300-2000
ITEM 1

PSC AND SSE ANSWERED LETTER REQUESTS
01-01—06-30-2015

Number	Civil Division	County	Date Received	Date Answered	Location
PSC Requests					
PSC-2015-001	City of Pewaukee	Waukesha	1/2/2015	1/6/2015	CTH M Office Building 07, 19, 14-3 South of CTH M and 1,500 feet East of STH 164
PSC-2015-002	Village of Brown Deer	Milwaukee	1/12/2015	1/15/2015	New Perspective Senior Living, (1) Memory Care Facility 08, 21, 03-4 400 feet North of W. Brown Deer Road and West of N. 60th Street
PSC-2015-003	City of Oconomowoc	Waukesha	1/27/2015	1/27/2015	Azura Oconomowoc, (1) Memory Care Facility 07, 17, 04-2 Southeast of George Street and E. Oak Street
PSC-2015-004	City of Glendale	Milwaukee	1/26/2015	1/27/2015	Orthopaedic Hospital of Wisconsin 475 W. River Woods Parkway
PSC-2015-005	Village of Sturtevant	Racine	1/26/2015	2/23/2015	Enterprise Business Park, (4) Buildings 03, 22, 20-4 Northwest of the Canadian Pacific Railroad and CTH H
PSC-2015-006	City of Glendale	Milwaukee	2/16/2015	3/4/2015	Bender Recreational Complex, (1) Concession Building 08, 22, 30-2 500 Feet West of Baker Road and Bender Road
PSC-2015-007	City of Oak Creek	Milwaukee	2/26/2015	3/4/2015	Emerald Row Apartments 05, 22, 17-1 600 feet South of S. 6th Street and W. Drexel Avenue
PSC-2015-008	City of Wauwatosa	Milwaukee	3/5/2015	3/12/2015	Milwaukee County Research Park, (1) Office Building 07, 21, 29-1 10100 W. Innovation Drive 07, 21, 29-2 **(2010 WWI wetland modified into stormwater detention basin after USH 45 On-ramp expansion. Wetland limits undetermined on site.)**
PSC-2015-009	Village of Shorewood	Milwaukee	3/13/2015	3/18/2015	(1) Shorewood Metro Market and (1) Mixed-use Building 07, 22, 04-4 Southwest of E. Olive Street and N. Oakland Avenue
PSC-2015-010	City of Oak Creek	Milwaukee	3/23/2015	3/24/2015	Azura, (1) Memory Care Facility 05, 22, 21-2 700 feet North of E. Centennial Drive and East of Mayhew Drive
PSC-2015-011	Village of Summit	Waukesha	3/6/2015	4/7/2015	Aurora Summit Data Center 07, 17, 15-4 South of IH-94 and 2,200 feet east of STH 67
PSC-2015-012	City of Brookfield	Waukesha	3/9/2015	4/7/2015	Lilly Preserve, (2) 26-unit and (1) 24-unit, 3-story Apartment Buildings 07, 20, 11-4 3125 Lilly Road
PSC-2015-013	Village of Pleasant Prairie	Kenosha	4/7/2015	4/21/2015	(1) Kwik Trip Convenience Store and (1) Car Wash 01, 22, 08-1 Northwest of 76th Street and 88th Avenue
PSC-2015-014	City of Franklin	Milwaukee	4/27/2015	4/27/2015	Autumn Leaves, (1) Memory Care Facility 05, 21, 08-4 9201 W. Drexel Avenue
PSC-2015-015	Town of Delafield	Waukesha	4/13/2015	4/29/2015	Clinic/Ambulatory Surgery Center 07, 18, 24-4 N15 W28300 Golf Road
PSC-2015-016	City of Waukesha	Waukesha	4/28/2015	4/29/2015	Hall Automotive Service Center 07, 19, 27-1 North of CTH JJ and 300 feet east of CTH JJ and Silvernail Road 07, 19, 22-4
PSC-2015-017	City of Pewaukee	Waukesha	3/19/2015	5/11/2015	Zilber Industrial I at Ridgeview, (1) Industrial Building 07, 19, 14-3 South of CTH M and 2,000 feet East of STH 164 07, 19, 14-4
PSC-2015-018	City of Burlington	Walworth	3/11/2015	5/11/2015	Aurora Burlington Healthcare, (1) Ambulatory Surgery Center and Professional Office Building 02, 18, 01-1 Southwest of STH 36 and Spring Valley Road
PSC-2015-019	City of Oak Creek	Milwaukee	5/7/2015	5/11/2015	Drexel town Square, (1) US Bank 05, 22, 17-1 400 feet south of W. Drexel Avenue and West of STH 36
PSC-2015-020	City of Waukesha	Waukesha	5/11/2015	5/22/2015	(1) Industrial Building 07, 19, 34-2 901 Northview Road
PSC-2015-021	Village of Pleasant Prairie	Kenosha	5/11/2015	6/3/2015	Uline Corporate Campus Conference Center 01, 21, 25-2 1,500 feet southwest of 120th Avenue and Uline Drive
PSC-2015-022	Village of Menomonee Falls	Waukesha	5/27/2015	6/2/2015	White Stone Station, (1) Retail Building - (4) Tenants and (1) Other Building 08, 20, 03-1 Southeast of Falls Parkway and Water Street 08, 20, 03-4

PSC AND SSE ANSWERED LETTER REQUESTS
01-01—06-30-2015

Number	Civil Division	County	Date Received	Date Answered	Location
PSC-2015-023	Village of Mt. Pleasant	Racine	5/21/2015	6/8/2015	(1) Chick-fil-A Restaurant 03, 22, 13-4 5315 Washington Avenue
PSC-2015-024	Village of Germantown	Washington	5/18/2015	6/15/2015	(1) Memory Care Facility 09, 20, 28-1 Southwest of Bernies Way and Virginia Avenue
PSC-2015-025	City of Mequon	Ozaukee	6/11/2015	6/18/2015	Children's Hospital of Wisconsin Mequon Clinic 09, 22, 30-1 Southwest of Market Street and STH 167
SSE Requests					
SSE-044-14	Village of Mukwonago	Waukesha	12/18/2014	1/6/2015	Gateway Business Park 05, 18, 36-3 05, 18, 36-4 **(01/06/15 Signed Letter E-Mailed)**
SSE-001-15	City of Cedarburg Village of Grafton	Ozaukee Ozaukee	1/5/2015	1/27/2015	Pine Ridge Subdivision 10, 21, 26-1
SSE-003-15	City of Mequon	Ozaukee	1/9/2015	1/27/2015	Wauwatosa Road (STH 181) 09, 21, 28-1 09, 21, 28-4
SSE-004-15	City of Waukesha	Waukesha	1/22/2015	2/2/2015	Sanitary Sewer Extension along Big Bend Road Between E. Garfield Avenue & E. Rivera Drive 06, 19, 14-2
SSE-005-15	City of Pewaukee	Waukesha	1/28/2015	2/2/2015	Meadowbrook Road (CR G) Sanitary Sewer Extension 07, 19, 17-3 07, 19, 18-4
SSE-006-15	Village of Grafton	Ozaukee	2/3/2015	2/18/2015	Falls Road Rehabilitation/Blackhawk Drive - Port Washington Road 10, 22, 29-3 10, 22, 30-2
SSE-008-15	Village of Sturtevant	Racine	2/11/2015	2/18/2015	Enterprise Business Park 03, 22, 20-3 03, 22, 20-4
SSE-009-15	City of Delafield	Waukesha	2/11/2015	2/18/2015	Valley Road Sewer Extension 07, 17, 12-4
SSE-010-15	City of Muskego	Waukesha	2/16/2015	2/26/2015	Aster Hills Estates 05, 20, 24-1
SSE-011-15	Village of Hartland	Waukesha	2/17/2015	6/18/2015	Four Winds West Subdivision 08, 18, 27-4
SSE-012-15	City of Glendale	Milwaukee	2/17/2015	2/26/2015	Bender Recreational Complex 08, 22, 30-2
SSE-013-15	Town of Summit	Waukesha	3/6/2015	3/30/2015	Aurora Summit Data Center 07, 17, 15-4
SSE-014-15R	City of Burlington	Racine	3/6/2015	3/25/2015	Utility and Street Improvements, Phase 1 (TID #5) 03, 19, 31-3 03, 19, 31-4 **(2nd Letter Received via E-Mial 04/16/15 - 2nd Letter Answered 05/05/15 - 02,18,01-1 / 02,19,06-2)**
SSE-015-15	City of Brookfield	Waukesha	3/5/2015	4/1/2015	Lilly Preserve (Lilly Road & Burleigh Road) 07, 20, 11-4
SSE-016-15	Village of Pleasant Prairie	Kenosha	3/13/2015	4/1/2015	Heritage Valley Sewer 01, 22, 17-2 01, 22, 18-1
SSE-017-15	City of Cedarburg	Ozaukee	3/16/2015	4/6/2015	Park Ridge Subdivision 10, 21, 33-1
SSE-018-15	City of Waukesha	Waukesha	3/18/2015	4/7/2015	Meijer Store - Tenny Avenue & Sunset Drive 06, 19, 14-2
SSE-019-15	City of West Bend	Washington	3/26/2015	4/15/2015	East Interceptor Phase 1 11, 20, 17-3 11, 20, 18-4
SSE-020-15	City of Whitewater	Walworth	3/30/2015	4/20/2015	George Street Reconstruction 04, 15, 04-2
SSE-021-15	City of Waukesha	Waukesha	3/30/2015	4/7/2015	Big Bend Road/Tenny Avenue (Smart Property) 06, 19, 14-2 06, 19, 14-3
SSE-022-15	Village of Mukwonago	Waukesha	3/30/2015	4/20/2015	Orchards Subdivision 05, 18, 35-3
SSE-023-15	Village of Mukwonago	Waukesha	4/1/2015	4/20/2015	Premier Woods Apartment Complex 05, 18, 35-3 05, 18, 35-4
SSE-024-15	Village of Germantown	Washington	4/6/2015	5/5/2015	Prairie Glen II 09, 20, 25-1 **(Prairie Glen II Subdivision)**
SSE-025-15	City of Pewaukee	Waukesha	3/19/2015	5/5/2015	Zilber Industrial I 07, 19, 14-3 07, 19, 14-4
SSE-027-15	Village of Sussex	Waukesha	4/10/2015	6/18/2015	Sussex Town Center 08, 19, 22-3
SSE-028-15	City of Oak Creek	Milwaukee	4/16/2015	6/3/2015	Lakefront Redevelopment, (1) Park Shelter 05, 22, 24-3

PSC AND SSE ANSWERED LETTER REQUESTS
01-01—06-30-2015

Number	Civil Division	County	Date Received	Date Answered	Location
SSE-029-15	City of Brookfield	Waukesha	5/8/2015	5/19/2015	The Corridor development 07, 20, 28-4 07, 20, 33-1
SSE-030-15	Village of Germantown	Washington	5/18/2015	6/15/2015	Memory Care Facility 09, 20, 28-1
SSE-031-15	Village of Mt. Pleasant	Racine	5/21/2015	6/8/2015	Racine Shopping Center, Chick-fil-A 03, 22, 13-4
SSE-032-15	City of Mequon	Ozaukee	5/22/2015	6/22/2015	The Enclave at Mequon Preserve, Phase 1 09, 21, 28-1 09, 21, 28-4

300-2000
ITEM 2

COPY

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
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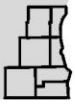


May 11, 2015

Mr. Basil Orechwa, P.E.
Project Engineer
Kunkel Engineering Group
107 Parallel Street
Beaver Dam, WI 53916

Re: SEWRPC No. CA-618-121

Dear Mr. Orechwa:

This will respond to an electronic mail message of September 18, 2014, from Mr. Andrew Geffert, P.E., former Project Engineer with Kunkel Engineering Group, requesting that the Commission staff conduct a field inspection of a proposed sanitary sewer route between the West Bend Wastewater Treatment Plant and proposed Trenton Road. The project area is located in parts of the southeast one-quarter of U.S. Public Land Survey Section 18, Township 11 North, Range 20 East, City of West Bend and Town of Trenton, Washington County, Wisconsin. The purpose of the field inspection was to identify and stake the boundaries of any wetlands within the project area.

Pursuant to your request, Commission staff identified and staked the wetland boundaries within the project area on October 13, 2014. 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, Specialist-Biologist (*cjors@sewrpc.org* or 262-953-3246).

Sincerely,

Kenneth R. Yunker, P.E.
Executive Director

KRY/TMS/CJJ/pk
CA618-121 TRENTON RD SEWER LETTER (00225471).DOCX

Enclosure (#225752)

cc: Mr. Max Marechal, City of West Bend
Mr. Scott Tutas, West Bend Wastewater Treatment Plant
Ms. Cindy Komro, Town of Trenton
Ms. Kathleen Kramasz, Wisconsin Department of Natural Resources
Mr. Anthony Jernigan, U.S. Army Corps of Engineers

WETLAND DELINEATION REPORT

PROPOSED SANITARY SEWER ROUTE BETWEEN THE WEST BEND WASTEWATER TREATMENT PLANT & PROPOSED TRENTON ROAD

SE Quarter, Section 18, T11N, R20E
CITY OF WEST BEND & TOWN OF TRENTON
WASHINGTON COUNTY
WISCONSIN

Prepared by:

Christopher Jors
Jennifer Dietl
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 – **Andrew Geffert, Kunkel Engineering Group**
- Why the delineation was undertaken – **Proposed City Sewer Connection Project**
- Date the field work was completed – **October 13, 2014**
- Who conducted field work – **Christopher Jors, Jennifer Dietl, Zofia Noe**
- Statement of Qualifications

METHODS

- Description of Methods
- Sources Reviewed
    - Topographic Map – **Exhibit 1**
    - Wisconsin Wetland Inventory (WWI) Map – **Exhibit 2**
    - Soil Survey and Floodplain Map – **Exhibit 3**
    - Historical Aerial Photos – **Exhibits 4A to 4G (2010, 2005, 2000, 1990, 1980, 1970, 1950)**
    - Sanitary Sewer Service Map – **Exhibits 5**
    - Advanced Delineation and Identification (ADID) Wetland Map – **Exhibit 6**
- 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 – **Exhibit 7**
- Existing environmental mapping (WWI mapping, Soil survey, 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

LITERATURE CITED

Wetland Delineation Map – **Exhibit 8**

Vegetation Survey and Wetland Delineation Data Forms

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

Site Photos – **Exhibit 11**

Farm Service Agency (FSA) Slide Review

- Completed wetland documentation form (NRCS form NRCS-CPA-32A) – **Exhibit 12**
- FSA Slide Review Map – **Exhibit 13**
- Copies or photos of FSA slides if available – **Exhibit 14**
- WETS Tables – **Exhibit 15**
- Copy of the draft NRCS Wetland Inventory map if available – **Exhibit 16**

INTRODUCTION

This wetland delineation report is in response to a letter of request from Andrew Geffert, PE, former Project Engineer with Kunkel Engineering Group, on behalf of the City of West Bend to identify and stake the boundaries of any wetland along a proposed sanitary sewer route between the West Bend Wastewater Treatment Plant and proposed Trenton Road. The project area is located in parts of the Southeast one-quarter of U.S. Public Land Survey Section 18, Township 11 North, Range 20 East, City of West Bend and Town of Trenton, Washington County, Wisconsin.

Statement of Qualifications

Christopher Jors, 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 1993. 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 a U.S. Army Corps of Engineers Workshop on the Midwest Supplement to the 1987 Wetland Delineation Manual (2009) and a Wisconsin Department of Natural Resources Workshop on Techniques for Identifying Wetland Features on Farm Service Agency Aerial Slides (2009).

Jennifer Dietl, Specialist-Biologist, earned a Bachelor's degree in Biology and Environmental Science from Carroll University in 1992. Jennifer 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.

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 Masters Degree in Coastal Marine and Wetland Studies from Coastal Carolina University in 2009. 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 Wisconsin Department of Administration Coastal Management Program's 1995 *Basic Guide to Wisconsin's Wetlands and their Boundaries*; 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: Washington County's topographic mapping (Exhibit 1), Wisconsin Wetland Inventory (Exhibit 2), Natural Resource Conservation Service's (NRCS) soil survey and FEMA Floodplains (Exhibit 3), Commission aerial photography (Exhibits 4A – 4G), Sanitary Sewer Service Map (Exhibit 5), ADID Wetland Map (Exhibit 6), Commission wetland delineation

reports for lands east of the project area from 2010 (Exhibit 7) and 1997, and United States Department of Agriculture (USDA) and National Climatic Data Center (NCDC) data for antecedent and observed precipitation. Since part of the project area is located on agricultural land, a Farm Service Agency Slide Review was also conducted (Exhibits 11 through 15).

RESULTS AND DISCUSSION

Christopher Jors, lead investigator, and Jennifer Dietl and Zofia Noe, identified and staked the boundaries of the wetlands contained within the project area on October 13, 2014.

The results of the wetland delineation field inspection for this project area are shown on Exhibit 8, which includes sample site numbers and locations, approximate staked wetland boundaries, as well as primary environmental corridor boundaries.

Antecedent Hydrologic Conditions

WETS Station: GERMANTOWN, WI3058 GHCND Station: USC00479053 (West Bend, WI)

Climatological data were taken from the nearest WETS station with relevant data. Observed precipitation amounts were taken from the nearest GHCND weather station with monthly precipitation summaries.

	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	September	2.03	3.53	4.35	1.74	dry	1	3	3
2nd prior month	August	2.98	4.28	5.08	3.42	normal	2	2	4
3rd prior month	July	2.7	4.05	4.85	3.78	normal	2	1	2
								sum	9

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

Conclusion

Antecedent precipitation was drier than normal.

Previous wetland delineation mapping

Commission staff conducted wetland delineations on lands immediately east of the current project area related to the proposed Trenton Road bridge crossing at the Milwaukee River. These field inspections occurred on October 27, 2010, and June 3, 1997. The aerial map exhibit for the 2010 delineation is attached as Exhibit 7.

Existing Environmental Mapping

The Washington County topographic map (Exhibit 1) depicts a project area encompassing portions of the Milwaukee River valley including the river channel itself and adjacent river banks on the west side of the project area to gently sloping lands to the east. At an elevation of 872 feet above sea level, the western edge of the project

area is at the perimeter of the wastewater treatment plant site. Filling and grading have occurred at the treatment plant site to create a level building pad resulting in an unnatural slope along the west bank of the river. The surface water elevation in the river channel itself is approximately 860 feet. Wooded lands east of the river rise in elevation to 872 feet before dropping into a broad floodplain swale at about 866 feet in the center of the project area. Continuing eastward into agricultural fields, lands rise to the highest elevation in the project area of 878 feet. The river flows northward along the east side of the treatment plant and bends eastward from there. The treatment plant outfall is located at the southwest corner of the project area.

The Wisconsin Wetland Inventory map (WWI) (Exhibit 2) indicates one forested wetland (T3K) complex in the western portion of the project area along the eastern bank of the Milwaukee River. The WWI maps indicate that a portion of the forested wetland has been lost to filing ($T3K), possibly related to natural gas pipeline maintenance or trail improvements/stormwater detention basin construction at Quaas Creek Park.

The NRCS Soil Survey map (Exhibit 3) shows that the eastern portion of the project area contains somewhat poorly drained Matherton silt loam (MmA) with 1-3% slopes and somewhat poorly drained Wasepi silt loam (WmA) with 1 to 3% slopes. Poorly drained Wet alluvial land (Ww) is located in the western portion of the project area. Adjacent mapped upland soils in the project area include: Casco sandy load (CcB2 and CcC2) with 2 to 6 and 6 to 12% slopes, respectively, Casco loam (CeD2) with 12 to 20% slopes, Boyer sandy loam (BnB) with 2-6% slopes, and Fox silt loam (FsA) with 0 to 2% slopes.

Historical aerial photos of the project area were reviewed back to 1950. This review indicated that land use history has changed considerably over that time period. The western, southern, and eastern portions of the project area were in agricultural production in 1950. The banks of the river and the northern portion of the project area are wooded at that time. A pipeline route bisecting the project area is evident on the 1950 photo. The wastewater treatment plant appears on the 1970 aerial photo along with runway and facilities improvements at the West Bend airport northeast of the project area. Residential development has begun to the northwest of the project area along Scenic Drive. By 1980, the treatment plant was undergoing a major facility expansion northward. In addition, a river crossing is evident north of the project area on the 1980 photo. By 2000, development of Quaas Creek Park had begun as well as multi-family development southwest of the park. A house and outbuilding appears east of the project area on the 2000 photo. By 2005, major commercial and industrial development has occurred north of the project area and river, including the southern extension of Trenton Road. A National Guard facility is also evident northeast of the project area on the 2005 photo, connected to the West Bend Airport. Aerial photos for years 1950, 1970, 1980, 1990, 2000, 2005, and 2010 are attached (see Exhibits 4A to 4G).

SEWRPC's sanitary sewer map (Exhibit 5) shows that the project area is located within the City of West Bend and Environs planned sanitary sewer service area.

The ADID wetland map (Exhibit 6) indicates that the wetland in the project area is located within a designated Primary Environmental Corridor (PEC) and has been designated as ADID wetland under the Section 404(b)(1) Guidelines of the Clean Water Act.

Amount and Types of Wetlands in the Project Area

Three wetland plant community areas were identified and inventoried within the project area (Exhibit 8). These three plant community areas are part of a larger floodplain-wetland complex along the Milwaukee River. The 0.6 acre wetland located in the western portion of the project on the western bank of the river consists of open water and fresh (wet) meadow. Disturbances to this wetland include dumping, filling and grading, mowing and placement of a treatment plant outfall structure. The second wetland, 1.3 acres in size, is located on the eastern bank of the Milwaukee River and consists of second growth, Southern wet to wet-mesic lowland hardwoods. Disturbances to this wetland include filling and grading along the wetland edge for paved trail and boardwalk construction. The third wetland, located in the center of the project area, is 0.2 acres in size and consists of a constructed stormwater detention pond with fresh (wet) meadow and shrub-carr. Disturbances to this plant community include filling and grading for an adjacent trail, pond construction and side casting of dredge spoil

material. All three wetlands experience siltation and sedimentation due to stormwater runoff from adjacent lands. While no Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection, Greater redhorse (*Moxostoma valenciennesi),* a State-designated special concern fish species, has been recorded in this reach of the Milwaukee River.

Exhibit 9 contains a list of the vascular plant species observed within the wetlands using a meander method during the field inspection.

Wetland/Upland Boundary Explanation

Seven 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 10. The locations of the sample sites are shown on Exhibit 8. The wetland boundary was determined using breaks in topography, changes in vegetation composition, visual identification of wetland hydrology, and presence of hydric soils. The wetland boundary markers set by the Commission staff were surveyed by Kunkel Engineering Group. The wetland boundaries depicted on Exhibit 8 are based upon the Kunkel survey.

Disturbed and Problematic Areas Encountered

Wetland sample site 1 contained naturally problematic soils due to fluvial deposits in floodplains. Upland sample site 2 was determined to have naturally problematic hydrology due to the presence of misleading indicators of wetland hydrology. The hydrology indicators observed (drift lines & water-stained leaves) were present due to past brief flooding events after large rainfall events in the spring of 2013 and 2014. The flooding events were determined to be brief since site 2 lacked hydric soils and hydrophytic vegetation. Upland sample site 4 had significantly disturbed vegetation, leading to a misleading finding of hydrophytic vegetation. This site lacks hydric soils and wetland hydrology. This area has a long history of disturbance with gas pipeline maintenance and park improvements. It's possible that the hydrophytes growing here may be from wetland soils excavated elsewhere on the park property and dumped here. Wetland sample site 7 consists of both significantly disturbed and naturally problematic soils. The profile lacks typical indicators of hydric soils due to past filling and grading associated with treatment plant construction and fluvial deposits in floodplains.

Other Water Resources Located in the Project Area

A significant source of water comes from the sewage treatment plant outfall just outside the southwest corner of the project area.

Other Considerations

All wetlands located within the project area are contained within a recorded Primary Environmental Corridor (PEC). Accordingly, these wetlands have been designated as Advanced Delineation and Identification (ADID) wetlands under the Section 404(b)(1) Guidelines of the Clean Water Act and are deemed generally unsuitable for the discharge of dredge and fill material. 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 higher quality wetlands. This designated 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 within the project area and it is suggested that you contact WDNR regarding approaches to meet the requirements. Finally, please be advised that no Federal or State regulatory jurisdiction determinations relative to any wetland permits or certifications are made under this report.

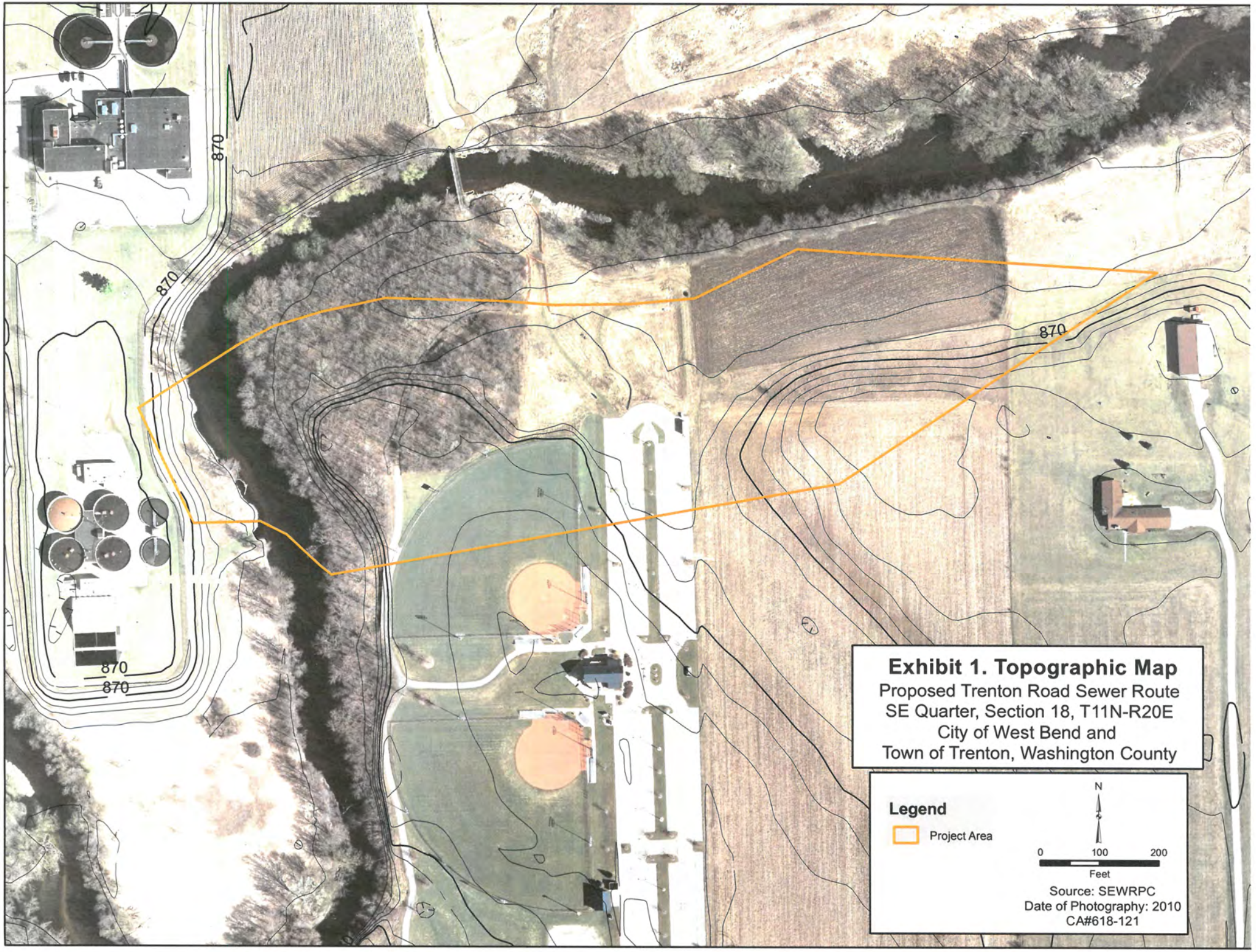
LITERATURE CITED

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.

Wisconsin Coastal Management Program, 1995, *Basic Guide to Wisconsin's Wetland and their Boundaries.*


870
870
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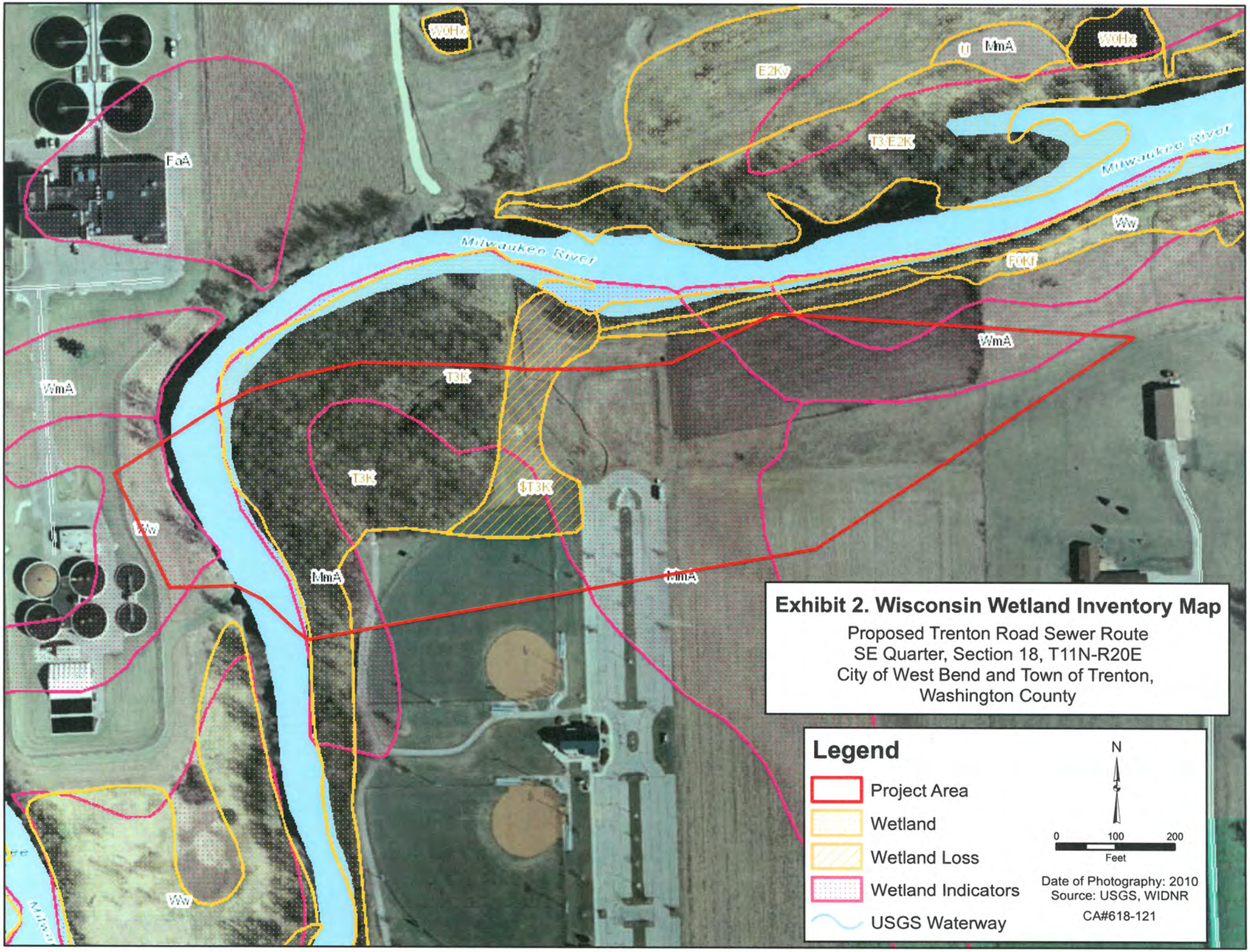
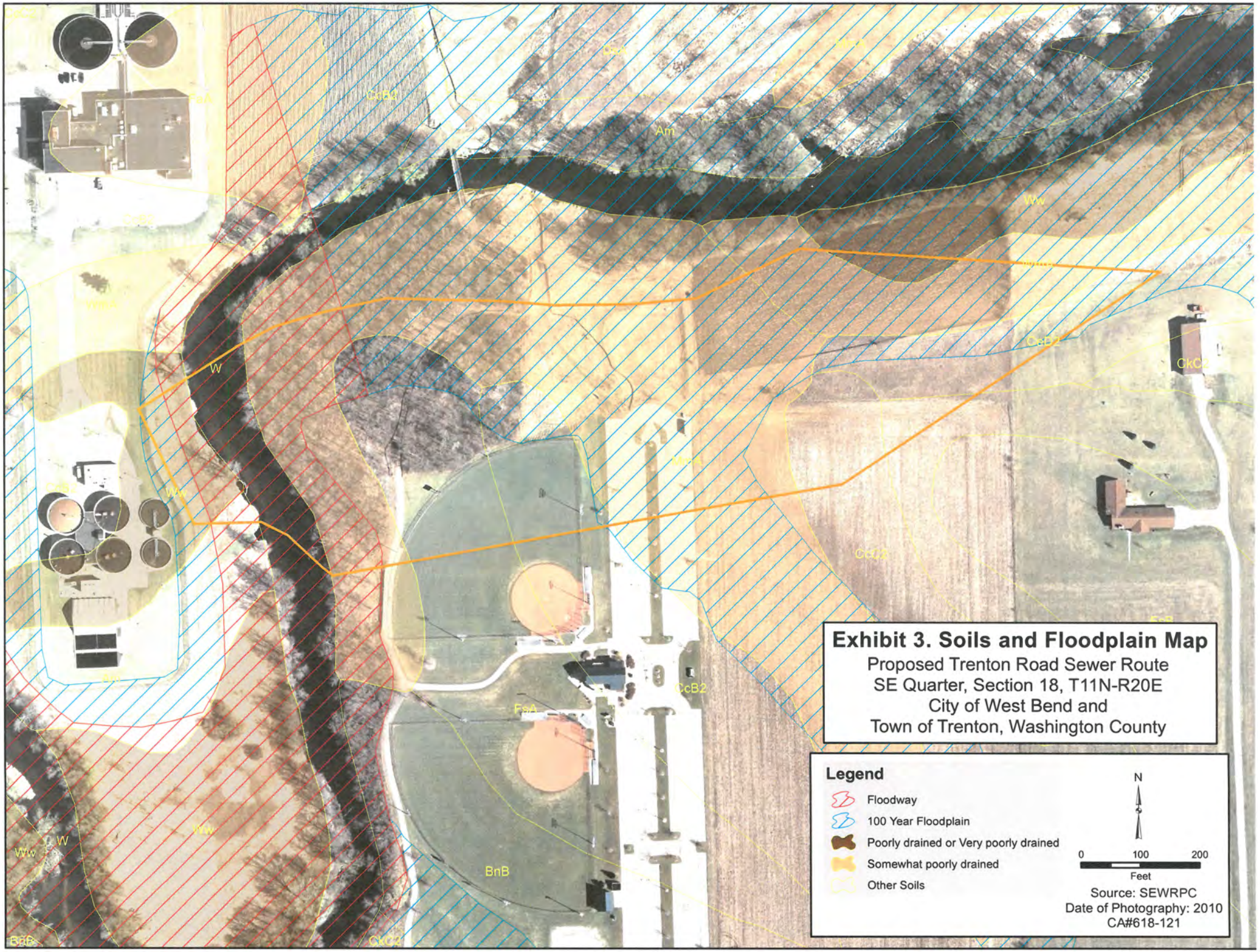
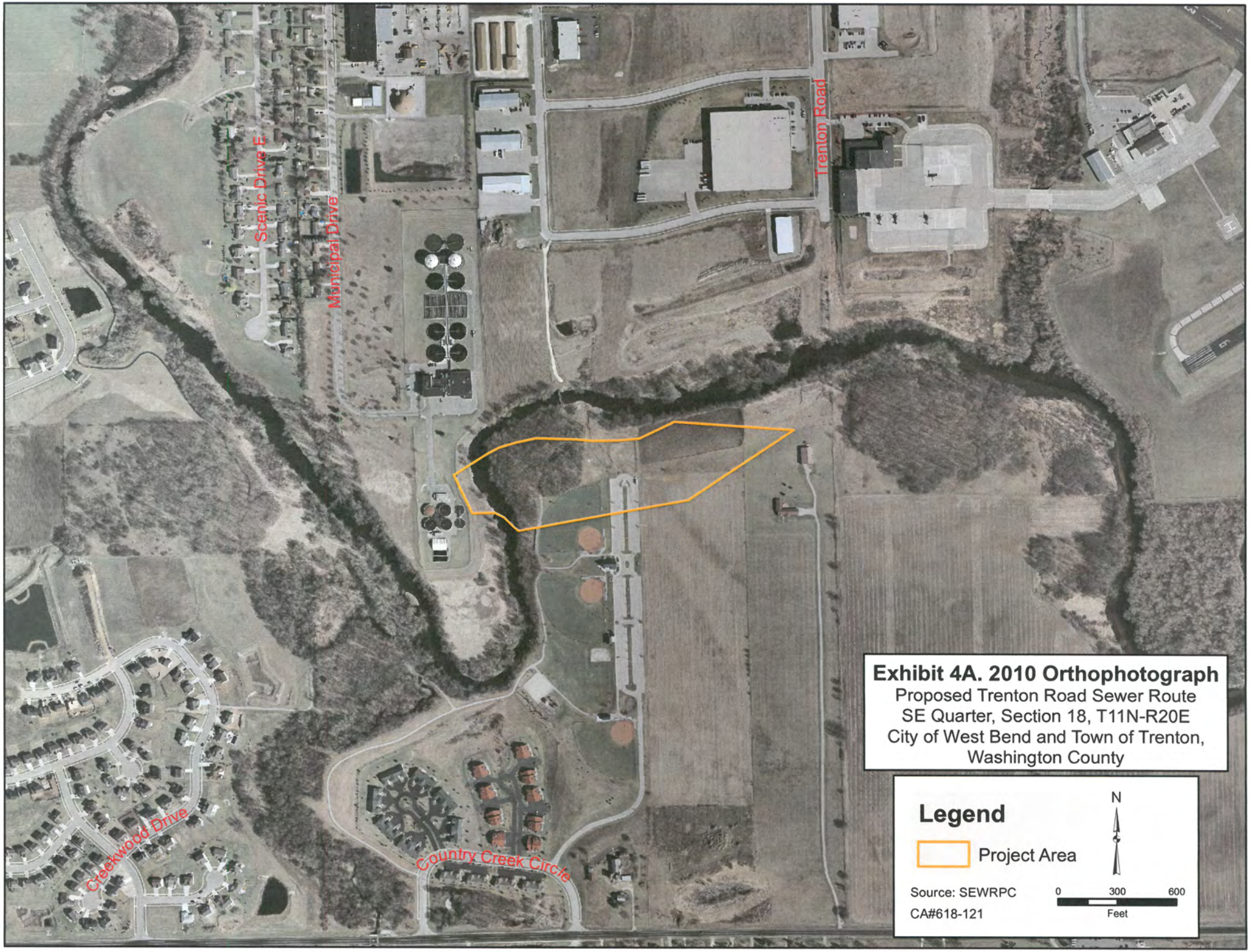
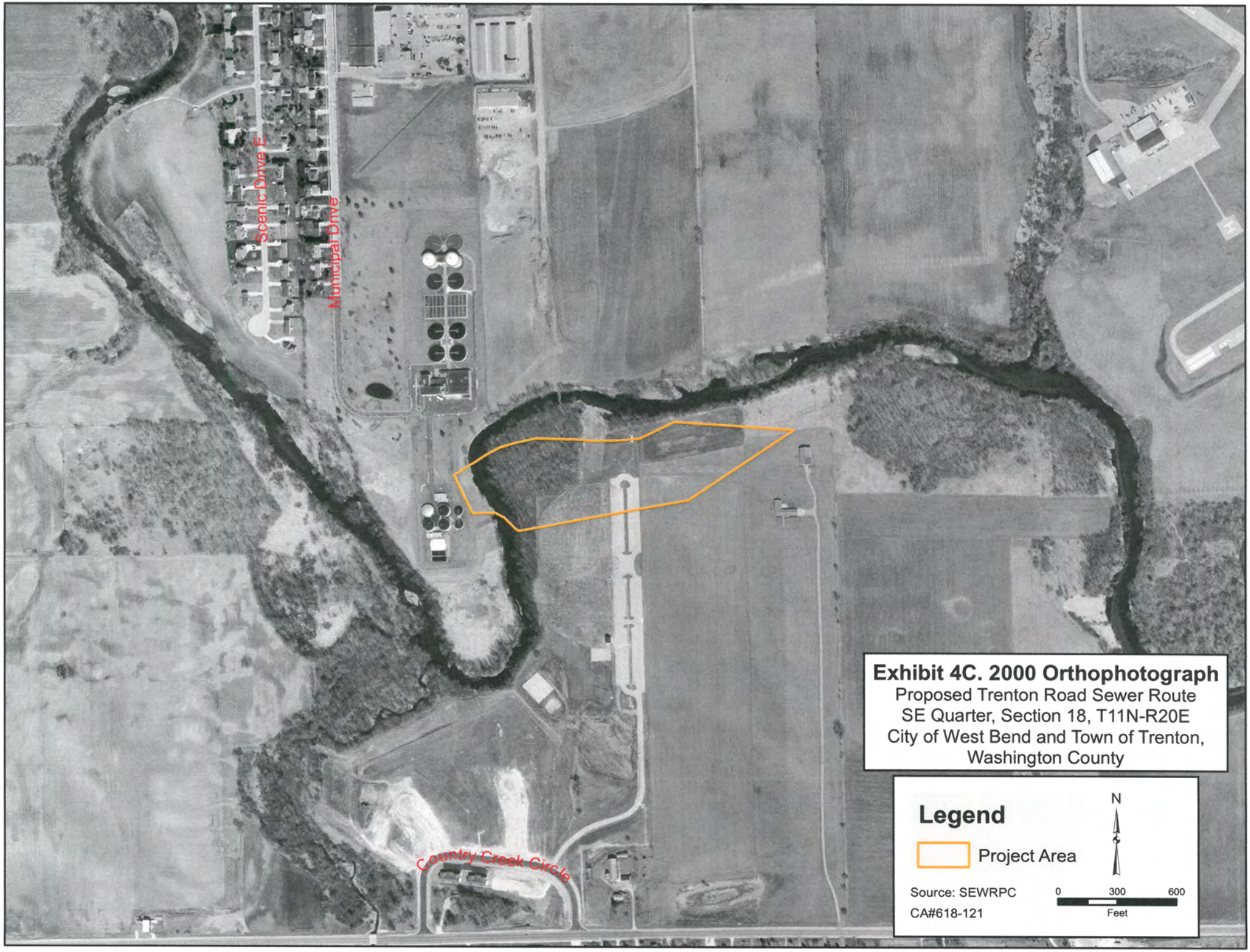
870
Exhibit 1. Topographic Map
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and
Town of Trenton, Washington County
Legend
Project Area
N
0
100
200
Feet
Source: SEWRPC
Date of Photography: 2010
CA#618-121


W0Hx
E2Kr
U
MmA
W0Hx
T3E2K
Milwaukee River
Ww
FoKr
Milwaukee River
WmA
WmA
T3K
T3K
T3K
Ww
MmA
MmA
Ww
Exhibit 2. Wisconsin Wetland Inventory Map
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County
Legend
Project Area
Wetland
Wetland Loss
Wetland Indicators
USGS Waterway
N
0
100
200
Feet
Date of Photography: 2010
Source: USGS, WIDNR
CA#618-121


CkC2
FsA
CcB2
Am
Ww
W
CcC2
BnB
Exhibit 3. Soils and Floodplain Map
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and
Town of Trenton, Washington County
Legend
Floodway
100 Year Floodplain
Poorly drained or Very poorly drained
Somewhat poorly drained
Other Soils
N
0
100
200
Feet
Source: SEWRPC
Date of Photography: 2010
CA#618-121


Scenic Drive E.
Municipal Drive
Trenton Road
Creekwood Drive
Country Creek Circle
Exhibit 4A. 2010 Orthophotograph
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County
Legend
Project Area
N
Source: SEWRPC
CA#618-121
0
300
600
Feet


Scenic Drive E
Municipal Drive
Trenton Road
Creekwood Drive
Country Creek Circle
Exhibit 4B. 2005 Orthophotograph
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County
Legend
Project Area
N
Source: SEWRPC
CA#618-121
0
300
600
Feet


Scenic Drive E
Municipal Drive
Country Creek Circle
Exhibit 4C. 2000 Orthophotograph
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County
Legend
Project Area
N
Source: SEWRPC
CA#618-121
0
300
600
Feet

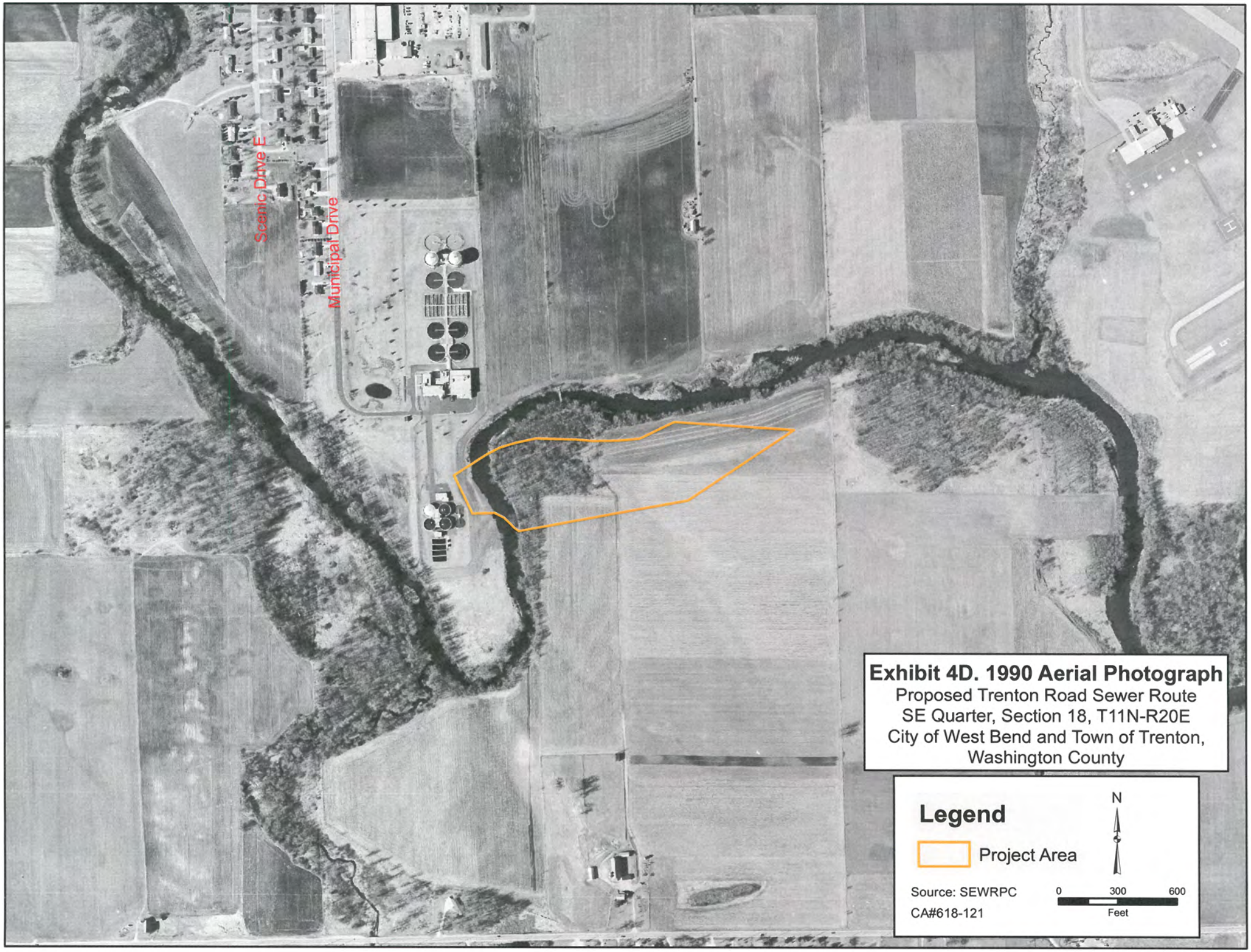


Exhibit 4D. 1990 Aerial Photograph
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County

Legend

Project Area

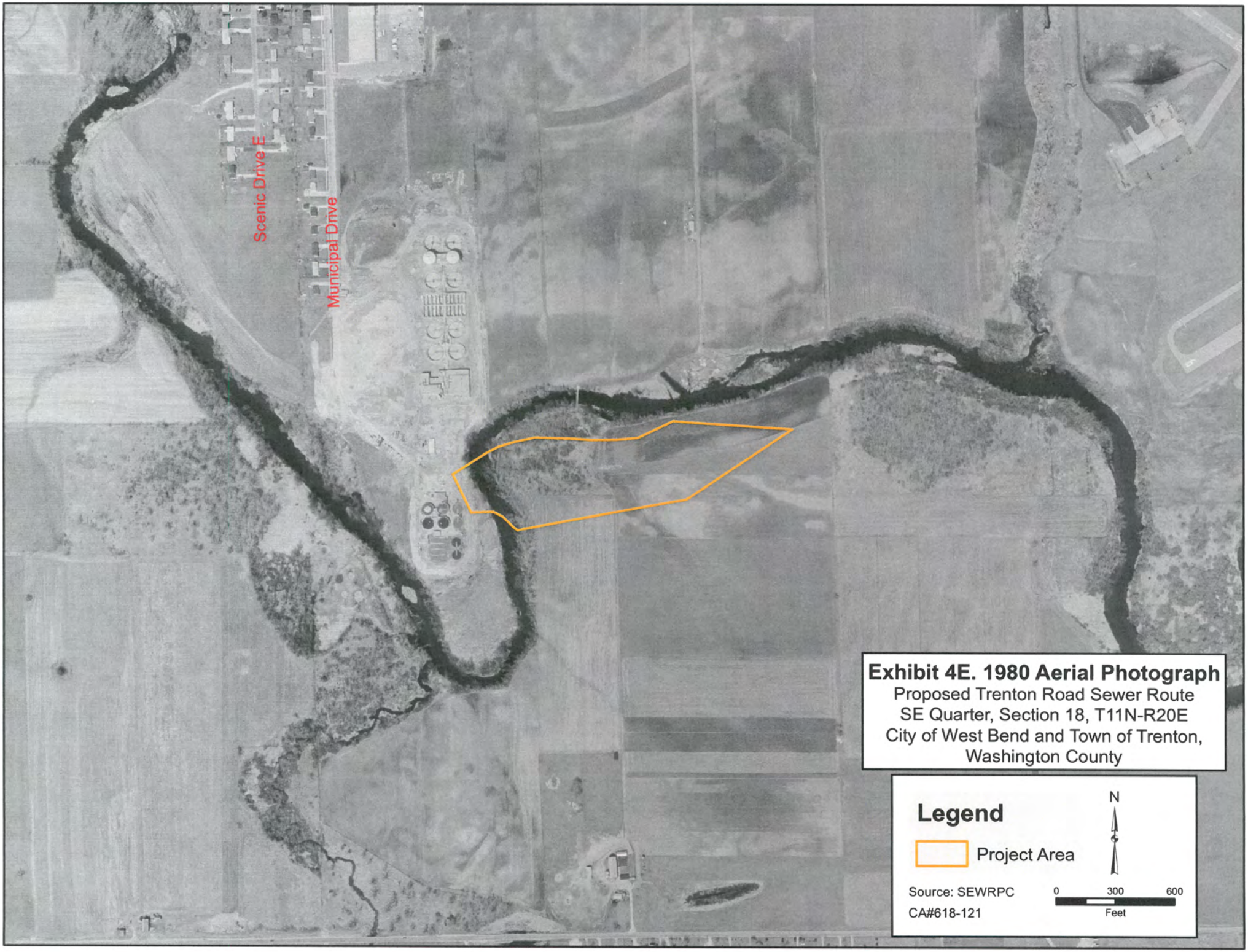
N

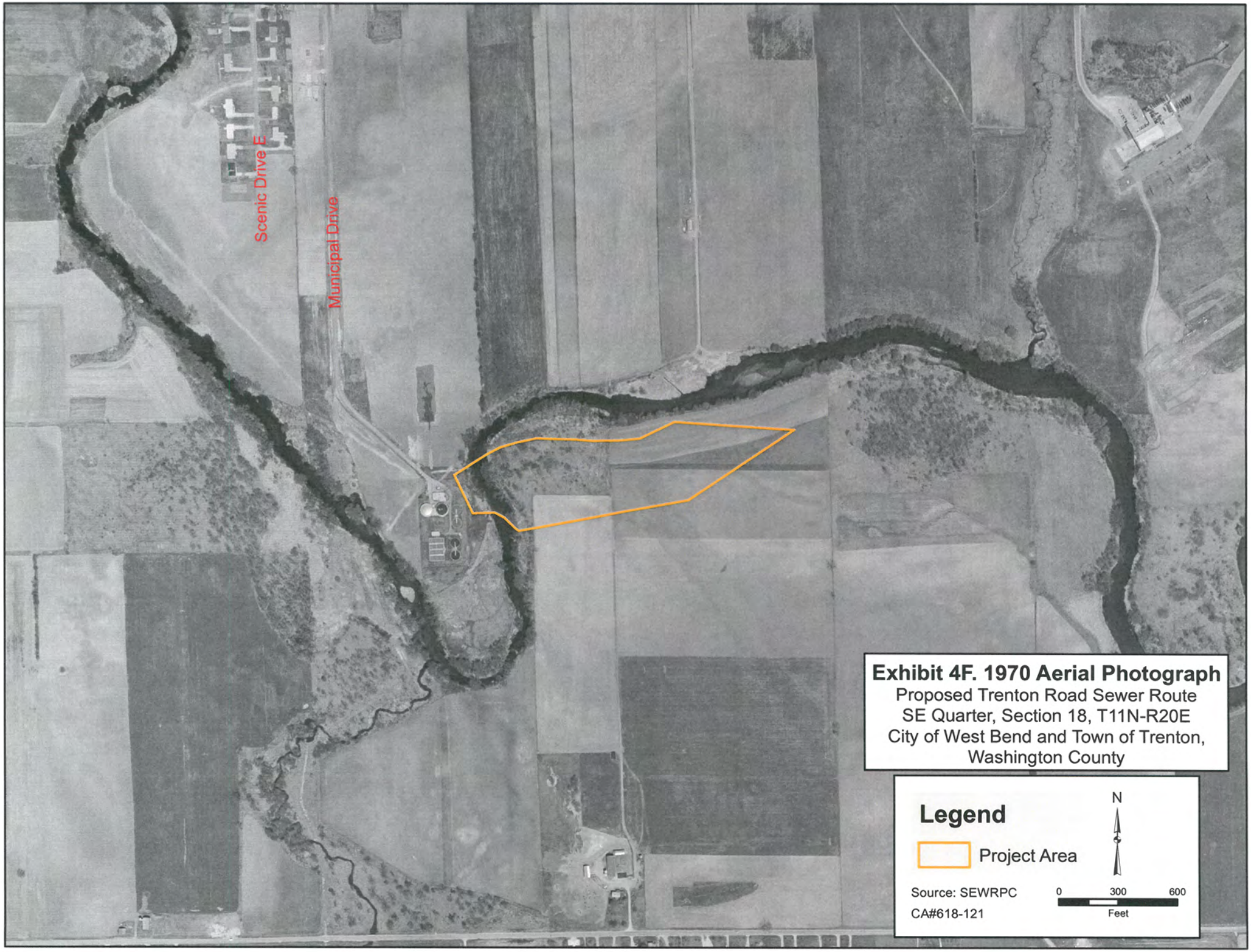
Source: SEWRPC

CA#618-121

0 300 600

Feet


Scenic Drive E
Municipal Drive
Exhibit 4E. 1980 Aerial Photograph
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County
Legend
Project Area
N
Source: SEWRPC
CA#618-121
0
300
600
Feet


Scenic Drive E
Municipal Drive
Exhibit 4F. 1970 Aerial Photograph
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County
Legend
Project Area
N
Source: SEWRPC
CA#618-121
0
300
600
Feet

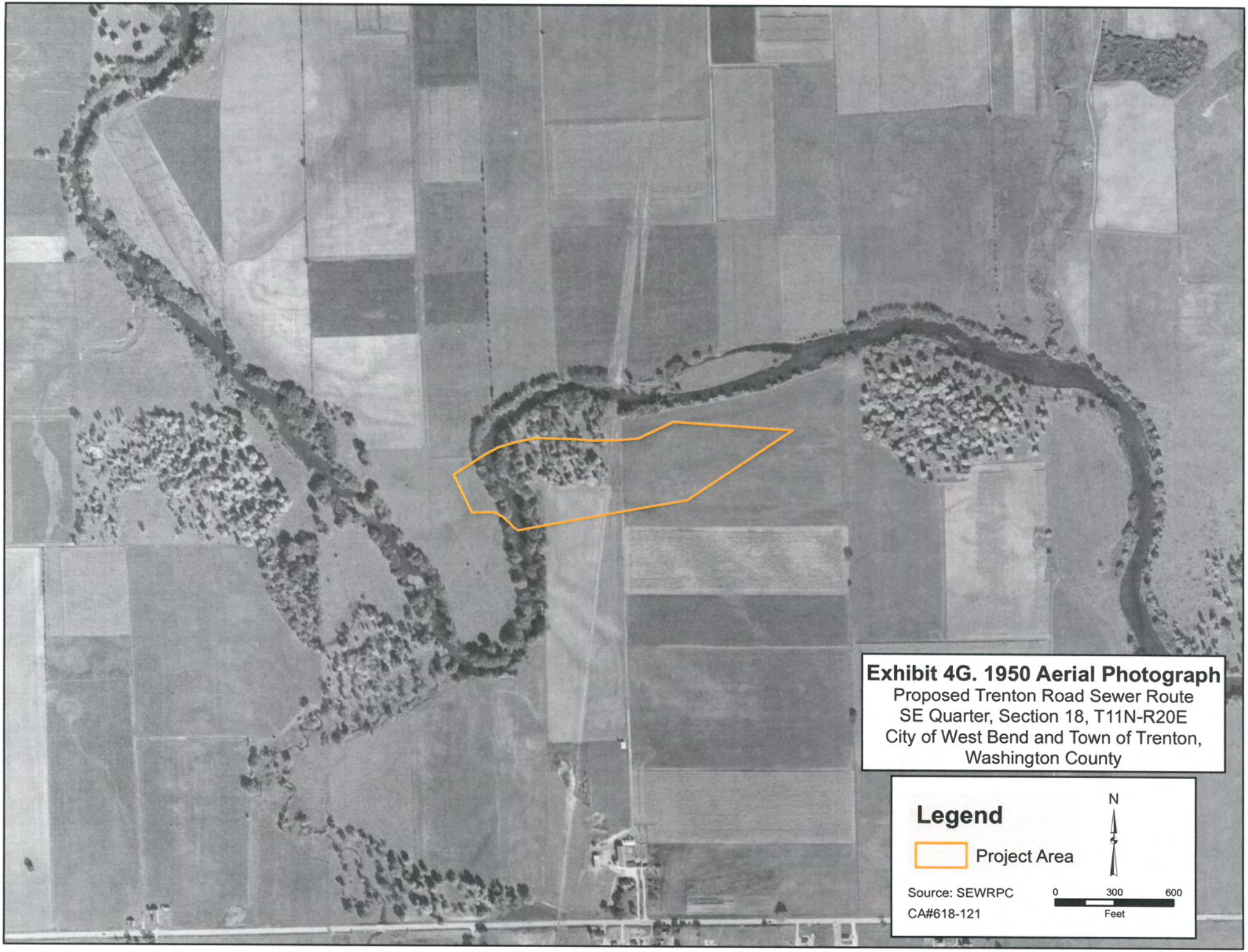


Exhibit 4G. 1950 Aerial Photograph
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County
Legend
Project Area
N
Source: SEWRPC
CA#618-121
0
300
600
Feet

EXHIBIT 5. Sanitary Sewer Service Map

Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton, Washington County

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

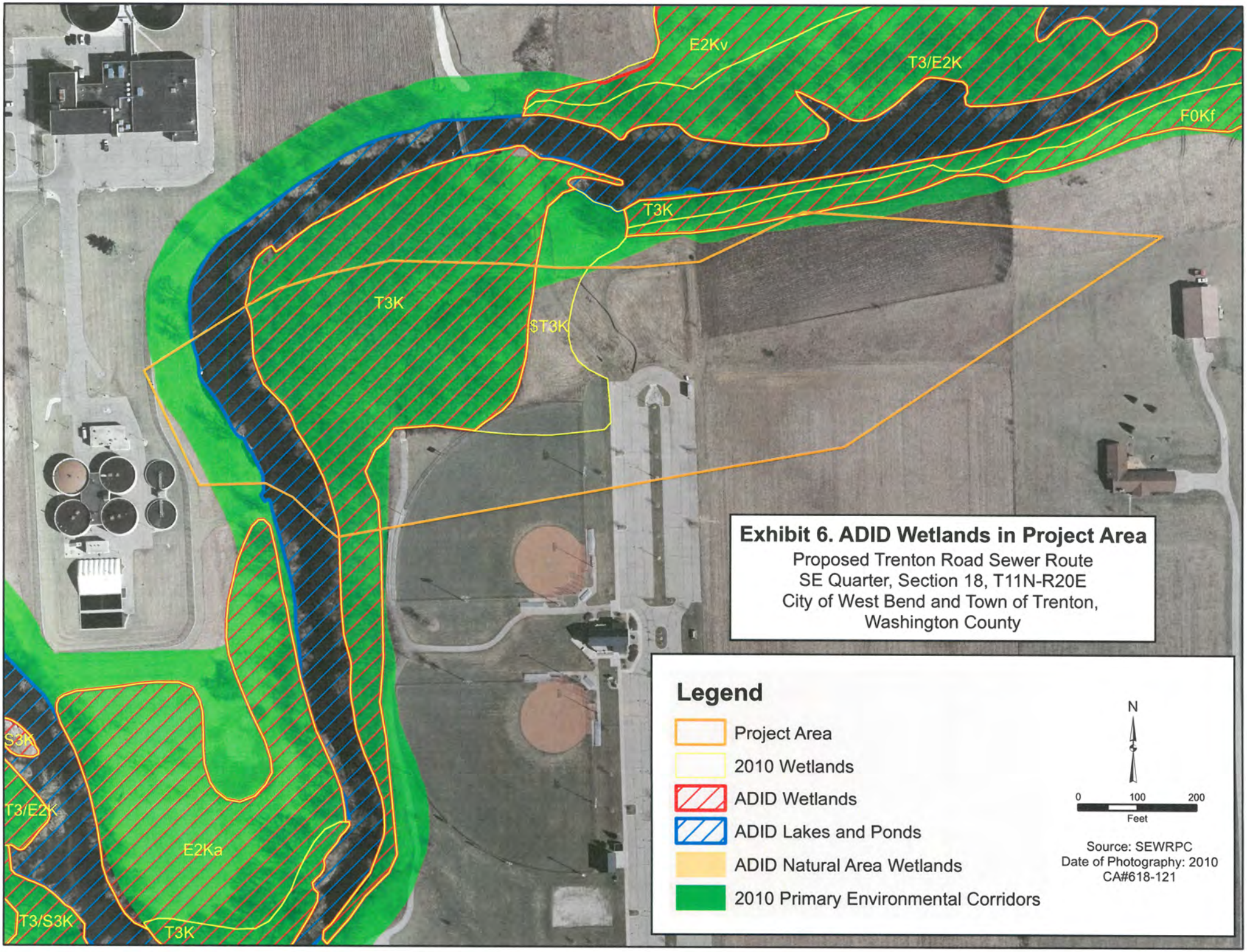
U. S. Public Land Survey Sections 17, 18, 19, and 20
Township 11 North, Range 20 East

LEGEND

- PRIMARY 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
- Project Area

GRAPHIC SCALE

Source: SEWRPC.


E2Kv
T3/E2K
F0Kf
T3K
T3K
$T3K
S3K
T3/E2K
E2Ka
T3/S3K
T3K
Exhibit 6. ADID Wetlands in Project Area
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County
Legend
Project Area
2010 Wetlands
ADID Wetlands
ADID Lakes and Ponds
ADID Natural Area Wetlands
2010 Primary Environmental Corridors
N
0
100
200
Feet
Source: SEWRPC
Date of Photography: 2010
CA#618-121

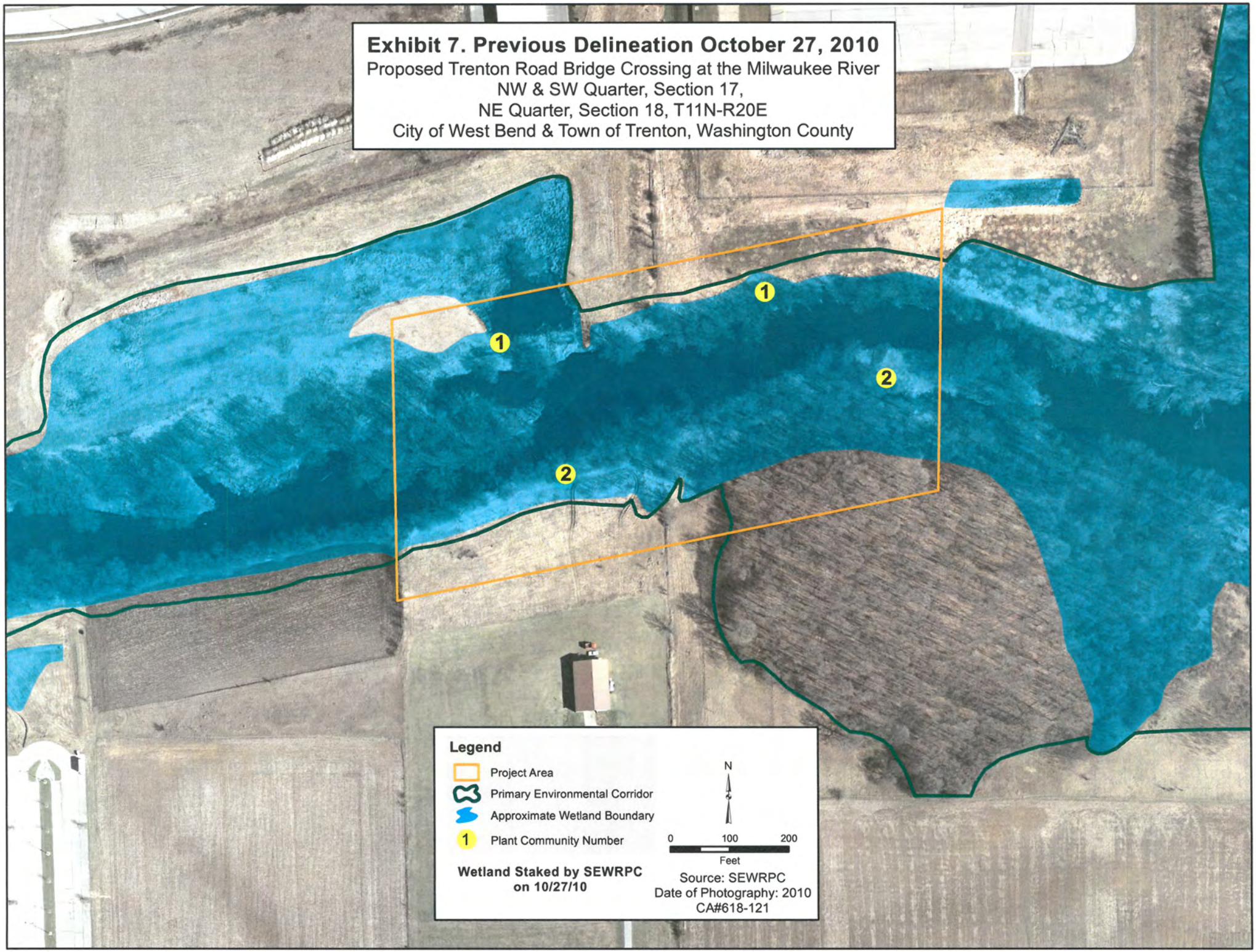
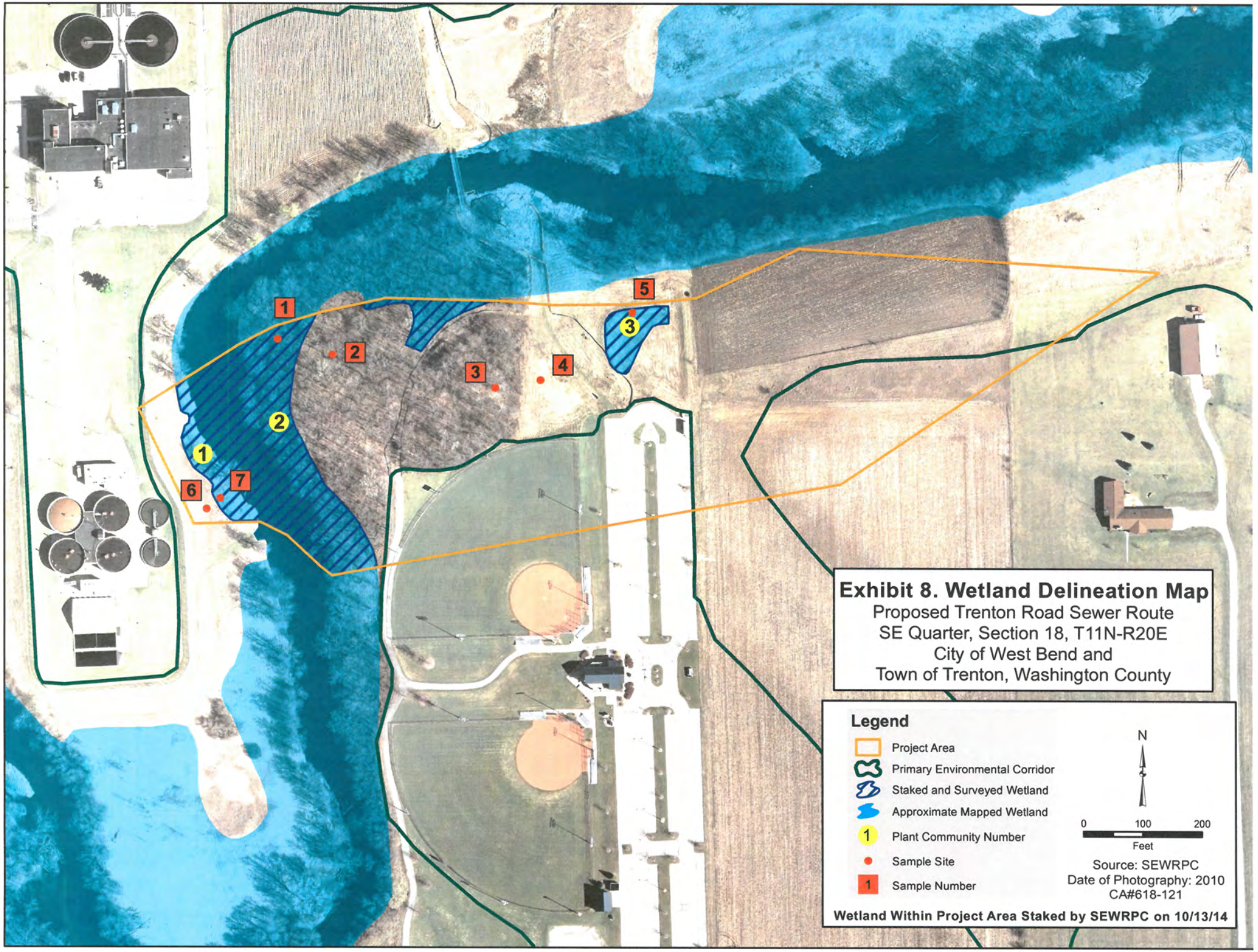


Exhibit 7. Previous Delineation October 27, 2010
Proposed Trenton Road Bridge Crossing at the Milwaukee River
NW & SW Quarter, Section 17,
NE Quarter, Section 18, T11N-R20E
City of West Bend & Town of Trenton, Washington County
1
1
2
2
Legend
Project Area
Primary Environmental Corridor
Approximate Wetland Boundary
1 Plant Community Number
Wetland Staked by SEWRPC on 10/27/10
N
0 100 200
Feet
Source: SEWRPC
Date of Photography: 2010
CA#618-121


1
2
3
4
5
6
7
1
2
3
Exhibit 8. Wetland Delineation Map
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and
Town of Trenton, Washington County
Legend
Project Area
Primary Environmental Corridor
Staked and Surveyed Wetland
Approximate Mapped Wetland
Plant Community Number
Sample Site
Sample Number
N
0
100
200
Feet
Source: SEWRPC
Date of Photography: 2010
CA#618-121
Wetland Within Project Area Staked by SEWRPC on 10/13/14

SVY4185
CA618-121

EXHIBIT 9

PRELIMINARY VEGETATION SURVEY
PROPOSED TRENTON ROAD SEWER ROUTE

Date: October 13, 2014

Observers: Christopher J. Jors, Biologist
Jennifer L. Dietl, Biologist
Zofia Noe, Biologist
Southeastern Wisconsin Regional Planning Commission

Location: City of West Bend and Town of Trenton in parts of the Southeast one-quarter of U.S. Public Land Survey Section 18, Township 11 North, Range 10 East, Washington County, Wisconsin.

Species List: Plant Community Area No. 1 - Native Plant Species
Dominant Plant Species

Epilobium coloratum--Willow-herb
Fraxinus pennsylvanica--Green ash
Helenium autumnale--Sneezeweed
Oenothera biennis--Evening-primrose
Salix interior--Sandbar willow
Urtica dioica--Stinging nettle
Verbena hastata--Blue vervain
Vitis riparia--Riverbank grape

Plant Community Area No. 1 - NON-Native Plant Species

Agropyron repens--Quack grass
Barbarea vulgaris--Yellow rocket
Bromus inermis--Smooth brome grass (Growing on edge of wetland)
Cirsium arvense--Canada thistle
***Phalaris arundinacea*--Reed canary grass**
Poa pratensis--Kentucky bluegrass

Total number of plant species: 14
Number of alien, or non-native, plant species: 6 (43 percent)

This approximately 0.6-acre plant community area is part of the Milwaukee River floodplain- wetland complex and consists of fresh (wet) meadow. Disturbances to the plant community area include dumping, filling and grading, mowing, siltation and sedimentation due to stormwater runoff from adjacent lands, and placement of treatment plant outfall structure. While no Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection, Greater redhorse (*Moxostomata valenciennesi*), a State-designated Special Concern fish species, has been recorded in this reach of the Milwaukee River.

Plant Community Area No. 2 - Native Plant Species
CO-dominant Plant Species

Acer negundo--Boxelder
Acer saccharinum--Silver maple
Acer saccharum--Sugar maple
Aster lateriflorus--Calico aster
Carex blanda--Wood sedge
Carex grayii--Bur sedge
Carex sp.--Sedge
Celtis occidentalis--Hackberry
Cicuta maculata--Spotted water-hemlock
Cinna arundinacea--Wood reed grass
Cornus amomum--Silky dogwood
Elymus virginicus--Virginia wild rye
***Fraxinus pennsylvanica*--Green ash**
Geranium maculatum--Wild geranium
Hydrophyllum virginianum--Virginia waterleaf
Iris virginica--Virginia blueflag
Laportea canadensis--Wood nettle
Lycopus uniflorus--Northern bugleweed
Matteuccia struthiopteris--Ostrich fern
Pilea pumila--Clearweed
Populus deltoides--Cottonwood
Prunella vulgaris--Selfheal
Prunus virginiana--Chokecherry
Quercus bicolor--Swamp white oak
Quercus macrocarpa--Bur oak
Ranunculus septentrionalis--Swamp buttercup
Ribes americanum--Wild black currant
Salix nigra--Black willow
Scrophularia marilandica--Late figwort
Smilax sp.--Greenbrier
Solidago gigantea--Giant goldenrod
Thalictrum dasycarpum--Tall meadow rue
Thalictrum dioicum--Woodland meadow rue
***Tilia americana*--Basswood**
Ulmus americana--American elm
Viburnum lentago--Nannyberry
Vitis riparia--Riverbank grape

Plant Community Area No. 2 - NON-Native Plant Species

Alliaria officinalis--Garlic-mustard
Phalaris arundinacea--Reed canary grass
Rhamnus cathartica--Common buckthorn
Viburnum opulus--European highbush-cranberry

Total number of plant species: 41
Number of alien, or non-native, plant species: 4 (10 percent)

This approximately 1.3-acre plant community area is part of the Milwaukee River floodplain- wetland complex and consists of second growth, Southern wet to wet-mesic lowland hardwoods. Disturbances to the plant community area include filling and grading along the wetland edge for paved trail and boardwalk construction, and siltation and sedimentation due to stormwater runoff from adjacent lands. While no Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection, Greater redhorse (*Moxostomata valenciennesi*), a State-designated Special Concern fish species, has been recorded in this reach of the Milwaukee River.

Plant Community Area No. 3 - Native Plant Species
Co-dominant Plant Species

Andropogon gerardii--Big bluestem
Fraxinus pennsylvanica--Green ash
Geum canadense--White avens
Juncus dudleyi--Dudley's rush
Ratibida pinnata--Gray-headed coneflower
***Salix interior*--Sandbar willow**
Solidago gigantea--Giant goldenrod
Solidago graminifolia--Grassleaf goldenrod

Plant Community Area No. 3 - NON-Native Plant Species

Agropyron repens--Quack grass
Agrostis stolonifera--Creeping bentgrass
***Phalaris arundinacea*--Reed canary grass**
Poa pratensis--Kentucky bluegrass

Total number of plant species: 12
Number of alien, or non-native, plant species: 4 (33 percent)

This approximately 0.2-acre wetland plant community area consists of a constructed storm-water pond with fresh (wet) meadow and shrub-carr. Disturbances to the plant community area include filling and grading for an adjacent trail, pond construction, side casting of dredge spoil material, and siltation and sedimentation due to stormwater runoff from adjacent lands. While no Federal- or State-designated Special Concern, Threatened, or Endangered species were observed during the field inspection, Greater redhorse (*Moxostomata valenciennesi*), a State-designated Special Concern fish species, has been recorded in this reach of the Milwaukee River.

EXHIBIT 10

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Proposed Trenton Rd Sewer Route City/County: City of West Bend/Washington County Sampling Date: 10/13/2014
Applicant/Owner: ____ State: WI Sampling Point: 1
Investigator(s): Jen Dietl, Zofia Noe, Chris Jors; SEWRPC Section, Township, Range: SE 1/4 Section 18, T11N, R20E
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: T3K
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: Plant Community Area (PCA) No. 2		

Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the previous 90 days. Problematic soils - Fluvial Deposits within Floodplains. This sample area consists of a low terrace with mixed hardwoods along the Milwaukee River.

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): 17

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), NRCS Map (Exhibit 3)

Remarks: Sample site is located in the Milwaukee River floodway.

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

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. **Tilia americana**	**75**	☒	**FACU**
2. **Acer saccharinum**	**30**	☒	**FACW**
3. **Celtis occidentalis**	**30**	☒	**FAC**
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	135	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. **Tilia americana**	**10**	☒	**FACU**
2. Prunus virginiana	2	☐	FACU
3. Rhamnus cathartica	2	☐	FAC
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	14	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. **Elymus virginicus**	**20**	☒	**FACW**
2. **Ranunculus septentrionalis**	**20**	☒	**FAC**
3. **Rhamnus cathartica**	**20**	☒	**FAC**
4. Aster lateriflorus	10	☐	FAC
5. Hydrophyllum virginianum	10	☐	FAC
6. Thalictrum dasycarpum	10	☐	FACW
7. Carex blanda	5	☐	FAC
8. Celtis occidentalis	5	☐	FAC
9. Prunus virginiana	2	☐	FACU
10. ____	____	☐	____
11. ____	____	☐	____
12. ____	____	☐	____
	102	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1. Vitis riparia	2	☐	FAC
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
	2	= 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: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **71%** (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.) Lowland hardwoods.

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	10YR 3/1	100					Loam	
8-17	10YR 3/2	100					Clay loam	
17-22	10YR 3/2	59	5YR 3/4	2	C	PL M	Sandy clay loam	
	10YR 6/2	39						
22-28	10YR 4/2	89	5YR 3/4	2	C	PL M	Fine sand	
	10YR 6/2	9						

[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: Problematic soil - Fluvial Deposits within Floodplains.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Proposed Trenton Rd Sewer Route City/County: City of West Bend/Washington County Sampling Date: 10/13/2014
Applicant/Owner: ____ State: WI Sampling Point: 2
Investigator(s): Jen Dietl, Zofia Noe, Chris Jors; SEWRPC Section, Township, Range: SE 1/4 Section 18, T11N, R20E
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: T3K
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 X 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.) Below normal precipitation for the previous 90 days. This sample area is higher in elevation than sample site 1 and consists of mixed hardwoods. While primary indicators of hydrology (drift lines and water stained leaves) were present, it was determined that they were left during a brief flooding event and represent a false-positive for wetland hydrology. In addition, vegetation has transitioned to an upland plant community.

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), NRCS Map (Exhibit 3).

Remarks: Sample site is just inside the Milwaukee River floodway (D2). It was determined that the primary indicators observed here are a false-positve for wetland hydrology. These primary indicators are the result of a brief flooding event, not of sufficient duration.

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

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. **Tilia americana**	**40**	☒	**FACU**
2. **Celtis occidentalis**	**35**	☒	**FAC**
3. Acer saccharum	15	☐	FACU
4. Prunus serotina	10	☐	FACU
5. Quercus bicolor	10	☐	FACW
6. ____	____	☐	____
7. ____	____	☐	____
	110	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. **Rhamnus cathartica**	**80**	☒	**FAC**
2. Lonicera x bella	3	☐	FACU
3. Acer negundo	1	☐	FAC
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	84	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. **Thalictrum dioicum**	**5**	☒	**FACU**
2. **Carex pensylvanica**	**2**	☒	**NI**
3. **Rhamnus cathartica**	**2**	☒	**FAC**
4. Aster lateriflorus	1	☐	FAC
5. Carex blanda	1	☐	FAC
6. Geranium maculatum	1	☐	FACU
7. Hydrophyllum virginianum	1	☐	FAC
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
11. ____	____	☐	____
12. ____	____	☐	____
	13	= 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: 6 (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	____	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.) Mixed hardwoods.

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-15	10YR 3/1	100					Loam	
15-20	10YR 2/2	100					Clay loam	
20-24	10YR 4/2	98	7.5YR 5/6	2	C	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)
- ☐ 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: Proposed Trenton Rd Sewer Route City/County: City of West Bend/Washington County Sampling Date: 10/13/2014
Applicant/Owner: ____ State: WI Sampling Point: 3
Investigator(s): Jen Dietl, Zofia Noe, Chris Jors; SEWRPC Section, Township, Range: SE 1/4 Section 18, T11N, R20E
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 6-12%
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Casco sandy loam (CcC2) 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____, 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.) Below normal precipitation for the previous 90 days. Sample site chosen to represent a clear upland sample in all three criteria.

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), NRCS Map (Exhibit 3)

Remarks: Sample site is located in the Milwaukee River 100 year floodplain (D2).

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

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. **Acer saccharum**	**50**	☒	**FACU**
2. **Celtis occidentalis**	**20**	☒	**FAC**
3. **Tilia americana**	**20**	☒	**FACU**
4. Quercus macrocarpa	10	☐	FACU
5. Quercus rubra	10	☐	FACU
6. ____	____	☐	____
7. ____	____	☐	____
	110	= Total Cover	
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. **Zanthoxylum americanum**	**15**	☒	**FACU**
2. **Viburnum lentago**	**6**	☒	**FAC**
3. Celtis occidentalis	5	☐	FAC
4. Lonicera x bella	5	☐	FACU
5. Rhamnus cathartica	3	☐	FAC
6. ____	____	☐	____
7. ____	____	☐	____
	34	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. **Acer saccharum**	**20**	☒	**FACU**
2. **Carex blanda**	**15**	☒	**FAC**
3. Zanthoxylum americanum	10	☐	FACU
4. Poa pratensis	5	☐	FACU
5. Lonicera x bella	3	☐	FACU
6. Rhamnus cathartica	3	☐	FAC
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
11. ____	____	☐	____
12. ____	____	☐	____
	56	= 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: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **43%** (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 hardwoods.

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-9	10YR 2/1	100					Silt loam	
9-15	10YR 2/2	100					Silt loam	with rocks/cobbles
15-20	10YR 3/2	100					Fine sand	
20+								Refusal: Dry sand

[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: Dry sand/till material

Depth (inches): 20

Hydric Soil Present? Yes ☐ **No** ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Proposed Trenton Rd Sewer Route City/County: City of West Bend/Washington County Sampling Date: 10/13/2014
Applicant/Owner: ____ State: WI Sampling Point: 4
Investigator(s): Jen Diell, Zofia Noe, Chris Jors; SEWRPC Section, Township, Range: SE 1/4 Section 18, T11N, R20E
Landform (hillslope, terrace, etc.): drainage way 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: $T3K
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: ____		

Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the previous 90 days. Sample site is located in a disturbed area where soils have been altered due to installation of underground gas lines and adjacent park/trail developments. In addition, area appears to have been graded to improve drainage from surrounding lands. While hydrophytic vegetation is present the lack of wetland hydrology and wetland soils at this site represent non-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): ____

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), NRCS Map (Exhibit 3)

Remarks: While sample site area is located in the Milwaukee River 100 year floodplain, the rapid permeability of the soils (sandy loam and sandy loam with gravel) and lacking a near surface water table indicates that Geomorphic Position (D2) would not apply..

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

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 interior**	**40**	☒	**FACW**
2. Acer negundo	5	☐	FAC
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	45	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. **Phalaris arundinacea**	**30**	☒	**FACW**
2. **Aster novae-angliae**	**20**	☒	**FACW**
3. Carex pellita	10	☐	OBL
4.		☐	
5.		☐	
6.		☐	
7.		☐	
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: 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 willow thicket on recently disturbed soils (filling and grading).

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-10	10YR 2/2	100					Sandy loam	
10-11	10YR 3/2	98	10YR 5/6	2	C	PL M	Sandy loam with gravel	
11+							Rocks and gravel	Refusal

[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 and gravel

Depth (inches): 11

Hydric Soil Present? Yes ☐ **No** ☒

Remarks: Recently filled and graded. Sample area was probed several times in different areas to approximately 6 inches.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Proposed Trenton Rd Sewer Route City/County: City of West Bend/Washington County Sampling Date: 10/13/2014
Applicant/Owner: ____ State: WI Sampling Point: 5
Investigator(s): Jen Dietl, Zofia Noe, Chris Jors; SEWRPC Section, Township, Range: SE 1/4 Section 18, T11N, R20E
Landform (hillslope, terrace, etc.): constructed stormwater pond 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: 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 No. 3		

Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the previous 90 days. Sample site is located in a constructed stormwater detention pond that is part of the park/trail development. Disturbed soils due to grading for construction of stormwater pond and adjacent trail development. Unlike soils at sample site 4, this soil profile meets a hydric soils indicator.

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), NRCS Map (Exhibit 3)

Remarks: Sample site is located in the Milwaukee River 100 year floodplain.

VEGETATION – Use scientific names of plants.

Sampling Point: 5

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 interior**	**60**	☒	**FACW**
2. Fraxinus pennsylvanica	1	☐	FACW
3.		☐	
4.		☐	
5.		☐	
6.		☐	
7.		☐	
	61	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. **Phalaris arundinacea**	**40**	☒	**FACW**
2. **Poa pratensis**	**25**	☒	**FACU**
3. **Solidago graminifolia**	**25**	☒	**FAC**
4. Solidago gigantea	10	☐	FACW
5. Geum canadense	5	☐	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: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: **75%** (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.) Constructed stormwater detention pond with fresh (wet) meadow and willow 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)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/2	90	10YR 5/8	5	C	PL M	Clay	
	10YR 3/1	5						
10+							Gravel	Refusal: fill material

[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 (fill material?)

Depth (inches): 10

Hydric Soil Present? Yes ☒ No ☐

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Proposed Trenton Rd Sewer Route City/County: City of West Bend/Washington County Sampling Date: 10/13/2014
Applicant/Owner: ____ State: WI Sampling Point: 6
Investigator(s): Jen Dietl, Zofia Noe, Chris Jors; SEWRPC Section, Township, Range: SE 1/4 Section 18, T11N, R20E
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): nearly level
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Wet alluvial land (Ww) 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.) Below normal precipitation for the previous 90 days. Sample area was chosen due to a higher elevation than sample site 7 and presence of upland vegetation.

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), NRCS Map (Exhibit 3)

Remarks: Sample site is located in the Milwaukee River floodway (D2).

VEGETATION – Use scientific names of plants.

Sampling Point: 6

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. **Agropyron repens**	**80**	☒	**FACU**
2. Cirsium arvense	15	☐	FACU
3. Poa pratensis	15	☐	FACU
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
8. ____	____	☐	____
9. ____	____	☐	____
10. ____	____	☐	____
11. ____	____	☐	____
12. ____	____	☐	____
	110	= 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.) Upland old 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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-13	10YR 3/2	100					Clay loam	
13-15	10YR 3/2	78	7.5YR 5/8	2	C	PL M	Loam	
	10YR 2/1	18	2.5Y 6/6	2	C	PL M		
15+								Refusal: Rocks/fillI material

[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/fill material

Depth (inches): 15

Hydric Soil Present? Yes ☐ **No** ☒

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Proposed Trenton Rd Sewer Route City/County: City of West Bend/Washington County Sampling Date: 10/13/2014
Applicant/Owner: ____ State: WI Sampling Point: 7
Investigator(s): Jen Dietl, Zofia Noe, Chris Jors; SEWRPC Section, Township, Range: SE 1/4 Section 18, T11N, R20E
Landform (hillslope, terrace, etc.): low terrace Local relief (concave, convex, none): none Slope (%): nearly level
Subregion (LRR or MLRA): LRR K Lat: ____ Long: ____ Datum: ____
Soil Map Unit Name: Wet alluvial land (Ww) 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 X, 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 No. 1		

Remarks: (Explain alternative procedures here or in a separate report.) Below normal precipitation for the previous 90 days. Sample area is a low terrace along the Milwaukee River. Disturbed soils due to past filling for construction of sewage treatment plant (prioir to 1970). Problematic Fluvial soils.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ **Geomorphic Position (D2)**
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☒ **FAC-Neutral Test (D5)**

Field Observations:

Surface Water Present? Yes ☐ **No** ☒ 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), NRCS Map (Exhibit 3)

Remarks: Sample site is located in the Milwaukee River floodway.

VEGETATION – Use scientific names of plants.

Sampling Point: 7

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. **Fraxinus pennsylvanica**	**20**	☒	**FACW**
2. ____	____	☐	____
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
6. ____	____	☐	____
7. ____	____	☐	____
	20	= 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**	**95**	☒	**FACW**
2. Cirsium arvense	10	☐	FACU
3. ____	____	☐	____
4. ____	____	☐	____
5. ____	____	☐	____
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: 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 with scattered lowland hardwoods.

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-13	10YR 2/1	100					Loam	
13-15	10YR 3/1	98	7.5YR 5/8	2	C	PL M	Loam	
15+								Refusal: Rocks/old 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/old fill material?

Depth (inches): 15

Hydric Soil Present? **Yes** ☒ No ☐

Remarks: Problematic fluvial soils present and while no hydric soil indicator were observed, wetland soils are present due to low chroma colors. Professional judgment to consider this sample point wetland due to low chroma colors, dominance of hydrophytic vegetation, and landscape position.

EXHIBIT 11
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton, Washington County


Photo 1. Northeast view from sampling point 1.


Photo 2. Southern view from sampling point 1.

Photo 3. Mixed hardwood in Milwaukee River floodway at sampling point 2.

Photo 4. Fresh (wet) meadow and willow thicket at sampling points 4 and 5.

Photo 5. Western view from sampling point 6.

Photo 6. Bed of *Phalaris arundinacea* at sampling point 7.

EXHIBIT 12

Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton, Washington County

WETLAND DOCUMENTATION RECORD
Remotely Sensed Data Summary

Owner/Operator Zimdars (Proposed Sewer) County Washington State WI

Slide Reviewer Chris Jors Date 10/9/2014

Site Identification No. CA 618-121 (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)
2010	3	N CR
2008	2	N CR
2006	2	Y CR 6a
2005	1	N CR
2003	1	N CR
7/2002	3	N CR
6/2001	3	N CR
7/2000	3	N CR
8/1999	3	N CR
7/1998	2	Y CR - Far NW corner - 6e
7/1997	2	N CR
6/1996	2	Y CR 6e
6/1995	2	N CR
6/1994	1	Y CR 6e
6/1993	3	N CR
6/1992	1	N CR
6/1991	2	Y CR 6e`
8/1990	2	N CR
	5/16 =	31% (Included normal years and an equal number of wetter and draier than normal years
Air Photo		

Y = Yes, signal indicates wetness (+ = strong, - = weak)
CR = cropped (row crop or tilled)
N = No wetness signature
NC = not cropped (hay, pasture, idle, etc.)

Feature	Color	Manipulation (year if 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/tiled	

Does slide/air photo data indicate the site is a wetland? ☐ Yes ☐ No

 # 5 years out of # 16 years observed have wet (Y) signatures.

NRCS-CPA-32W
(6-9-06)

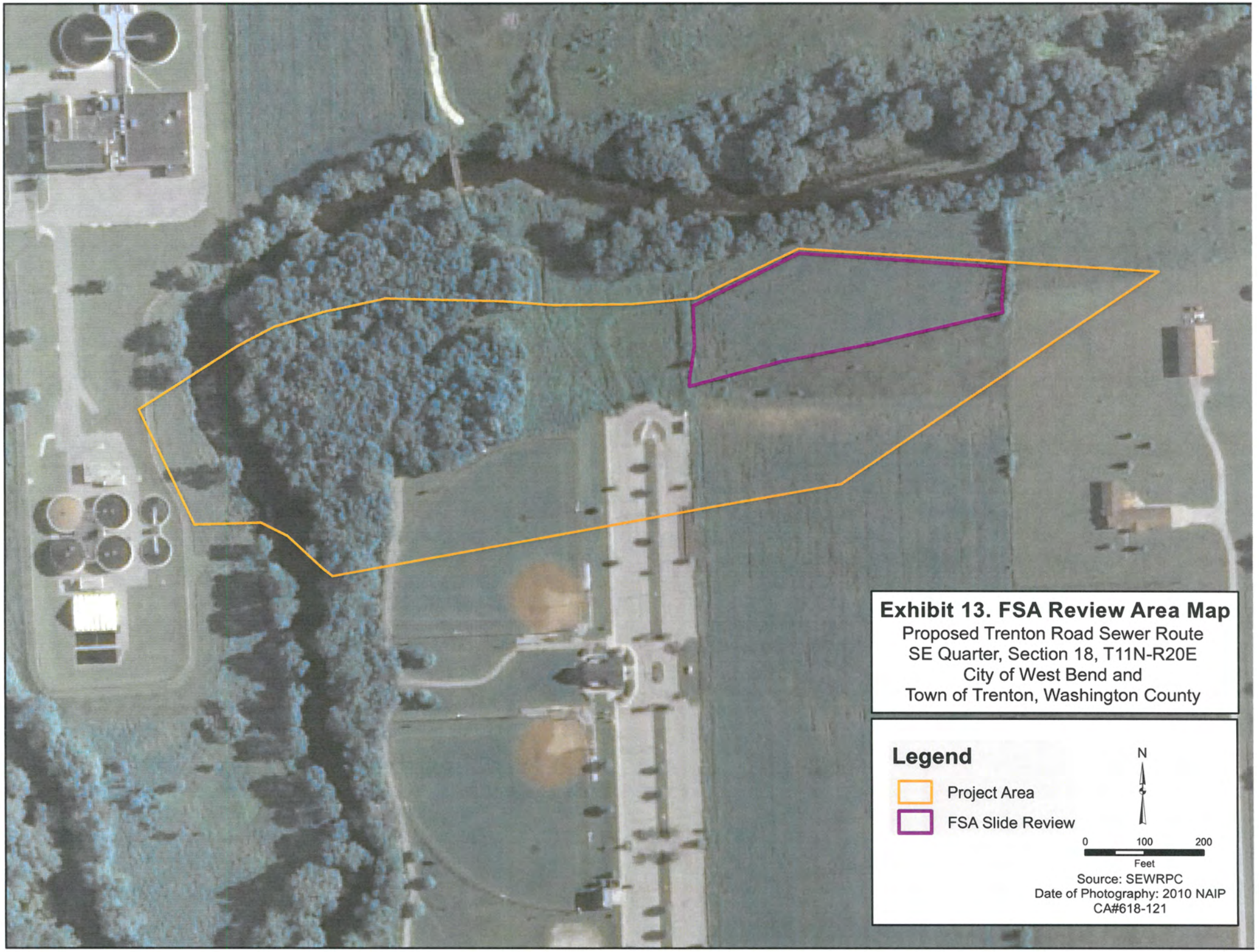


Exhibit 13. FSA Review Area Map
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and
Town of Trenton, Washington County
Legend
Project Area
FSA Slide Review
N
0
100
200
Feet
Source: SEWRPC
Date of Photography: 2010 NAIP
CA#618-121

Exhibit 14. FSA Slides

Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County

2010

2008

2006

Exhibit 14. FSA Slides

Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County

2005

2003

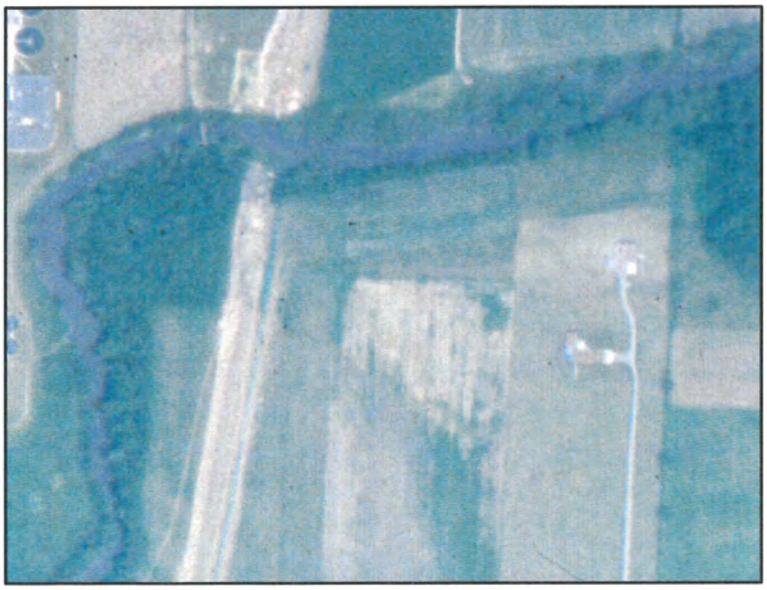
2002

Exhibit 14. FSA Slides

Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County

2001

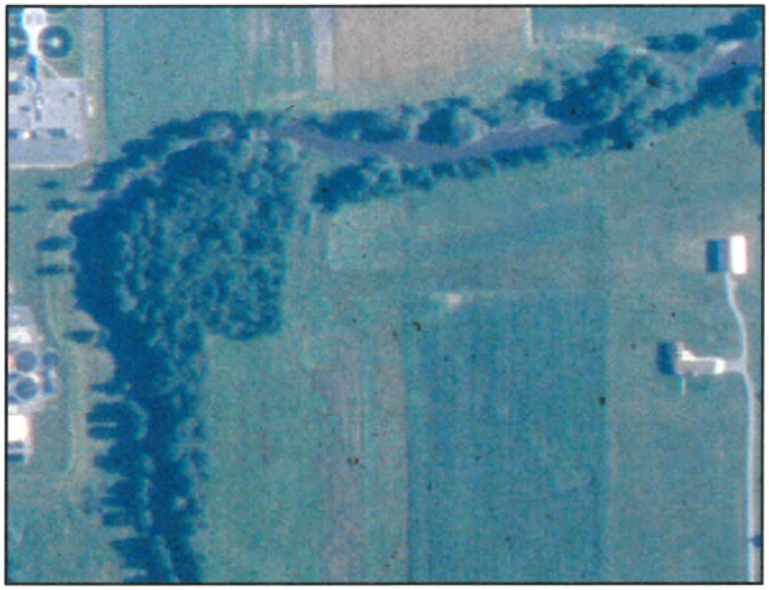
2000



1998

Exhibit 14. FSA Slides

Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County



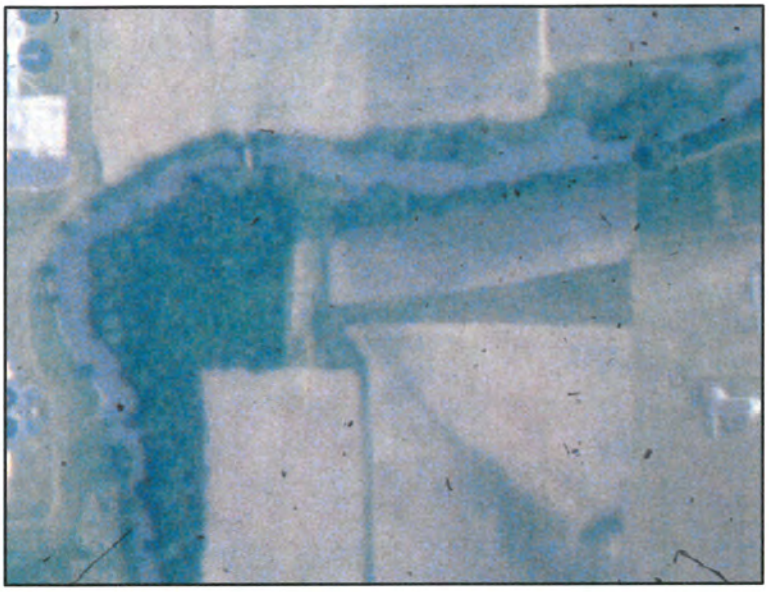
1997

1996

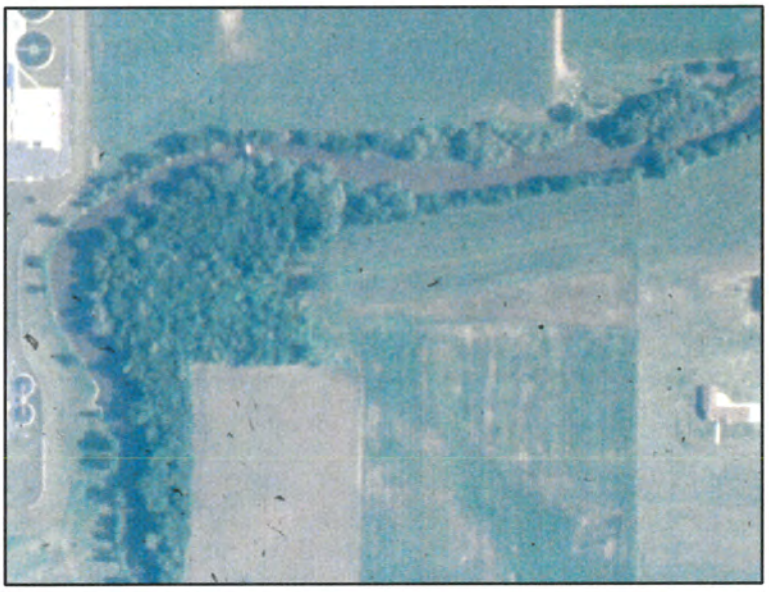
1995

Exhibit 14. FSA Slides

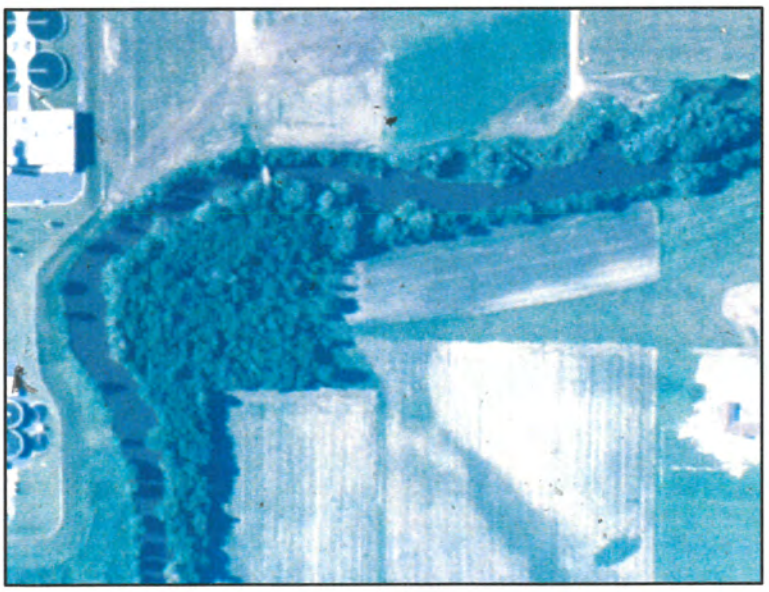
Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County



1994



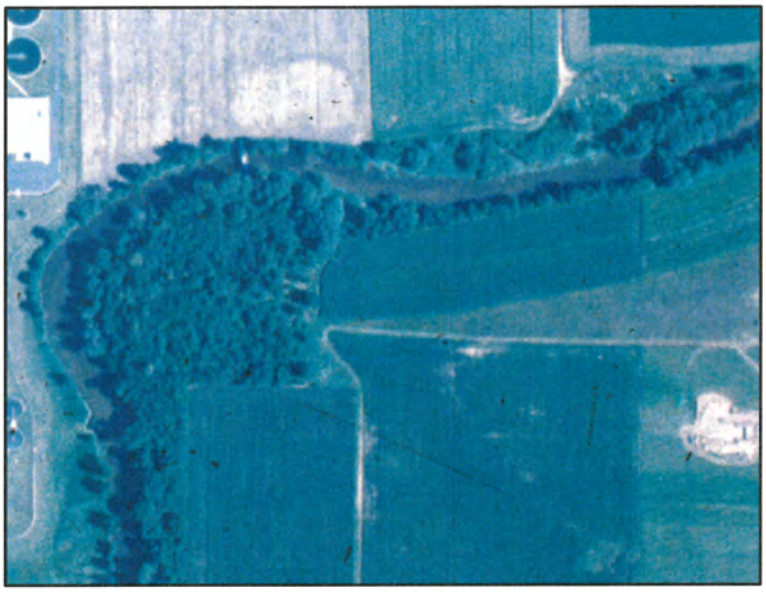
1992



1991

Exhibit 14. FSA Slides

Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton,
Washington County



1990

Exhibit 15. WETS Table Precipitation Data

Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton, Washington County

Filename: WEST BEND
Station name: WEST BEND
Station number: WI9050
County: Washington

	ACTUAL RAINFALL DATA					RAINFALL DATA EVALUATION FOR GIVEN MONTH 1 = Dry 2 = Normal 3 = Wet ERROR = Missing Data for that month					*July Evaluation (3 Months Prior to July - Wet, Dry or Normal?)*	*August Eval. (3 Months Prior to August - Wet, Dry or Normal?)*
Year	*April*	*May*	*June*	*July*	*August*	*April*	*May*	*June*	*July*	*August*		
1979	3.22	1.92	2.85	3.36	5.59	2	1	2	2	3	2	2
1980	3.27	2.85	3.32	3.79	6.12	2	2	2	2	3	2	2
1981	4.06	1.22	3.25	6.28	5.83	3	1	2	3	3	2	2
1982	4.00	4.40	2.54	2.93	3.07	3	3	1	2	2	2	2
1983	3.56	4.51	2.06	3.71	4.76	2	3	1	2	3	2	2
1984	4.11	3.45	6.63	4.58	3.31	3	2	3	2	2	3	2
1985	2.25	2.37	1.65	3.49	3.27	1	2	1	2	2	1	2
1986	2.37	1.88	4.03	5.67	4.00	1	1	2	3	2	1	2
1987	3.67	3.17	1.35	7.85	5.39	2	2	1	3	3	1	2
1988	2.87	0.39	1.49	1.93	2.94	2	1	1	1	1	1	1
1989	0.94	3.80	1.72	4.67	5.61	1	3	1	2	3	2	2
1990	2.15	4.55	4.35	1.61	2.97	1	3	2	1	1	2	2
1991	3.98	2.12	4.21		2.54	3	2	2	ERROR	1	2	#VALUE!
1992	2.73	0.87	1.54	3.82	3.00	2	1	1	2	1	1	1
1993	5.46	4.30	5.25	3.85	4.08	3	3	3	2	2	3	3
1994	2.02	1.25	3.38	5.89	:	1	1	2	3	ERROR	1	2
1995	3.92	2.29	1.19	2.61	7.93	3	2	1	1	3	2	1
1996	2.41	3.27	11.15	2.55	3.13	1	2	3	1	2	2	2
1997		2.30	4.93	2.84	4.60	ERROR	2	3	2	2	#VALUE!	2
1998	2.94	2.79	3.91	1.92	3.23	2	2	2	1	2	2	1
1999	3.58	5.48	5.09	9.37	3.04	2	3	3	3	2	3	3
2000	3.20	5.96	4.58	4.24	3.08	2	3	3	2	2	3	3
2001	4.49	4.24	4.69	3.71	4.30	3	3	3	2	2	3	3
2002	4.96	2.52	4.75		4.41	3	2	3	ERROR	2	3	#VALUE!
2003		5.71	2.08	2.17	3.66	ERROR	3	1	1	2	#VALUE!	1
2004	3.07	10.75	6.25	2.17	2.85	2	3	3	1	1	3	2
2005	1.45		2.53	5.17	1.93	1	ERROR	1	3	1	#VALUE!	#VALUE!
2006	3.66	4.59	1.38	3.24	2.33	2	3	1	2	1	2	2
2007	3.80	2.69	3.36	5.10	10.49	3	2	2	3	3	2	3
2008	6.50	0.91	12.05	2.85	0.93	3	1	3	2	1	2	2
2009	4.51	3.56	2.94	1.72	3.55	3	2	2	1	2	2	1
2010					:	ERROR	ERROR	ERROR	ERROR	ERROR	#VALUE!	#VALUE!
2011					:	ERROR	ERROR	ERROR	ERROR	ERROR	#VALUE!	#VALUE!
2012					:	ERROR	ERROR	ERROR	ERROR	ERROR	#VALUE!	#VALUE!

No recent data for this station, only for West Bend Public works (#052) or West Bend Fired Stn (#053)

Exhibit 15 cont. WETS Table Precipitation Data

Proposed Trenton Road Sewer Route
SE Quarter, Section 18, T11N-R20E
City of West Bend and Town of Trenton, Washington County

Normals are for 1971-2000 data

Month	
April	3.12
May	2.99
June	3.82
July	3.94
August	4.03

Weights:
1st month prior = 3
2nd month prior = 2
3rd month prior = 1

Normal inside 30% chance values

Dry: < lower bound for 30% chance
Wet: > upper bound for 30% chance

1 = Dry, 2 = Normal, 3 = Wet

	30% chance Lower bound (Dry)	Normal	30% chance Upper bound (Wet)
April	2.58	3.12	3.69
May	1.99	2.99	3.74
June	2.55	3.82	4.48
July	2.73	3.94	4.70
August	3.04	4.03	4.69
		9.93	

COPY

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
W239 N1812 ROCKWOOD DRIVE • PO BOX 1607 • WAUKESHA, WI 53187-1607•
TELEPHONE (262) 547-6721
FAX (262) 547-1103

Serving the Counties of:
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MILWAUKEE
OZAUKEE
RACINE
WALWORTH
WASHINGTON
WAUKESHA

February 12, 2015

Mr. Harlan E. Clinkenbeard
Community Development Director/City Planner
City of Pewaukee
W240N3065 Pewaukee Road
Pewaukee, WI 53072

RE: SEWRPC No. CA-731-182

Dear Mr. Clinkenbeard:

This is a follow-up to our letter dated August 27, 2014, related to the primary environmental corridor (PEC) mapping on a parcel of land located on the west side of Springdale Road, immediately north of IH 94, in parts of the northeast and southeast one-quarters of U. S. Public Land Survey Section 25, Township 7 North, Range 19 East, City of Pewaukee, Waukesha County, Wisconsin. To summarize, the Commission staff concluded that, for purposes of reviewing development plans and proposed sewer extensions for the subject parcel, the Commission staff will honor the PEC mapping as shown in the adopted sewer service area plan and local comprehensive plan until such time as those plans are updated. The adopted PEC mapping is based on the southern extent of the large wetland on the approximately eastern one-third of the subject property and on the top of a steeply sloped woodland on the approximately western two-thirds of the property. Finally, we stated in our letter that a field inspection of the subject property would be scheduled for the purpose of identifying and staking the boundary of the PEC and any wetlands contained on the property.

Subsequently, the Commission staff received your letter dated October 2, 2014, wherein you indicated that the developer (Bielinski Homes) had hired Mr. David Meyer of Wetland & Waterway Consulting to identify and stake the boundaries of any wetlands on the southern part of the subject property. Mr. Meyer completed the wetland delineation on September 10 and 24, 2014. Accordingly, you requested that the Commission staff review Mr. Meyer's wetland delineation in the field.

Pursuant to the above correspondence, the Commission staff conducted a field inspection of the subject property on October 28 and 30, 2014. Based upon those field inspections and a review of a copy of the Wetland Delineation Report prepared by Mr. Meyer, the Commission staff concurs with the wetland delineation conducted by Mr. Meyer. Further, Commission staff identified and staked the boundary of the PEC on the western two-thirds of the property where it was separate from the wetland boundary. As noted above, the PEC coincides with the wetland boundary on the eastern two-thirds of the property. It is the Commission staff's expectation that the PEC boundary will be surveyed and identified on a forthcoming plat of survey attendant to any improvements proposed on the subject property. The staked PEC boundary is shown on the attached aerial photo map depicting the project area investigated by Commission staff. A list of plant species identified within the subject PEC is attached hereto as Exhibit A.

Further, the northwest corner of the subject property is identified as a Critical Species Habitat (CSH) named CTH M Shrubland which is known to contain Hop tree (*Ptelea trifoliata),* a State-designated special concern species. The subject CSH is identified in the Commission's *Amendment to the Natural Areas and Critical Species Habitat Protection and Management Plan for the Southeastern Wisconsin Region*, December 2010. The Commission staff proposes to expand the subject CSH to include two additional areas

as shown on the attached map. In addition to finding Hop tree in the proposed CSH expansion areas, Commission staff also identified Broad-leaved puccoon (*Lithospermum latifolium)* and Butternut (*Juglans cinerea)*, both State-designated special concern species, in the larger CSH expansion area. The Commission's regional natural areas and critical species habitat protection and management plan recommends acquisition of the CSH lands by a private conservancy organization for protection and management if the property owner is willing to consider selling a portion of the property.

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

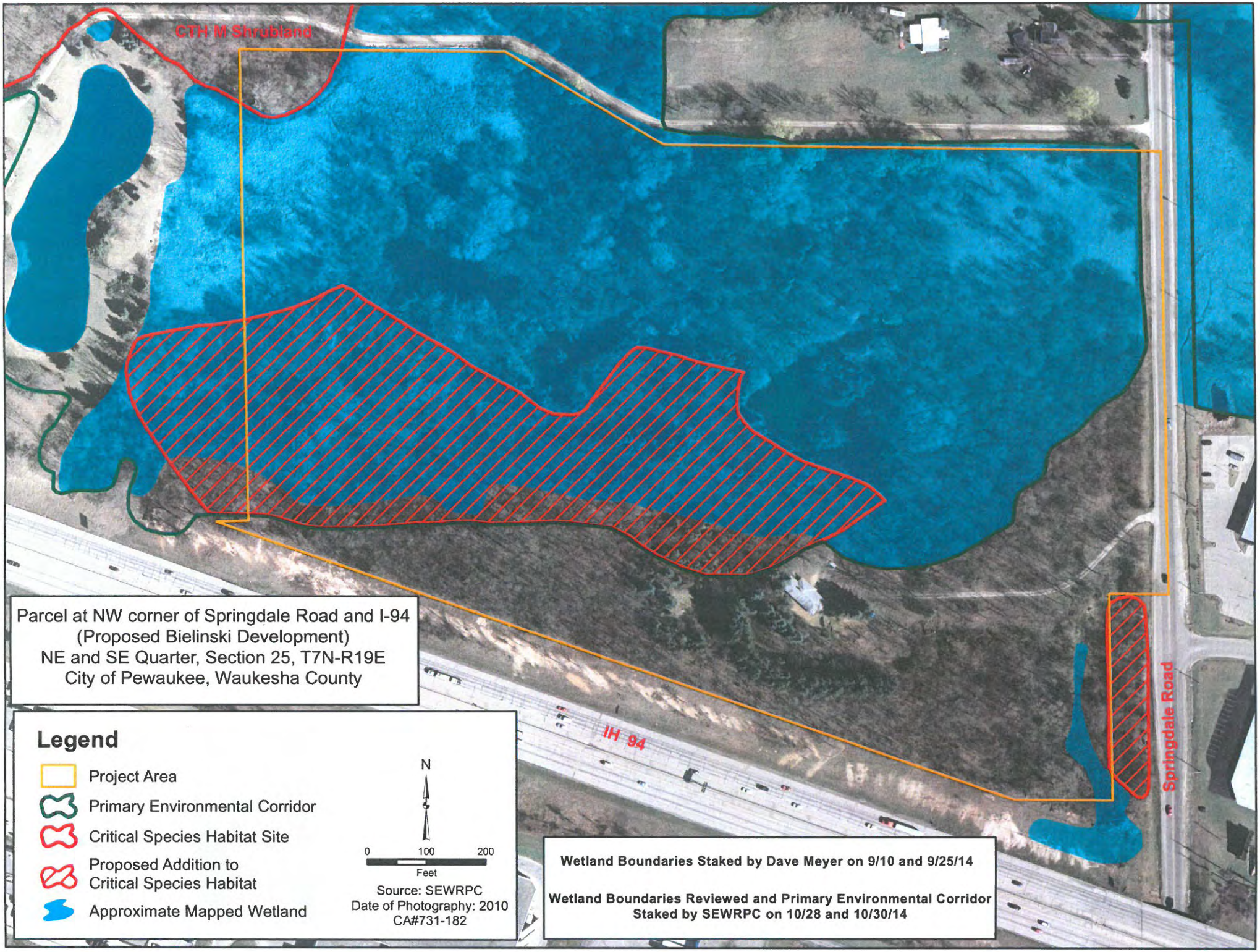
Sincerely,

Kenneth R. Yunker, P.E.
Executive Director

KRY/TMS/CJJ/pk
CA731-182 BIELINSKI DEVELOPMENT AT NW CORNER OF SRINGDALE RD AND IH 94 (00223513).DOC

Enclosures (#223685)

cc: Ms. Nancy Washburn, Bielinski Homes
Mr. David Meyer, Wetland & Waterway Consulting, LLC
Mr. Jason Fruth, Waukesha County Department of Parks & Land Use
Ms. Geri M. Radermacher, Wisconsin Department of Natural Resources
Ms. Marie H. Kopka, U.S. Army Corps of Engineers



Parcel at NW corner of Springdale Road and I-94
(Proposed Bielinski Development)
NE and SE Quarter, Section 25, T7N-R19E
City of Pewaukee, Waukesha County

Legend

- Project Area
- Primary Environmental Corridor
- Critical Species Habitat Site
- Proposed Addition to Critical Species Habitat
- Approximate Mapped Wetland

N

0 100 200
Feet

Source: SEWRPC
Date of Photography: 2010
CA#731-182

Wetland Boundaries Staked by Dave Meyer on 9/10 and 9/25/14

Wetland Boundaries Reviewed and Primary Environmental Corridor Staked by SEWRPC on 10/28 and 10/30/14

SVY4135
CA731-182

EXHIBIT A

PRELIMINARY VEGETATION SURVEY
PARCEL AT NW CORNER OF SPRINDALE ROAD AND I-94
(PROPOSED BIELINSKI DEVELOPMENT)

Dates: October 28 and 30, 2014

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

Location: City of Pewaukee in parts of the Northeast and Southeast one-quarters of U.S. Public Land Survey Section 25, Township 7 North, Range 19 East, Waukesha County, Wisconsin.

Species List:

POLYPODIACEAE
- Matteuccia struthiopteris--Ostrich fern

PINACEAE
- Picea sp.[1,2]--Spruce

CUPRESSACEAE
- Juniperus virginiana--Red-cedar

CYPERACEAE
- Carex pensylvanica--Pennsylvania sedge
- Carex blanda--Wood sedge

JUGLANDACEAE
- Juglans cinerea[3]--Butternut
- Carya ovata--Shagbark hickory

BETULACEAE
- Ostrya virginiana--Ironwood

FAGACEAE
- Quercus rubra--Northern red oak

ULMACEAE
- Ulmus americana--American elm
- Ulmus pumila[1]--Siberian elm

MORACEAE
- Morus alba[1]--White mulberry

URTICACEAE
- Laportea canadensis--Wood nettle

MENISPERMACEAE
- Menispermum canadense--Moonseed

CRUCIFERAE
- Hesperis matronalis[1]--Dames rocket
- Alliaria officinalis[1]--Garlic-mustard

SAXIFRAGACEAE
- Ribes americanum--Wild black currant

ROSACEAE
- Fragaria virginiana--Wild strawberry
- Geum canadense--White avens
- Rubus occidentalis--Black raspberry
- Prunus serotina[4]--Black cherry
- Prunus virginiana--Chokecherry

FABACEAE
- Robinia pseudoacacia[1,4]--Black locust

RUTACEAE
- Ptelea trifoliata[3]--Hop tree

CELASTRACEAE
- Euonymus alatus[1]--Burning bush

ACERACEAE
- Acer saccharum[4]--Sugar maple
- Acer negundo--Boxelder

BALSAMINACEAE
- Impatiens capensis--Jewelweed

RHAMNACEAE
- Rhamnus cathartica[1,4]--Common buckthorn
- Rhamnus frangula[1]--Glossy buckthorn

VITACEAE
- Vitis riparia--Riverbank grape

TILIACEAE
- Tilia americana--Basswood

HYPERICACEAE
- Hypericum perforatum[1]--Common St. John's wort

UMBELLIFERAE
- Aegopodium podagraria[1]--Goutweed

OLEACEAE
- Fraxinus americana--White ash
- Fraxinus pennsylvanica--Green ash
- Ligustrum vulgare[1]--Common privet

HYDROPHYLLACEAE
- Hydrophyllum virginianum--Virginia waterleaf

BORAGINACEAE
- Lithospermum latifolium[3]--Broad-leaved puccoon
- Hackelia virginiana--Stickseed

LABIATAE
- Glechoma hederacea[1,4]--Creeping Charlie

CAPRIFOLIACEAE
- Viburnum dentatum[1]--Arrow-wood
- Lonicera X bella[1]--Hybrid honeysuckle
- Triosteum perfoliatum--Tinkers weed

COMPOSITAE
Rudbeckia hirta--Black-eyed Susan
Solidago flexicaulis--Zig-zag goldenrod
Eupatorium rugosum[4]--White snakeroot

Total number of plant species: 47
Number of alien, or non-native, plant species: 15 (32 percent)

This approximately 1.1-acre upland plant community area is part of a larger primary environmental corridor and consists of second growth, Southern dry-mesic hardwoods. Disturbances to the plant community area include past agricultural land management activities (former orchard), dumping of rocks from agricultural field along the corridor edge, and selective cutting of trees. Broad-leaved puccoon (Lithospermum latifolium), Butternut (Juglans cinerea), and Hop tree (Ptelea trifoliata), all State-designated Special Concern species, were observed during the field inspection.

_____

[1] Alien or non-native plant species
[2] Planted tree species
[3] A State of Wisconsin Special Concern plant species
[4] Co-dominant plant species

COPY

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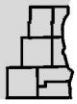


February 5, 2015

Mr. Jason Fruth
Planning and Zoning Division Manager
Waukesha County Department of Parks & Land Use
515 W. Moreland Boulevard, Room AC 230
Waukesha, WI 53188-3868

Re: SEWRPC No. CA-722-151

Dear Mr. Fruth:

This will respond to your electronic mail message of July 7, 2014, requesting that the Commission staff conduct an additional field inspection of the Harold DeBack property (Proposed Crystal Cove Subdivision) located in parts of the southeast one-quarter of U.S. Public Land Survey Section 32, Township 5 North, Range 20 East, City of Muskego, Waukesha County, Wisconsin. The purpose of the field inspection was to re-examine the wetlands contained on the subject property.

As you may recall, an interagency field inspection was initially conducted on the subject property on June 7, 2012. The purpose of the field inspection was to review the September, 2010, wetland delineation conducted by Mr. Eric C. Parker, PWS, Senior Scientist with Stantec Consulting Services. As detailed in our letter dated December 20, 2012, this inspection involved representatives from the Wisconsin Department of Natural Resources (WDNR), the U. S. Army Corps of Engineers (USACOE), and the Commission. Based upon this interagency field inspection, it was determined that a finding of concurrence with Mr. Parker's wetland delineation could not be made. Additional information on the site hydrology would be needed, particularly as it relates to the farmed wetlands on the site.

Pursuant to your request, Commission staff participated in an October 15, 2014, interagency field inspection for the purpose of inspecting the farmed wetlands on the subject property. In addition to Commission staff members and Mr. Parker, others present for the field inspection included Ms. Geri Radermacher, Water Management Specialist with WDNR; Ms. Marie H. Kopka, Environmental Protection Specialist with the USACOE; and Mr. William Carity with Carity Land Corporation. Agency representatives inspected several areas of concern with Mr. Parker, during which time additional sample site pits were dug to determine the water table depths at those locations. Based upon these findings, it was determined that several of the wetland boundaries should be expanded to include additional areas of farmed wetland.

In addition to the data gathered during the October 15, 2014, field inspection, Mr. Parker returned to the site on October 22, 2014 to complete the water table analysis and to expand the wetland boundaries. Mr. Parker provided a map (see attached) showing the locations of the soil pits where water table depths were recorded as well as the re-delineated wetland boundaries. Based upon this new wetland delineation map, the Commission staff concurs with Mr. Parker's revised wetland boundary delineations, as shown on the attached map.

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

Sincerely,

Kenneth R. Yunker, P.E.
Executive Director

KRY/TMS/CJJ/pk
CA722-151 DEBACK PROPERTY (PROPOSED CRYSTAL COVE SUBIVISION) 2014 VISIT LETTER (00223489).DOCX

Enclosures (#223547)

cc: Mr. Harold DeBack
Mr. Eric C. Parker, Stantec Consulting Services
Mr. William Carity, Carity Land Corporation
Mr. Adam Trzebiatowksi, City of Muskego
Ms. Geri M. Radermacher, Wisconsin Department of Natural Resources
Ms. Marie H. Kopka, U.S. Army Corps of Engineers

Figure No.
4B

Title
Water Table Depths (10/22/2014) and Revised Wetland Boundaries

Client/Project
Carity Land Corporation
Crystal Lake Wetland Investigation

Project Location
S32, T05N, R20E
C. of Muskego
Waukesha Co., WI

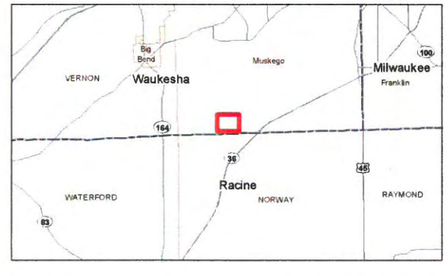
193701061
Prepared by AB on 2014-10-09
Technical Review by MP on 2014-10-27
Independent Review by EP on 2014-10-27

0 150 300 Feet
1:3,600 (At original document size of 11x17)

N

Legend
- Approximate Project Location
- Water Table Boring (depth)
- Sample Point (2013)
- Sample Point (2011)
- Tile Inlet
- Hole with Rocks
- Tile Line
- Contour
- Field Delineated Wetland (2011)
- Re-delineated Wetland (2014)

WDNR 24k Hydrography
- Perennial Stream
- Intermittent Stream
- Waterbody



Notes
1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Data Sources Include: Stantec, WDNR, and WDOT
3. Orthophotography: 2013 NAIP

Stantec