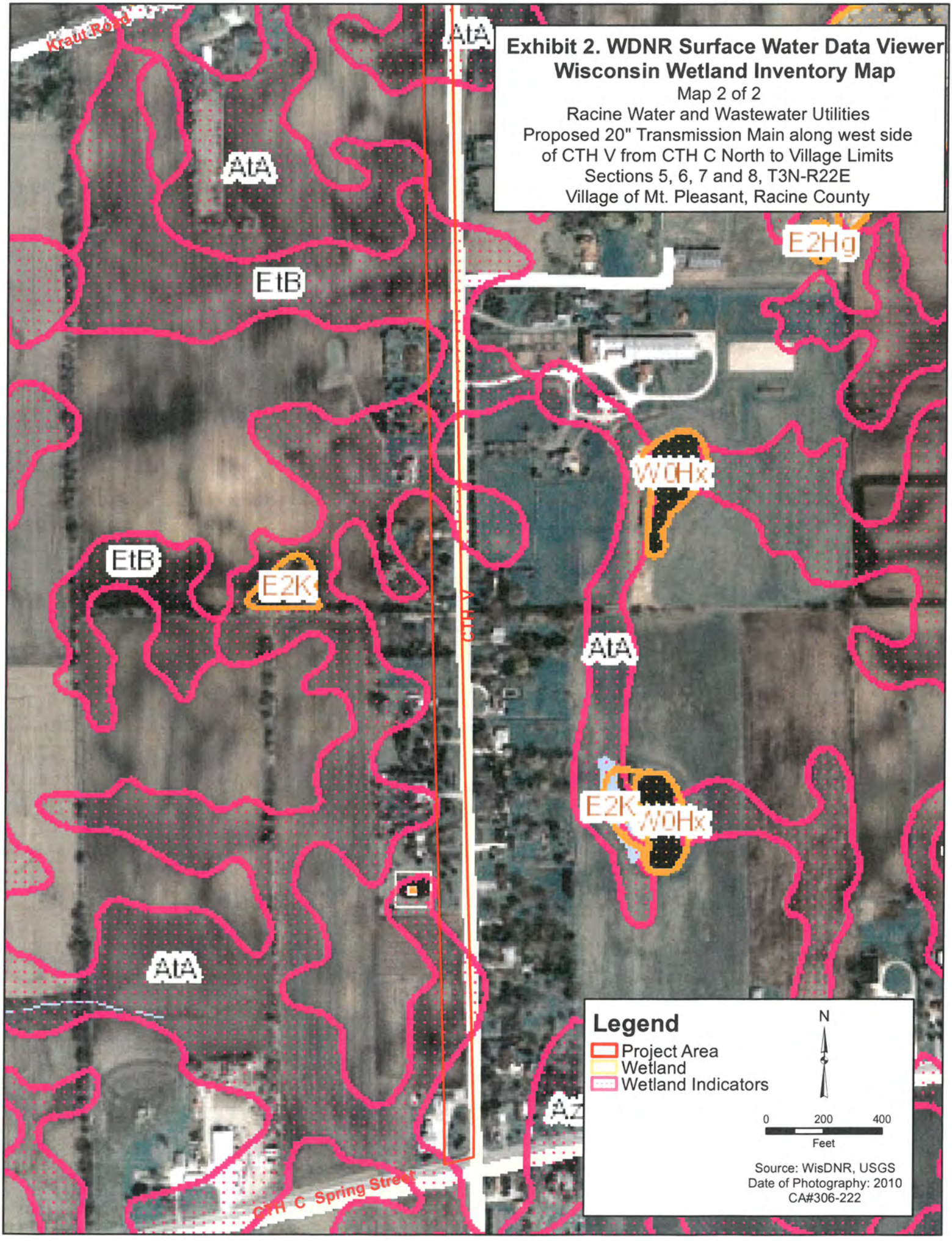
Exhibit 2. WDNR Surface Water Data Viewer
Wisconsin Wetland Inventory Map
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Sections 5, 6, 7 and 8, T3N-R22E
Village of Mt. Pleasant, Racine County
Kraut Road
CTH V
CTH C Spring Street
AtA
EtB
E2Hg
W0Hx
E2K
Legend
Project Area
Wetland
Wetland Indicators
N
0
200
400
Feet
Source: WisDNR, USGS
Date of Photography: 2010
CA#306-222

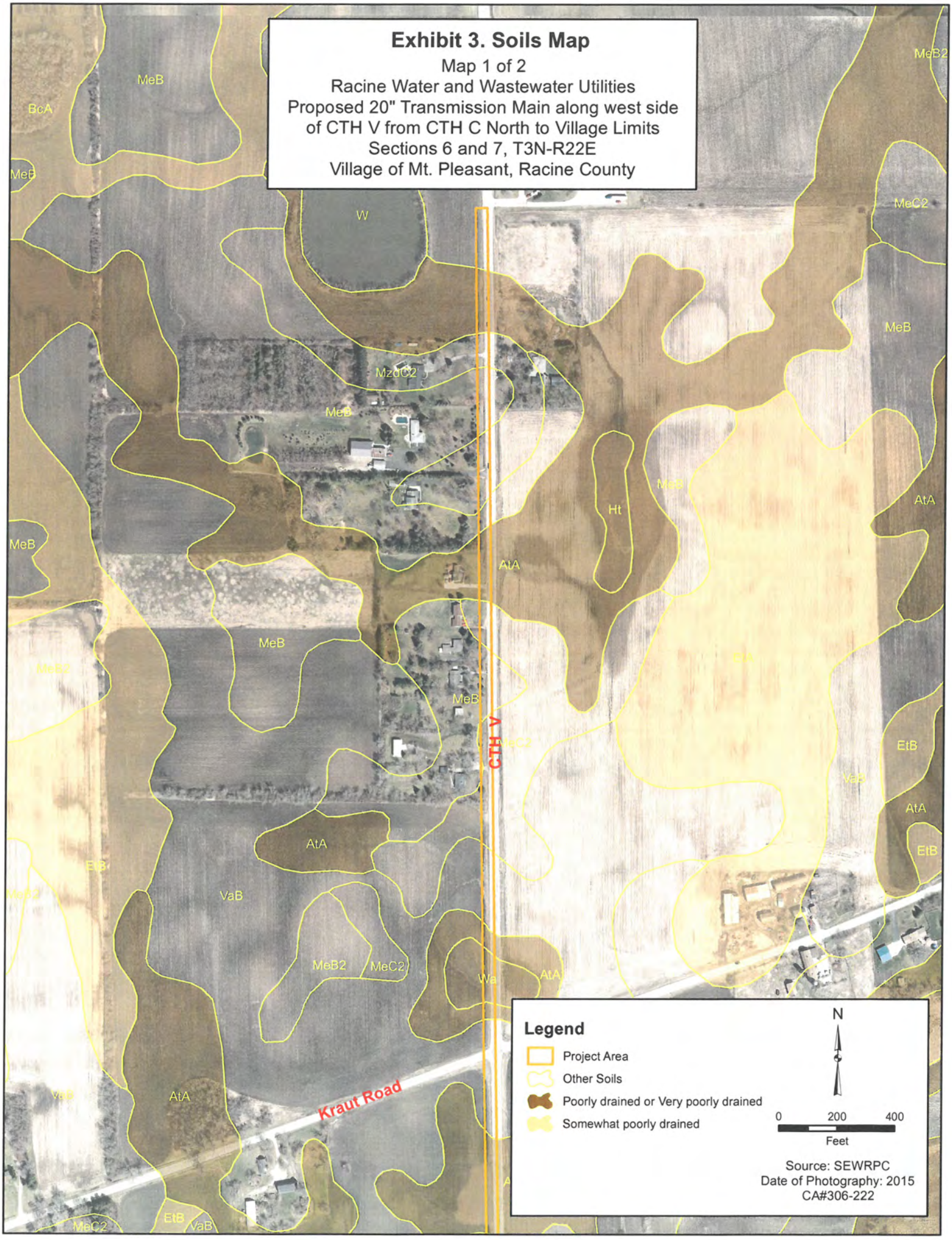
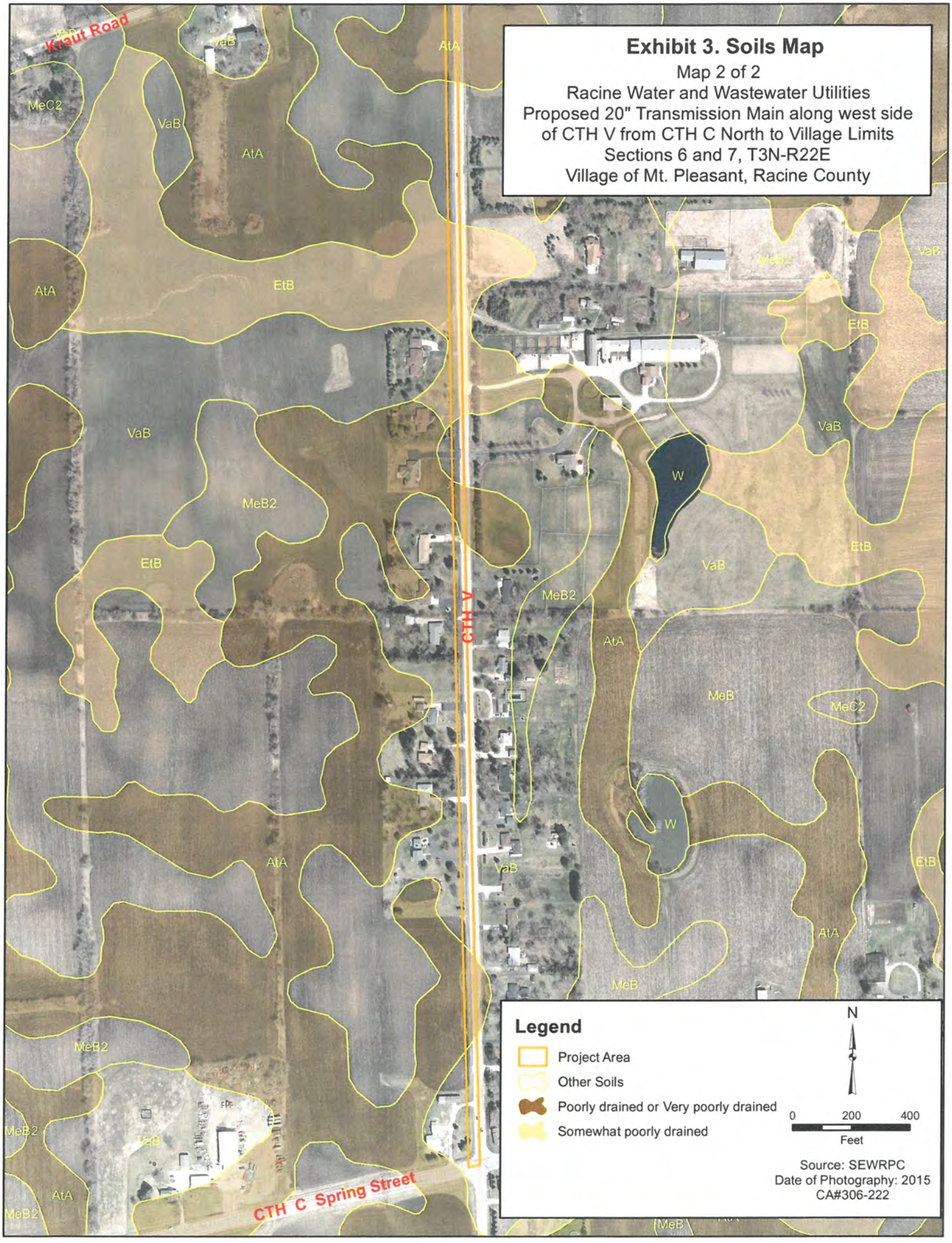


Exhibit 3. Soils Map
Map 1 of 2
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
MeB
BcA
MeB2
W
MeC2
MzdC2
Ht
AtA
VaB
EtB
CTH V
Kraut Road
Wa
Legend
Project Area
Other Soils
Poorly drained or Very poorly drained
Somewhat poorly drained
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 2015
CA#306-222


Kraut Road
CTH V
CTH C Spring Street
MeC2
VaB
AtA
EtB
MeB2
W
MeB
Exhibit 3. Soils Map
Map 2 of 2
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
Legend
Project Area
Other Soils
Poorly drained or Very poorly drained
Somewhat poorly drained
N
0
200
400
Feet
Source: SEWRPC
Date of Photography: 2015
CA#306-222

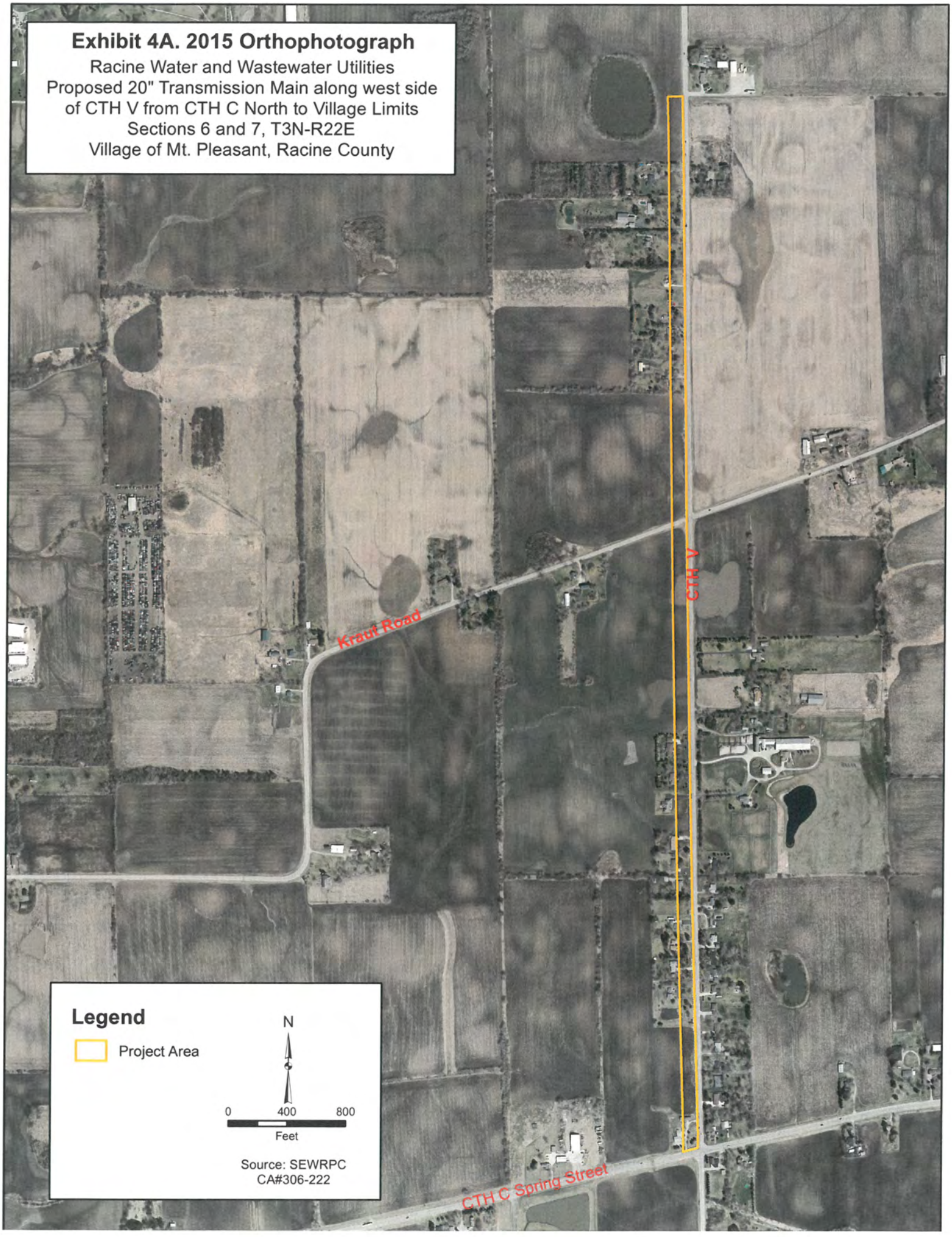


Exhibit 4A. 2015 Orthophotograph
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
Kraut Road
CTH V
CTH C Spring Street
Legend
Project Area
N
0
400
800
Feet
Source: SEWRPC
CA#306-222

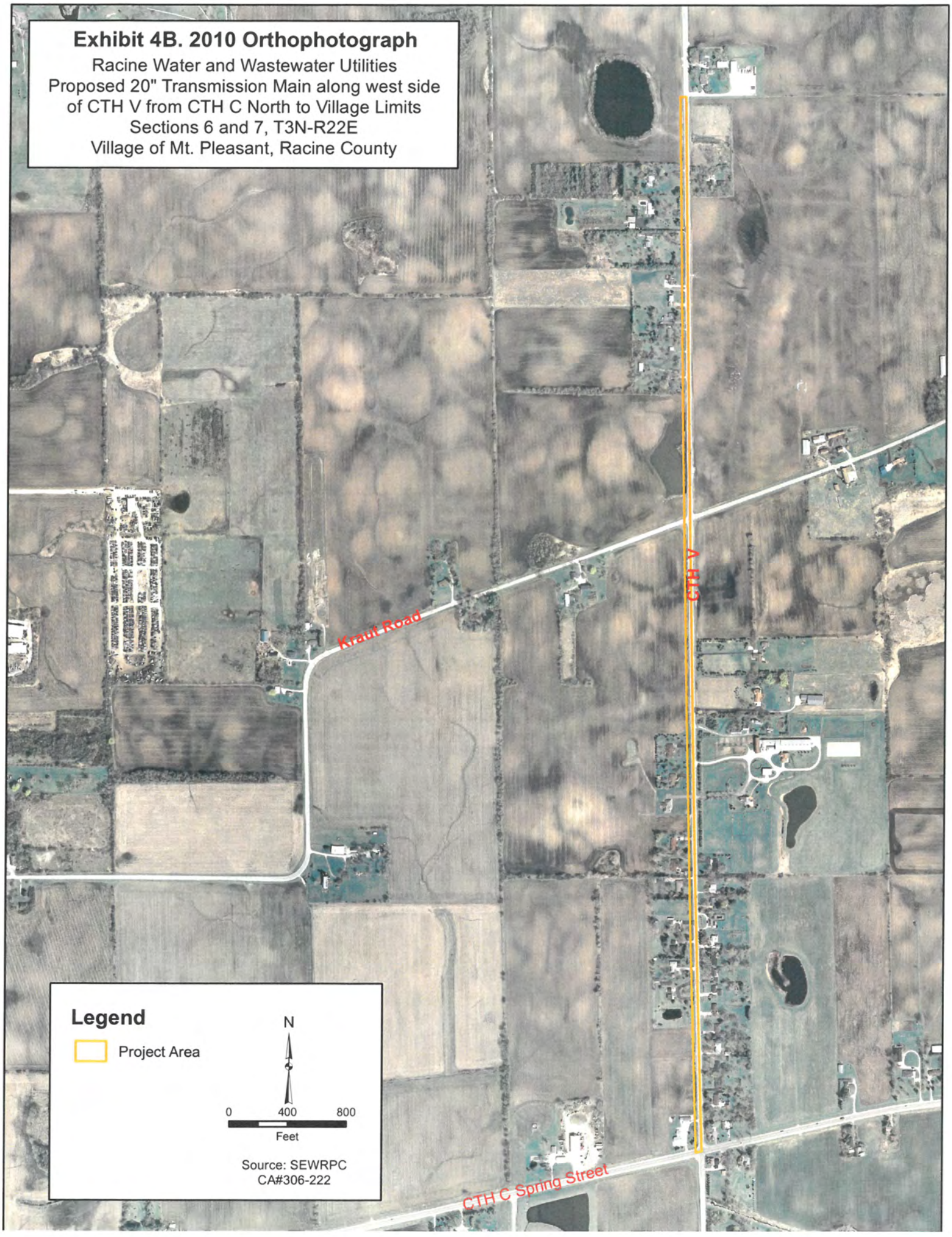


Exhibit 4B. 2010 Orthophotograph
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
CTH V
Kraut Road
CTH C Spring Street
Legend
Project Area
N
0
400
800
Feet
Source: SEWRPC
CA#306-222

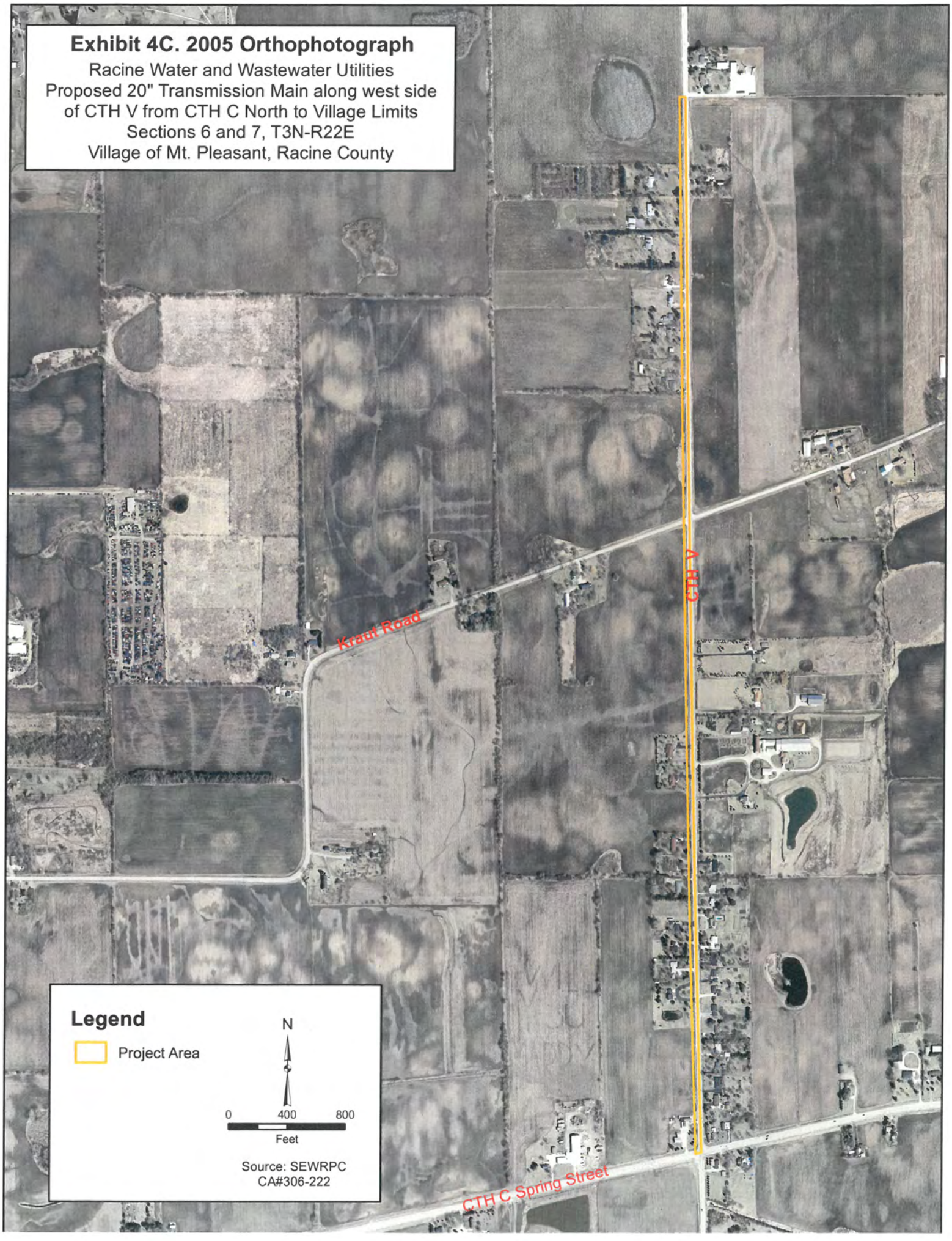


Exhibit 4C. 2005 Orthophotograph
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
CTH V
Kraut Road
CTH C Spring Street
Legend
Project Area
N
0
400
800
Feet
Source: SEWRPC
CA#306-222

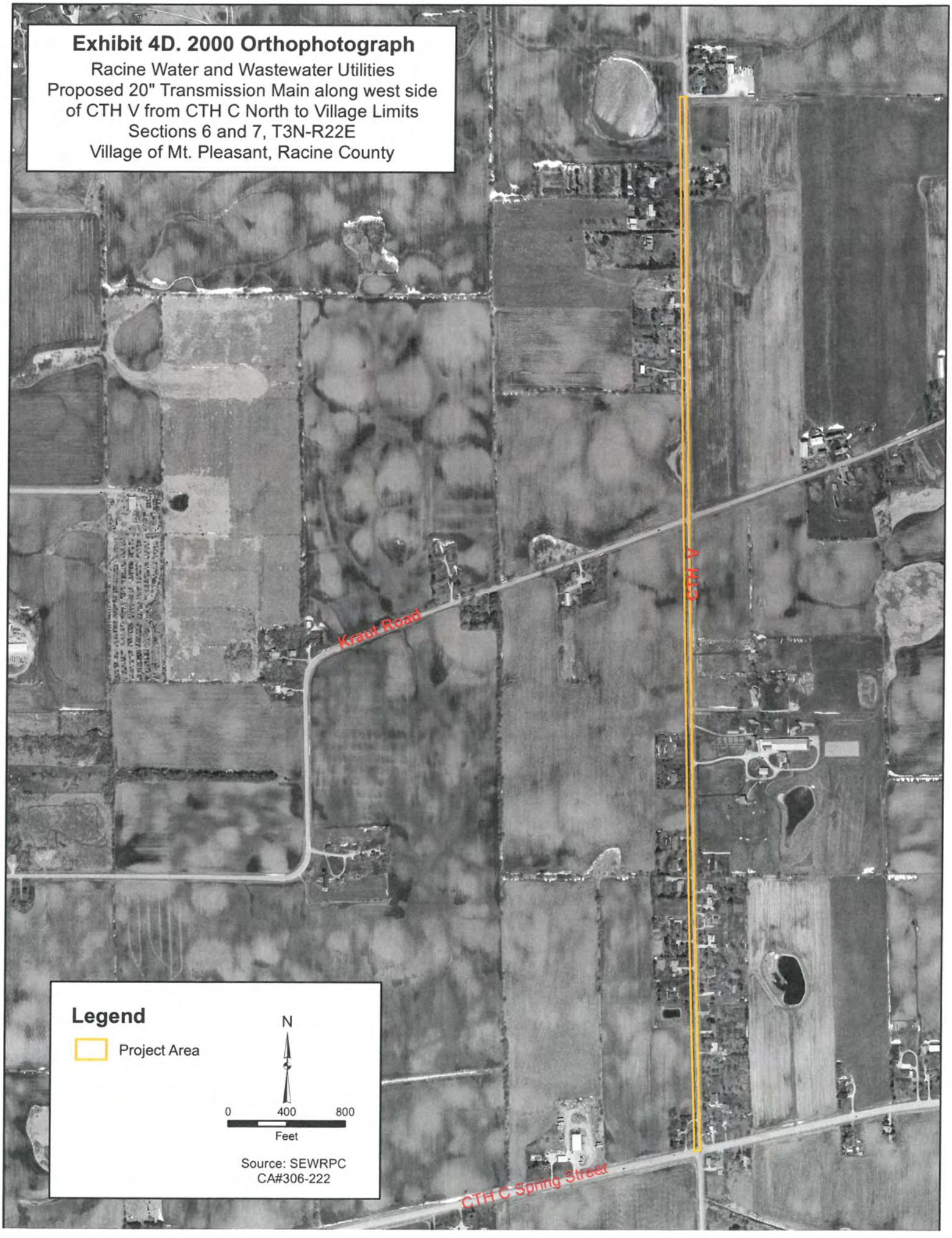


Exhibit 4D. 2000 Orthophotograph
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
CTH V
Kraut Road
CTH C Spring Street
Legend
Project Area
N
0
400
800
Feet
Source: SEWRPC
CA#306-222

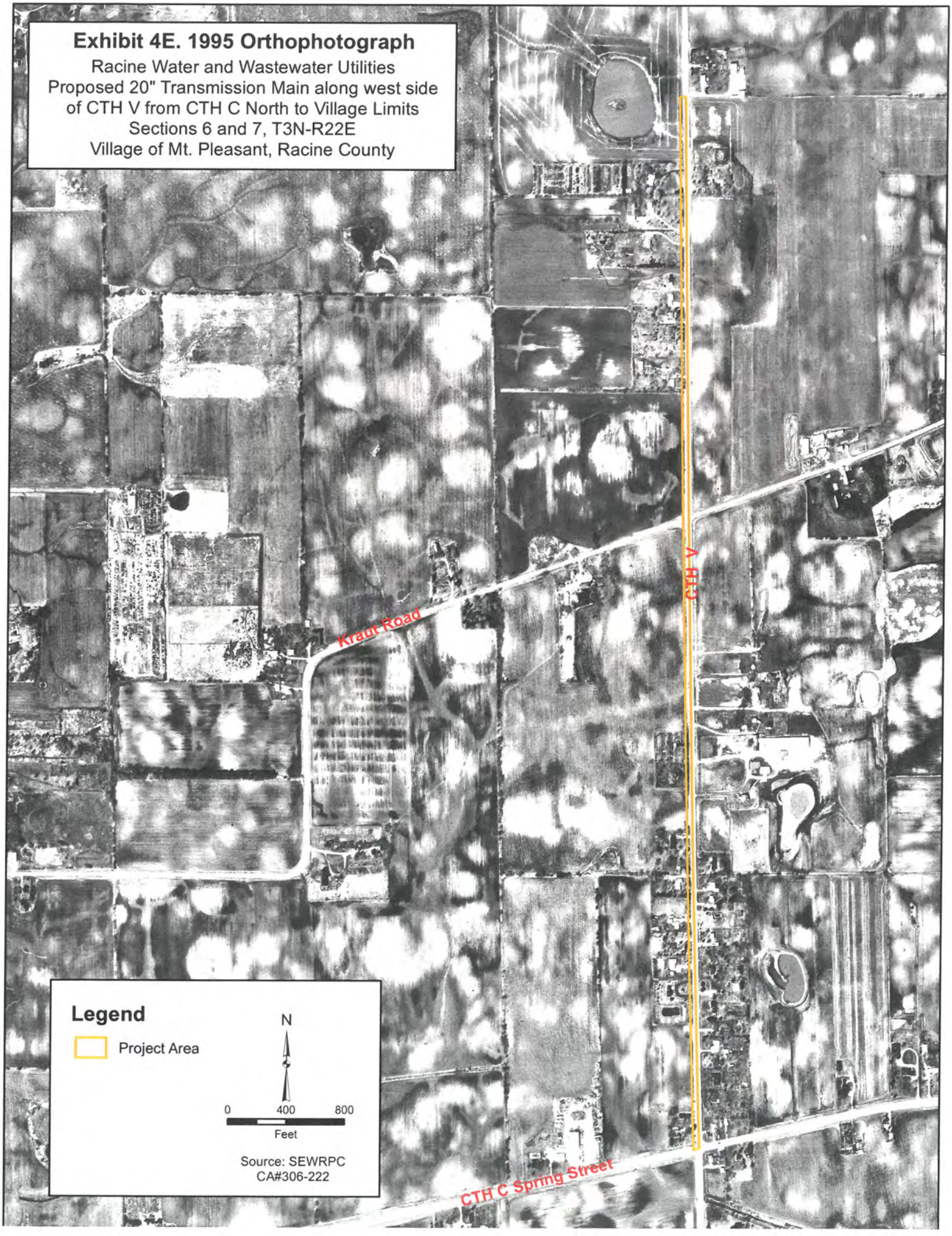


Exhibit 4E. 1995 Orthophotograph
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
Kraut Road
CTH V
CTH C Spring Street
Legend
Project Area
N
0
400
800
Feet
Source: SEWRPC
CA#306-222

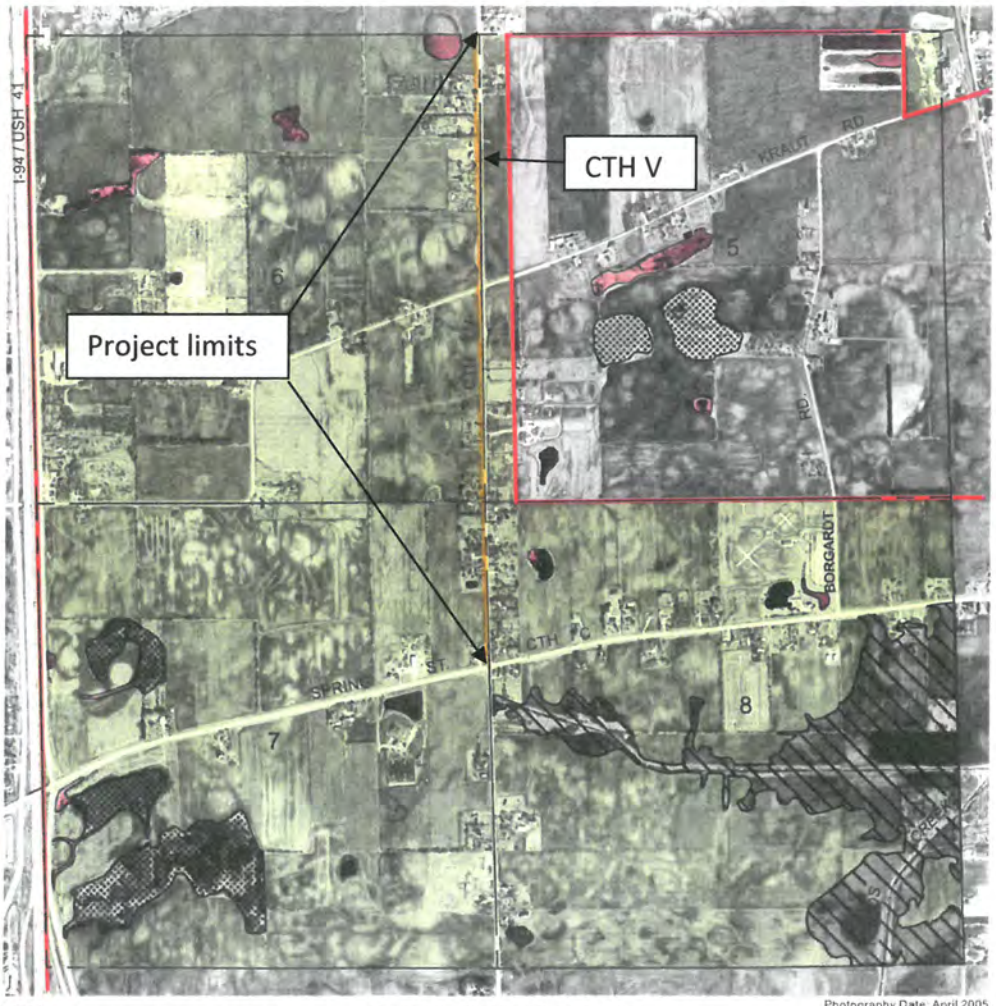
EXHIBIT 5. Sanitary Sewer Service Map

Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from STH C North to Village Limits
Sections 6 and 7, T3N, R22E
Village of Caledonia, Racine County

Map 13

ENVIRONMENTALLY SIGNIFICANT LANDS AND PLANNED SANITARY SEWER SERVICE AREA FOR THE CITY OF RACINE AND ENVIRONS

U. S. Public Land Survey Sections 5, 6, 7, and 8
Township 3 North, Range 22 East



Photography Date: April 2005

SECONDARY ENVIRONMENTAL CORRIDOR

ISOLATED NATURAL RESOURCE AREA

WETLANDS AND SURFACE WATER AREAS LESS THAN FIVE ACRES IN SIZE

GROSS SANITARY SEWER SERVICE AREA BOUNDARY

PLANNED SANITARY SEWER SERVICE AREA

RESTRICTIONS ON SEWERED DEVELOPMENT

PORTIONS OF SECONDARY ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS WITHIN THE PLANNED SANITARY SEWER SERVICE AREA WHICH ARE COMPRISED OF WETLANDS, FLOODLANDS, SHORELANDS AND STEEP SLOPES. THE EXTENSION OF SEWERS TO SERVE NEW DEVELOPMENT IN THESE AREAS IS NOT PERMITTED.

NOTE: This map replaces Map 9, page 42, of SEWRPC Community Assistance Planning Report No. 147 (2nd Edition), *Sanitary Sewer Service Area for the City of Racine and Environs, Racine and Kenosha Counties*, Wisconsin, June 2001.

GRAPHIC SCALE

Source: SEWRPC

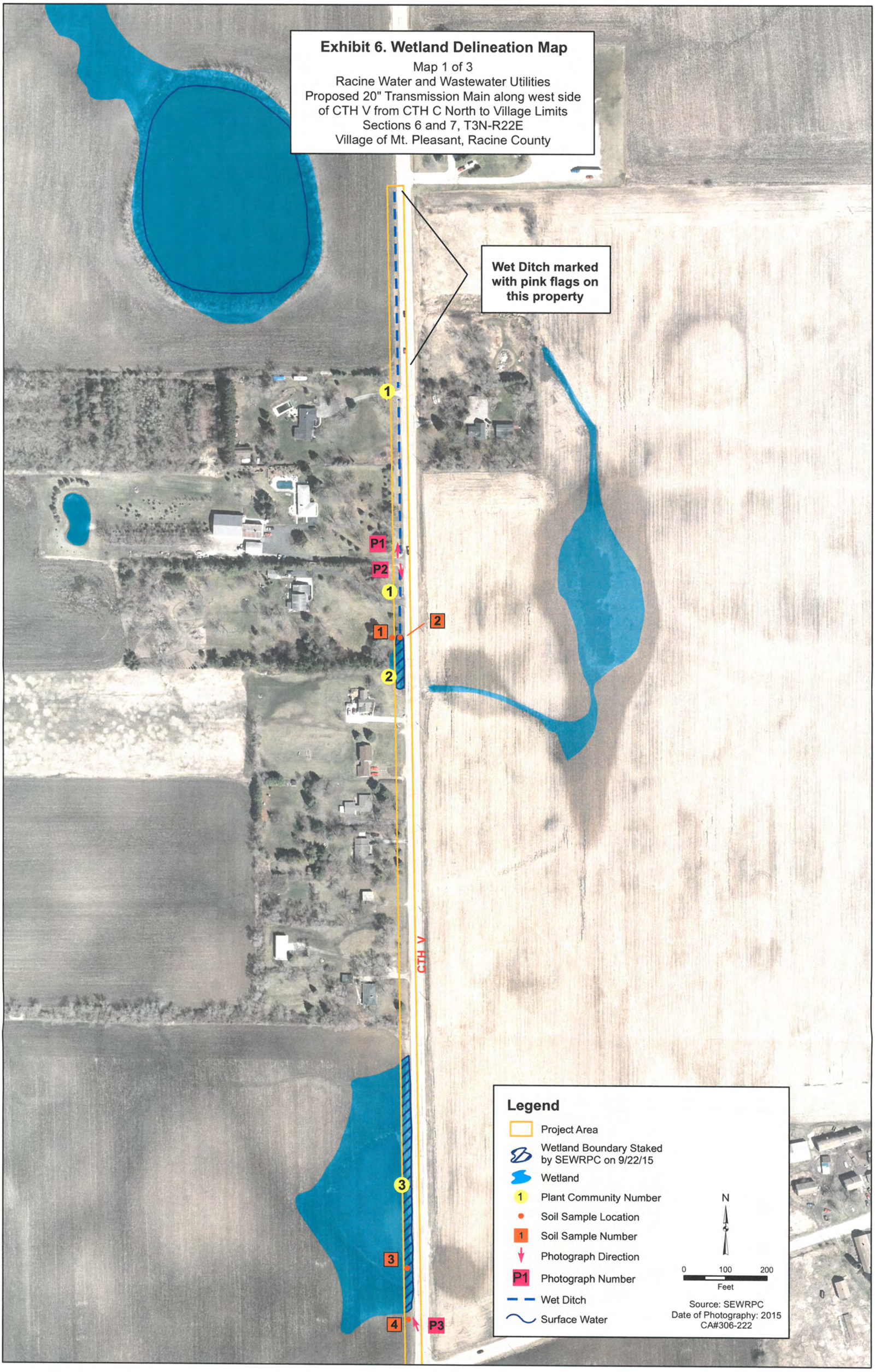


Exhibit 6. Wetland Delineation Map
Map 1 of 3
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
Wet Ditch marked with pink flags on this property
CTH V
Legend
Project Area
Wetland Boundary Staked by SEWRPC on 9/22/15
Wetland
Plant Community Number
Soil Sample Location
Soil Sample Number
Photograph Direction
Photograph Number
Wet Ditch
Surface Water
N
0
100
200
Feet
Source: SEWRPC
Date of Photography: 2015
CA#306-222


Exhibit 6. Wetland Delineation Map
Map 2 of 3
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
Kraut Road
CTH V
4
P3
5
4
P4
6
Legend
Project Area
Wetland Boundary Staked by SEWRPC on 9/22/15
Wetland
1 Plant Community Number
Soil Sample Location
1 Soil Sample Number
Photograph Direction
P1 Photograph Number
Wet Ditch
Surface Water
N
0 100 200
Feet
Source: SEWRPC
Date of Photography: 2015
CA#306-222


Exhibit 6. Wetland Delineation Map
Map 3 of 3
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side
of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
CTH V
CTH C Spring Street
5
7
8
P5
Legend
Project Area
Secondary Environmental Corridor
Wetland Boundary Staked by SEWRPC on 9/22/15
Wetland
1 Plant Community Number
Soil Sample Location
1 Soil Sample Number
Photograph Direction
P1 Photograph Number
Wet Ditch
Surface Water
Flow Direction
N
0 100 200
Feet
Source: SEWRPC
Date of Photography: 2015
CA#306-222

SVY4214
CA306-222

EXHIBIT 7

PRELIMINARY VEGETATION SURVEY
RACINE WATER AND WASTEWATER UTILITIES
PROPOSED 20" TRANSMISSION MAIN ALONG WEST SIDE OF CTH V FROM CTH C NORTH TO VILLAGE LIMITS

Date: September 22, 2015

Observers: Daniel L. Carter, Ph.D., Principal Biologist
Christopher J. Jors, Senior Biologist
Jennifer Dietl, Biologist
Southeastern Wisconsin Regional Planning Commission

Location: Village of Mount Pleasant in parts of U.S. Public Land Survey Sections 6 and 7, Township 3 North, Range 22 East, Racine County, Wisconsin.

Species List: Plant Community Area (PCA) No. 1 – Native Species
Co-dominant species

Ambrosia artemisiifolia--Common ragweed
Ambrosia trifida--Giant ragweed
Apocynum cannabinum--Indian hemp
Asclepias syriaca--Common milkweed
Scirpus atrovirens--Green bulrush
Solidago altissima--Tall goldenrod

NON-Native Species

Agrostis stolonifera--Creeping bentgrass
Amaranthus sp.--Pigweed
Arctium minus—Burdock
Daucus carota--Queen Anne's lace
Lactuca serriola--Prickly wild lettuce
***Phalaris arundinacea*--Reed canary grass**
Poa pratensis--Kentucky bluegrass
Sonchus arvensis--Sow thistle

Total number of plant species: 14
Number of alien, or non-native, plant species: 8 (57 percent)

This plant community area consists of a wet ditch with fresh (wet) meadow. Disturbances to the plant community area include mowing and water level changes due to ditching and draining. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 2 – Native Species

Ambrosia artemisiifolia--Common ragweed
Apocynum cannabinum--Indian hemp
Prunella vulgaris--Selfheal

NON-Native Species

***Agrostis stolonifera*--Creeping bentgrass**
Glechoma hederacea--Creeping Charlie
Lactuca serriola--Prickly wild lettuce
***Phalaris arundinacea*--Reed canary grass**
Plantago major--Common plantain
***Poa pratensis*--Kentucky bluegrass**
Taraxacum officinale--Common dandelion

Total number of plant species: 10
Number of alien, or non-native, plant species: 7 (70 percent)

This approximately 0.05-acre wetland plant community area consists of atypical (mowed) wetland and fresh (wet) meadow. Disturbances to the plant community area include mowing and water level changes due to ditching and draining. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 3 – Native Species

Bidens vulgata--Tall beggars-ticks
***Persicaria pensylvanica*--Pinkweed**
Sambucus nigra--Elderberry

NON-Native Species

Cirsium arvense--Canada thistle
Echinochloa crusgalli--Barnyard grass
Phalaris arundinacea--Reed canary grass
Setaria faberi--Giant foxtail
Solanum dulcamara--Deadly nightshade
Solidago sempervirens--Seaside goldenrod

Total number of plant species: 9
Number of alien, or non-native, plant species: 6 (67 percent)

This approximately 0.9-acre plant community area is part of a larger wetland complex and consists of atypical (farmed) wetland. Disturbances to the plant community area include siltation and sedimentation due to stormwater run-off from adjacent lands, water level changes due to ditching and draining, and agricultural land management activities such as plowing. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 4 – Native Species

Persicaria amphibia--Water smartweed
***Persicaria pensylvanica*--Pinkweed**

NON-Native Species

Bromus inermis--Smooth brome grass
Cirsium arvense--Canada thistle
Phalaris arundinacea--Reed canary grass

Total number of plant species: 5
Number of alien, or non-native, plant species: 3 (60 percent)

This approximately 0.08-acre plant community area is part of a larger wetland complex and consists of atypical (farmed) wetland. Disturbances to the plant community area include siltation and sedimentation due to stormwater run-off from adjacent lands, water level changes due to ditching and draining, and agricultural land management activities such as plowing and herbicide application. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

Plant Community Area No. 5 – Native Species

Chenopodium album--Lambs quarters
***Panicum dichotomiflorum*--Knee grass**

NON-Native Species

Daucus carota--Queen Anne's lace
Echinochloa crusgalli--Barnyard grass
Glycine max--Soy-bean (planted)
Portulaca oleracea--Purslane
Puccinellia distans--Alkali grass
Senecio vulgaris--Common groundsel
***Sonchus arvensis*--Sow thistle**
Taraxacum officinale--Common dandelion

Total number of plant species: 10
Number of alien, or non-native, plant species: 8 (80 percent)

This approximately 0.08-acre plant community area is part of a larger wetland complex and consists of atypical (farmed) wetland. Disturbances to the plant community area include siltation and sedimentation due to stormwater run-off from adjacent lands, and agricultural land management activities such as plowing and herbicide application. No Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection.

EXHIBIT 8

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Racine Water & Wastewater Utilities along CTH V City/County: Village of Mt. Pleasant/Racine County Sampling Date: 09/22/2015
Applicant/Owner: ____ State: WI Sampling Point: 1
Investigator(s): Jen Dietl and Dan Carter; SEWRPC Section, Township, Range: Section 6, T3N, R22E
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none
Slope (%): 0-3% Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Ashkum silty clay loam (AtA) NWI classification: none
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ **No** ☒ (If no, explain in Remarks)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☐Yes	☒**No**	**Is the Sampled Area within a Wetland?**	☐ Yes	☒**No**
Hydric Soils Present?	☐Yes	☒**No**			
Wetland Hydrology Present?	☐Yes	☒**No**			

Remarks: Antecedent hydrologic conditions drier than normal.

VEGETATION – Use scientific names of plants.

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

Sapling/Shrub Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
	0	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Poa pratensis	**50**	☒	**FAC**
2. Taraxacum officinale	**30**	☒	**FACU**
3. Plantago major	15	☐	FAC
4. Prunella vulgaris	15	☐	FAC
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
	110	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
	0	= Total Cover	

Dominance Test worksheet:

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

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

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

Prevalence Index worksheet:

Total % Cover of:			Multiply by:	
OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	80	x 3 =	240	
FACU species	30	x 4 =	120	
UPL species	0	x 5 =	0	
Column Totals:	110	(A)	360	(B)

Prevalence Index = B/A = 3.3

Hydrophytic Vegetation Indicators:

☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

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

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
0-22	10YR 2/1	100					Loam	
22-28	10YR 2/1	50	10YR 4/2	10	D	M	Clay loam	
	10YR 3/1	40						
28-34	10YR 2/1	90					Silty clay loam	
	2.5Y 4/2	5	10YR 4/6	5	C	M	Loam	
34-38	10YR 2/1	100					Loam	

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ 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): ____

Hydric Soil Present? Yes ☐ **No** ☒

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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

Water Table Present? Yes ☐ No ☒ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 35

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), and aerial photos (Exhibit 4).

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Racine Water & Wastewater Utilities along CTH V City/County: Village of Mt. Pleasant/Racine County Sampling Date: 09/22/2015
Applicant/Owner: ____ State: WI Sampling Point: 2
Investigator(s): Jen Dietl and Dan Carter; SEWRPC Section, Township, Range: Section 6, T3N, R22E
Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): slightly concave
Slope (%): 0-3% Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Ashkum silty clay loam (AtA) NWI classification: none
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ **No** ☒ (If no, explain in Remarks)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No			

Remarks: Antecedent hydrologic conditions drier than normal.

VEGETATION – Use scientific names of plants.

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

Sapling/Shrub Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
	0	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Agrostis stolonifera	**50**	☒	**FACW**
2. Poa pratensis	**30**	☒	**FAC**
3. Prunella vulgaris	15	☐	FAC
4. Taraxacum officinale	10	☐	FACU
5. Trifolium repens	5	☐	FACU
6. ____	____	☐	____
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
	110	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ **2 - Dominance Test is >50%**
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

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

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
0-7	10YR 2/1	100					Silty clay loam	
7-19	10YR 2/1	90					Clay loam	
	5Y 5/2	5	10YR 5/6	5	C	PL M	Clay	
19-28	10YR 4/1	50	10YR 4/6	20	C	PL M	Clay	
	10YR 2/1	30					Clay loam	

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☒ **Thick Dark Surface (A12)**
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ 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): ____

Hydric Soil Present? **Yes** ☒ No ☐

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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ **No** ☒ Depth (inches): ____

Water Table Present? Yes ☐ **No** ☒ Depth (inches): ____

Saturation Present? (includes capillary fringe) **Yes** ☒ No ☐ Depth (inches): 22

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), and aerial photos (Exhibit 4).

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Racine Water & Wastewater Utilities along CTH V City/County: Village of Mt. Pleasant/Racine County Sampling Date: 09/22/2015
Applicant/Owner: ____ State: WI Sampling Point: 3
Investigator(s): Jen Dietl and Dan Carter; SEWRPC Section, Township, Range: Section 6, T3N, R22E
Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): slightly concave
Slope (%): 0-2% Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Wallkill silt loam (Wa) NWI classification: E2Kf
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ **No** ☒ (If no, explain in Remarks)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No			

Remarks: Antecedent hydrologic conditions drier than normal.

VEGETATION – Use scientific names of plants.

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

Sapling/Shrub Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
	0	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Persicaria pensylvanica	**80**	☒	**FACW**
2. Solanum dulcamara	20	☐	FAC
3. Bidens vulgata	15	☐	FACW
4. Cirsium arvexe	5	☐	FACU
5. Echinochloa crus-galli	5	☐	FACW
6. Setaria faberi	5	☐	FACU
7. Phalaris arundinacea	3	☐	FACW
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
	133	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (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:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ **2 - Dominance Test is >50%**
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

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

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
0-9	10YR 2/1	98	7.5YR 5/3	2	C	PL M	Clay loam	
9-25	10YR 2/1	98	7.5YR 5/3	2	C	PL M	Loam	
25-34	7.5YR 2.5/2	100					Muck	

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ **Redox Dark Surface (F6)**
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ 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): ____

Hydric Soil Present? **Yes** ☒ No ☐

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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ **No** ☒ Depth (inches): ____

Water Table Present? Yes ☐ **No** ☒ Depth (inches): ____

Saturation Present? (includes capillary fringe) **Yes** ☒ No ☐ Depth (inches): 9

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), and aerial photos (Exhibit 4).

Remarks: FSA slide review for agricultural lands included in this sample point indicate that 8 out of 9 (89%) normal years show signatures of saturation.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Racine Water & Wastewater Utilities along CTH V City/County: Village of Mt. Pleasant/Racine County Sampling Date: 09/22/2015
Applicant/Owner: ____ State: WI Sampling Point: 4
Investigator(s): Jen Dietl and Dan Carter; SEWRPC Section, Township, Range: Section 6, T3N, R22E
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none
Slope (%): 0-3% Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Ashkum silty clay loam (AtA) NWI classification: none
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ **No** ☒ (If no, explain in Remarks)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☐Yes	☒**No**	**Is the Sampled Area within a Wetland?**	☐ Yes	☒**No**
Hydric Soils Present?	☒**Yes**	☐No			
Wetland Hydrology Present?	☐Yes	☒**No**			

Remarks: Antecedent hydrologic conditions drier than normal. Sample point located in an agricultural field currently planted in kale.

VEGETATION – Use scientific names of plants.

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

Sapling/Shrub Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
	0	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Brassica oleracea (planted)	**40**	☒	**UPL**
2. Cirsium arvense	10	☐	FACU
3. Ambrosia artemisiifolia	3	☐	FACU
4. Hibiscus trionum	3	☐	UPL
5. Amaranthus retroflexus	2	☐	FACU
6. Abutilon theophrasti	1	☐	FACU
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
	59	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
	____	= 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:

☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

Remarks: (Include photo numbers here or on a separate sheet.) Agricultural field planted in kale.

SOIL

Sampling Point: 4

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	60					Clay loam	
	10YR 5/1	30						
	10YR 2/1	10						
8-25	N 1/0	98	7.5YR 2.5/3	2		PL M	Clay loam	

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ **Redox Dark Surface (F6)**
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ 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): ____

Hydric Soil Present? **Yes** ☒ No ☐

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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ **No** ☒ Depth (inches): ____

Water Table Present? Yes ☐ **No** ☒ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ☐ **No** ☒ Depth (inches): ____

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), and aerial photos (Exhibit 4).

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Racine Water & Wastewater Utilities along CTH V City/County: Village of Mt. Pleasant/Racine County Sampling Date: 09/22/2015
Applicant/Owner: ____ State: WI Sampling Point: 5
Investigator(s): Jen Dietl and Dan Carter; SEWRPC Section, Township, Range: Section 6, T3N, R22E
Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): slightly concave
Slope (%): 0-3% Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Ashkum silty clay loam (AtA) NWI classification: none
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ **No** ☒ (If no, explain in Remarks)
Are Vegetation **X**, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No			

Remarks: Antecedent hydrologic conditions drier than normal. Disturbed vegetation due to agricultural land management activities (herbicide application).

VEGETATION – Use scientific names of plants.

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

Sapling/Shrub Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
	0	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Bromus inermis	**10**	☒	**FACU**
2. Persicaria pensylvanica	--	☐	FACW
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
	10	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☒ **5 - Problematic Hydrophytic Vegetation[1] (Explain)**

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

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.) Very little vegetation present due to recent herbicide application. Bromus inermis was very light green in color and all of the Persicaria pensylvanica was dead. Problematic hydrophytic vegetation present due to agricultural land management activities (herbicide). Indicators of hydric soils and wetland hydrology are present. Atypical (farmed) wetland.

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)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	100					Clay loam	
20-28	10YR 2/1	95					Clay loam	
	10YR 4/2	3	10YR 4/6	2	C	PL M		
28-35	2.5Y 4/2	60	10YR 4/6	30	C	PL M	Silt loam	with gravel
	10YR 2/1	10						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☒ **Thick Dark Surface (A12)**
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ 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): ____

Hydric Soil Present? **Yes** ☒ No ☐

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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ **No** ☒ Depth (inches): ____

Water Table Present? Yes ☐ **No** ☒ Depth (inches): ____

Saturation Present? (includes capillary fringe) **Yes** ☒ No ☐ Depth (inches): 7

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), and aerial photos (Exhibit 4).

Remarks: FSA slide review indicates that 8 out of 9 (89%) normal years show signatures of saturation.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Racine Water & Wastewater Utilities along CTH V City/County: Village of Mt. Pleasant/Racine County Sampling Date: 09/22/2015
Applicant/Owner: ____ State: WI Sampling Point: 6
Investigator(s): Jen Dietl and Dan Carter; SEWRPC Section, Township, Range: Section 6, T3N, R22E
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): ____
Slope (%): 2-6% Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Elliott silty clay loam (EtB) NWI classification: none
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ **No** ☒ (If no, explain in Remarks)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☐Yes	☒**No**	**Is the Sampled Area within a Wetland?**	☐ Yes	☒**No**
Hydric Soils Present?	☒**Yes**	☐No			
Wetland Hydrology Present?	☐Yes	☒**No**			

Remarks: Antecedent hydrologic conditions drier than normal. Disturbed vegetation due to agricultural land management activities.

VEGETATION – Use scientific names of plants.

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

Sapling/Shrub Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
	0	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Bromus inermis	**80**	☒	**FACU**
2. Cirsium arvense	15	☐	FACU
3. Abutilon theophrasti	1	☐	FACU
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
	96	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
	0	= Total Cover	

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 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:

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☐ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

Remarks: (Include photo numbers here or on a separate sheet.) Edge of agricultural field.

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)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 2/1	100					Clay	
11-25	2.5Y 4/2	85	7.5YR 4/6	5	C	PL M	Clay	
	10YR 2/1	10						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ 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): ____

Hydric Soil Present? **Yes** ☒ No ☐

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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ **No** ☒ Depth (inches): ____

Water Table Present? Yes ☐ **No** ☒ Depth (inches): ____

Saturation Present? (includes capillary fringe) **Yes** ☒ No ☐ Depth (inches): 4-11*

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), and aerial photos (Exhibit 4).

Remarks: *Soils saturated from 4 to 11 inches but not from 11 to 25 inches. FSA slide review indicates that 6 out of 9 (67%) normal years show signatures of saturation.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Racine Water & Wastewater Utilities along CTH V City/County: Village of Mt. Pleasant/Racine County Sampling Date: 09/22/2015
Applicant/Owner: ____ State: WI Sampling Point: 7
Investigator(s): Jen Dietl and Dan Carter; SEWRPC Section, Township, Range: Section 7, T3N, R22E
Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): slightly concave
Slope (%): 0-3% Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Ashkum silty clay loam (AtA) NWI classification: none
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ **No** ☒ (If no, explain in Remarks)
Are Vegetation **X**, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ☐ **No** ☒
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☒ **Yes**	☐ No	**Is the Sampled Area within a Wetland?**	☒ **Yes**	☐ No
Hydric Soils Present?	☒ **Yes**	☐ No			
Wetland Hydrology Present?	☒ **Yes**	☐ No			

Remarks: Antecedent hydrologic conditions drier than normal. Disturbed vegetation due to agricultural land management activities (managed plant community) obscuring a hydrophytic plant community.

VEGETATION – Use scientific names of plants.

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

Sapling/Shrub Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
	0	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**20**	☒	**UPL**
2. Taraxacum officinale	**15**	☒	**FACU**
3. Echinochloa crus-galli	10	☐	FACW
4. Panicum capillare	5	☐	FAC
5. Portulaca oleracea	5	☐	FACU
6. Chenopodium album	3	☐	FACU
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
	58	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (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:

☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☒ **5 - Problematic Hydrophytic Vegetation[1] (Explain)**

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

Hydrophytic Vegetation Present? **Yes** ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.) Problematic hydrophytic vegetation present due to agricultural land management activities (managed plant community). Indicators of hydric soil and wetland hydrology area present. Atypical (farmed) wetland.

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)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 2/1	100					Clay loam	with grit
9-18	2.5Y 5/2	40	10YR 4/6-5/6	40	C	PL M	Sandy clay	with gravel
	10YR 2/1	10						
18-23	10YR 5/1	30	10YR 4/6	70	C	PL M	Clay	with gravel

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☒ **Depleted Below Dark Surface (A11)**
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ 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): ____

Hydric Soil Present? **Yes** ☒ No ☐

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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ **No** ☒ Depth (inches): ____

Water Table Present? **Yes** ☒ No ☐ Depth (inches): 21

Saturation Present? (includes capillary fringe) **Yes** ☒ No ☐ Depth (inches): 4

Wetland Hydrology Present? **Yes** ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), and aerial photos (Exhibit 4).

Remarks: FSA slide review indicates that 5 out of 9 (55%) normal years show signatures of saturation.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Racine Water & Wastewater Utilities along CTH V City/County: Village of Mt. Pleasant/Racine County Sampling Date: 09/22/2015
Applicant/Owner: ____ State: WI Sampling Point: 8
Investigator(s): Jen Dietl and Dan Carter; SEWRPC Section, Township, Range: Section 7, T3N, R22E
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none
Slope (%): 2-6% Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Varna silt loam (VaB) NWI classification: none
Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ **No** ☒ (If no, explain in Remarks)
Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? **Yes** ☒ No ☐
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If, needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	☐Yes	☒**No**	**Is the Sampled Area within a Wetland?**	☐ Yes	☒**No**
Hydric Soils Present?	☐Yes	☒**No**			
Wetland Hydrology Present?	☐Yes	☒**No**			

Remarks: Antecedent hydrologic conditions drier than normal. Disturbed vegetation due to agricultural land management acitivities (managed plant community).

VEGETATION – Use scientific names of plants.

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

Sapling/Shrub Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
	0	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. Glycine max (planted)	**25**	☒	**UPL**
2. Taraxacum officinale	**15**	☒	**FACU**
3. Panicum capillare	10	☐	FAC
4. Sonchus arvensis	10	☐	FACU
5. Portulaca oleracea	5	☐	FACU
6. Chenopodium album	1	☐	FACU
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
	66	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. ____	____	☐	____
2. ____	____	☐	____
	0	= Total Cover	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (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:

☐ 1 - Rapid Test for Hydrophytic Vegetation
☐ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

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

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)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100					Loam	
12-17	2.5Y 3/2	70	10YR 4/6	10	C	PL M	Clay	with grit
	10YR 2/1	20						
17-24	2.5Y 5/2	60	10YR 4/6-5/6	30	C	PL M	Sandy clay loam	with disintegrating dolomite
	2.5Y 4/1	10						

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

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ 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): ____

Hydric Soil Present? Yes ☐ **No** ☒

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)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ☐ **No** ☒ Depth (inches): ____

Water Table Present? Yes ☐ **No** ☒ Depth (inches): ____

Saturation Present? (includes capillary fringe) **Yes** ☒ No ☐ Depth (inches): 23

Wetland Hydrology Present? Yes ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Topo map (Exhibit 1), WWI map (Exhibit 2), Soils map (Exhibit 3), and aerial photos (Exhibit 4).

Remarks:

EXHIBIT 9. SITE PHOTOS
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N, R22E, Village of Mt. Pleasant, Racine County

Photo 1. North view of wet ditch (PCA 1).

Photo 2. South view of wet ditch (PCA 1) and PCA 2.

Photo 3. North view of PCA 3 and sample points 3 and 4.

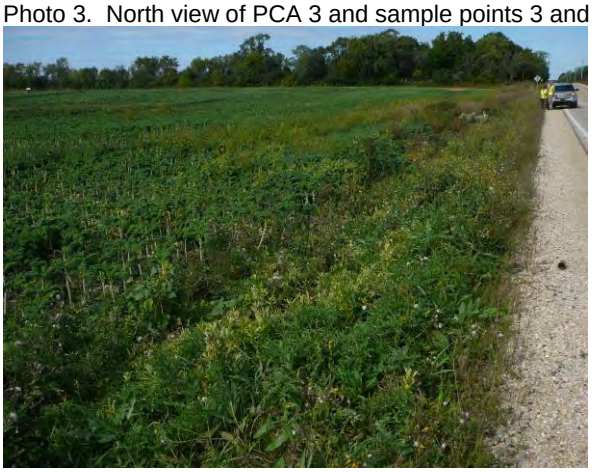


Photo 4. North view of PCA 4 and sample point 5.

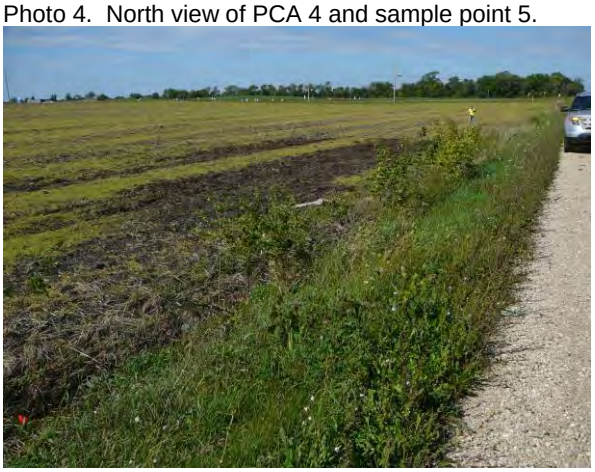


Photo 5. North view of PCA 5 and sample points 7 and 8.

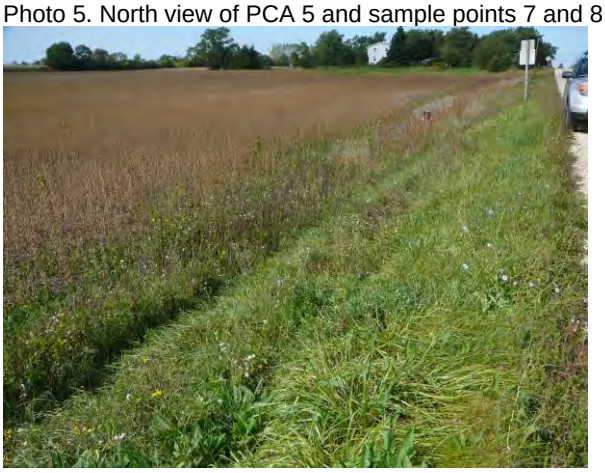


Photo 6. Upland sample site 1, mowed lawn.

EXHIBIT 9. SITE PHOTOS
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N, R22E, Village of Mt. Pleasant, Racine County

Photo 7. Wetland sample site 2, atypical (mowed) wetland.

Photo 8. Sample site 3, fresh (wet) meadow.

Photo 9. Upland sample site 4, kale field.

Photo 10. Wetland sample site 5, farmed wetland.

Photo 11. Upland sample site 6, agricultural field.

Photo 12. Wetland sample site 7, farmed wetland.

EXHIBIT 9. SITE PHOTOS
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N, R22E, Village of Mt. Pleasant, Racine County

Photo 13. Upland sample site 8, agricultural field.

00229329

EXHIBIT 10. FSA Slide Review Data
WETLAND DOCUMENTATION RECORD
Remotely Sensed Data Summary

Owner/Operator: Racine Water & Wastewater Utilities County: Racine State: WI

Slide Reviewer: Jennifer Dietl Date: 09/21/2015

Site Identification No. Sections 6 and 7, T3N, R22E - _____ (Tract No. + Site No.)

Farm Service Agency (or Other) Aerial Slide Data

Date (Mo./Yr)	Rainfall (in) +D/N/W (Apr-June ave. = ____)	Interpretation- (codes listed in box below)	
		Area: A Sample site 3	**Area: B Sample site 5**
2013	3	Y+ NC 1 part; CR 6d part	Y+ CR 6d
2010	3	Y+ NC 1	Y+ CR 6d
2008	3	Y+ NC 1	Y+ NC 3
2006	**2**	**Y- CR 6d**	**Y- CR 6d**
2005	1	Y NC part; CR 6b, 6d part	Y- CR 6d
June 2003	**2**	**Y+ CR 6d**	**Y- CR 6d, 6b**
July 2002	3	Y+ CR 1, 6d	Y+ CR 6d
June 2001	3	Y+ NC 1	Y+ NC 1
July 2000	3	Y+ NC 1	Y+ CR 6e
June 1999	3	Y+ CR 1, 6d	Y+ CR 6e
June 1998	**2**	**Y+ CR 1, 6e**	**Y CR 6d**
July 1997	**2**	**Y+ CR 1**	**Y+ CR 1**
June 1996	3	Y+ CR 6d	Y CR 6d
May 1995	**2**	**Y NC 6a, 6d**	**Y- CR 6d**
June 1994	**2**	**N CR**	**N CR**
1993	**2**	**Y CR 3, 6d**	**Y CR 3, 6d**
June 1992	1	N CR	Y- CR 6b
June 1991	**2**	**Y- CR 6b, 6d**	**Y- CR 6d**
July 1990	**2**	**Y+ CR 3, 6d, 6e**	**Y+ CR 3, 6d**
Air Photo			
2015	2	Y+ CR part 1, 6d, drift lines	Y+ NC 1

Y = Yes, signal indicates wetness (+ = strong, - = weak) **N** = No wetness signature
CR = cropped (row crop or tilled) **NC** = not cropped (hay, pasture, idle, etc.)

Feature	Color	Manipulation (year of installation)	Other
1 = water	6a = dark green	7a = ditched	write explanation
2 = mud flat	6b = light green	7b = tiled	
3 = bare spot	6c = yellow	7c = filled	
4 = drowned crop	6d = brown	7d = tree/brush removal	
5 = planted late	6e = black	8 = plowed/tilled	

A. Does slide/air photo data indicate the site is a wetland? ☒ Yes ☐ No
B. Does slide/air photo data indicate the site is a wetland? ☒ Yes ☐ No

A. A total of 8 years out of 9 most normal years (89%) have wet (Y) signatures.
B. A total of 8 years out of 9 most normal years (89%) have wet (Y) signatures.

A. A total of 18 years out of 20 years (90%) observed have wet (Y) signatures.
B. A total of 19 years out of 20 years (95%) observed have wet (Y) signatures.

EXHIBIT 10. FSA Slide Review Data continued
WETLAND DOCUMENTATION RECORD

Remotely Sensed Data Summary

Owner/Operator: Frederick Family Revocable Trust County: Kenosha State: WI

Slide Reviewer: Chris Jors Date: 10/29/2014

Site Identification No. Section 24, T2N, R21E - _____ (Tract No. + Site No.)

Farm Service Agency (or Other) Aerial Slide Data

Date (Mo./Yr)	Rainfall (in) +D/N/W (Apr-June ave. = ____)	Interpretation- (codes listed in box below)	
		Area: C Sample site 6	**Area: D Sample site 7**
2013	3	Y- CR 6d	Y- CR 6b
2010	3	N CR	N CR
2008	3	Y+ CR 6d, drift lines	Y- CR 6b
2006	**2**	**Y- CR 6d**	**Y- CR 6d**
2005	1	Y- CR 6b, 6d	Y- CR 6d
June 2003	**2**	**Y- CR 6b, 6d**	**Y- CR 6d**
July 2002	3	Y- CR 6d	Y- CR 6d
June 2001	3	Y NC 1	N CR
July 2000	3	Y+ CR 6b	Y- CR 6d
June 1999	3	Y CR 6d	N CR
June 1998	**2**	**Y- CR 6d**	**N CR**
July 1997	**2**	**Y- CR 6d**	**Y- CR 6d**
June 1996	3	N CR	N CR
May 1995	**2**	**N CR**	**N CR**
June 1994	**2**	**N CR**	**N CR**
1993	**2**	**Y CR 3, 6d**	**N CR**
June 1992	1	N CR	N CR
June 1991	**2**	**Y- CR 6d**	**Y- CR 6d**
July 1990	**2**	**N CR**	**Y CR 3, 6d**
Air Photo			
2015	2	Y+ NC 1	Y- NC

Y = Yes, signal indicates wetness (+ = strong, - = weak) **N** = No wetness signature
CR = cropped (row crop or tilled) **NC** = not cropped (hay, pasture, idle, etc.)

Feature	Color	Manipulation (year of installation)	Other
1 = water	6a = dark green	7a = ditched	write explanation
2 = mud flat	6b = light green	7b = tiled	
3 = bare spot	6c = yellow	7c = filled	
4 = drowned crop	6d = brown	7d = tree/brush removal	
5 = planted late	6e = black	8 = plowed/tilled	

C. Does slide/air photo data indicate the site is a wetland? ☒ Yes ☐ No
D. Does slide/air photo data indicate the site is a wetland? ☒ Yes ☐ No

C. A total of 6 years out of 9 most normal years (67%) have wet (Y) signatures.
D. A total of 5 years out of 9 most normal years (55%) have wet (Y) signatures.

C. A total of 14 years out of 20 years (70%) observed have wet (Y) signatures.
D. A total of 11 years out of 20 years (55%) observed have wet (Y) signatures.

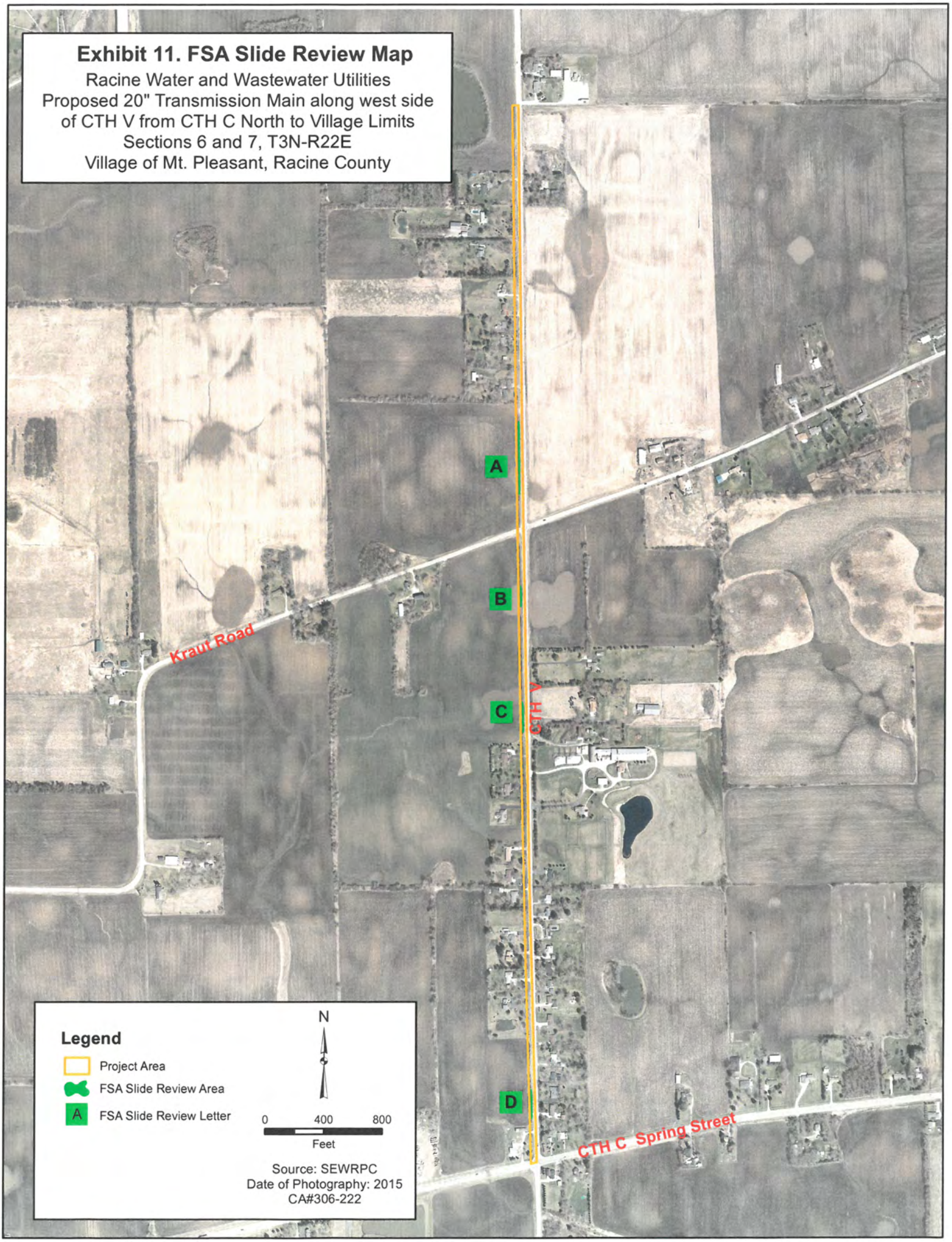


Exhibit 11. FSA Slide Review Map
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and 7, T3N-R22E
Village of Mt. Pleasant, Racine County
A
B
C
D
Kraut Road
CTH V
CTH C Spring Street
Legend
Project Area
FSA Slide Review Area
A FSA Slide Review Letter
N
0 400 800
Feet
Source: SEWRPC
Date of Photography: 2015
CA#306-222

EXHIBIT 12. FSA Slide Photos
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and7, T3N, R22E
Village of Mt. Pleasant, Racine County

2006 NAIP Photo

2003 FSA Slide

EXHIBIT 12. FSA Slide Photos
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and7, T3N, R22E
Village of Mt. Pleasant, Racine County

1998 FSA Slide

1997 FSA Slide

EXHIBIT 12. FSA Slide Photos
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and7, T3N, R22E
Village of Mt. Pleasant, Racine County

FSA Slide 1995

FSA Slide 1994

EXHIBIT 12. FSA Slide Photos
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and7, T3N, R22E
Village of Mt. Pleasant, Racine County

FSA Slide 1993

FSA Slide 1992 (Areas A, B, and C)

EXHIBIT 12. FSA Slide Photos
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and7, T3N, R22E
Village of Mt. Pleasant, Racine County

FSA Slide 1991 (Areas A, B, and C)

FSA Slide 1990 (Areas A, B, and C)

EXHIBIT 12. FSA Slide Photos
Racine Water and Wastewater Utilities
Proposed 20" Transmission Main along west side of CTH V from CTH C North to Village Limits
Sections 6 and7, T3N, R22E
Village of Mt. Pleasant, Racine County

FSA Slide 1992 (Area D)

FSA Slide 1991 (Area D)

FSA Slide 1990 (Area D)