

Wetland Delineation Report

Badger Coulee Transmission Line Project

The following information contained in the report is available from the Applicants upon request:

Appendix A, Figure 2A, Wetland Delineation Data – Northern Route

Appendix A, Figure 2B, Wetland Delineation Data – Southern Route

Appendix C, Wetland Determination Data Forms

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WETLAND DELINEATION REPORT

Badger Coulee 345 kV Transmission Line Project

Columbia, Dane, Jackson, Juneau, La Crosse, Monroe, Sauk, Trempealeau, and
Vernon Counties, Wisconsin

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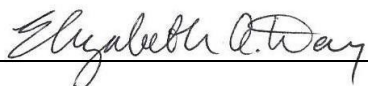
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INTRODUCTION

Stantec Consulting Services Inc. (Stantec) performed wetland determinations and delineations, from May through August 2012 and in May and June of 2013, for the proposed Badger Coulee 345 kV transmission line project located in southern and west-central Wisconsin (Project). The Project is the construction of a new single-circuit 345 kV transmission line from northern La Crosse County to northern Dane County. In the La Crosse area, the line will interconnect with the Hampton-Rochester-La Crosse 345 kV transmission line at the Briggs Road Substation in the Town of Onalaska. From there, the line will extend to the North Madison Substation in the Town of Vienna and continue to its termination at the Cardinal Substation in the Town of Middleton. Stantec identified the location and extent of wetlands within the Project Area, which includes the proposed transmission line right-of-way (variable, but typically 150 feet in width) along two alternate routes (Figure 1, Appendix A).

The Northern Route is approximately 182 miles in length and goes through eight counties – La Crosse, Trempealeau, Jackson, Monroe, Juneau, Sauk, Columbia and Dane. It is comprised of segments A, D, E, G, H, J, K, M, N and P. Segment P-East is an alternate to Segment P for this route. The Southern Route is approximately 159 miles in length and goes through seven counties – La Crosse, Monroe, Vernon, Juneau, Sauk, Columbia and Dane. The Southern Route is comprised of segments B, C, F, G, I, J, L, M and O. Segment B-North is an alternate to Segment B for this route. Segments G, J and M are common to both the Northern and Southern Routes.

The objective of the wetland determination and delineation was to provide an estimate of the extent and spatial arrangement of wetlands in the Project Area. Most wetlands are considered waters of the U.S. and are therefore subject to regulation under the Clean Water Act (CWA). Specifically, non-isolated wetlands are regulated under Section 404 of the CWA and the jurisdictional regulatory authority lies with the United States Army Corps of Engineers (USACE). Additionally, the Wisconsin Department of Natural Resources (WDNR) has regulatory authority over wetlands, navigable waters, and adjacent lands under Wisconsin Statutes, Chapter 30 and Wis. Stat. § 281.36.

METHODS

The initial steps in the wetland determination and delineation process included a review of the following documents and data sources:

- Natural Resources Conservation Service (NRCS) soil survey data for Columbia, Dane, Jackson, Juneau, La Crosse, Monroe, Sauk, Trempealeau, and Vernon Counties, Wisconsin;
- NRCS list of hydric soils for the above-noted counties;
- The WDNR Wisconsin Wetland Inventory (WWI) maps for the project area;
- U.S. Geological Survey (USGS) 7.5 minute Wisconsin quadrangle maps;
- WDNR 1:24,000-scale hydrography; and
- Recent aerial photographs covering the project area.

These reference materials provide information on where wetlands have been previously identified or areas that possess a high likelihood of wetlands occurring. These initially identified areas were then visited (when accessible) to make on-site determinations, and where necessary, complete delineations of the uppermost wetland boundary and qualitative assessments of wetland functions. Inaccessible wetlands were delineated using off-site methods, which are described at the end of this section.

Field Delineation

Field access was limited to existing right-of-way (ROW) (transmission line easements held by the Applicants, and public ROW) along both routes. Wetland boundary segments extending beyond the legally accessible ROW were conservatively estimated through aerial photograph interpretation, soil survey mapping, WWI maps, and field observations made from adjacent, legally accessible ROW.

Where physical access was permitted, wetland determinations were made in the field during May, June, July, and August 2012, and in May and June 2013, using the criteria and methods outlined in the USACE Wetland Delineation Manual (USACE 1987) and subsequent guidance documents (USACE 1991, 1992), Guidelines for Submitting Wetland Delineations in Wisconsin to the St. Paul District Corps of Engineers (USACE 1996), and the *Basic Guide to Wisconsin's Wetlands and their Boundaries* (Wisconsin Department of Administration Coastal Management Program 1995), and the Midwest and the Northcentral and Northeast Regional Supplements to the USACE Wetland Delineation Manual (USACE 2010, 2012). The USACE and U.S. Environmental Protection Agency (EPA) wetland definition is included below.

“Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions.”

The State of Wisconsin wetland definition differs slightly; however, the Wisconsin Administrative Code also cites usage of the 1987 Manual.

Wetland determinations were made using the three criteria of assessment approach defined in the 1987 Manual and the appropriate regional supplements. According to procedures described in this Manual, areas that under normal circumstances reflect a predominance of hydrophytes (water-loving vegetation), hydric soils, and wetland hydrology (e.g., inundated or saturated soils) are considered wetlands.

Wetlands on agricultural land were delineated based on field indicators present at the time field investigations were completed, taking into consideration antecedent precipitation. Wetland indicators that were taken into consideration in agricultural lands included:

- WWI and NRCS soils mapping,
- crop stress (stunting, yellowing, etc.),
- indicator status of plants comprising the weed community, and
- hydrologic indicators (e.g., visible surface hydrology, farm-around areas).

If these wetland criteria were met on agricultural lands, wetlands were mapped regardless of the soils designation or the WWI mapping. Additionally, due to the drought conditions in 2012, agricultural areas were reviewed on the WDNR Surface Water Data Viewer (with wetland theme activated) after field work was completed because the aerial base map in the data viewer exhibited wetland signatures at a frequency that suggested the data was from a wet year. If a distinct signature was observed on this and other aerials in Pictometry®, the agricultural land was identified as wetland, regardless whether the area had been identified as upland during 2012 field work.

The following criteria were followed for identifying wetlands within ditches:

- If a ditch was located within an area of mapped very poorly, poorly or somewhat poorly drained soils, and the area within the ditch met wetland criteria, it was mapped as wetland.
- If a ditch was located within an area mapped as non-hydric soil, the ditch was not identified as wetland even if it met wetland criteria.
- If a ditch was located within a wetland, any intersecting ditch was included as wetland.

Data points were not generally recorded to document the boundary of ditches unless it was necessary to help establish the boundary.

If a wetland boundary fell along an embankment constructed of fill material, no data points were completed on the upland although observations were noted regarding this boundary condition (generally included in remarks of wetland data point).

For wetlands delineated in the field, a preliminary reconnaissance of the Project Area was used to determine the general topography and plant communities at the Project Area, and to identify suitable locations for sampling transects (for wetlands falling within existing ROW). At each wetland identified along the ROW using the above-described methods, one paired set of upland / wetland data points was recorded at a representative location to document the rationale for boundary placement. Additional paired upland/wetland sample points at the same wetland feature were not typically recorded unless additional points were necessary due to the size and/or complexity of the feature. The uppermost wetland boundary and associated sample points were then located with a sub-meter accuracy GPS unit. In addition, when required to

support an upland determination (when there was no nearby wetland boundary defined by an upland data point), data points were also recorded and located in areas of mapped hydric soils or WWI mapped wetlands that were determined to be upland based on field observations.

At each sample point:

1. The presence or absence of normal circumstances was determined.
2. The plant community was characterized by identifying dominant plant species using the "50/20" rule. For each stratum in the plant community, dominant species are the most abundant (when ranked in descending order of abundance and cumulatively totaled) that immediately exceed 50% of the total dominance measure for the stratum, plus any additional species comprising 20% or more of the total dominance measure for the stratum.

Wetland indicator status is ranked by percent probability of the species occurrence in wetlands as follows:

OBL = Obligate Wetland, occurs with an estimated 99 percent probability of occurrence in wetlands

FACW = Facultative Wetland, estimated 67 to 99 percent probability of occurrence in wetlands

FAC = Facultative, equally likely to occur in wetlands and non-wetlands (34 to 66 percent probability)

FACU = Facultative Upland, 67 to 99 percent probability in non-wetlands, 1 to 33 percent in wetlands

UPL = Obligate Upland, greater than 99 percent probability in non-wetlands in this region

NI = No indicator, insufficient information available to determine an indicator status

3. To the extent possible (based on conditions), wetland delineators typically dug soil pits to a depth of 18 inches (where necessary and depending on refusal depth) and the soil profile was evaluated for hydric soil characteristics; and
4. Hydrology was assessed by observations of primary (i.e., inundation, saturation within the root zone, water marks, etc.) and secondary (i.e., oxidized pore linings, water-stained leaves, etc.) indicators of wetland hydrology.

Transects and observation points could be established and fully sampled only where legal access was permitted. In portions of the corridor lying outside of the existing ROW, observations based on the above field criteria for identifying wetlands were made to the extent possible, given access limitations. As such, these field observations, made from adjacent

accessible locations, were limited to plant community type and topography. Based on these observations, boundary segments extending outside legally accessible ROW were sketched onto field maps (aerial base) to support off-site delineation activities (described below).

Field-identified wetland boundaries were mapped using data gathered with a Trimble GeoXT GPS unit, without marking boundaries with flagging, and are displayed on Figures 2A and 2B.

Off-site Delineation

As discussed, access was restricted along numerous segments that do not occur along existing ROW (unshared segments). Along unshared segments, off-site wetland determination methods were used to delineate wetland boundaries. Experienced Stantec field delineators who also have aerial photograph interpretation skills performed this “desktop” delineation method using Pictometry® Online in conjunction with other available mapping data including the field-sketched boundaries described above (adjacent to accessible ROW) and the resources described below.

Pictometry® Online is a web-based software that displays a series of high resolution, geo-referenced digital vertical and oblique (photographs captured at an angle) aerial photographs. Pictometry® provides the capability to zoom in to view the vegetation and surface hydrology features of otherwise inaccessible areas along the proposed project corridor from either vertical or oblique angles. Other available data layers within Pictometry® include topographic contours and WWI. These layers are used to identify areas of the landscape that appear to exhibit wetland signatures.

Next, the areas identified in this manner were viewed on aerial base maps from a recent growing season that differs from the Pictometry® basemapping and that includes WDNR streams and NRCS soils data, and were also viewed in the the DNR Surface Water Data Viewer with the wetland theme activated. Combined, these materials provided wetland signatures from different years of aerial photography from which to reference. The uppermost wetland boundary was then drawn on an aerial photograph base map around areas exhibiting a wetland signature. Remotely identified wetland boundaries were then digitized into a GIS system and are displayed on Figures 2A and 2B along with field-mapped wetlands. Sections of the Project Area for which wetland boundaries were remotely identified have no sample point locations identified on Figures 2A and 2B.

RESULTS

Project Area Description

The Project Area is comprised of two alternate routes between the Project endpoints (including certain common segments) and their proposed associated ROW (typically 150 feet wide), as shown on Figure 1 (Appendix A). The Northern Route primarily follows existing transmission line and road ROW, with the majority of the route following the Interstate Highway corridor (I-39/90) from the City of Black River Falls in Jackson County to just north of the Village of DeForest in Dane County. The remainder of the Northern Route (amounting to < 10 percent of the entire route) extends cross-country on proposed new ROW lands, except Segment P which largely follows existing transmission and roadway ROW. The Southern Route will primarily follow existing transmission line routes and extend cross-country on new ROW.

Wisconsin Wetland Inventory (WWI) and Soil Survey (SSURGO data) units, with hydric units highlighted, are shown overlaid on the Project Area on Figures 2A and 2B (presented in Appendix A with an index map designated as Figure 2). According to the general soil maps for the counties crossed by the two proposed routes, the soils within the Project Area include several different complexes. In general, however, soils in the majority of the Project Area are characterized by excessively drained to moderately well-drained deep silty, loamy, and/or sandy soils over bedrock in uplands and within former stream/river terraces and lake basins (the Fayette-La Farge-Eleva, Tarr-Boone Rockdam, Richwood-Toddville-Port Byron, Billett-Impact, Norden-Fayette, Plainbo-Partridge associations, Eleva-Boone-Plainfield, Mt. Carroll-Seaton-Dresden, and Dodge-St.Charles-McHenry associations). Intermixed with these soils associations are moderately well drained to very poorly drained, deep silt loams, silty clays, sandy, peaty, and mucky soils that are underlain by glacial outwash material and commonly within floodplains, lake basins, and stream terraces (the Downs-Boaz-Muscatine, Ironrun-Ponycreek-Dawsil, Newson-Dawson-Meehan, Poygan-Wyeville-Wautoma, and Granby-Alluvial land, loamy wet-Morocco associations). The western portion of the Project Area is located at the edge of the driftless area of Wisconsin, where soils are relatively shallow silt loams and sandy loams that are underlain (at less than 40 inches) by sandstone or dolomite bedrock (various associations).

The soil map units indicated on Figures 2A and 2B are described on the data forms in Appendix C. Soils listed as hydric, or those with hydric inclusions, are highlighted on the figures. Wetland boundaries within the Project Area and sample point locations are shown on these figures, as well. USACE data sheets completed for the sample points on transects through the wetlands and adjacent uplands are included in Appendix C.

Most of the lands in the Project Area consist of interstate or utility ROW lands. Where the Project Area runs cross-country, most of the land is forested or in agricultural production. In the western portions of the Project Area, wetlands are primarily associated with waterways and many of these systems are relatively narrow due to rolling glacial moraine topography. The central portions of the Project Area are located along the western edge of the Central Sand Plains of Wisconsin, which is characterized by an extensive, nearly level expanse of sandy lacustrine and glacial outwash deposits. Within the Project Area, wetlands can be extensive, having formed in low-lying areas where poorly drained silty lacustrine deposits formed. Moving south in the Project Area, topography ranges from flat to rolling, and wetlands of the prairie

pothole type are more frequent. Also, wetlands associated with waterways in these areas are more extensive due to the topography, with many wetlands associated with the Wisconsin River and its tributaries. Many of the wetlands within the southern portion of the Project Area have been subject to agricultural drainage and cultivation to one degree or another.

Uplands

The majority of uplands within the Project Area within existing ROW consist of agricultural land and roadside embankment slopes. Vegetation within the upland roadside embankment areas varies, but often includes smooth brome (*Bromus inermis*, FACU/UPL [Midwest/Northcentral-Northeast regions]), Kentucky bluegrass (*Poa pratensis*, FAC/FACU), and a variety of weedy forb species. Common vegetative species observed within the agricultural areas includes corn (*Zea mays*, UPL), soybeans (*Glycine max*, UPL), and alfalfa (*Medicago sativa*, UPL). Uplands along unshared segments were dominated by forest, grassland, and shrubland communities. Common forest community types include deciduous, mixed deciduous/coniferous, or coniferous community types with various oak species (*Quercus spp.*), white pine (*Pinus strobus*, FACU), red pine (*Pinus resinosa*, FACU), and red maple (*Acer rubrum*, FAC) common. Portions of the Southern Route also contain pine plantation communities generally comprised of white pine and/or red pine. Upland grassland areas were dominated to varying degrees by native and non-native grass and forb species; with upland shrubland similar in composition to upland grassland communities, but with greater abundance of shrubby species including grey dogwood (*Cornus racemosa*, FAC), honeysuckle (*Lonicera spp.*), staghorn sumac (*Rhus hirta*, UPL), and red cedar (*Juniperus virginiana*, FACU), with scattered various sapling-sized tree species. In most cases, indicators of hydric soil and/or wetland hydrology were not observed within the upland areas. A few upland sample points were found to have hydric soils, but did not exhibit wetland hydrology or contain a predominance of hydrophytes.

Wetlands

In the entire Project Area, a total of 510 wetland units were identified as falling within the proposed route segments. Table 1 (Appendix B) lists the wetlands identified within each alternate route, by community type. Sample point numbers on the data sheets in Appendix A correspond with the wetland numbers and data points indicated on Figures 2A and 2B and with the Feature IDs in Table 1.

General descriptions of each wetland community type and assessments of their functions are provided below. The discussion of dominant species within a community is limited to those wetlands observed in field.

Wet Meadows

Approximately 67 percent of the wetlands identified within the Project Area support wet meadow plant communities, wet meadow/farmed wetland complexes, and various other wet meadow dominated wetland complexes. Many of these wetlands are degraded by drainage attempts, grazing, and cultivation, typically supporting low plant diversity, and are most often dominated by monotypic stands of reed canary grass (*Phalaris arundinacea*, FACW). Other common plant species observed within the wet meadow wetlands include giant goldenrod (*Solidago gigantea*, FACW), narrow-leaf cattail (*Typha angustifolia*, OBL), jewelweed (*Impatiens capensis*, FACW), sensitive fern (*Onoclea sensibilis*, FACW), spotted Joe-Pye-weed (*Eupatorium maculatum*, OBL), and various agricultural weeds (most species are facultative hydrophytes). Scattered

individuals or small patches of shrubs and trees such as sandbar willow (*S. interior*, OBL), boxelder (*Acer negundo*, FACW-), and/or common buckthorn (*Rhamnus cathartica*, FAC) and glossy buckthorn (*Frangula alnus*, FACW/FAC) are often part of these wetlands, particularly those adjacent to waterways.

Farmed wetlands comprise about 13 percent of the mapped wet meadows throughout the Project Area. Generally planted to corn or soybeans, farmed wet meadows were commonly identified by visual wetland signatures, including evidence of crop stress and/or soil saturation, either visible in the field or through aerial photography. While dominated by cultivated plant species, hydrophytic agricultural weed species were often observed, as well as remnant wetland species such as cattail (*Typha* spp., OBL) and field nut sedge (*Cyperus esculentus*, FACW).

Isolated wet meadows primarily serve as wildlife habitat because they provide landscape diversity and open space in contrast to adjacent developed or agricultural uplands. For those wet meadows that are associated with waterways, the most important functional benefits are flood attenuation and water quality protection. Where springs or groundwater seepage occurs, groundwater discharge is an important function of these wetlands because they would serve to maintain streamflow during dry periods. And where wet meadows lie directly adjacent to larger waterways such as the Wisconsin River and the Baraboo River, wet meadows may provide some degree of shoreline stabilization.

Hardwood Swamp/Floodplain Forests

The next most abundant wetland community encountered was hardwood swamp and floodplain or riparian forest communities, or wetland complexes dominated by these forested communities. These wooded communities, comprising approximately 14 percent of the wetlands in the Project Area, were commonly associated with larger waterways including the Wisconsin River, Lemonweir River, and Baraboo River, and with smaller tributaries and streams, including drainageways. Common canopy dominants include silver maple (*Acer saccharinum*, FACW), American elm (*Ulmus americana*, FACW), box elder, green and/or black ash (*Fraxinus pennsylvanica*, *F. nigra*, FACW), and red maple (*Acer rubrum*, FAC). The shrub layer in these communities was often dominated by similar species present in the canopy layer, as well as glossy and/or common buckthorn. Frequent herb layer dominants include reed canary grass, sensitive fern, jewelweed, giant goldenrod, and various sedge species (*Carex* spp., OBL-FACW).

Functional values of these wooded wetlands, either isolated or adjacent to waterways, provide important habitat for songbirds, small mammals, and other wildlife because they provide structural diversity. However, forested wetlands provide an additional structural dimension relevant to wildlife habitat with the presence of a third layer of vegetation. Aesthetic and recreational values also come into play in southern Wisconsin through the element of landscape diversity that is characteristic of this community type, as well as from the standpoint of the relative rarity of this type of wetland community in the southern part of the state.

Sedge Meadows

Sedge meadow communities are nearly as commonly encountered in the Project Area as forested wetland communities. At about 11 percent of the wetlands within the Project Area,

sedge meadows and sedge meadow wetland complexes with inclusions of shrub-carr, wet meadow, and hardwood swamp communities were dominated by one or more of the following species, including tussock sedge (*Carex stricta*, OBL), lake sedge (*C. lacustris*, OBL), common fox sedge (*C. vulpinoidea*, FACW/OBL), and broom sedge (*C. scoparia*, FACW). Other species frequently observed include soft rush (*Juncus effusus*, OBL), wool-grass (*Scirpus cyperinus*, OBL), and giant goldenrod, with scattered meadowsweet (*Spiraea alba*, FACW), gray dogwood (*Cornus racemosa*, FAC), tag alder (*Alnus incana*, FACW), and willows (*Salix spp.*, FACW-OBL).

Functional values of sedge meadows are very similar to those described for wet meadow communities. The more extensive areas of sedge meadow, due to their relative inaccessibility, may harbor a higher diversity of herb-layer vegetation than associated wet meadows, which were often more disturbed throughout the Project Area than sedge meadows. Isolated sedge meadows primarily serve as wildlife habitat because they provide landscape diversity and open space in contrast to adjacent forested or agricultural uplands.

Shrub-Carr

Only five percent of the wetlands in the Project Area were of the shrub-carr coevertype. Dominant species observed where shrub-carr communities were identified include tag alder, a variety of willow shrubs including Bebb's willow (*Salix bebbiana*, FACW), sandbar willow, pussy willow (*Salix discolor*, FACW) and shining willow (*Salix lucida*, FACW), elderberry (*Sambucus nigra*, FACW), and glossy buckthorn (FAC). Saplings of boxelder (FACW) and American elm (FACW) are also commonly found growing in this wetland community, with herb layer dominants similar to those found in wet meadow or sedge meadow communities.

Shrub-carr provides similar functional values to those described for hardwood swamps and floodplain forests. The more extensive areas, due to their relative inaccessibility, may harbor a higher diversity of herb-layer vegetation than associated wet meadows. And for the same reasons explained above under wet meadows, certain shrub carrs can be important for groundwater discharge and streamflow supplementation. Shoreline protection and flood protection functions served by shrub-carr wetlands located in association with waterways are of value, due to the holding power of their roots and the hydraulic roughness of aboveground branches. On the other hand, however, woody vegetation can dislodge or branches break off in large floods and contribute to downstream blockages.

Shallow Marshes

These wetlands, comprising only about four percent of wetlands within the Project area, were commonly found in natural depressions on the landscape or were created as a result of transportation and/or commercial development. A few of these wetlands (three out of 21 observed) contained areas of shallow open water, while the remainder had vegetated standing water or exhibited evidence of ponded water conditions during the growing season (sparsely vegetated concave surface). Most are dominated by monotypic stands of cattail (OBL); however, scattered clumps of reed canary grass (FACW), lake sedge (OBL), and various willows (FACW-OBL) were seen throughout these wetlands or along their fringes.

Shallow marshes function primarily as wildlife habitat in natural conditions, and may also provide stormwater management functions in developed landscapes. In addition, larger

marshes or those associated with rivers and large streams may provide habitat for fish spawning and feeding, and also help attenuate peak flows and may provide storage capacity (depending on basin shape) during flood events. Emergent vegetation in shallow marshes along waterways serves to absorb erosive forces of flowing water, as well. And finally, floral diversity tends to be higher in marshes than in the type of wet meadows found in the Project Area.

Summary

Of the 510 wetlands identified along the two route alternatives, the majority (67%) are disturbed wet meadows and wet meadow complexes. Hardwood swamp/floodplain forest and sedge meadow wetlands and their associated complexes were nearly equal in abundance, but are proportionally minor at 14 and 11 percent, respectively. The least frequently occurring natural community types within the Project Area are shrub-carr (5%) and shallow marsh (4%).

CONCLUSION

Stantec performed a combination of on-site and off-site wetland determinations and delineations for the Badger Coulee 345 kV Transmission Line Project, comprised of two main route alternatives. Stantec identified a total of 510 wetlands within the Study Area.

It is important to note that this delineation identified the wetland boundary per current federal and state guidelines. The USACE has regulatory authority over waters of the U.S. including adjacent wetlands, and the WDNR has regulatory authority over wetlands, navigable waters, and adjacent lands under Chapter 30 Wisconsin State Statutes and NR 103 Wisconsin Administrative Code. Local jurisdictions may have additional regulatory authority through shoreland or wetland zoning ordinances.

The information provided regarding wetland boundaries is an estimate of the wetland boundary and the opinions presented are best estimates of the conditions at the time the wetlands were viewed. The ultimate decision on the boundaries defining regulatory jurisdiction over wetlands rests with the USACE and, in some cases, the WDNR, or a local unit of government. As a result, there may be adjustments to boundaries based upon review of a regulatory agency. An agency determination can vary from time to time depending on various factors including, but not limited to, the season of the year. In addition, the physical characteristics of the site can change with time, depending on the weather, vegetation patterns, drainage, activities on adjacent parcels, or other events. Any of these factors can change the nature and extent of wetlands on the site. It is recommended the Client obtain an opinion and authority from regulating government agencies before proceeding with any development or utilization of the Project Area. If the Client proceeds to change, modify or utilize the Project Area in question without obtaining authorization from the regulating governmental agency, it will be done at the Client's own risk and Stantec Consulting Services Inc. will not be responsible or liable for any resulting damages.

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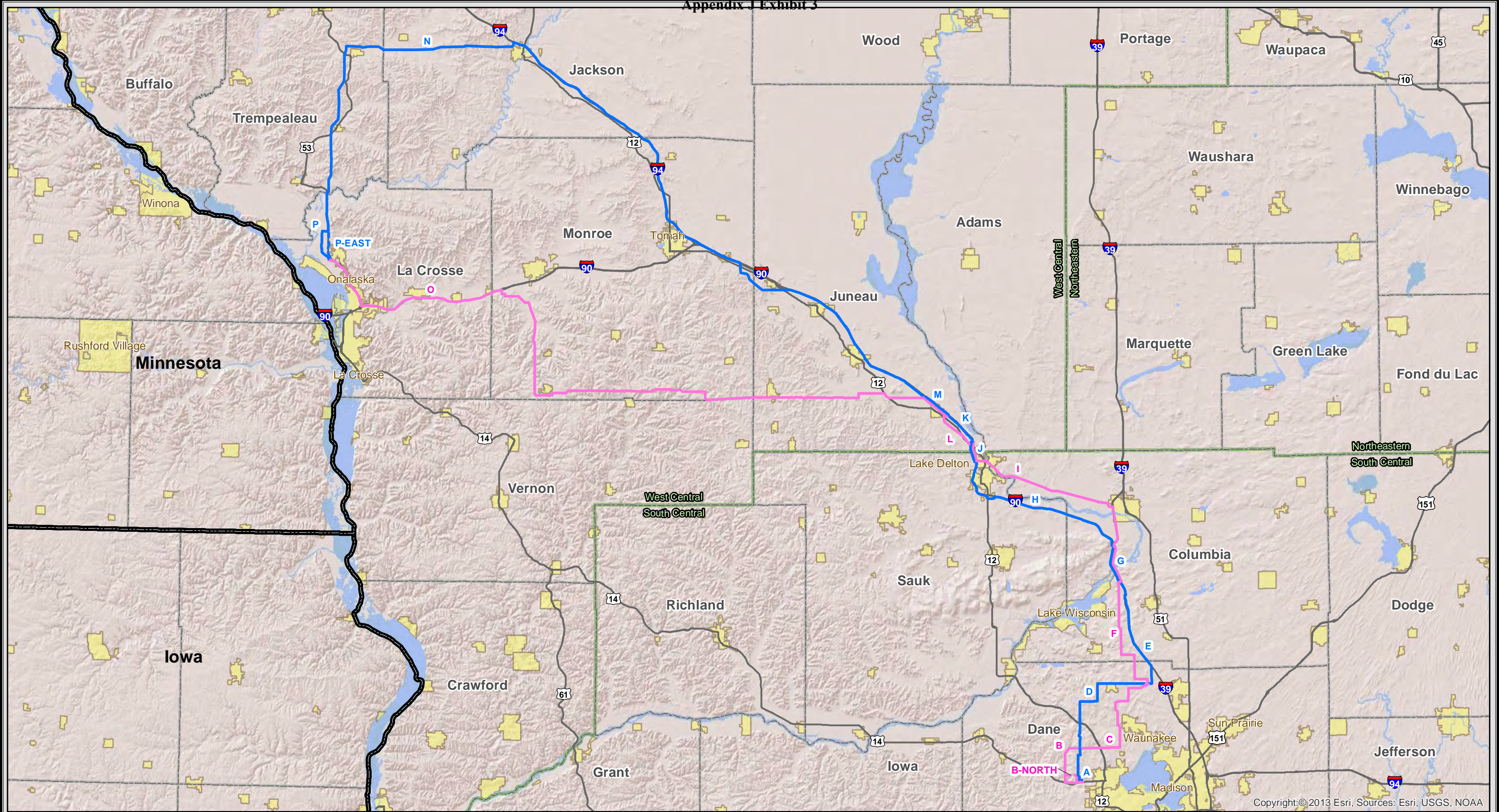
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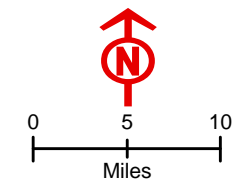
**APPENDIX A
FIGURES**



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- Segment N Northern Route
(Segments A, D, E, G, H, J, K, M, N, P)
- Segment O Southern Route
(Segments B, C, F, G, I, J, L, M, O)
- Route Segment ID

- State Boundary
- County Boundary
- City/Village/Town Boundary
- WDNR Regional Boundary



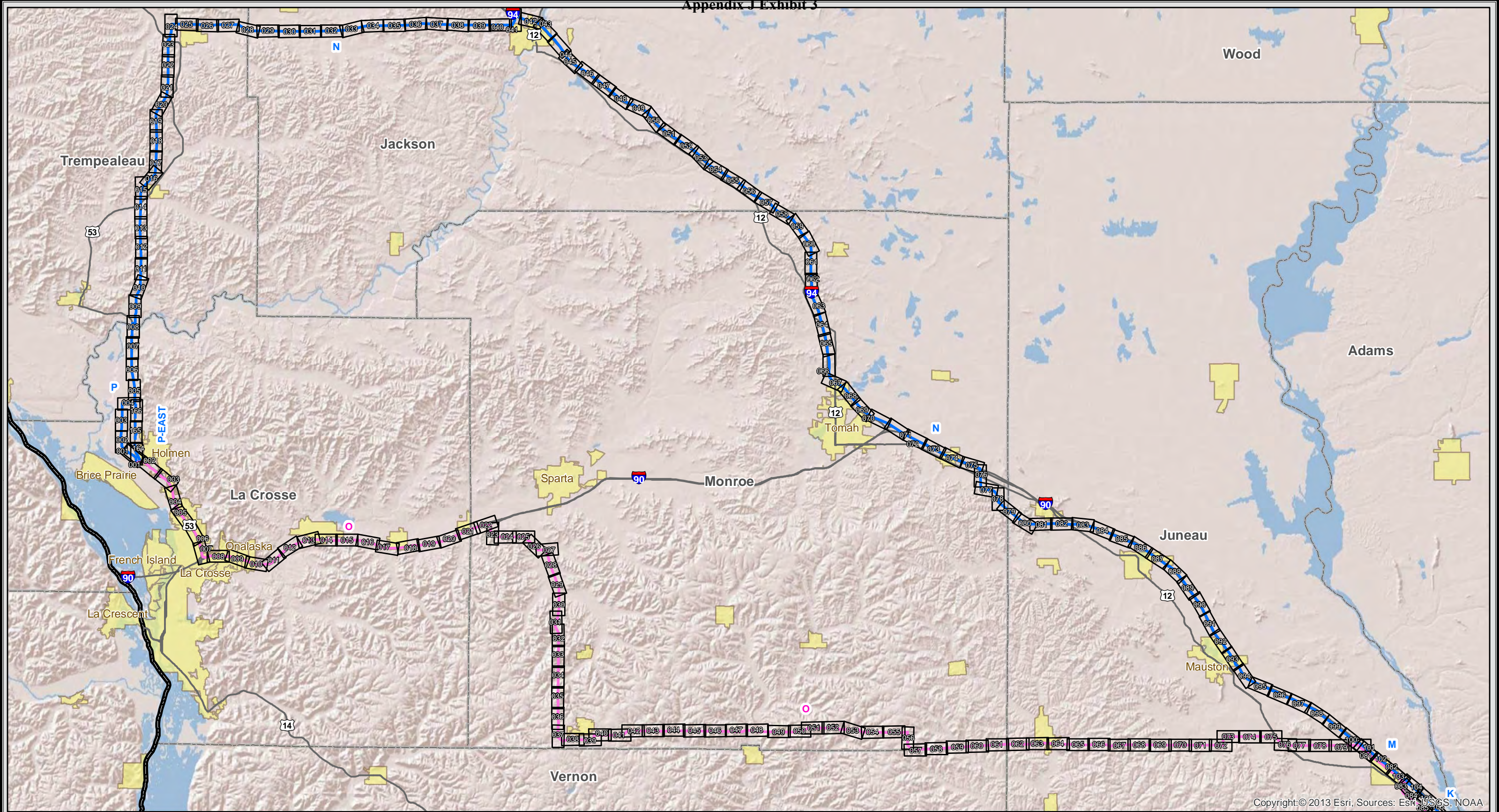
The information presented in this map document is advisory and is intended for reference purposes only.
Data Sources: ATC, WDNR, WDOT, PSCW, Xcel

FIGURE 1.
POTENTIAL ROUTES OVERVIEW

BADGER COULEE
TRANSMISSION LINE PROJECT

SEPTEMBER 2013

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Segment N Northern Route
(Segments A, D, E, G, H, J, K, M, N, P)

Segment O Southern Route
(Segments B, C, F, G, I, J, L, M, O)

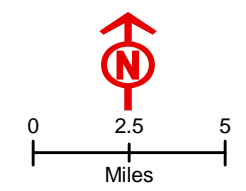
Route Segment ID

State Boundary

County Boundary

City/Village/Town Boundary

1:4800 Page Extents

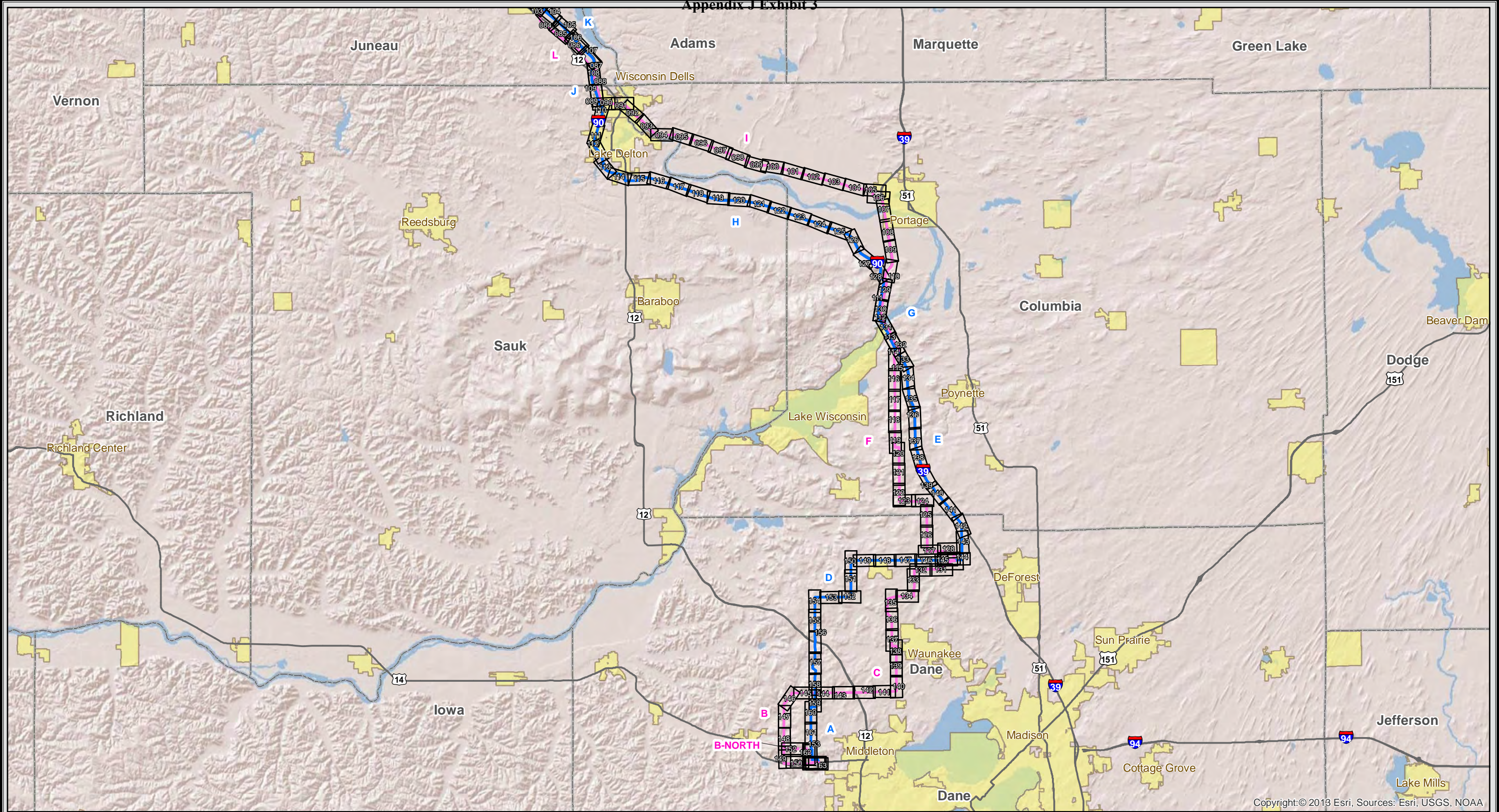


**FIGURE 2. PAGE EXTENT INDEX
FOR FIGURES 2A-2B**

**BADGER COULEE
TRANSMISSION LINE PROJECT**

SEPTEMBER 2013	MAP 2-1	PAGE 1 OF 2
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Segment N Northern Route
(Segments A, D, E, G, H, J, K, M, N, P)

Segment O Southern Route
(Segments B, C, F, G, I, J, L, M, O)

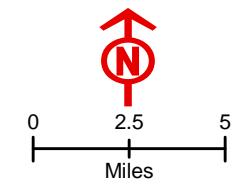
→ Route Segment ID

State Boundary

County Boundary

City/Village/Town Boundary

1:4800 Page Extents



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Data Sources: ATC, WDOT, PSCW, Xcel.

**FIGURE 2. PAGE EXTENT INDEX
FOR FIGURES 2A-2B**

**BADGER COULEE
TRANSMISSION LINE PROJECT**

SEPTEMBER 2013	MAP 2-2	PAGE 2 OF 2
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APPENDIX B

TABLE 1. PROJECT AREA WETLANDS

Appendix J Exhibit 3

Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	P	P-W1	---	Hardwood Swamp	5	V	Small isolated depressional feature along roadway.
Northern	P	P-W2	---	Hardwood Swamp	6	V	Narrow drainage feature within upland woodlands.
Northern	P	P-W3	---	Hardwood Swamp	7	V	Narrow drainage feature within upland woodlands.
Northern	P	P-W4	---	Floodplain Forest	8	V	Forested floodplain along Black River.
Northern	P	P-W5	---	Floodplain Forest	8	V	Forested floodplain along Black River.
Northern	N	N-W2	---	Shallow, Open Water/Wet Meadow	11	F	Small shallow, open water pond surrounded by fringe of wet meadow.
Northern	N	N-W3	<i>ASNRI - adjacent to Class II trout stream (UNT to Dutch Creek)</i>	Emergent Marsh	12	F	Emergent marsh / sedge meadow dominated by cattail, tussock sedge and marsh marigold; scattered dogwood and willow shrubs also present.
Northern	N	N-W4	---	Sedge Meadow	12	F	Medium quality sedge meadow dominated by tussock sedge, marsh marigold, and sensitive fern, with scattered willow and elderberry shrubs; riparian forest at edge of ROW
Northern	N	N-W4a	---	Wet Meadow	14	F	Low quality wet meadow dominated by RCG, jewelweed, ferns, and nettles.
Northern	N	N-W4b	---	Wet Meadow	14	F	Low quality wet meadow dominated by RCG, jewelweed, nettles, avens and elderberry.
Northern	N	N-W5	<i>ASNRI - adjacent to Beaver Creek</i>	Wet Meadow/Shrub-Carr/Riparian Forest (E2Kg)	14	F	Mix of wet meadow/shrub-carr with RCG and <i>Salix</i> spp.; transitions into floodplain forest along waterway with a mostly closed canopy.
Northern	N	N-W6	---	Wet Meadow/Riparian Forest	15/16	F	RCG dominated wet meadow within existing transmission line corridor; transitions into riparian forest dominated by boxelder, common buckthorn and stinging nettle.
Northern	N	N-W6a	---	Wet Meadow	16/17	F	Low quality wet meadow dominated by RCG.
Northern	N	N-W7	---	Wet Meadow	16/17	F	RCG dominated wet meadow with some goldenrod and stinging nettle
Northern	N	N-W8	---	Wet Meadow	17	F	Wet meadow dominated by RCG with stinging nettle, horsetail and Kentucky bluegrass common

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W9	---	Wet Meadow/Shrub-Carr/Farmed Wetland	18	F	Narrow wet meadow/shrub-carr fringe along waterway, partially farmed; tussock sedge, RCG, alder and nannyberry most common.
Northern	N	N-W12	---	Sedge Meadow (E1K)	19	F	Disturbed sedge meadow dominated by lake and tussock sedges, with jewelweed, giant ragweed, RCG and elderberry also present
Northern	N	N-W11	---	Wet / Sedge Meadow	19	F	RCG dominated wet meadow; small element of sedge meadow near road
Northern	N	N-W15	<i>ASNRI - adjacent to Class I trout stream, ERW (UNT to Bear Creek)</i>	Wet Meadow / Alder Thicket (T3Kg)	19/20	F	Alder thicket dominated by alder and elderberry shrubs; with skunk caggage, jewelweed, sedges and bluejoint grass common
Northern	N	N-W15a	---	Wet Meadow	20/21	F	Low quality wet meadow dominated by RCG, giant goldenrod, and ferns with a shrub fringe.
Northern	N	N-W15b	---	Wet Meadow	20/21	F	A low quality wet meadow dominated by RCG, mustard, and water hemlock.
Northern	N	N-W16	---	Wet Meadow	21	F	Wet meadow dominated by RCG; small open water pond with emergent fringe about 90 ft west of existing centerline.
Northern	N	N-W17	---	Wet Meadow/Farmed Wetland	21	F	RCG dominated swale with farmed wetland fringe
Northern	N	N-W18	---	Hardwood Swamp/Wet Meadow/Farmed Wetland (T3/E1K)	21/22	F	Wet meadow dominated by RCG with hardwood swamp fringe; farmed wetland adjacent to road planted to corn, evidence of soil saturation and/or crop stress observed in previous years.
Northern	N	N-W19	---	Wet Meadow	21/22	F	Wet meadow with RCG and giant goldenrod; scattered elderberry and boxelder present
Northern	N	N-W20	---	Wet Meadow / Shrub carr	22	F	Wet meadow dominated by RCG with shrub carr fringe dominated by dogwoods
Northern	N	N-W21	---	Wet Meadow	23	F	Narrow band of wet meadow dominated by RCG with stinging nettle and curly dock less common

Appendix J Exhibit 3

Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W22	---	Shallow open water / Shrub carr (E1K)	23	F	Shallow open water with shrub carr fringe; dominants include RCG, tussock sedge, elderberry and boxelder saplings
Northern	N	N-W23	---	Wet Meadow	23	F	Narrow wet meadow swale dominated by tussock sedge, giant goldenrod and soft rush
Northern	N	N-W24	<i>ASNRI - adjacent to NHI, Class III trout water (Trempealeau R)</i>	Floodplain Forest/Wet Meadow (T3Kw)	23/24	F	Mature, mostly closed canopy floodplain forest with wet meadow in existing transmission line ROW; disturbed by pasturing.
Northern	N	N-W24a	---	Wet Meadow	24	F	Low quality, seasonally inundated farm pond with wet meadow dominated by RCG.
Northern	N	N-W24b	---	Wet/Sedge Meadow	25	F	A moderate quality wetland associated with an intermittent waterway that is dominated by RCG, <i>Glyceria grandis</i> , <i>Equisetum arvense</i> , and <i>Juncus effusus</i> ; seeps likely present
Northern	N	N-W24c	---	Wet/Sedge Meadow	25	F	A moderate quality wet/sedge meadow associated with an intermittent stream that is dominated by RCG, <i>Carex lacustris</i> , <i>Glyceria grandis</i> , jewelweed and mustard.
Northern	N	N-W25	---	Farmed Wetland	26	F	Low quality farmed wetland, mostly ponded water with no vegetation
Northern	N	N-W25a	---	Wet Meadow	26	F	Low quality wetland drainage swale adjacent to agricultural fields; vegetation dominated by RCG.
Northern	N	N-W26	<i>ASNRI - adjacent to NHI, Class III trout water (Trempealeau R)</i>	Farmed Wetland/Floodplain Forest/Wet Meadow/Shrub carr (T3Kw)	26	F / A	Moderate quality floodplain shrub carr dominated by alder, <i>Spirea</i> and RCG (viewed from edge due to flooding); polygon to east is floodplain forest
Northern	N	N-W27	---	Farmed Wetland	27	A	Farmed wetland/cropped drainage swale; evidence of crop stress and/or soil saturation observed in previous years.
Northern	N	N-W28	<i>ASNRI - adjacent to NHI, Class III trout water (Trempealeau R)</i>	Farmed Wetland/Floodplain Forest/Wet Meadow	27/28	A	Farmed wetland planted to corn; evidence of soil saturation and/or crop stress observed in previous years. Mature, mostly closed canopy floodplain forest/wet meadow complex making up large riparian corridor of the Trempealeau River buffering waterway from surrounding agricultural land.
Northern	N	N-W29	---	Wet Meadow	28	A	Narrow wet meadow depression along S side of RR track.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W30	---	Farmed Wetland/Wet Meadow	28	A	Farmed wetland planted to corn; evidence of soil saturation and/or crop stress observed in previous years. Two small inclusions of wet meadow remain uncropped and surrounded by agricultural fields.
Northern	N	N-W32	---	Wet Meadow	28	F	Lower quality wet meadow dominated by RCG adjacent to 2 waterways with riparian forest fringe
Northern	N	N-W32a	---	Wet / Sedge Meadow	29	F	Moderate quality wet / sedge meadow located within ROW; vegetation dominated by RCG, <i>Calamagrostis canadensis</i> , <i>Carex stricta</i> and meadow sweet.
Northern	N	N-W33	ASNRI - Associated with Statewide Wildlife Habitat area	Wet Meadow/Shrub carr	29	F	Shrub carr / wet meadow complex dominated by RCG, tussock sedge, elderberry and alder; herbicide damage evident
Northern	N	N-W33a	---	Wet Meadow	29	F	Low quality wet meadow dominated by RCG that is associated with higher quality hardwood swamp/shrub-carr off-ROW.
Northern	N	N-W33b	---	Wet Meadow	29	F	Lower quality wet meadow located within ROW; vegetation dominated by RCG, <i>Carex stricta</i> and meadow sweet.
Northern	N	N-W34	---	Wet Meadow	29	F	Disturbed wet meadow dominated by Kentucky bluegrass, tussock and other sedges, and RCG; higher quality hardwood swamp at edge of ROW
Northern	N	N-W35	ASNRI - adjacent to Class II trout water (Skutley Creek)	Wet/Sedge Meadow	29/30	F	Moderate quality pastured wetland comprised of sedges, RCG and native forbs
Northern	N	N-W36	ASNRI - adjacent to Class II trout water (Skutley Creek)	Wet Meadow/Sedge Meadow	30	F	Wet meadow/sedge meadow complex comprised of RCG, tussock sedge, bluejoint grass, cattail and stinging nettle, with meadow sweet and blackberry shrubs
Northern	N	N-W37	ASNRI - adjacent to Class II trout water (Skutley Creek)	Wet Meadow/Sedge Meadow/Riparian Forest/Shrub carr	30	F	Shrub carr with inclusions of wet and sedge meadows, with fringe of riparian forest; shrub carr dominants include meadow sweet, gray dogwood, sedges and sensitive fern; sedge meadow composed of sedges and wool grass
Northern	N	N-W38	---	Wet Meadow/Farmed Wetland	30	F	Farmed wet swale in corn field dominated by nut sedge and smartweed

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W39	---	Wet Meadow / Farmed Wetland	31	F	Farmed wet meadow dominated by RCG
Northern	N	N-W40	<i>ASNRI - adjacent to Class I trout stream (French Creek)</i>	Wet Meadow	31	F	Pastured wet meadow dominated by RCG
Northern	N	N-W41	<i>ASNRI - adjacent to Class I trout stream (French Creek)</i>	Sedge Meadow/Alder Thicket	31	F	Sedge meadow dominated by RCG, wool grass and tussock sedge; alder thicket dominated by alder and RCG
Northern	N	N-W42	<i>ASNRI - adjacent to Class I trout stream (French Creek)</i>	Alder Thicket/Wet Meadow/Shallow Marsh/Farmed Wetland	31/32	F	Large wetland complex associated with French Creek. Alder thicket with with tag alder and RCG common. Wet meadow dominated by RCG and shallow marsh dominated by <i>Carex</i> and wool grass. At east end, portions of wet meadow/sedge meadow cropped and/or used for hay.
Northern	N	N-W43	---	Wet Meadow/Farmed Wetland	32	F	Partially farmed wet meadow dominated by RCG
Northern	N	N-W44	---	Wet Meadow	32	F	Wet meadow dominated by RCG with scattered shrubs.
Northern	N	N-W45	---	Wet/Sedge Meadow / Shrub-Carr	32/33	F	Large wetland complex primarily comprised of wet meadow with lesser amounts of sedge meadow and shrub carr; wet meadow dominants include RCG and to a lesser extent jewel weed; sedge meadow dominants include wool grass and lake sedge; while shrub carr dominants include gray dogwood, alder and aspen saplings.
Northern	N	N-W46	---	Wet Meadow	36	F	Similar to N-W47
Northern	N	N-W47	<i>ASNRI, adjacent to Class II trout stream (UNT to Squaw Creek)</i>	Alder Thicket (S3k)	36/37	F	Alder thicket dominated by alder, boxelder, elderberry and meadow sweet shrubs, with marsh marigold, skunk cabbage, sensitive fern and jewelweed in herbaceous layer
Northern	N	N-W48	<i>ASNRI - adjacent to Class I trout stream / ERW (Squaw Creek)</i>	Wet/Sedge Meadow / Alder Thicket	37	F	Wet/sedge meadow dominated by sedges, RCG, nettle and water hemlock; alder thicket along margins with alder, skunk cabbage, marsh marigold, jewelweed and water hemlock
Northern	N	N-W49	<i>ASNRI - adjacent to Class II trout stream (Kenyon Creek)</i>	Alder Thicket/Wet Meadow	39	F	Riparian alder thicket with alder and willow shrubs, and RCG, jewelweed, <i>Andgelica</i> and stinging nettle in the understory; wet meadow is pastured with <i>Carex stipata</i> , Kentucky bluegrass and <i>Glyceria</i> common

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W50	<i>ASNRI - adjacent to Class II trout stream (Hoffman Creek)</i>	Alder Thicket/Wet Meadow	39	F	Riparian alder thicket with alder, RCG, jewelweed and Kentucky bluegrass common; wet meadow dominated by RCG, Kentucky bluegrass and giant goldenrod
Northern	N	N-W51	---	Riparian Forest	41	A	Riparian forest along Town Creek.
Northern	N	N-W51a	---	Wet Meadow/Shrub-Carr	41	F	Moderate quality wet meadow/shrub-carr located within a deep ravine; dominant herb layer consists of <i>Bromus ciliatus</i> , <i>Solidago gigantea</i> , <i>Impatiens capensis</i> , and <i>Carex</i> spp; dominant shrub layer species consist of <i>Rhamnus frangula</i> and <i>Rubus idaeus</i> .
Northern	N	N-W52	---	Riparian Forest	41/42	F	Small area of mature, closed canopy riparian forest with boxelder and silver maple common
Northern	N	N-W53	---	Wet Meadow	42/43	F	Cattail dominated wet meadow depression within hwy interchange area.
Northern	N	N-W54	---	Wet Meadow	42/43	F	Wet meadow swale dominated by RCG, soft rush, and blue vervain within hwy interchange.
Northern	N	N-W55	---	Wet Meadow	42/43	A	Small depressional area of wet meadow within hwy interchange.
Northern	N	N-W56	---	Wet Meadow/Hardwood Swamp	42/43	F	RCG dominated wet meadow with sparse soft rush, panicked aster and giant goldenrod; glossy buckthorn and <i>Salix</i> sp. along fenceline. ; associated with open water pond with cattail fringe to the N; fringe of hardwood swamp at edge of ROW
Northern	N	N-W57	<i>ASNRI - adjacent to NHI water; 303d Listed (Black River)</i>	Alder Thicket/Hardwood Swamp	43	F	Seep at E bank of Black River dominated by tag alder and skunk cabbage with various <i>Carex</i> spp., jewelweed, sensitive and ostrich fern, also glossy buckthorn, cottonwood, black ash; transitions into mature, closed canopy forest to the N.
Northern	N	N-W58	---	Shrub-Carr/Wet Meadow/Hardwood Swamp	43/44	F	Small depressional areas with a complex of shrub-carr and wet meadow; RCG, glossy buckthorn dominant; fringe of hardwood swamp
Northern	N	N-W59	---	Wet Meadow	44	F	RCG dominated wet meadow within depression.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W60	---	Wet Meadow	44	F	RCG dominated wet meadow with wool-grass and 2-3 different <i>Carex spp</i> , also scattered <i>Salix sp.</i> and glossy buckthorn at edges.
Northern	N	N-W61	---	Wet Meadow	44	F	RCG dominated wet meadow depression surrounded by upland forest, with sparse sensitive fern, wool-grass; glossy buckthorn common near hwy ROW.
Northern	N	N-W62	---	Wet Meadow	44/45	F	Small wet meadow depression within open grassland.
Northern	N	N-W63	---	Wet Meadow/Hardwood Swamp/Shrub-Carr	44/45	F	Wet meadow dominated by RCG, soft rush, path rush, wool-grass, some glossy buckthorn; extending into shrub-carr/hardwood swamp complex to the SE.
Northern	N	N-W64	ASNRI - adjacent to Class I trout stream, ERW (Coffee Creek)	Sedge Meadow/Shrub-Carr/Hardwood Swamp	45	F	Large sedge meadow extending with small areas of shrub-carr/hardwood swamp at the NW and SE ends. Sedge meadow dominated by tussock sedge, blue-joint grass, RCG, and scattered glossy buckthorn.
Northern	N	N-W65	---	Shallow Marsh/Sedge Meadow/Hardwood Swamp	45	F	Depressional area bordered by Castle Mound Rd, I-94 and RR with shallow marsh/sedge meadow complex. Shallow marsh includes small pockets of open water and is dominated by cattail, lake sedge; sedge meadow with tussock sedge, wool-grass, soft rush, steplebush, cinnamon fern with patches of glossy buckthorn, red maple; hardwood swamp at edge of ROW
Northern	N	N-W66	---	Wet Meadow/Sedge Meadow/Hardwood Swamp	45	F	Sedge meadow/wet meadow complex with scattered buckthorn extending into mostly closed canopy hardwood swamp with <i>Populus sp.</i> , glossy buckthorn, red maple, scattered white pine.
Northern	N	N-W67	---	Sedge Meadow	46	F	Sedge meadow restricted to I-94 toe-of-slop and embankment from forested upland; approx. 30ft wide and dominated by tussock sedge, soft rush, wool-grass, steplebush.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W68	---	Sedge Meadow/Shrub-Carr/Hardwood Swamp	46/47	F	Large wetland complex of sedge meadow wetland along ROW, grades into shrub-carr which transitions into hardwood swamp; upland inclusions common throughout. Sedge meadow with tussock sedge, soft rush, wool-grass, sensitive fern, steplebush common; shrub-carr with similar understory and pussy willow, Bebb's willow, glossy buckthorn, tag alder in the shrub layer; hardwood swamp a closed canopy overstory of quaking aspen, red maple common.
Northern	N	N-W69	---	Sedge Meadow/Shrub-Carr/Hardwood Swamp	47	F	Similar to N-W68, but more open: Large wetland complex of sedge meadow wetland along ROW, grades into shrub-carr which transitions into hardwood swamp; upland inclusions common throughout. Sedge meadow with various <i>Carex spp.</i> , wool-grass, sensitive fern, steplebush; shrub-carr with cinnamon fern, <i>Carex spp.</i> , steplebush understorey with glossy buckthorn, quaking aspen shrub layer; areas of hardwood swamp a closed canopy overstory of quaking aspen, red maple common.
Northern	N	N-W70	---	Sedge Meadow/Shrub-Carr/Hardwood Swamp	47/48	F	Contiguous with and similar to N-W69
Northern	N	N-W71	---	Hardwood Swamp	48	F	Small depressional feature with quaking aspen and various <i>Carex spp.</i>
Northern	N	N-W72	---	Sedge Meadow	48	F	Sedge meadow dominated by soft rush, various <i>Carex spp.</i> , sensitive fern, cinnamon fern, wool-grass, blue-joint grass with scattered jack pine, quaking aspen; associated with culvert under I-94.
Northern	N	N-W73	---	Sedge Meadow/Hardwood Swamp	48	F	Sedge meadow wetland associated with small open water pond N of ROW; wooded wetland fringe
Northern	N	N-W74	---	Sedge Meadow/Hardwood Swamp	49	F	Wetland complex of sedge meadow and mature, closed canopy hardwood swamp. Sedge meadow dominated by various <i>Carex spp.</i> , wool-grass, sensitive fern; hardwood swamp with cinnamon fern, <i>Carex spp</i> understory, tag alder and glossy buckthorn in the shrub layer, overstory of tamarack, white pine, red maple.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W75	---	Shrub-Carr/Sedge Meadow/Hardwood Swamp	49	F	Wetland complex of mixed shrub-carr/hardwood swamp and sedge meadow. Shrub-carr/hardwood swamp with cinnamon fern, sensitive fern, wool-grass in the herb layer, shrub layer of glossy buckthorn, quaking aspen, steppelbush with scattered white pine, red maple, quaking aspen. Sedge meadow with various <i>Carex spp.</i> , wool-grass, sensitive fern, steppelbush.
Northern	N	N-W76	---	Shrub-Carr	49	F	Shrub-carr dominated by sensitive fern and <i>Carex spp.</i> , with the shrub-layer dominated by glossy buckthorn, tag alder, pin cherry.
Northern	N	N-W77	---	Hardwood Swamp	49/50	F	Mostly closed canopy mature hardwood swamp with an overstory dominated by red maple, yellow birch, quaking aspen, shrub layer of grey dogwood, glossy buckthorn, quaking aspen, herb layer with royal fern, dewberry, interrupted fern, wool-grass, soft rush.
Northern	N	N-W78	---	Hardwood Swamp	50	F	Mostly closed canopy mature hardwood swamp with an overstory dominated by red maple, quaking aspen, pin oak, shrub layer of beaked willow, red maple, glossy buckthorn, herb layer with royal fern, interrupted fern, <i>Carex sp.</i> , blue-joint grass, Kentucky bluegrass.
Northern	N	N-W79	---	Wet Meadow/Shrub-Carr	50	F	Narrow wetland area of wet meadow with RCG, giant goldenrod, sensitive fern, soft rush, wool-grass and sedge meadow with tag alder, quaking aspen, <i>Salix sp.</i> , <i>Carex sp.</i> , sensitive fern, RCG.
Northern	N	N-W80	---	Wet Meadow/Hardwood Swamp	51	F	Depressional wet meadow with hardwood swamp elements between I-94 and Lambert Road; dominated by sensitive fern, woodland strawberry, giant goldenrod, meadowsweet, leatherleaf, lake sedge, wool-grass, with scattered red maple, quaking aspen.
Northern	N	N-W81	---	Sedge Meadow/Hardwood Swamp/Alder Thicket	51	F	Large wetland complex of sedge meadow, hardwood swamp, and alder thicket. Sedge meadow with wool-grass, tussock sedge, bistly dewberry, sensitive fern, scattered Bebb's willow, tag alder; hardwood swamp with similar herb layer plus some RCG, steppelbush, with quaking aspen, red maple, scattered white pine, jack pine; alder thicket dominated by tag alder with herb layer of tussock sedge, wool-grass.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W82	---	Sedge Meadow/Hardwood Swamp	52	F	Large sedge meadow/hardwood swamp complex with scattered, small upland inclusions. Sedge meadow with tussock sedge, wool-grass, cinnamon fern, steplebush, scattered tag alder; mostly closed canopy hardwood swamp dominated by an overstory of white pine and red maple with tag alder and Bebb's willow in the shrub layer and an herb layer of cinnamon fern, tussock sedge, lake sedge, sensitive fern.
Northern	N	N-W83	---	Sedge Meadow/Hardwood Swamp	52	F	Contiguous with and similar to N-W82.
Northern	N	N-W84	<i>ASNRI - within Black River State Forest</i>	Sedge Meadow/Hardwood Swamp	52	F	Complex of sedge meadow/hardwood swamp with tussock sedge, wool-grass, meadowsweet, quaking aspen, common.
Northern	N	N-W85	<i>ASNRI - adjacent to Class III trout stream (Glenn Creek), within Black River State Forest</i>	Sedge Meadow/Riparian Forest	53	F	Diverse sedge meadow associated with Glen Creek (N-R31); dominated by lake sedge, sensitive fern, redtop, steplebush, with scattered tag alder; white pine and jack pine common in wooded wetland fringe.
Northern	N	N-W86	<i>ASNRI - adjacent to NHI water, Class II trout stream (Robinson Creek), within Black River State Forest</i>	Sedge Meadow / Hardwood Swamp	54	F	Sedge meadow associated with Robinson Creek; dominated by tussock sedge, cinnamon fern, soft rush, boneset, with scattered tag alder at creek edge. Hardwood swamp at edge of ROW
Northern	N	N-W87	<i>ASNRI - adjacent to NHI water, Class II trout stream (Robinson Creek), and Black River State Forest</i>	Sedge Meadow/Riparian Forest	54	F	Sedge meadow adjacent to Robinson Creek; dominated by tussock sedge, wool-grass, soft rush; riparian forest fringe
Northern	N	N-W88	<i>ASNRI - within Black River State Forest</i>	Sedge Meadow / Hardwood Swamp	55	F	Open sedge meadow with scattered tag alder associated with Zahrt Creek; hardwood swamp at edge of ROW
Northern	N	N-W89	<i>ASNRI - within Black River State Forest</i>	Sedge Meadow / Hardwood Swamp	55/56	F	Depressional sedge meadow with wool-grass, soft rush, tussock sedge, cinnamon fern, steplebush common with scattered white pine, jack pine. Hardwood swamp at edge of ROW

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W90	<i>ASNRI - within Black River State Forest</i>	Sedge Meadow	56	F	Isolated sedge meadow depression with tussock sedge, wool-grass, soft rush, sparse grey dogwood.
Northern	N	N-W91	<i>ASNRI - within Black River State Forest</i>	Sedge Meadow	56	F	Isolated sedge meadow depression with tussock sedge, wool-grass, soft rush, sparse grey dogwood.
Northern	N	N-W92	<i>ASNRI - within Black River State Forest</i>	Sedge Meadow	56/57	F	Isolated sedge meadow depression with tussock sedge, wool-grass, soft rush, sparse grey dogwood.
Northern	N	N-W93	<i>ASNRI, immediately adjacent to Black River State Forest</i>	Sedge Meadow/Shrub-carr/Hardwood Swamp	56/57	F	Larger wetland complex of sedge meadow predominantly within hwy ROW, extending into shrub-carr/hardwood swamp complex. Sedge meadow with tussock sedge, wool-grass, soft rush, scattered grey dogwood, steeplebush. Shrub-carr with similar herbaceous species plus grey dogwood, white pine, steeplebush in the shrub layer; hardwood swamp with sensitive fern, cinnamon fern, and soft rush common in the herb layer and a mature closed canopy domiante by white pine, red maple.
Northern	N	N-W94	<i>ASNRI - adjacent to NHI water (Rudd Creek), portion within Black River State Forest</i>	Sedge Meadow/Shrub-carr/Hardwood Swamp	57	F	Contiguous with and similar to N-W93.
Northern	N	N-W95	---	Sedge Meadow/Shrub-Carr/Hardwood Swamp (S3/E1K)	58	F	Sedge meadow within HWY ROW; extending N into complex of shrub-carr and coniferous swamp. Shrub-carr dominated by various <i>Carex</i> spp., meadowsweet, grey dogwood, white pine; hardwood swamp with an overstory dominated by white pine and red maple with meadowsweet common in the understory.
Northern	N	N-W96	---	Sedge Meadow/Hardwood Swamp	58	F	Mowed sedge meadow within hwy ROW, extending into hardwood swamp; common species include white pine and red maple overstory with sensitive fern, soft rush, wool-grass, and cinnamon fern in the understory.
Northern	N	N-W97	---	Sedge Meadow/Hardwood Swamp	58	F	Depressional sedge meadow within hwy ROW dominated by wool-grass, <i>Juncus</i> sp., giant goldenrod; extends into hardwood swamp with white pine, red maple.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W98	---	Shrub-Carr/Shallow Marsh/Shallow, Open Water/Hardwood Swamp (S3K)	60	F	Shrub-carr/shallow-marsh complex between hwy and commercial development embankments; common species include some red maple and green ash with elderberry, red-osier dogwood, <i>Salix sp.</i> , cattail, and RCG. Inclusive of excavated open water pond and ditch for stormwater mgmt from adjacent commercial development.
Northern	N	N-W99	---	Shallow Marsh	60/61	F	Shallow marsh dominated by cattail within cloverleaf of hwy interchange.
Northern	N	N-W100	---	Wet Meadow	60/61	F	Depressional area within hwy interchange dominated by RCG and cattail.
Northern	N	N-W101	---	Wet Meadow	62	F	Wet meadow seep wetland on hwy sideslope; dominated by reedtop, <i>Lemna sp.</i> , RCG with few soft rush, cattail, sensitive fern.
Northern	N	N-W102	---	Wet Meadow	64	F	Depressional wet meadow dominated by RCG, cattail, jewelweed, <i>Carex spp.</i>
Northern	N	N-W103	---	Mixed Hardwood Swamp/Wet Meadow (T5K)	64	F	Large area of mature, mostly open hardwood swamp dominated by red maple, American elm, white pine and white oak in the overstory with several white pine snags; dense understory and herb layer including common winterberry, glossy buckthorn, and RCG. Within hwy ROW, fairly diverse wet meadow including great blue lobelia, wool-grass, tussock sedge, spotted joe-pye weed, blue vervain, common elderberry.
Northern	N	N-W104	<i>ASNRI - adjacent to Class I trout stream, ERW (Mill Creek)</i>	Wet Meadow/Hardwood Swamp (E1Kg, T3/5K)	64/65	F	Large low-diversity wet meadow associated with Mill Creek (N-R36); dominated by RCG, some <i>Carex spp.</i> An outside fringe of mature, mostly closed forested swamp with white pine and tamarack in the overstory and glossy buckthorn and RCG common in the understory occurs outside of the ROW.
Northern	N	N-W105	---	Wet Meadow	65	F	Depressional wet meadow swale dominated by RCG with a few scattered glossy buckthorn.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W106	---	Shrub-Carr/Hardwood Swamp (T3K)	66/67	F	Large wetland complex; predominantly mature, mostly closed canopy hardwood swamp with an area of shrub-carr along the S boundary. Hardwood swamp dominated by an overstory of red maple and white pine with American elm, quaking aspen, white oak; shrub-carr dominated by glossy buckthorn, common winterberry, with scattered white pine and red maple and a fairly diverse herb layer including meadowsweet, sensitive fern, angelica, joe pye-weed, cinnamon fern, tussock sedge, RCG.
Northern	N	N-W107	---	Wet Meadow	67	F	Narrow wet meadow depression dominated by cattail, RCG.
Northern	N	N-W108	---	Wet Meadow	67	F	Wet meadow depression within hwy interchange; dominated by cattail with jewelweed, sensitive fern, and a few scattered boxelder.
Northern	N	N-W109	---	Wet Meadow	67	F	Linear wet meadow depression restricted to road ROW between hwy and frontage road embankments; dominated by cattail, RCG, giant goldenrod, and a few, scattered common buckthorn shrubs.
Northern	N	N-W110	---	Wet Meadow/Sedge Meadow/Hardwood Swamp (S3/E2H)	68	F	Primarily wet meadow within ROW dominated by Carex spp., RCG, soft rush, cattail, some glossy buckthorn shrubs; extends into a larger wet meadow/sedge meadow floodplain associated with Mud Creek. Bordered by mature, mostly closed canopy hardwood swamp.
Northern	N	N-W111	---	Wet Meadow/Hardwood Swamp (T3/S3K)	68	F	Wet meadow dominated by RCG, sensitive fern, and Canada goldnred; transitions into hardwood swamp with white pine, silver maple, quaking aspen, green ash.
Northern	N	N-W112	---	Shrub-Carr/Wet Meadow/Hardwood Swamp (S3/E1H, T3K)	68/69	F	Large wetland complex associated with two areas of open water and an intermittent stream; open water areas appear man-made. Shrub-carr with glossy buckthorn, RCG, various Carex spp., cattail, blue vervain, giant and Canada goldenrod; wet meadow dominated by various Carex spp., RCG, dark-green bulrush, soft rush; hardwood swamp with a mature, mostly closed canopy including white pine, quaking aspen, red maple.
Northern	N	N-W113	---	Wet Meadow	69	F	Small depressional wet meadow.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W114	<i>ASNRI - adjacent to NHI water; 303d Listed (S. Fork Lemonweir River)</i>	Wet Meadow/Shrub-Carr/Hardwood Swamp (E1Kg, S3/E1K)	69	F	Wet meadow/shrub-carr/hardwood swamp associated with South Fork Lemonweir River; common species include RCG, <i>Salix sp.</i> , glossy buckthorn, American elm, black willow, quaking aspen.
Northern	N	N-W115	---	Wet Meadow	69	F	Depressional wet meadow within hwy interchange; dominated by RCG, tussock sedge, some dark-green bulrush, glossy buckthorn, quaking aspen.
Northern	N	N-W116	---	Shrub-Carr/Wet Meadow/Sedge Meadow	69	F	Small wetland complex of shrub-carr, wet meadow, sedge meadow within hwy interchange area. Shrub-carr (50% total cover) with RCG, tussock sedge, glossy buckthorn, nannyberry, red-osier dogwood, with scattered quaking aspen, green ash, American elm; wet meadow (30% total cover) with RCG, culver's root, sensitive fern, giant goldenrod common; sedge meadow (20% total cover) with tussock sedge, soft rush, wool-frass, sensitive fern dominant.
Northern	N	N-W117	---	Wet Meadow/Shrub-Carr/Hardwood Swamp (T3/E1K)	69/70	F	Wet meadow/shrub-carr complex with RCG, glossy buckthorn, meadowsweet, grey dogwood, quaking aspen common; elements of hardwood swamp present
Northern	N	N-W118	---	Wet Meadow/Shrub-Carr/Hardwood Swamp (S3/E1K)	70	F	Wet meadow/shrub-carr complex dominated by RCG, glossy buckthorn; hardwood swamp on fringe dominated by American elm.
Northern	N	N-W119	---	Wet Meadow/Shrub-Carr/Hardwood Swamp (E1K, S3K, Se/E1Kg)	71	F	Wet meadow/shrub-carr complex dominated by RCG, giant goldenrod, grey dogwood, glossy buckthorn; small hardwood swamp inclusion with grey dogwood, quaking aspen, northern pin oak.
Northern	N	N-W120	---	Wet Meadow/Farmed Wetland	71 - 73	F	Extensive RCG dominated wet meadow within hwy ROW; extends into large expanse of farmed wetland planted to corn or used for hay with evidence of soil saturation and/or crop stress observed in previous years.
Northern	N	N-W121	<i>ASNRI, adjacent to NHI Water (Bear Creek)</i>	Wet Meadow/Farmed Wetland	73/74	F	RCG dominated wet meadow with scattered sandbar willow within hwy ROW; extends into large expanse of farmed wetland planted to corn or used for hay with evidence of soil saturation and/or crop stress observed in previous years.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W122	---	Wet Meadow/Hardwood Swamp	74	F	Large wet meadow adjacent to Indian Creek, dominated by RCG with scattered clumps of green ash and quaking aspen; areas of hardwood swamp located closer to Indian Creek.
Northern	N	N-W123	---	Wet Meadow Hardwood Swamp (T3K)	74	F	Wet meadow within hwy ROW with RCG, fox sedge, Canada thistle; transitions into mostly closed canopy hardwood swamp N of ROW with red maple, American elm, red oak, white oak, and black walnut dominant in the overstory, a shrub layer of glossy bucklthorn and tartarian honeysuckle, and RCG with various <i>Carex spp.</i> in the herb layer.
Northern	N	N-W124	---	Hardwood Swamp/Wet Meadow/Farmed Wetland (E1K)	74 -76	F	Large wetland complex of RCG dominated wet meadow within the hwy ROW, extending N to complex of hardwood swamp, wet meadow, and farmed wetland. A mostly closed canopy mature hardwood swamp dominated by boxelder, quaking aspen, and red maple; majority of feature is wet meadow dominated by RCG with scattered grey dogwood, elderberry, and Salix sp., farmed wetland used for cranberry production or planted to corn with evidence of soil saturation and/or crop stress observed in previous years.
Northern	N	N-W125	---	Wet Meadow/Hardwood Swamp	75-76	F	RCG dominated wet meadow within hwy ROW, including a narrow forested band of Fraxinus sp., red maple, American elm adjacent to waterway.
Northern	N	N-W126	---	Wet Meadow	75-76	V	RCG dominated wet meadow associated with a waterway.
Northern	N	N-W127	ASNRI, adjacent to Mill Bluff State Park	Wet Meadow	75-76	V	RCG dominated wet meadow with scattered <i>Salix sp.</i> and elderberry shrubs associated with a waterway; portions appear pastured.
Northern	N	N-W128	ASNRI, adjacent to Mill Bluff State Park	Wet Meadow	76	F	RCG dominated wet meadow within depressional area between Hwy 12 and RR track embankments.
Northern	N	N-W129	ASNRI, adjacent to Mill Bluff State Park	Wet Meadow / Hardwood Swamp	76	V	RCG dominated wet meadow with small pocket of quaking aspen.
Northern	N	N-W130	---	Hardwood Swamp	76	A	Small area of hardwood swamp within small woodlot surrounded by agricultural land.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W131	---	Farmed Wetland	78	V	Farmed wetland planted to soy beans; evidence of soil saturation and/or crop stress observed in previous years.
Northern	N	N-W132	<i>ASNRI, adjacent to NHI Water (UNT to Lemonweir River)</i>	Riparian Forest	78/79	A	Narrow fringe of deciduous trees along banks of drainage swale.
Northern	N	N-W133	<i>ASNRI, adjacent to NHI Water (UNT to Lemonweir River)</i>	Farmed Wetland	78/79	A	Farmed wetland exhibiting soil saturation and/or crop stress in previous years.
Northern	N	N-W134	---	Farmed Wetland	79	A	Farmed wetland exhibiting soil saturation and/or crop stress in previous years.
Northern	N	N-W135	---	Farmed Wetland/Wet Meadow/Hardwood Swamp	82	A	Farmed wetland exhibiting crop stress and/or soil saturation in previous years. Along fenceline between ag fields, narrow band of hardwood swamp/wet meadow which extends E into a larger wet meadow area which appears to be under restoration as large landscapes were evident.
Northern	N	N-W136	---	Hardwood Swamp/Wet Meadow/Farmed Wetland/Shallow, Open Water	82	A	Predominantly mature, mostly closed canopy hardwood swamp W of waterway with small areas of wet meadow. Farmed wetland appears to be used for hay and shows evidence of soil saturation and/or crop stress in previous years. Extends into additional hardwood swamp E of farmed wetland/wet meadow with an open water pond.
Northern	N	N-W137	---	Wet Meadow	82	A	Wet meadow depression between Hwy 12 and RR track embankments.
Northern	N	N-W138	---	Shallow Marsh/Hardwood Swamp/Farmed Wetland (S3/E1K, T3/E2H)	82/83	V	Large complex of shallow marsh and hardwood swamp. Shallow marsh dominated by cattail, RCG; hardwood swamp with a mature, mostly closed canopy with quaking aspen common. Small portion of farmed wetland on the E end with evidence of crop stress and/or soil saturation observed in previous years.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W139	---	Farmed Wetland/Hardwood Swamp/Wet Meadow/Sedge Meadow/Shallow Marsh (E2H, T3/5K, S3/E2H)	83	V	Farmed wetland to the W of Belchure Road planted to corn; evidence of soil saturation and/or crop stress observed in previous years. Majority of wetland a complex of hardwood swamp, wet meadow, sedge meadow, and shallow marsh. Hardwood swamp with a mature, mostly closed canopy dominated by silver maple and American elm; wet meadow areas dominated by RCG, cattail, dark-green bulrush, cinnamon fern; sedge meadow dominated by lake sedge, fox sedge, RCG, giant goldenrod; small pockets of shallow marsh dominated by cattail.
Northern	N	N-W140	---	Hardwood Swamp/Wet Meadow/Shallow Marsh (T3K)	83/84	F	Wetland complex with mature, closed canopy hardwood swamp at the center dominated by quaking aspen with red and silver maple in the overstory with an herb layer of cinnamon fern, RCG, giant goldenrod, marsh milkweed, dark-green bulrush; transitions into wet meadow dominated by RCG which transitions into a shallow marsh community dominated by cattail and RCG.
Northern	N	N-W141	---	Wet Meadow/hardwood Swamp	84	F	Wet meadow dominated by RCG and cattail with scattered glossy buckthorn; small pocket of hardwood swamp with a closed canopy dominated by quaking aspen and American elm.
Northern	N	N-W142	---	Shallow Marsh	84	F	Small depressional shallow marsh with RCG, cattail, sensitive fern, dark-green bulrush common.
Northern	N	N-W143	---	Wet Meadow/Hardwood Swamp (T3Kw)	84	F	Large wetland complex of wet meadow and hardwood swamp extending S of the proposed ROW. Wet meadow areas dominated by RCG, marsh milkweed, various Carex sp., giant goldenrod, sensitive fern with scattered shrubs including glossy buckthorn, red osier dogwood, and tag alder; hardwood swamp areas with a mature, closed canopy dominated by red maple, green ash, white pine, and quaking aspen, similar shrub species, with RCG and sensitive fern common in the herb layer.
Northern	N	N-W144	---	Wet Meadow	84/85	F	Within hwy ROW, RCG dominated wet meadow with smartweed and marsh milkweed; S of ROW, wet meadow is used for pasture.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W145	---	Wet Meadow	85	F	Contiguous with and similar to N-W144.
Northern	N	N-W146	---	Wet Meadow/Hardwood Swamp (T3K)	85	F	RCG dominated wet meadow within hwy ROW; extends S of ROW into small area of mesic forest with a mature, closed canopy including American elm, red oak, black locust.
Northern	N	N-W147	---	Wet Meadow/Hardwood Swamp (T3K)	85	F	Wet meadow within hwy ROW dominated by RCG, cattail, smartweed, stinging nettle; extending S into hardwood swamp with a mature, closed canopy including American elm, paper birch, red maple, green ash. On E end S of ROW, wet meadow used for pasture.
Northern	N	N-W148	---	Sedge Meadow	85	F	Located S of ROW; sedge meadow dominated by various <i>Carex spp.</i> , meadow sweet and wool grass.
Northern	N	N-W149	---	Farmed Wetland	85	F	Farmed wetland planted to soy beans; evidence of crop stress and/or soil saturation observed in previous years.
Northern	N	N-W150	---	Farmed Wetland	85/86	F	Farmed wetland planted to soy beans; evidence of crop stress and/or soil saturation observed in previous years.
Northern	N	N-W151	---	Sedge Meadow/Hardwood Swamp (E2Kg)	86	F	Sedge meadow associated with a former ox bow with some shallow standing water; dominated by lake sedge, tussock sedge, RCG, giant goldenrod with scattered nannyberry and grey dogwood; silver maple, American elm common in wooded community.
Northern	N	N-W152	ASNRI - adjacent to NHI water; 303d Listed (Lemonweir River)	Wet Meadow/Shrub-Carr/Hardwood swamp (E2Kg)	86	F	Wet meadow/shrub-carr complex associated with old ox-bow; common species include RCG, giant goldenrod, sensitive fern, cattail, buckthorn and grey dogwood; American elm common in wooded community.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W153	<i>ASNRI - adjacent to NHI water; 303d Listed (Lemonweir River)</i>	Floodplain Forest/Shallow, Open Water/Sedge Meadow (T3Kw, T3/E2Hw)	86/87	F	Extensive wetland complex of floodplain forest, shallow open water, and sedge meadow associated with the Lemonweir River (N-R61) channel and backwater. Floodplain forest with a mature, mostly closed canopy of silver maple, swamp white oak, and green ash, a shrub layer including tag alder, green ash, black ash, swamp white oak, and an herb layer with royal fern, RCG, sensitive fern, tussock sedge, and lake sedge common. Shallow, open water communities dominated by pickerelweed, white waterlily, duckweed, and river bulrush especially along river banks; sedge meadow primarily at base of hwy embankment and dominated by lake sedge, tussock sedge, and RCG.
Northern	N	N-W154	---	Wet Meadow (E1H)	87	F	Wet meadow at base of hwy embankment dominated by RCG, giant goldenrod, swamp milkweed.
Northern	N	N-W155	---	Wet Meadow	87	F	Wet meadow within hwy interchange area dominated by RCG, cattail, giant goldenrod.
Northern	N	N-W156	---	Wet Meadow	87	F	Wet meadow adjacent to hwy interchange; dominated by RCG, <i>Spartina sp.</i> , giant goldenrod with scattered grey dogwood, <i>Salix sp.</i>
Northern	N	N-W157	---	Wet Meadow	87	F	Contiguous with and similar to N-W156.
Northern	N	N-W158	---	Wet Meadow	87	F	Wet meadow dominated by cattail, RCG, and lesser amounts of giant goldenrod, <i>Aster sp.</i>
Northern	N	N-W159	---	Wet Meadow (E2K)	87	F	Wet meadow within hwy ROW, extending S into larger wet meadow area; dominated by RCG, cattail, giant goldenrod, Canada goldenrod, with scattered grey dogwood, <i>Salix sp.</i> , and American elm S of ROW. Some upland and sedge meadow inclusions.
Northern	N	N-W160	---	Hardwood Swamp/Wet Meadow	87/88	F	Hardwood swamp with a wet meadow fringe within hwy ROW; hardwood swamp with a mature, closed canopy of red maple, quaking aspen, American elm, <i>Fraxinus sp.</i> , a shrub layer of choke berry, hazelnut, American elm, and an herb layer of RCG and blue-joint grass. Wet meadow fringe dominated by RCG, blue-joint grass, <i>Carex spp.</i> , blue-flag iris, swamp milkweed.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W161	---	Wet Meadow/Shrub-Carr/Hardwood Swamp	88	F	Wet meadow/shrub-carr complex dominated by RCG, Canada and giant goldenrod, sensitive fern, KBG, meadowsweet, choke berry, Salix sp.; extends E into hardwood swamp at edge of ROW.
Northern	N	N-W162	---	Hardwood Swamp/Wet Meadow (T3K)	88	F	Extensive hardwood swamp with a small inclusion of RCG dominated wet meadow adjacent to waterway. Hardwood swamp with a mature, closed canopy of red maple, silver maple, white oak, American elm, Fraxinus sp., with maple/oak/elm/ash saplings, hazelnut, and grey dogwood in the shrub layer and an herb layer with RCG, bracken fern, wild sarsaparilla, giant goldenrod, swamp milkweed, and sensitive fern.
Northern	N	N-W163	---	Hardwood Swamp/Wet Meadow (T3/S3K)	88	F	Similar to N-W162
Northern	N	N-W164	---	Wet Meadow	89	F	Depressional wet meadow dominated by RCG.
Northern	N	N-W165	---	Wet Meadow	89	F	Depressional wet meadow dominated by RCG.
Northern	N	N-W166	---	Wet Meadow/HardwoodSwamp	89/90	F	Wet meadow/hardwood swamp complex associated with a waterway. Wet meadow areas dominated by RCG, cattail; hardwood swamp with a mature, closed canopy of boxelder, Fraxinus sp., quaking aspen, a shrub layer of quaking aspen and choke berry, and an herb layer of RCG, giant goldenrod.
Northern	N	N-W167	---	Hardwood Swamp	90	F	Mature, closed canopy hardwood forest with quaking aspen, green ash, and silver maple dominant in the overstory and meadowsweet, green ash/quaking aspen/red oak saplings. Due to dense overstory and shrub layer, herb layer sparse, but dominated by wool-grass, RCG, giant goldenrod, and swamp dewberry.
Northern	N	N-W168	---	Wet Meadow	90	F	ROW mowed wet meadow dominated by RCG with Canada thistle and water hemlock.
Northern	N	N-W169	---	Wet Meadow	90	F	ROW mowed wet meadow extending E of ROW to additional wet meadow associated with small open water pond; wet meadow dominated by RCG, sensitive fern, wool-grass, marsh milkweed. This feature includes a drainage ditch immediately west of N-G75

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W170	---	Wet Meadow	90/91	F	Wet meadow dominated by RCG with scattered glossy and common buckthorn.
Northern	N	N-W171	---	Wet Meadow	91	F	Wet meadow dominated by reed canary grass
Northern	N	N-W172	---	Wet Meadow	91	F	Mowed wet meadow within hwy ROW; dominated by RCG, giant goldenrod, soft rush, KBG, wool-grass, with scattered glossy buckthorn.
Northern	N	N-W173	---	Shrub-Carr/Wet Meadow (E1K)	91	F	Large shrub-carr and wet meadow complex with forested upland inclusions; common species include RCG, elderberry, glossy buckthorn, meadowsweet, <i>Salix sp.</i> , red maple, red oak.
Northern	N	N-W174	---	Wet Meadow	91	F	Small pocket of RCG dominated wet meadow surrounded by upland forest.
Northern	N	N-W175	---	Wet Meadow/Hardwood Swamp	91/92	F	Mowed wet meadow within ROW, extending off ROW into small depressional wet meadow area which transitions into closed canopy, mature hardwood swamp of cottonwood and red oak. Wet meadow dominated by RCG, cattail, giant goldenrod, sensitive fern, with scattered glossy and common buckthorn.
Northern	N	N-W176	---	Wet Meadow/Shrub-Carr/Hardwood Swamp	92	F	Wetland complex of wet meadow and shrub-carr; common species include RCG, cattail, elderberry, and quaking aspen; Hardwood swamp at edge of ROW
Northern	N	N-W177	---	Shrub-carr	92	F	Shrub-carr wetland dominated by glossy buckthorn, black willow, quaking aspen with RCG, soft rush, giant goldenrod, wool-grass.
Northern	N	N-W178	---	Wet Meadow/Shallow Marsh	92	F	Wet meadow swale and shallow marsh complex adjacent to hwy and overpass embankments. Wet meadow dominated by RCG, sensitive fern, soft rush, cattail; shallow marsh dominated by cattail, arrowhead, RCG, <i>Carex sp.</i> , with some scattered glossy buckthorn, elderberry, green ash, quaking aspen.
Northern	N	N-W179	---	Wet Meadow/Hardwood Swamp	92	F	Wet meadow associated with waterway; dominated by RCG, cattail, lake sedge, common milkweed, Canada thistle with scattered glossy buckthorn and honeysuckle; cottonwood and river birch common in wooded community.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W180	---	Farmed Wetland	92/93	F	Farmed wetland planted to corn; crop stress and/or soil saturation observed at time of assessment and in previous years.
Northern	N	N-W181	---	Wet Meadow	93	F	Wet meadow dominated by RCG with cattail, giant goldenrod, Canada goldenrod.
Northern	N	N-W182	---	Wet Meadow	93	F	Wet meadow dominated by RCG with cattail and a small inclusion of common reed grass.
Northern	N	N-W183	---	Shallow Marsh	93	F	Small depressional shallow marsh with cattail, panicled aster.
Northern	N	N-W184	---	Hardwood Swamp/Wet Meadow	93	F	Hardwood swamp associated with an open water pond. Hardwood swamp with a mature, closed canopy dominated by boxelder, a shrub layer of boxelder and common buckthorn, with sensitive fern and orange jewelweed in the herb layer; wet meadow fringe along E edge dominated by RCG and orange jewelweed.
Northern	N	N-W185	<i>ASNRI - adjacent to NHI water; 303d Listed (Lemonweir River)</i>	Floodplain Forest/Shrub-Carr/Sedge Meadow/Wet Meadow/Seasonally Flooded Basin (E1H, T3Kw)	93/94	F	Large wetland complex associated with the Lemonweir River channel and backwaters. Predominantly floodplain forest with various wetland community inclusions. Floodplain forest with a mature, closed canopy dominated by silver maple, black ash, river birch, American elm, and swamp white oak, with a shrub layer comprised of canopy dominants saplings and an herb layer dominated by orange jewelweed, sensitive fern, lake sedge, RCG, and silver maple seedlings. Shrub-carr inclusions dominated by RCG with boxelder, Salix sp., poison sumac, sandbar willow, tag alder, RCG, various Carex spp.; sedge meadow with tussock sedge, lake sedge, sensitive fern, giant goldenrod, wet meadow areas dominated by RCG with sensitive fern, and the seasonally flooded basins with RCG and silver maple seedlings.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W186	---	Wet Meadow/Shrub-Carr/Hardwood Swamp (T3/E1K, S3/E1K)	94/95	F	Large wetland complex of wet meadow, shrub-carr, and hardwood swamp. Wet meadow areas dominated by RCG and tussock sedge with scattered meadowsweet and showy honeysuckle; shrub-carr dominated by similar herb species with grey dogwood, meadowsweet, tag alder and scattered quaking aspen; hardwood swamp with a mature, mostly closed canopy of red maple, quaking aspen, silver maple, bur oak, and river birch with shrub and herb layers similar to wet meadow/shrub-carr areas.
Northern	N	N-W187	---	Wet Meadow/Shrub-Carr/Hardwood Swamp (S3/E1K, T3/S3K, E1K)	95/96	F	Similar to and contiguous off-ROW with W-186.
Northern	N	N-W188	---	Wet Meadow/Hardwood swamp	96	F	Wet meadow dominated by RCG and Virginia creeper within ROW; extends into hardwood swamp (seasonally flooded) with sparse herbaceous cover, dominated by American elm, black cherry, river birch in the overstory with common buckthorn and sparse RCG, Carex sp.
Northern	N	N-W189	Wetland, <i>ASNRI</i> - adjacent to NHI water (<i>Sevenmile Creek</i>)	Wet Meadow/Hardwood Swamp (T3K)	96	F	Wet meadow dominated by RCG, orange jewelweed and Carex sp within ROW; extends into hardwood swamp associated with Sevenmile Creek with a mature, closed canopy of American elm and green ash, a shrub layer dominated by tartarian honeysuckle and Cornus sp., with some RCG in the herb layer.
Northern	N	N-W190	---	Riparian Forest	97	F	Riparian forest with mostly mature, mostly closed canopy of American elm and silver maple with elderberry, American elm saplings in the shrub layer, and an herb layer of RCG, orange jewelweed, giant goldenrod.
Northern	N	N-W191	---	Hardwood Swamp	97	F	Mature, mostly closed canopy hardwood swamp located S of 21st Ave.
Northern	N	N-W192	---	Wet Meadow / Hardwood Swamp	97	F	Small, depressional pocket of wet meadow dominated by RCG and orange jewelweed with a narrow forest fringe including quaking aspen, honeysuckle, bur oak, silver maple.
Northern	N	N-W193	---	Wet Meadow/Hardwood Swamp	97	F	Wet meadow dominated by RCG, cattail, KBG, giant goldenrod, soft rush with scattered <i>Salix sp</i> and red maple.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	N	N-W194	---	Wet Meadow/Hardwood Swamp	97	F	Wet meadow dominated by RCG, interrupted fern, sensitive fern, blue-joint grass, with scattered meadowsweet, quaking aspen and <i>Rosa sp.</i> ; <i>maple and aspen common in wooded community</i>
Northern	N	N-W195	---	Wet Meadow/Hardwood Swamp	97/98	F	Wet meadow transitioning into mature, mostly closed canopy hardwood swamp; common species include RCG, sensitive fern, blue-flag iris, poison ivy, cinnamon fern, <i>Salix sp.</i> , elderberry, American elm, red maple, <i>Fraxinus sp.</i>
Northern	N	N-W196	---	Wet Meadow	98	F	Wet meadow depression/swale running through oak woods; dominated by RCG with scattered cattail, soft rush.
Northern	N	N-W197	ASNRI - adjacent to NHI water (UNT to Lemonweir River)	Sedge Meadow/Wet Meadow/Shrub-Carr/Hardwood Swamp (E1K)	99/100	F	Extensive wetland complex of sedge meadow, wet meadow, shrub-carr and hardwood swamp (at fringe). Dominant species throughout include RCG, various <i>Carex spp.</i> , cattail, blue-joint grass, swamp milkweed, fowl manna grass, poison sumac, tag alder, <i>Cornus sp.</i> , <i>Salix sp.</i>
Northern	N	N-W199	---	Wet Meadow	100	F	Wet meadow swale dominated by RCG, KBG, <i>Carex sp.</i> , wild parsnip.
Northern	N	N-W198	---	Wet Meadow/hardwood swamp	100	F	Wet meadow dominated by RCG with scattered <i>Rhus sp.</i> , extending off ROW into alder thicket; hardwood swamp at edge of ROW.
Northern	N	N-W200	---	Sedge Meadow/Hardwood Swamp	100/101	F	Wetland complex of sedge meadow and hardwood swamp. Sedge meadow dominated by tussock sedge, <i>Carex sp.</i> , RCG, with scattered poison sumac and tag alder; hardwood swamp with a mature, mostly open canopy of tamarack, quaking aspen, red maple, a shrub layer of poison sumac and tag alder, and an herb layer with various <i>Carex spp.</i>
Northern	K	K-W1	---	Shrub-Carr/Sedge Meadow/Hardwood swamp (T2K)	104	F	Shrub-carr/sedge meadow/hardwood swamp complex; shrub-carr with 2-4" DBH quaking aspen, river birch, and <i>Salix spp.</i> ; sedge meadow with tussock sedge, cattail, meadowsweet, cinnamon fern, some Bebb's willow; quaking aspen common in hardwood swamp

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	K	K-W2	---	Shrub-Carr (T2K)	104	F	Small pocket of shrub-carr surrounded by southern dry-mesic forest; dominated by shining willow, Bebb's willow, sandbar willow, and huckleberry in the shrub layer with meadowsweet, blue-joint grass, tussock sedge, giant goldenrod, and Bebb's sedge in the herb layer.
Northern	K	K-W3	---	Shrub-Carr	104	F	Shrub-carr community with <i>Salix spp.</i> , quaking aspen, and leatherleaf in the shrub layer with blue-joint grass, sensitive fern, cinnamon fern, and Canada goldenrod in the herb layer.
Northern	K	K-W4	---	Shrub-Carr	104	F	Shrub-carr community dominated by Bebb's willow, huckleberry, 2-4" quaking aspen, red maple with blue-joint grass, whorled loosestrife, sensitive fern, and cinnamon fern.
Northern	K	K-W5	---	Hardwood Swamp/Shrub-Carr/Sedge Meadow (T3K)	105	F	Sedge meadow/shrub-carr fringe along hardwood swamp associated with waterway. Hardwood swamp with an overstory of 4-6" quaking aspen, red maple, American elm, with some elderberry shrubs and an herb layer of marsh marigold, skunk cabbage, and cinnamon fern. The sedge meadow/shrub-carr dominated by tussock sedge, lake sedge, sensitive fern, cattail with tag alder, Bebb's willow, and sandbar willow.
Northern	K	K-W6	ASNRI - adjacent to Class I trout stream, ERW (Gilmore Creek); PNW (UN lake <50 ac)	Hardwood Swamp/Wet Meadow/Shrub-Carr (T3K)	105	F	Predominantly hardwood swamp extending into a wet meadow/shrub-carr complex to the NW. Hardwood swamp comprised of a canopy of red maple and paper birch with tag alder and elderberry shrubs and an herb layer of skunk cabbage, tussock sedge, sensitive fern, and wood fern. Wet meadow/shrub-carr associated with an open water pond S of the ROW; dominated by various <i>Carex spp.</i> , RCG, skunk cabbage, sensitive fern, elderberry, sandbar willow.
Northern	K	K-W7	---	Wet Meadow/Hardwood Swamp	107	F	Wet meadow swale dominated by RCG within I-90 ROW; extends beyond ROW into hardwood swamp with an overstory of swamp white oak, red maple, and quaking aspen, a shrub layer dominated by <i>Cornus spp.</i> , and herb layer dominated by RCG, iris, <i>Carex spp.</i>

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	H	H-W1	Wetland, <i>ASNRI</i> - adjacent to <i>NHI</i> water, <i>Class II</i> trout stream (<i>Hulburt Creek</i>)	Wet Meadow	110	F	Wet meadow fringe along Hulburt Creek; dominated by RCG, angelica, orange jewelweed with some elderberry, tag adler, and raspberry.
Northern	H	H-W2	---	Wet Meadow/Shrub-Carr	110	F	RCG dominated wet meadow within hwy ROW; extends to the E to wet meadow/shrub-carr complex with RCG, skunk cabbage, stinging nettle, tag alder, <i>Salix sp.</i> , and some sapling American elm, red maple.
Northern	H	H-W3	---	Wet Meadow/Hardwood Swamp	110	F	RCG dominated wet meadow within hwy ROW; extends to the E to wet meadow/hardwood swamp complex with RCG, Tartarian honeysuckle, red maple, American elm, bur oak.
Northern	H	H-W4	---	Wet Meadow	110	F	Wet meadow within pasture area; saturation observed in previous years.
Northern	H	H-W5	---	Wet Meadow	111	F	Isolated wet meadow depression surrounded by upland dry-mesic forest.
Northern	H	H-W6	---	Wet Meadow	111	F	Wet meadow within depressional feature dominated by RCG; surrounded by dry-mesic forest upland.
Northern	H	H-W7	---	Shallow Marsh (E1K)	112	F	Shallow marsh associated with Lake Blass to the N; dominated by cattail, RCG.
Northern	H	H-W8	---	Wet Meadow	118	F	RCG dominated depressional wet meadow swale within hwy ROW.
Northern	H	H-W9	---	Hardwood Swamp/Shallow Marsh (T3K)	118	F	Isolated patch of hardwood swamp surrounding a small area of shallow marsh within agricultural landscape.
Northern	H	H-W10	---	Farmed Wetland	119	F	Farmed wetland planted to corn (evidence of soil saturation/crop stress observed in previous years).
Northern	H	H-W11	<i>ASNRI</i> , part of <i>Pine Island State Wildlife Area</i>	Wet Meadow (E1K)	121	F	Wet meadow swale dominated by RCG within hwy ROW; extends into low-diversity RCG dominated wet meadow S of ROW.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	H	H-W12	<i>ASNRI, part of Pine Island State Wildlife Area</i>	Hardwood Swamp/Sedge Meadow/Wet Meadow/Shrub-Carr/Wet-Mesic Prairie (T3K, E1K, E2H, S3K, S3/E1K)	121 - 123	F	Extensive wetland complex of hardwood swamp, sedge meadow, wet meadow, shrub-carr, and wet-mesic prairie communities. RCG dominated wet meadow within hwy ROW and as a small openings within hardwood swamp. Extends S of hwy ROW to predominantly a large extent of hardwood swamp and diverse sedge meadow. Hardwood swamp with overstory trees including river birch, silver maple, American elm, and black willow with RCG in the herb layer; sedge meadow dominated by multiple <i>Carex</i> spp. with cattail, RCG, river bulrush, with sparse, scattered <i>Salix</i> sp. East end with small area of shrub-carr with RCG herb layer and sandbar willow and <i>Cornus</i> sp. in the shrub layer; wet-mesic prairie with a scattered bur and white oak overstory with <i>Carex</i> spp., RCG, blue-joint grass in the herb layer.
Northern	H	H-W13	<i>ASNRI, part of Pine Island State Wildlife Area</i>	Wet Meadow/Shrub-Carr/Farmed Wetland/Hardwood Swamp (T3/E1Ka, E1Kf, T3Kw)	124	F	Large complex of predominantly wet meadow with shrub-carr; dominated by RCG, <i>Carex</i> spp., and scattered <i>Salix</i> sp., <i>Fraxinus</i> sp., and red-osier dogwood throughout. Some large green ash and cottonwood along waterway. A portion of this wetland is farmed. The portion of this feature W of Tritz Rd appears part of a wet / mesic prairie restoration.
Northern	H	H-W14	<i>ASNRI, part of Pine Island State Wildlife Area</i>	Farmed Wetland/Wet Meadow (S3/E1K)	124/125	F	Large, partially farmed wet meadow. Western half farmed wetland planted to soybeans (soil saturation/crop stress observed in previous years); eastern half wet meadow.
Northern	H	H-W15	<i>ASNRI, part of Pine Island State Wildlife Area</i>	Wet Meadow (S3/E1K)	125	F	Wet meadow dominated by various forbs and grasses.
Northern	H	H-W16	<i>ASNRI, part of Pine Island State Wildlife Area</i>	Hardwood Swamp/Wet Meadow/Farmed Wetland (E1Ka, T3K/S3K, S3/E1K)	125/126	F	Hardwood swamp with an overstory dominated by silver maple, American elm, green ash, and boxelder with <i>Cornus</i> sp. In the shrub layer and RCG in the herb layer; wet meadow dominated by RCG with scattered boxelder and green ash. Eastern half formerly farmed wetland, now fallow and returning to wet meadow community.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	H	H-W17	<i>Contiguous with a PNW (lake <50 ac)</i>	Hardwood Swamp/Wet Meadow/Shrub-Carr/ Shallow, Open Water (T3K, W0H)	125/126	F	Hardwood swamp dominated by American elm, green ash, silver maple, quaking aspen, bur oak in the overstory with an understory dominated by RCG and poison ivy. RCG dominated wet meadow/shrub-carr complex primarily on the E end, with riverbank grape, cattail <i>Carex</i> sp., <i>Salix</i> spp, and a small inclusion of shallow marsh/open water. Three distinct open water ponds, appearing man-made or altered, on the W end.
Northern	H	H-W18	---	Sedge Meadow	126	F	Sedge meadow depression within hwy interchange; dominated by <i>Carex</i> spp., cattail, RCG with silky dogwood, elderberry, <i>Rosa</i> sp. and scattered silver maple, green ash, bur oak.
Northern	H	H-W19	<i>ASNRI - adjacent to NHI and sturgeon water (Baraboo River)</i>	Floodplain Forest/Wet Meadow (T3Kw)	126/127	F	RCG, lake sedge dominated wet meadow within hwy ROW; S of hwy ROW extends into floodplain forest dominated by green ash, silver maple in the overstory, with silky dogwood in the shrub layer, and RCG, wood nettle, and blue-flag iris dominant in the herb layer.
Northern	H	H-W20	---	Wet Meadow/Hardwood Swamp	127/128	F	Small, depressional area at base of large hillslope with a complex of RCG, cattail dominated wet meadow and a mostly open canopy hardwood swamp.
Northern	H	H-W21	---	Wet Meadow	128/129	F	Small RCG dominated wet meadow along outside edge of hwy interchange.
Northern	E	E-W1	---	Wet Meadow/Farmed Wetland	133	F	Small portion of RCG dominated wet meadow within I-39 ROW; NE of I-39 ROW, extends into farmed wetland planted to corn; crop stress/saturation observed.
Northern	E	E-W2	<i>ASNRI - adjacent to NHI water, Class II trout stream (Rowan Creek) and Rowan Creek State Fishery Area</i>	Wet Meadow/Hardwood Swamp (T3K)	134	F	Wet meadow dominated by RCG, cattail, skunk cabbage, and orange jewelweed within I-39 ROW, extending to the E into hardwood swamp associated with Rowan Creek. Hardwood swamp with basswood, green ash, prickly ash, some oak, and poison ivy.
Northern	E	E-W3	<i>ASNRI - adjacent to NHI water, Class II trout stream (Rowan Creek) and Rowan Creek State Fishery Area</i>	Wet Meadow/Hardwood Swamp (T3K/E1Kwg and S3K)	134	A	Mix of hardwood swamp and wet meadow along Rowan Creek

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	E	E-W3a	<i>ASNRI - contiguous to NHI water, Class II trout stream (Rowan Creek)</i>	Shallow Marsh (S3H)	134	A	Primarily shallow marsh
Northern	E	E-W3b	<i>ASNRI - contiguous to NHI water, Class II trout stream (Rowan Creek)</i>	Shallow Marsh (S3H)	134/135	A	Primarily shallow marsh
Northern	E	E-W3c	<i>ASNRI - contiguous to Class II trout stream (Rowan Creek) and a PNW (lake <50 ac)</i>	Shallow Marsh (S3/E1H)	134/135	A	Primarily shallow marsh
Northern	E	E-W4	---	Wet Meadow/Shallow, Open Water/Shrub-Carr (T3/E1K)	134/135	F	Wet meadow swale dominated by cattail, giant goldenrod, and RCG predominantly within I-39 ROW; extends E of I-39 ROW to include a small shallow, open water pond fringed with cattail and a shrub-carr community with sandbar willow, cattail, and RCG.
Northern	E	E-W5	---	Wet Meadow	135	F	Depressional wet meadow between I-39 on/off ramps dominated by cattail, giant goldenrod, and sensitive fern.
Northern	E	E-W6	---	Wet Meadow/Shallow Marsh (E1K)	135	F	Wet meadow/shallow march complex within highway interchange; common species include RCG, cattail, giant goldenrod, willow, silky dogwood.
Northern	E	E-W7	---	Hardwood Swamp (T3K)	135	F	Hardwood swamp, common species include RCG, stinging nettle, boxelder, willow.
Northern	E	E-W8	---	Riparian Forest	135/136	F	Riparian forest with boxelder, buckthorn, garlic mustard, and orange jewelweed common
Northern	E	E-W9	---	Riparian Forest	135/136	F	Similar to and contiguous with E-W8.
Northern	E	E-W10	---	Riparian Forest	136	F	Narrow riparian forest adjacent to intermittent drainage; boxelder dominant with garlic mustard, orange jewelweed, riverbank grape.
Northern	E	E-W11	---	Wet Meadow/Riparian Forest	136	F	Narrow wet meadow/riparian forest swale with RCG, boxelder, orange jewelweed, garlic mustard.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	E	E-W12	---	Riparian Forest	136	F	Riparian forest associated with intermittent drainageway, mix of basswood, elm, various oak, cherry, hickory, poison ivy, riverbank grape.
Northern	E	E-W12a	---	Roadside Ditch	136/137	F	Cattail fringe associated with E-R5a
Northern	E	E-W12b	---	Drainage Swale	138	F	Small isolated pocket of wetland at culvert discharge
Northern	E	E-W13	---	Wet Meadow	139	F	Small depressional wet meadow associated with culvert outlet; dominated by cattail and RCG.
Northern	E	E-W14	---	Wet Meadow/Farmed Wetland (E1Hg)	141	F	Wet meadow dominated by RCG; farmed wetland planted to corn (crop stress/saturation observed in previous years).
Northern	E	E-W15	---	Wet Meadow/Farmed Wetland/Open Water	141/142	F	Wet meadow dominated by RCG; farmed wetland planted to soybeans (crop stress/saturation observed in previous years). Open water linear ditch/pond created at corner of farm field between wet meadow and field edge.
Northern	E	E-W16	---	Wet Meadow	141/142	F	Wet meadow dominated by RCG; seasonally saturated with some evidence of ponding.
Northern	E	E-W17	---	Wet Meadow	141/142	F	Wet meadow dominated by RCG; seasonally saturated with some evidence of ponding.
Northern	E	E-W18	---	Wet Meadow	141/142	F	Wet meadow dominated by RCG.
Northern	E	E-W19	---	Farmed Wetland	143	V	Farmed wetland planted to corn (evidence of crop stress/saturation observed in previous years).
Northern	E	E-W20	---	Farmed Wetland	143	V	Farmed wetland planted to corn (evidence of crop stress/saturation observed in previous years).
Northern	D	D-W1	---	Farmed Wetland	147	F	Farmed wetland planted to corn (soil saturation and/or crop stress observed in previous years)
Northern	D	D-W2	---	Wet Meadow Swale / Farmed Wetland	156	F	RCG dominated wet meadow swale; includes scattered silver maple and boxelder; adjacent areas are farmed wetland (saturation evident on aerial photos)
Northern	D	D-W3	---	Wet Meadow	157	F	Wet meadow, associated with Kalscheur Pond, surrounded by agricultural fields; varying periods of saturation and inundation observed in previous years.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Northern	A	A-W1	---	Shallow, Open Water	162/163	F	Small open water pond surrounded by RCG, willow, honeysuckle, and buckthorn.
Northern	A	A-W2	---	Wet Meadow/Hardwood Swamp (E2Ka)	162/163	F	Primarily a wet meadow dominated exclusively by RCG; small portion is hardwood swamp with cottonwood and boxelder common.
Northern	A	A-W3	---	Wet Meadow/Hardwood Swamp (E2Ka)	162/163	V	RCG dominated wet meadow within ROW that is part of a larger wetland complex; cottonwood common in wooded community.
Both	M	M-W1	<i>ASNRI - adjacent to Class III trout stream (Holtzlander Creek)</i>	Wet Meadow/Hardwood (T3/S3K)	80/81	F	Wet meadow dominated by reed canary grass with scattered elderberry, tag alder, and poison sumac running along existing transmission line ROW; extends into hardwood swamp associated with Holtzlander Creek. Hardwood swamp dominated by tag alder in the shrub layer with 6-18" DBH red maple, green ash with some American elm, quaking aspen, and tamarack in the overstory.
Both	M	M-W2	<i>ASNRI - adjacent to Class III trout stream (Tracy Creek)</i>	Wet Meadow/Sedge Meadow/Coniferous Bog (T3K, S3/E1K, T3/E1K)	80/81	F	Wet meadow primarily along existing transmission line ROW, dominated by reed canary grass with scattered elderberry; extends into large complex of sedge meadow and coniferous bog with various Carex sp., reed canary grass, cinnamon fern, meadowsweet in the herb layer, leatherleaf, poison sumac, tag alder in the shrub layer, and scattered tamarack, red maple, and tag alder in the tree layer.
Both	M	M-W3	---	Sedge Meadow/Hardwood Swamp/Shallow Marsh (T3K, E2H)	80/81	F	Large wetland complex. Sedge meadow dominated by tussock sedge, lake sedge with some RCG, skunk cabbage, and poison sumac; hardwood swamp dominated by pole-size red maple and quaking aspen with royal fern, cinnamon fern, tussock sedge in the herb layer and poison sumac, tag alder, and black chokeberry in the shrub layer. Small area of shallow marsh with cattail, marsh fern, sensitive fern, lake sedge, tussock sedge with poison sumac and meadowsweet.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Both	M	M-W4	---	Sedge Meadow/Shrub-Carr/Hardwood Swamp (T3K)	82	F	Varied wetland complex. Sedge meadow with a variety of species including sundew, sphagnum, path rush, reed canary grass, tussock sedge, lake sedge, sensitive fern, cattail, blue vervain, soft-stem bulrush, joe-pye weed among others; shrub-carr dominated by elderberry, tag alder, black chokeberry, and common winterberry in the shrub layer with bracken fern, sphagnum, royal fern, cinnamon fern, and grass-leaved goldenrod in the herb layer. Hardwood swamp dominated by pole-size red maple and red oak with choke cherry, poison sumac, beaked hazelnut, and a variety of herb species similar to those found in the adjacent sedge meadow community.
Both	M	M-W5	---	Sedge Meadow	82	F	Mowed sedge meadow adjacent to parking lot and hwy embankments; common species include fox sedge, broom sedge, RCG, path rush.
Both	M	M-W6	<i>ASNRI - adjacent to Class III trout stream (Lyndon Creek)</i>	Wet Meadow/Hardwood Swamp (T3K)	82	F	Wet meadow dominated by prairie cord grass and reed canary grass with Salix sp., Populus sp. primarily in hwy ROW; extends into hardwood swamp dominated by black and green ash, some swamp white oak, Populus sp. from 12-18" DBH in the overstory with hazelnut in the shrub layer and reed canary grass and cinnamon fern common in the herb layer.
Both	M	M-W7	---	Wet Meadow/Hardwood Swamp (T3Kw)	82	F	Contiguous with and similar to M-W6.
Both	M	M-W8	---	Hardwood Swamp (T3Kw)	82	F	Hardwood swamp with 12-18" DBH black and green ash, with scattered white pine.
Both	M	M-W9	---	Shrub-Carr/Hardwood Swamp/Wet Meadow (T3Kw)	82/83	F	Large wetland complex of shrub-carr, hardwood swamp, and wet meadow. Common species across the communities include 6-12" DBH red maple, black ash, American elm, quaking aspen with tag alder, pussy willow, cattail, prairie cord grass, RCG, giant goldenrod.
Both	M	M-W10	---	Hardwood Swamp	82/83	F	Hardwood swamp with common species including 6-12" DBH red maple, black ash, American elm, quaking aspen with tag alder, pussy willow, cattail, prairie cord grass, reed canary grass, giant goldenrod.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Both	M	M-W11	---	Shrub-Carr/Hardwood Swamp/Wet Meadow (E1H)	83	F	Wetland complex of shrub-carr, hardwood swamp, and wet meadow associated with small pond immediately N-NE of the existing transmission line ROW. Common species across the communities include 6-12" DBH red maple, black ash, American elm, quaking aspen with tag alder, pussy willow, cattail, prairie cord grass, RCG, giant goldenrod.
Both	M	M-W12	---	Wet Meadow/Hardwood Swamp	83	F	Wet meadow with <i>Carex sp.</i> , giant goldenrod, and Kentucky bluegrass primarily within existing transmission line ROW; hardwood swamp N-NE of cleared ROW with an overstory dominated by 8-12" DBH red maple, quaking aspen with an herb layer similar to adjacent wet meadow.
Both	M	M-W13	---	Sedge Meadow/Shrub-Carr	83	F	Depressional sedge meadow/shrub-carr complex; common species include tussock sedge, <i>Rubus sp.</i> , <i>Scirpus sp.</i> , little blue-stem, meadowsweet, and pussy willow.
Both	M	M-W14	---	Wet Meadow	83	F	Wet meadow within a small depression; dominated by common ragweed, dark-green bulrush, and <i>Carex sp.</i>
Both	M	M-W15	---	Wet Meadow/Shrub-Carr	83	F	Wet meadow surrounding a shrub-carr community within a depressional area. Common species include <i>Carex sp.</i> , boneset, blue vervain, <i>Scirpus sp.</i> , meadowsweet.
Both	J	J-W1	---	Sedge Meadow/Wet Meadow (E1/W0H, T3K)	89/90	F	Sedge meadow dominated by lake sedge and orange jewelweed between base of interstate side slope and mesic oak/pine woodland; transitions into wet meadow riparian corridor dominated by reed canary grass, orange jewelweed, sensitive fern.
Both	G	G-W1	<i>adjacent to Pickerel Lake, a PNW <50 ac</i>	Wet Meadow/Hardwood Swamp	112	F	Narrow wet meadow/hardwood swamp fringe with cottonwood common bordering Pickerel Lake to the E.
Both	G	G-W2	<i>ASNRI - adjacent to NHI and sturgeon water; 303d Listed (Wisconsin River)</i>	Wet Meadow/Floodplain Forest (T3Kw)	112/113	F / A	Narrow fringe of wet meadow along banks of Wisconsin River; seasonally flooded with reed canary grass, weeping willow saplings, and <i>Carex sp.</i> common; floodplain forest over mid-river sandbars dominated by silver maple and willow.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Both	G	G-W3	---	Hardwood Swamp/Wet Meadow (T3K)	113/114	F	Predominantly hardwood swamp with cottonwood, American elm, and river birch with an RCG dominated understory; RCG and fox sedge dominated wet meadow within I-39 ROW.
Both	G	G-W4	---	Sedge Meadow/Shrub-Carr (S3/E2H, T3/S3K)	113/114	F	Predominantly sedge meadow in ROW, extending into large sedge meadow/shrub-carr complex off-ROW; associated with a waterway. Lake sedge dominant in sedge meadow, with giant goldenrod, blue-joint grass, and common reed grass. Shrub-carr with variety of willow species and red osier dogwood with lake sedge and blue-joint grass.
Both	A0/B0	A0/B0-W1	---	Wet Meadow	151	F	Wet meadow dominated by reed canary grass, with buckthorn and honeysuckle at edges
Both	A0/B0	A0/B0-W2	---	Wet Meadow	151	F	Wet meadow dominated by reed canary grass, with lesser amounts of stinging nettle and goldenrod; depressional area within upland forest
Southern	O	O-W1	---	Wet Meadow / Riparian Forest	7	F	Wetland complex associated with unnamed waterway. Wet meadow and riparian forest along the waterway. The wet meadow portion contains reed canary grass, orange jewelweed, scattered cattail, giant goldenrod, and scattered box elder. The riparian forest is comprised of an overstory of silver maple, box elder, and cottonwood, with box elder and sandbar willow in the shrub layer. Reed canary grass and jewelweed are dominant in the herbaceous layer.
Southern	O	O-W1a	---	Wet Meadow	5	F	Small wet meadow dominated by RCG and <i>Aster</i>
Southern	O	O-W2	---	Sedge Meadow / Shrub-Carr	7	F	Contiguous with and similar to O-W1. Sedge meadow / shrub-carr complex extending to the east from O-W1 with lake sedge, reed canary grass, fox sedge, giant goldenrod, sandbar willow, and box elder present.
Southern	O	O-W3	---	Wet Meadow	9	F	Disturbed wet meadow located between commercial development and HWY off-ramp.
Southern	O	O-W4	---	Shallow Marsh	9	F	Small isolated shallow marsh adjacent to development. Dominated by reed canary grass and cattail with a narrow fringe of grey dogwood, elderberry, and American elm.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W5	---	Sedge Meadow / Wet Meadow	10	F	Sedge meadow portion dominated by lake sedge, fox sedge, dark-green bulrush, and spike rush. Wet meadow portion dominated by reed canary grass, cattail, giant goldenrod, and joe-pye weed. A narrow band of nannyberry, tartarian honeysuckle, cottonwood, and bur oak occur along margins of wetland complex.
Southern	O	O-W6	<i>ASNRI - adjacent to NHI water (La Crosse River)</i>	Sedge Meadow / Wet Meadow	10/11	F	Sedge meadow / wet meadow complex associated with the La Crosse River. Common species include tussock sedge, marsh milkweed, riverbank grape, and sparse reed canary grass.
Southern	O	O-W7	<i>ASNRI - adjacent to NHI water (La Crosse River)</i>	Wet Meadow / Floodplain Forest	10/11	F	Wet meadow fringe dominated by reed canary grass bordering scattered floodplain forest pockets adjacent to the La Crosse River that are dominated by cottonwood, box elder, American elm.
Southern	O	O-W8	<i>ASNRI - adjacent to NHI water (La Crosse River)</i>	Wet Meadow / Floodplain Forest	10/11	F	Large degraded wet meadow dominated by reed canary grass. Small inclusions of floodplain forest dominated by cottonwood, box elder, and American elm.
Southern	O	O-W9	<i>ASNRI - adjacent to La Crosse River State Trail</i>	Wet Meadow/Shallow, Open Water	11	F	Depressional area between RR and La Crosse River State Trail embankments; includes areas of wet meadow and a long, linear shallow, open water community.
Southern	O	O-W10	<i>ASNRI - adjacent to La Crosse River State Trail</i>	Wet Meadow / Shallow Marsh / Floodplain Forest / Shallow, Open Water	11	F	Large wetland complex associated with former backwaters of the La Crosse River. West half with shallow marsh / shallow, open water communities dominated by cattail, soft-stem bulrush, blue-flag iris, and Juncus spp. Wet meadow portions dominated by reed canary grass, cattail, and various Carex spp. East half of complex contains pockets of wet meadow and floodplain forest with a closed canopy of silver maple, cottonwood, box elder, American elm, green ash, and black willow, with an herbaceous layer of reed canary grass, Carex spp., and jewelweed.
Southern	O	O-W11	---	Wet Meadow / Floodplain Forest	11/12	F	Contiguous with and similar to O-W10. Pockets of wet meadow and closed canopy floodplain forest comprised of silver maple, cottonwood, box elder, American elm, green ash, and black willow, with an herb layer of reed canary grass, Carex spp., and jewelweed.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W12	---	Wet Meadow	12	F	Wet meadow within depressional area dominated by reed canary grass and cattail. Associated with a culvert under the interstate.
Southern	O	O-W13	---	Wet Meadow	12	F	Wet meadow with reed canary grass, saw-tooth sunflower, giant goldenrod, and jewelweed, with scattered box elder.
Southern	O	O-W14	---	Wet Meadow	15	F	Wet meadow swale between roadways, dominated by cattails.
Southern	O	O-W15	---	Wet Meadow	17	F	Wet meadow swale conveying drainage under interstate. Dominated by reed canary grass.
Southern	O	O-W16	---	Wet Meadow	17	F	Wet meadow fringe dominated by reed canary grass with some sandbar willow within waterway channel.
Southern	O	O-W17	---	Wet Meadow	17	F	Wet meadow swale within HWY interchange, dominated by reed canary grass.
Southern	O	O-W18	---	Wet Meadow	17	F	Wet meadow swale within HWY interchange, dominated by reed canary grass.
Southern	O	O-W19	---	Wet Meadow	17	F	Wet meadow swale within HWY interchange, dominated by reed canary grass.
Southern	O	O-W20	---	Wet Meadow	18	F	Wet meadow dominated by reed canary grass and cattail.
Southern	O	O-W21	---	Wet Meadow	18	F	Wet meadow fringe along UNT to La Crosse River. Dominated by reed canary grass, cattail, giant goldenrod, and some sandbar willow.
Southern	O	O-W22	---	Wet Meadow	19	F	Wet meadow fringe along UNT to La Crosse River dominated by reed canary grass, angelica, giant goldenrod, and scattered box elder.
Southern	O	O-W23	---	Wet Meadow	19	F	Wet meadow fringe along UNT to La Crosse River dominated by reed canary grass and stinging nettle.
Southern	O	O-W24	---	Wet Meadow / Hardwood Swamp	19	F	Disturbed wet meadow that extends south off ROW into disturbed hardwood swamp that is actively pastured. Dominant trees include pole and saw size eastern cottonwoods.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W25	---	Wet Meadow	19	F	Disturbed wet meadow actively used for pasture.
Southern	O	O-W26	---	Wet Meadow/Shrub-Carr	20	F	Depressional area with mix of shrub-carr and wet meadow. Shrub-carr portion contains sandbar willow, box elder, and elderberry, whereas the wet meadow portion is dominated by reed canary grass and giant goldenrod.
Southern	O	O-W27	---	Wet Meadow	21	F	Depressional area between HWY and wayside, dominated by cattail with soft rush and various <i>Carex spp.</i> also present.
Southern	O	O-W28	---	Wet Meadow / Shrub-Carr	21/22	F	Wetland complex primarily dominated by shrubs including elderberry, red-osier dogwood, <i>Salix sp.</i> , and <i>Spiraea sp.</i> Areas of wet meadow dominated by reed canary grass, tussock sedge, purple loosestrife, and panicked aster.
Southern	O	O-W29	---	Wet Meadow	22	F	Wet meadow surrounding a small artificial pond. Wetland is used as a horse pasture. Common species include various <i>Carex spp.</i> , giant goldenrod, sensitive fern, and wild mint.
Southern	O	O-W30	---	Hardwood Swamp / Sedge Meadow / Shrub-Carr (E1Kg, T3K)	22/23	F	Large, diverse wetland complex extending south of ROW. Wetland is predominantly a hardwood swamp with pockets of shrub-carr and sedge meadow. The hardwood swamp is mostly closed canopy bur oak, with quaking aspen, American elm, and <i>Fraxinus sp.</i> comprising the overstory. A shrub layer of tag alder, red-osier dogwood, grey dogwood, and nannyberry, is present, with an herb layer dominated by tussock sedge, royal fern, giant goldenrod. The shrub-carr and sedge meadow portions contain various <i>Carex spp.</i> , water hemlock, wild mint, <i>Spiraea sp.</i> , elderberry, red-osier dogwood, and pussy willow.
Southern	O	O-W31	---	Farmed Wetland	23/24	V	Farmed wetland planted to soybeans, with evidence of soil saturation and / or crop stress observed in previous years.
Southern	O	O-W32	ASNRI - adjacent to NHI water, Class I trout stream (Little La Crosse River), La Crosse Area Comprehensive Fishery Area	Wet Meadow	26/27	A	Narrow wet meadow fringe along the Little La Crosse River.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W33	---	Wet Meadow/Shallow Marsh/Shrub Carr (E2H, T3/E1K)	28	F	Wet meadow with pockets of shallow marsh dominated by jewelweed, cattail, bugleweed and marsh milkweed; shrub carr fringe with elderberry, red maple and gray dogwood shrubs/saplings with RCG understory
Southern	O	O-W34	---	Farmed Wetland	29	F	Farmed wetland dominated by RCG, smartweed and common ragweed
Southern	O	O-W35	---	Farmed Wetland	29	F	Seasonally ponded feature dominated by smartweed and water plantain with a RCG fringe
Southern	O	O-W36	<i>ASNRI - adjacent to NHI water, Class I trout stream (Little La Crosse River), La Crosse Area Comprehensive Fishery Area</i>	Wet Meadow/Shallow Marsh	29/30	F	Wet meadow with elements of shallow marsh; wet meadow dominated by RCG, meadow rue, water hemlock, tussock sedge and timothy with scattered dogwood shrubs; shallow marsh is dominated primarily by tussock sedge and RCG
Southern	O	O-W37	---	Wet/Sedge Meadow / Shrub Carr	29/30	F	Wet meadow with shrub carr along fringe, with pockets of sedge meadow; RCG, giant goldenrod, jewelweed, stinging nettle and cattail common in wet meadow, with sedges and RCG common in sedge meadow; dogwoods with wet meadow understory prominent in shrub carr
Southern	O	O-W38	---	Shallow Marsh/Sedge Meadow/Shrub Carr	30	F	Mix of shallow marsh and sedge meadow with shrub carr fringe; dominants in shallow marsh include cattail, purple loosestrife and horsetail; sedges and horsetail more common in sedge meadow; shrub carr dominants include willow, boxelder and dogwood shrubs/saplings with giant goldenrod and jewelweed in understory
Southern	O	O-W41	---	Wet Meadow	30	F	Roadside ditch dominated by RCG, giant goldenrod and tussock sedge
Southern	O	O-W42	<i>ASNRI - adjacent to Class III trout stream (UNT Little La Crosse River)</i>	Shallow Marsh/Sedge Meadow/Shrub Carr (E2Kg)	30/31	F	Large shallow marsh complex with sedge meadow and shrub carr elements; shallow marsh dominants include cattail, RCG and tussock sedge with scattered dogwood shrubs; sedge meadow dominants include sedges and RCG; shrub carr dominants include meadowsweet, dogwoods and elderberry shrubs with RCG and tussock sedge understory, scattered willow, elm and aspen trees present; purple loosestrife also observed

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W43	ASNRI - adjacent to Class III trout stream (UNT Little La Crosse River)	Shallow Marsh/Sedge Meadow/Shrub Carr (E2Kg)	30/31	F	Similar to O-W42
Southern	O	O-W43a	ASNRI - adjacent to Class III trout stream (UNT Little La Crosse River)	Wet Meadow/Shrub Carr	31	F	Small wetland which is contiguous to O-W42 and O-W43; dominants include stinging nettle, jewelweed, giant goldenrod, water hemlock and cow parsnip, with scattered elderberry and dogwood shrubs and willow / boxelder trees
Southern	O	O-W44	ASNRI - adjacent to Class III trout stream (UNT Little La Crosse River)	Shallow Marsh/Shrub Carr (E2Kg/E1Ka)	31/32	F / A	Shallow marsh / shrub carr contiguous to O-W42, O-W43 and O-W43a; shallow marsh dominated by tussock sedge, cattail, horsetail and joepy weed with scattered dogwood; shrub carr dominated by dogwood and willow shrubs with giant goldenrod, nettle, sensitive fern, tussock sedge and skunk cabbage in the understory
Southern	O	O-W45	ASNRI - adjacent to Class III trout stream (UNT Little La Crosse River)	Wet Meadow / Riparian Forest	31/32	A	Predominantly wet meadow with some scattered shrubs and a narrow riparian corridor of mature deciduous trees along UNT to Little La Crosse River.
Southern	O	O-W46a	---	Wet Meadow/Shrub-Carr	33	F	A small wet meadow/shrub-carr seepy area dominated by jewelweed, water hemlock, <i>Carex stricta</i> , and <i>Glyceria canadensis</i> with black willow shrubs.
Southern	O	O-W47	---	Wet Meadow / Riparian Forest	33	F	Pastured wet meadow along a waterway dominated by redtop grass and <i>Aster firmus</i> with riparian forest fringe
Southern	O	O-W48	ASNRI - adjacent to Class I trout stream (UNT Little La Crosse River)	Wet Meadow / Riparian Forest	34	F	Pastured wet meadow that transitions into riparian forest along UNT to Little La Crosse River corridor; dominants include <i>Carex stipata</i> , Kentucky bluegrass, marsh marigold and groundsel with honeysuckle shrubs on the fringe.
Southern	O	O-W49	---	Wet Meadow	38	A	Pastured wet meadow.
Southern	O	O-W50	ASNRI - adjacent to NHI water (West Fork Kickapoo River)	Wet Meadow / Shrub-Carr	39/40	V	Small area of wet meadow / shrub-carr along West Fork Kickapoo River.
Southern	O	O-W51	ASNRI - adjacent to Class III trout stream (Upper Brush Creek)	Wet Meadow / Shrub-Carr	42	V	Narrow wetland corridor comprised of wet meadow and shrub-carr along Upper Brush Creek. Willow shrubs and reed canary grass are common. Cup plant is also present.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W52	ASNRI - adjacent to Class III trout stream (Upper Brush Creek)	Wet Meadow / Riparian Forest	42	V	Narrow corridor of wet meadow extending into riparian forest associated with Upper Brush Creek. Wet meadow portion is pastured. Box elder is common within the riparian forest.
Southern	O	O-W53	---	Riparian Forest / Wet Meadow	43	A	Small area of riparian forest / wet meadow within valley.
Southern	O	O-W54	---	Wet Meadow / Riparian Forest	44	V	Wet meadow along Heiser Valley Creek, portions of which are disturbed by active pasture. A narrow band of riparian forest made up of scattered box elder and <i>Salix</i> sp occurs along stream banks. In areas where wet meadow intact, jewelweed, soft-stem bulrush, blue vervain, reed canary grass, boneset, joe-pye weed, and <i>Aster</i> sp. are common. <i>Silphium perfoliatum</i> also present (<10 plants).
Southern	O	O-W55	---	Wet Meadow	44	V	Small wet meadow similar to O-W54.
Southern	O	O-W56	ASNRI - adjacent to Class III trout stream (Upper Brush Creek)	Wet Meadow	44	V	Wet meadow along riparian corridor of Brush Creek. Scattered box elder, and <i>Salix</i> sp are present along banks.
Southern	O	O-W57	---	Riparian Forest	45	V	Narrow riparian forest corridor of box elder along UNT to Brush Creek. Surrounded by active pasture.
Southern	O	O-W58	---	Riparian Forest	45	A	Narrow, mostly open riparian forest corridor along UNT to Brush Creek.
Southern	O	O-W59	---	Riparian Forest	46	A	Narrow, mostly open riparian forest corridor along UNT to Brush Creek.
Southern	O	O-W60	---	Wet Meadow / Riparian Forest	46/47	A	Wet meadow associated with UNT to Brush Creek, and extending north and south of proposed ROW. A small portion of riparian forest occurs at south end as it transitions to upland forest to west.
Southern	O	O-W61	ASNRI - adjacent to Class III trout stream (Cook Creek)	Wet Meadow / Farmed Wetland	47/48	V	Farmed wetland planted to alfalfa that appeared stressed during field evaluation in 2012. Evidence of soil saturation and / or crop stress observed in previous years. Wet meadow portion is associated with Cook Creek, and is comprised of reed canary grass, <i>Carex</i> spp., scattered box elder, and <i>Salix</i> sp along banks.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W62	<i>ASNRI - adjacent to NHI water (Kickapoo River)</i>	Wet Meadow / Floodplain Forest	48	V	Wet meadow / floodplain forest associated with the Kickapoo River. Wet meadow immediately adjacent to river with reed canary grass and cattail being common. Floodplain forest comprised of mature, mostly closed canopy deciduous trees east of river at toe-of-slope of adjacent upland forest.
Southern	O	O-W63	---	Riparian Forest (T3K)	50	V	Small area of riparian forest associated with Brey Valley Creek. Primarily mature, mostly closed canopy deciduous trees.
Southern	O	O-W64	---	Wet Meadow	50	V	Pastured and partially cropped wet meadow with some scattered joe-pye weed evident.
Southern	O	O-W65	---	Wet Meadow	50	V	Very narrow wet meadow swale / roadside ditch with jewelweed, reed canary grass. Ties into Brey Valley Creek.
Southern	O	O-W67	<i>ASNRI - adjacent to NHI water, Class II trout stream (Billings Creek)</i>	Wet Meadow / Sedge Meadow	53	V	Large wet meadow / sedge meadow complex comprised of various <i>Carex</i> spp., reed canary grass, blue vervain, and <i>Aster</i> spp.
Southern	O	O-W68	---	Wet Meadow	56	V	Wet meadow comprised of reed canary grass, various <i>Carex</i> spp., and boneset. Associated with UNT to Seymour Creek and pastured on W side of proposed ROW.
Southern	O	O-W68a	---	Hardwood Swamp	58	A	Small inclusion of closed canopy mature hardwood swamp along narrow valley within O-F93.
Southern	O	O-W69	---	Wet Meadow / Riparian Forest	58	V	Wet meadow and riparian forest along UNT to Seymour Creek. Wet meadow portion is dominated by reed canary grass, whereas the riparian forest is a mature, mostly open canopy stand of box elder, <i>Fraxinus</i> sp., and <i>Salix</i> sp.
Southern	O	O-W70	---	Wet Meadow	59	V	Wet meadow dominated by tussock sedge, spotted joe pye-weed, and <i>Solidago</i> spp. Associated with UNT to Seymour Creek.
Southern	O	O-W71	---	Wet Meadow	59	A	Contiguous with and similar to O-W70

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W72	<i>ASNRI - adjacent to Class III trout stream (Seymour Creek)</i>	Wet Meadow / Riparian Forest	59	A	Wet meadow / riparian forest complex associated with Seymour Creek. Wet meadow portion is dominated by reed canary grass, and riparian forest is comprised of mature, closed canopy deciduous trees.
Southern	O	O-W73	---	Farmed Wetland	59	A	Farmed wetland planted to corn. Evidence of crop stress and / or soil saturation observed in previous years.
Southern	O	O-W74	---	Riparian Forest	59	A	Small area of riparian forest associated with UNT to Seymour Creek. Bordered to the east by pasture / farmstead, and to the west by agricultural fields. Comprised of a mature, closed canopy deciduous trees.
Southern	O	O-W75	---	Wet Meadow / Hardwood Swamp	60	A	Wet meadow with small open water pond north of proposed ROW. A small isolated patch of closed canopy mature deciduous hardwood swamp extends northeast beyond proposed ROW.
Southern	O	O-W76	---	Wet Meadow	60	A	Pastured wet meadow associated with UNT to Seymour Creek.
Southern	O	O-W77	---	Riparian Forest / Wet Meadow	60	A	Riparian forest / wet meadow complex within gully associated with UNT to Seymour Creek.
Southern	O	O-W78	---	Wet Meadow	61	V	Wet meadow dominated by reed canary grass and associated with UNT to Seymour Creek.
Southern	O	O-W79	---	Wet Meadow	61/62	A	Small, depressional wet meadow.
Southern	O	O-W80	---	Wet Meadow	62	A	Wet meadow associated with UNT to Baraboo River.
Southern	O	O-W81	---	Wet Meadow / Hardwood Swamp (E1K)	63	A	Wet meadow / hardwood swamp complex associated with valley bottom between adjacent upland forest. Hardwood swamp component comprised of a mature, mostly open canopy stand of deciduous trees.
Southern	O	O-W82	---	Wet Meadow / Hardwood Swamp	63	V	Wet meadow dominated by reed canary grass, cattail, and spotted joe pye-weed. A small portion of hardwood swamp occurs between transition to upland forest to the west.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W83	<i>ASNRI - adjacent to NHI water (Baraboo River)</i>	Wet Meadow / Riparian Forest (E1Kw, T3K)	63	V	Large wet meadow and riparian forest associated with the Baraboo River. Reed canary grass, cattail, and spotted joe pye-weed are common in the wet meadow portion. The riparian forest occurs adjacent to the river and is comprised of mostly open, mature canopy pole-size box elder, and <i>Salix</i> sp., with a reed canary grass understory.
Southern	O	O-W84	<i>ASNRI - adjacent to The 400 State Trail</i>	Hardwood Swamp / Shrub Carr	63/64	V	Narrow wetland depression between STH 80 and recreation trail (400 State Trail) dominated by <i>Carex spp</i> with scattered American elm trees and <i>Salix sp</i> shrubs.
Southern	O	O-W85	---	Wet Meadow / Hardwood Swamp	64/65	V	Small isolated patch of wet meadow / hardwood swamp. Cattail and reed canary grass dominate the wet meadow portion, where as pole size box elder and red oak dominate the hardwood swamp portion.
Southern	O	O-W86	---	Wet Meadow / Shrub-Carr	65	V	Wet meadow/ shrub-carr complex comprised of reed canary grass, cattail, and box elder.
Southern	O	O-W87	---	Wet Meadow / Hardwood Swamp	68	A	Wet meadow / hardwood swamp fringe transitioning into upland forest north of the ROW.
Southern	O	O-W88	---	Wet Meadow / Riparian Forest	68/69	A	Wet meadow / riparian forest associated with Stewart Creek. Riparian forest comprised of mature, closed canopy deciduous trees.
Southern	O	O-W89	---	Wet Meadow / Riparian Forest / Farmed Wetland	69	V	Contiguous with and similar to O-W88. A small inclusions of farmed wetland planted to corn with evidence of crop stress and / or soil saturation observed in previous years.
Southern	O	O-W90	---	Wet Meadow / Shrub-Carr / Farmed Wetland	70	V	Narrow riparian corridor between agricultural fields. Comprised of reed canary grass, <i>Solidago</i> sp., elderberry, and <i>Salix</i> sp shrubs. Farmed wetland planted to corn.
Southern	O	O-W91	---	Riparian Forest	70	V	Narrow riparian forest corridor dominated by box elder and American elm.
Southern	O	O-W92	---	Farmed Wetland	70	V	Farmed wetland planted to corn, with evidence of crop stress and / or soil saturation observed in previous years.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W93	---	Farmed Wetland / Wet Meadow	70	V	Farmed wetland planted to corn, with evidence of crop stress and / or soil saturation observed in previous years. Pastured wet meadow along Spring Creek has reed canary grass and boneset persisting within pasture. A portion of this feature is roadside ditch.
Southern	O	O-W94	---	Wet Meadow (E1Kg)	70	V	Wet meadow dominated by reed canary grass, cattail, and spotted joe pye-weed.
Southern	O	O-W95	---	Farmed Wetland	71	A	Farmed wetland planted to rye and corn. Evidence of crop stress and / or soil saturation observed in previous years.
Southern	O	O-W96	---	Farmed Wetland / Wet Meadow	71	V	Farmed wetland planted to soybeans. Evidence of soil saturation and / or crop stress observed in previous years. Wet meadow drainage swales with cattail and reed canary grass present.
Southern	O	O-W97	<i>ASNRI - adjacent to Class III trout stream (Little One Mile Creek)</i>	Farmed Wetland / Wet Meadow (E1Kg)	71/72	V	Large expanse of farmed wetland. Drier areas planted to corn, wetter areas used for hay. Evidence of crop stress and / or soil saturation observed in previous years. Wet meadow within the wettest areas is dominated by reed canary grass, various forbs, and scattered shrubs.
Southern	O	O-W98	---	Wet Meadow	73	V	A wet meadow ditch along CTH O.
Southern	O	O-W99	---	Farmed Wetland / Wet Meadow	73	V	Farmed wetland planted to corn. Evidence of crop stress and / or soil saturation observed in previous years. Reed canary grass and cattail wet meadow swales occur along south side of CTH O and between agricultural fields.
Southern	O	O-W100	---	Wet Meadow / Farmed Wetland	73	V	Narrow reed canary grass and cattail wet meadow swale between agricultural fields and along north side of CTH O. Area of farmed wetland planted to corn. Evidence of crop stress and / or soil saturation observed in previous years.
Southern	O	O-W101	---	Wet Meadow	73	V	Cattail, reed canary grass dominated wet meadow swale between agricultural fields and along north side of CTH O.
Southern	O	O-W102	---	Wet Meadow	73	V	Mowed wet meadow depression dominated by reed canary grass and cattail.
Southern	O	O-W103	---	Wet Meadow	73/74	V	Mowed wet meadow depression dominated by reed canary grass and cattail.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W104	---	Farmed Wetland	74	V	Farmed wetland planted to corn. Evidence of crop stress and / or soil saturation observed in previous years.
Southern	O	O-W105	---	Farmed Wetland	74	V	Farmed wetland planted to corn. Evidence of crop stress and / or soil saturation observed in previous years.
Southern	O	O-W106	---	Wet Meadow (E1Kg)	74	V	Wet meadow dominated by reed canary grass, with scattered <i>Cornus</i> sp. shrubs along Cattail Valley Creek. Soft rush, angelica, and <i>Carex</i> spp. also present.
Southern	O	O-W107	---	Wet Meadow (E1Kg)	74	V	Wet meadow dominated by reed canary grass, scattered <i>Salix</i> sp. and <i>Cornus</i> sp. shrubs near CTH O.
Southern	O	O-W108	---	Wet Meadow / Farmed Wetland (E1K)	74/75	V	Wet meadow dominated by reed canary grass occurs parallel to CTH O. Farmed wetland at west end was planted to corn. Evidence of crop stress and / or soil saturation observed in previous years.
Southern	O	O-W110	---	Hardwood Swamp (T3K)	75	V	Isolated patch of closed canopy, mature hardwood swamp comprised of quaking aspen and bur oak, with <i>Cornus</i> sp., elderberry, and reed canary grass in the understory.
Southern	O	O-W111	---	Wet Meadow	75	V	Pastured wet meadow with reed canary grass. Some <i>Carex</i> sp observed.
Southern	O	O-W112	---	Wet Meadow	75	V	Wet meadow swale / ditch dominated by reed canary grass and cattail.
Southern	O	O-W113	---	Wet Meadow	75/76	V	Mowed wet meadow swale dominated by reed canary grass.
Southern	O	O-W114	---	Shrub-Carr / Farmed Wetland / Hardwood Swamp (S3/E1K)	76/77	A	Isolated patch of shrub-carr surrounded by agricultural fields. Farmed wetland portion planted to corn shows evidence of crop stress and / or soil saturation in previous years. A narrow tree line of hardwood swamp occurs at the east end.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	O	O-W115	<i>ASNRI - adjacent to NHI water (Sevenmile Creek)</i>	Hardwood Swamp / Wet Meadow / Shrub-Carr / Coniferous Swamp (T1K, E2K, S3/E1K, T3/S3K, S3K)	76/77	A	Large wetland complex of hardwood swamp, wet meadow, and shrub-carr associated with Sevenmile Creek. Mature, closed canopy hardwood swamp in the western third of the complex, transitions into wet meadow primarily west of the creek, then into shrub-carr with inclusions of coniferous swamp east of creek. Large deciduous trees occur along the creek banks.
Southern	O	O-W116	---	Wet Meadow / Shrub-Carr / Hardwood Swamp / Farmed Wetland (E1K, T3/E1K, E1Ka)	77/78	V	Large wetland complex of wet meadow, shrub-carr, and hardwood swamp with inclusions of pastured wet meadow and farmed wetland, where crop stress and / or soil saturation was evident in previous years. Wet meadow portions contain various <i>Carex</i> spp, wool-grass, reed canary grass, and joe pye-weed. Shrub-carr comprised of <i>Salix</i> spp, <i>Cornus</i> spp, and <i>Fraxinus</i> spp. Hardwood swamp is a mature, mostly open canopy forest of deciduous trees.
Southern	O	O-W117	---	Wet Meadow / Farmed Wetland (E1Kg, E1Kf)	79	A	Pastured wet meadow north of proposed centerline. Farmed wetland planted to corn south of proposed centerline. Evidence of soil saturation and/or crop stress observed in previous years.
Southern	O	O-W118	---	Shrub-Carr / Hardwood Swamp (S3/E2H)	79	V	Large shrub-carr extending north of proposed centerline with <i>Salix</i> sp. and <i>Cornus</i> sp. shrubs, and reed canary grass common. Small fringe of hardwood swamp dominated by silver maple and quaking aspen extends to the northeast.
Southern	L	L-W1	---	Wet Meadow / Shrub-Carr (S3K)	83/84	F	Depressional wet meadow dominated by tussock sedge, Kentucky bluegrass and reed canary grass within existing ROW. Extending west of ROW into shrub-carr complex is a mostly open canopy of various <i>Salix</i> spp., quaking aspen, paper birch, and hazelnut with tussock sedge and reed canary grass in the understory.
Southern	L	L-W2	---	Wet Meadow / Shrub-Carr (S3K)	84	F	Contiguous with and similar to L-W1.
Southern	L	L-W3	---	Hardwood Swamp	84	V	Hummocky hardwood swamp with an overstory of quaking aspen and paper birch, a shrub layer of hazelnut, and an herb layer dominated by reed canary grass and <i>Carex</i> spp.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	L	L-W4	---	Wet Meadow/ Hardwood Swamp	84	V	Wet meadow / hardwood swamp associated with drainage swale.
Southern	L	L-W5	---	Hardwood Swamp	85	V	Small depressional area with hardwood swamp dominated by aspen, with an reed canary grass in the understory. Surrounded by pine and oak upland forest.
Southern	L	L-W6	<i>ASNRI - adjacent to Class I trout stream, ERW (Gillmore Creek); PNW (UN lake <50 ac)</i>	Hardwood Swamp (T3K)	85	V	Narrow band of hardwood swamp running along Gillmore Creek. Some coniferous trees on higher spots.
Southern	L	L-W7	---	Wet Meadow	87	A	Small depressional area with wet meadow dominated by reed canary grass.
Southern	I	I-W1	---	Wet Meadow / Shallow Marsh / Shallow, Open Water (E1H)	90	F	Wet meadow/shallow marsh dominated by cattail and reed canary grass with areas of open water.
Southern	I	I-W2	---	Wet Meadow	92	F	Small, isolated wet meadow depression dominated exclusively by reed canary grass.
Southern	I	I-W3	<i>ASNRI - Dells of the Wisconsin River SNA</i>	Wet Meadow	92/93	F	Part of a large wet meadow dominated by reed canary grass that extends south of ROW.
Southern	I	I-W4	---	Hardwood Swamp / Wet Meadow	93	F	Hardwood swamp fringe around a wet meadow that extends southeast beyond ROW. Wet meadow is dominated by reed canary grass and has scattered buckthorn and honeysuckle throughout.
Southern	I	I-W5	---	Wet Meadow	93	F	reed canary grass dominated wet meadow within shallow depression, some fowl manna grass present.
Southern	I	I-W6	<i>ASNRI - adjacent to NHI and sturgeon water; 303d Listed (Wisconsin River)</i>	Floodplain Forest	94	F	Floodplain forest dominated by pole and saw size silver maple. Located between base of RR embankment and the Wisconsin River.
Southern	I	I-W7	<i>ASNRI - adjacent to NHI and sturgeon water; 303d Listed (Wisconsin River)</i>	Floodplain Forest	94/95	F	Floodplain forest comprised of pole and saw size green ash, silver maple, red oak, shagbark hickory, red maple, and river birch. Located between base of RR embankment and the Wisconsin River.

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Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	I	I-W8	<i>ASNRI - adjacent to NHI and sturgeon water; 303d Listed (Wisconsin River)</i>	Floodplain Forest	95	F	Contiguous with and same as I-W7.
Southern	I	I-W9	<i>ASNRI - adjacent to NHI and sturgeon water; 303d Listed (Wisconsin River)</i>	Floodplain Forest	95	F	Contiguous with and same as I-W7.
Southern	I	I-W10	---	Riparian Forest	95	F	Small isolated patch of riparian forest bordered by ag field, road, and RR embankment. Dominated by pole and saw size silver maple, with wood nettle in the understory.
Southern	I	I-W11	---	Wet Meadow	95	F	Wet meadow at base of RR embankment, bordered by ag field and upland forest.
Southern	I	I-W12	---	Wet Meadow (E1K, E2Kg)	96/97	F	Large expansive wet meadow dominated by reed canary grass, with areas of sparse Canada thistle and tussock sedge.
Southern	I	I-W13	---	Wet Meadow / Hardwood Swamp (E1K, T3K)	97/98	F	A large wet meadow / hardwood swamp complex. The wet meadow is dominated by reed canary grass that appears to be used for marsh hay. The hardwood swamp portion extends south of the ROW and is comprised of a reed canary grass herbaceous layer, prickly ash shrub layer, and an overstory of red maple, American elm, and quaking aspen. Canopy cover varies from approximately 30-40% as a result of recent selective harvest.
Southern	I	I-W14	<i>ASNRI - adjacent to NHI and sturgeon water; 303d Listed (UNT to Wisconsin River)</i>	Wet Meadow (E1K)	98	F	Wet meadow dominated by reed canary grass and associated with UNT to Wisconsin River.
Southern	I	I-W15	---	Wet Meadow (E1K)	98	F	Wet meadow dominated by reed canary grass.
Southern	I	I-W16	---	Wet Meadow / Hardwood Swamp (E1Hg, T3K)	98/99	F	Wet meadow dominated by reed canary grass, with areas of sparse tussock sedge. Wet meadow is surrounded by a narrow ring of hardwood swamp that is dominated by pole and saw size green ash and quaking aspen.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	I	I-W17	---	Wet Meadow / Hardwood Swamp (E1Kf)	100	F	A degraded wet meadow dominated by reed canary grass, with a narrow isolated band of hardwood swamp at the east end comprised of pole size green ash, river birch, and quaking aspen.
Southern	I	I-W18	---	Wet Meadow / Hardwood Swamp	100/101	F	A wet meadow within the RR ROW dominated by reed canary grass. A hardwood swamp extends south of the RR ROW at the east end, and is dominated by pole and saw size green ash and shagbark hickory, with some bur oak and river birch present. Reed canary grass occurs in the understory.
Southern	I	I-W19	---	Sedge Meadow / Shrub-Carr (S3H)	101	F	Sedge meadow / shrub-carr complex comprised of common species including Juncus sp., Carex sp., Scirpus sp., some reed canary grass, sandbar willow, Spirea sp.
Southern	I	I-W20	Wetland, <i>ASNRI</i> - large wetland complex of a variety of wetland communities	Wet Meadow / Shrub-Carr / Hardwood Swamp / Shallow Marsh / Seasonally Flooded Basin (S3/E1K, T3K, T3/5K)	101/102	F	Large wetland complex comprised of a variety of wetland communities. Primarily wet meadow / shrub-carr within RR ROW dominated by reed canary grass, giant goldenrod, Carex spp., sandbar willow. Extending south beyond RR ROW is hardwood swamp with pockets of shallow marsh / seasonally flooded basin. Hardwood swamp comprised of pole and saw size river birch, red maple, and quaking aspen trees, with hackberry and quaking aspen as shrub layer dominants. The understory is comprised of reed canary grass, cattail, and cinnamon fern. Pockets of shallow marsh / seasonally flooded basin are dominated by reed canary grass, cattail, swamp milkweed, lake sedge, Bebb's willow.
Southern	I	I-W21	---	Wet Meadow / Shallow Marsh (S3/E2H) / Mixed Hardwood - Coniferous Swamp	102	F	Wet meadow dominated by Carex spp. and reed canary grass, with pockets of shallow marsh fringed with cattail. A small mixed hardwood - coniferous swamp extends south of the ROW and is dominated by deciduous and coniferous pole and saw size trees.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	I	I-W22	---	Wet Meadow / Shallow Marsh / Shallow, Open Water / Hardwood Swamp	102	F	Large wetland complex of wet meadow and shallow marsh / shallow, open water, with small areas of hardwood swamp that extend south. Wet meadow is dominated by reed canary grass, <i>Carex</i> spp., and cattail that surround shallow marsh / open water areas dominated by emergents. The hardwood swamp portions are dominated by pole size green ash and river birch, with reed canary grass in the understory. Some open water areas run parallel to the ROW at the base of the RR embankment.
Southern	I	I-W23	---	Shallow Marsh (S3/E2H)	102/103	F	Shallow marsh dominated by cattail with a narrow fringe of reed canary grass, giant goldenrod, Bebb's willow, and sandbar willow.
Southern	I	I-W24	---	Sedge Meadow / Wet Meadow	103	F	Small, isolated depression of sedge meadow and wet meadow dominated by tussock sedge, lake sedge, <i>Carex</i> sp., reed canary grass, and giant goldenrod with ~15% cover of sandbar willow and quaking aspen.
Southern	I	I-W25	ASNRI - Pine Island Wildlife Area	Sedge Meadow / Shrub-Carr / Hardwood Swamp (E2H, T3K, S3K, T3/S3K, S3/E2H)	103/104	F	Extensive wetland complex comprised of relatively high quality sedge meadow, shrub-carr, and hardwood swamp. Sedge meadow occurs primarily under existing transmission line, but also extends south. Sedge meadow is dominated by lake sedge, tussock sedge, prairie cordgrass, and marsh fern, with scattered, sparse red osier dogwood and meadowsweet. Shrub carr portions are dominated by tussock sedge with a shrub layer of red-osier dogwood, tag alder, and meadowsweet at ~80% cover. The hardwood swamp portions extend south of the existing transmission line and have an overstory of 60-70% cover dominated by quaking aspen. Grey dogwood and <i>Ilex</i> sp. occur in the shrub layer, and royal fern, cinnamon fern, and sensitive fern are common in the herbaceous layer. The presence of reed canary grass is minimal throughout the wetland complex.
Southern	I	I-W26		Sedge Meadow	104	F	Small, shallow area of sedge meadow surrounded by upland grassland.
Southern	I	I-W27	ASNRI - Wisconsin River floodplain complex	Wet Meadow / Shrub-Carr (S3/E2Hw, S3Hw)	105/106	A	A wet meadow that is part of the large, extensive Wisconsin River floodplain complex. Dominated by wetland grasses, with scattered deciduous trees and shrubs.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	I	I-W28	<i>ASNRI - Wisconsin River floodplain complex</i>	Floodplain Forest / Wet Meadow / Sedge Meadow (T3K, S3Hw)	106	V	Large floodplain forest / sedge meadow / wet meadow complex associated with the Wisconsin river floodplain. Floodplain forest dominated by silver maple, green ash, black willow, and river birch, with a shrub layer of similar species and an herb layer dominated by lake sedge, tussock sedge, woolgrass, very sparse reed canary grass, and cattail. Sedge meadow and wet meadow portions are dominated by lake and tussock sedge, with sparse reed canary grass. Scattered sandbar willow, pussy willow, and meadowsweet occur in the shrub layer.
Southern	I	I-W29	<i>ASNRI - Wisconsin River floodplain complex</i>	Sedge Meadow / Floodplain Forest (T3kw)	106	F	Sedge meadow in HWY ROW that extends east into large floodplain forest / shrub-carr complex associated with the Wisconsin River floodplain. Common species include lake sedge and tussock sedge, with scattered meadowsweet and buckthorn. Dominant trees include pole and saw size silver maple, quaking aspen, green ash, and swamp white oak.
Southern	I	I-W30	<i>ASNRI - Wisconsin River floodplain complex</i>	Sedge Meadow / Floodplain Forest (T3Kw)	106/107	F	Contiguous with and similar to I-W29.
Southern	I	I-W31	<i>ASNRI - WI River floodplain complex</i>	Sedge Meadow/Floodplain Forest (T3Kw)	106/107	F	Contiguous with and similar to I-W29.
Southern	I	I-W32	<i>ASNRI - Wisconsin River floodplain complex</i>	Sedge Meadow / Floodplain Forest (T3Kw)	107	F	Contiguous with and similar to I-W29.
Southern	I	I-W33	<i>ASNRI - Wisconsin River floodplain complex</i>	Sedge Meadow / Floodplain Forest (T3Kw)	107	F	Contiguous with and similar to I-W29.
Southern	I	I-W34	<i>ASNRI - Wisconsin River floodplain complex</i>	Sedge Meadow / Floodplain Forest (T3Kw)	107	F	Contiguous with and similar to I-W29.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	I	I-W35	<i>ASNRI - Wisconsin River floodplain complex</i>	Sedge Meadow / Floodplain Forest (T3Kw)	107	F	Contiguous with and similar to I-W29.
Southern	I	I-W36	<i>ASNRI - Wisconsin River floodplain complex, Pine Island Wildlife Area (south of river)</i>	Sedge Meadow / Floodplain Forest (T3Kw)	107	F	Contiguous with and similar to I-W29.
Southern	I	I-W37	<i>ASNRI - Wisconsin River floodplain complex, Pine Island Wildlife Area</i>	Hardwood Swamp (T3Kw)	107	F	Hardwood swamp dominated by pole and saw size river birch, silver maple, green ash, and cottonwood, with riverbank grape, poison ivy, and lake sedge in the understory.
Southern	I	I-W38	<i>ASNRI - Pine Island Wildlife Area</i>	Sedge Meadow / Hardwood Swamp (T3/S3K)	107/108	F	Sedge meadow in HWY ROW dominated by tussock sedge, lake sedge, giant goldenrod, and reed canary grass. Sedge meadow extends east of ROW into hardwood swamp with quaking aspen, river birch, silver maple, green ash, meadowsweet, buckthorn, honeysuckle, and similar herb species.
Southern	I	I-W39	<i>ASNRI - Pine Island Wildlife Area</i>	Sedge Meadow / Riparian Forest (T3/S3K)	108	F	Sedge meadow with reed canary grass, lake sedge, and tussock sedge common. Riparian forest comprised pole and saw size quaking aspen, green ash, river birch, silver maple, and a few red oak. The shrub layer is comprised of similar species plus meadowsweet, elderberry.
Southern	I	I-W40	<i>ASNRI - Pine Island Wildlife Area</i>	Wet Meadow (S3K)	108	F	Closed depressional wet meadow with reed canary grass, giant goldenrod, common milkweed, Spirea sp., and riverbank grape.
Southern	I	I-W41	---	Sedge Meadow / Hardwood Swamp (T3K, E2H)	108	F	Sedge meadow / hardwood swamp complex. Sedge meadow dominated by tussock sedge, lake sedge, reed canary grass, and giant goldenrod. Hardwood swamp comprised of river birch, silver maple, and green ash, with a shrub layer of green ash, honeysuckle, and glossy buckthorn. The herbaceous layer is comprised of reed canary grass, tussock sedge, giant goldenrod.
Southern	I	I-W42	---	Wet Meadow (S3/E1K)	108	F	Wet meadow wetland within HWY interchange. Dominated by reed canary grass.

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Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	I	I-W43	---	Wet Meadow	108	F	Wet meadow wetland within HWY interchange. Dominated by reed canary grass, with tussock sedge, and some grey dogwood and sandbar willow.
Southern	I	I-W44	---	Wet Meadow / Shallow Marsh / Hardwood Swamp (T3K, E1Kf, T3/E1K)	108	F	Large grazed wetland complex. Wet meadow is comprised of reed canary grass and tussock sedge with scattered, sparse sandbar willow and silver maple. The shallow marsh is comprised of reed canary grass, cattail, and Carex spp. The hardwood swamp has approximately 30% canopy cover of pole and saw size quaking aspen, with an herbaceous layer of reed canary grass and Carex spp.
Southern	I	I-W45	---	Wet Meadow / Hardwood Swamp	109	F	Wet meadow dominated by reed canary grass within HWY ROW. A small fringe of hardwood swamp occurs along western bank of a ~2 ac open water pond just E of HWY ROW.
Southern	I	I-W46	---	Wet Meadow	109	F	Wet meadow fringe along western bank of ~6 ac open water pond located just east of HWY ROW. Dominated by reed canary grass.
Southern	I	I-W47	---	Wet Meadow	109	F	Wet meadow dominated by reed canary grass.
Southern	I	I-W48	ASNRI - adjacent to NHI water (Baraboo River)	Floodplain Forest / Wet Meadow (T3Kw, E1Hg)	109/110	F	Floodplain forest associated with the Baraboo River. Comprised of pole and saw size silver maple, box elder, American elm, and basswood with up to 80% canopy cover. A sparse shrub layer of poison ivy is present, with reed canary grass and Carex spp. in the herbaceous layer. A small portion of wet meadow dominated by reed canary grass occurs south of the Baraboo River.
Southern	I	I-W49	---	Wet Meadow / Shallow Marsh (E1H)	110	F	Wet meadow dominated by reed canary grass within HWY interchange that grades into shallow marsh comprised of reed canary grass, cattail, and a small area of open water to the east.
Southern	I	I-W50	---	Shallow Marsh (E1H)	110	F	Shallow marsh with a small area of open water within HWY interchange. Dominated by cattail, reed canary grass, and lake sedge.
Southern	I	I-W51	---	Wet Meadow	110	F	Wet meadow dominated by reed canary grass, serving as a drainage swale.

Appendix J Exhibit 3

Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	I	I-W52	---	Wet Meadow	110	F	Wet meadow dominated by reed canary grass serving as a drainage swale.
Southern	I	I-W53	---	Wet Meadow	110	F	Wet meadow dominated by reed canary grass.
Southern	F	F-W1	---	Wet Meadow	114/115	A	Fallow field / pasture wet meadow (saturation observed in previous years).
Southern	F	F-W2	---	Wet Meadow	114/115	A	Contiguous with and similar to F-W1.
Southern	F	F-W3	<i>ASNRI - adjacent to NHI water, Class II trout stream (Rowan Creek)</i>	Wet Meadow / Shrub-Carr / Floodplain Forest / Shallow Marsh / Shallow, Open Water (T3K, T3Kw, S3/E1Ka, E1K)	116	V	Large wetland complex associated with Rowan Creek. Floodplain forest occurs predominantly north of and adjacent to Rowan Creek. South of Rowan Creek is a mix of wet meadow, shrub-carr, shallow marsh, and shallow, open water communities. A small portion of wet meadow south of Rowan Creek appears to be used for marsh hay.
Southern	F	F-W4	---	Farmed Wetland	117	A	Farmed wetland planted to corn (soil saturation and / or crop stress observed in previous years).
Southern	F	F-W5	<i>ASNRI - adjacent to Class II trout stream (UNT to Spring Creek)</i>	Riparian Forest	122	A	Narrow riparian forest of closed canopy pole and saw size deciduous trees along UNT to Spring Creek.
Southern	F	F-W6	---	Farmed Wetland	125	A	Farmed wetland planted to corn (soil saturation and / or crop stress observed in previous years).
Southern	F	F-W7	---	Wet Meadow / Hardwood Swamp / Shallow, Open Water (T3K)	127	F	Hardwood swamp / wet meadow complex dominated by reed canary grass and silver maple. Surrounds a shallow, small open water pond south of the ROW.
Southern	F	F-W8	---	Wet Meadow (E1Hf, W0H)	128	F	Wet meadow dominated by reed canary grass.
Southern	F	F-W8a	---	Wet Meadow	128	F	Roadside ditch dominated by reed canary grass.
Southern	F	F-W9	---	Farmed Wetland	128/129	A	Farmed wetland planted to corn and alfalfa (soil saturation and / or crop stress observed in previous years).
Southern	C	C-W1	---	Wet Meadow / Shallow Marsh	130/131	F	Shallow marsh / wet meadow complex dominated by reed canary grass and broad and narrow-leaved cattail. Portions in agricultural production and exhibiting crop stress.

Appendix J Exhibit 3

Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	C	C-W2	---	Wet Meadow / Shallow Marsh	131	F	Shallow marsh / wet meadow complex dominated by reed canary grass and broad and narrow-leaved cattail. Portions in agricultural production and exhibiting crop stress.
Southern	C	C-W3	---	Wet Meadow / Shallow Marsh (E1Kf)	131	F	Shallow marsh / wet meadow complex dominated by reed canary grass and broad and narrow-leaved cattail.
Southern	C	C-W4	---	Farmed Wetland	131	F	Planted to corn, which appeared stunted at time of field assessment in 2012. Narrow-leaved cattail also present.
Southern	C	C-W5	---	Wet Meadow	133	F	Wet meadow swale within agricultural field.
Southern	C	C-W6	---	Farmed Wetland	133	F	Farmed wetland planted to soybeans and exhibiting crop stress in 2012.
Southern	C	C-W7	---	Wet Meadow	134/135	A	Wet meadow associated with drainage swale through an agricultural field.
Southern	C	C-W8	---	Wet Meadow / Farmed Wetland (E1H)	136	A	Partially in agricultural production with wet meadow fringe along UNT to Sixmile Creek.
Southern	C	C-W9	---	Farmed Wetland	137	A	Farmed wetland planted to corn and alfalfa (soil saturation and / or crop stress observed in previous years).
Southern	C	C-W10	<i>ASNRI - adjacent to NHI water, ERW (Sixmile Creek)</i>	Wet Meadow / Shallow Marsh / Riparian Forest / Farmed Wetland (E2K)	137/138	A	Wet meadow and shallow marsh complex dominated by reed canary grass, cattail, and common reed grass. A small stand of riparian forest dominated by pole and saw size deciduous trees occurs along the south side of Sixmile Creek.
Southern	C	C-W11	---	Farmed Wetland	138/139	V	Farmed wetland with periods of saturation and inundation. Reed canary grass, Polygonum sp., and giant ragweed present.
Southern	C	C-W12	<i>ASNRI - adjacent to NHI water; 303d Listed (Dorn Creek)</i>	Farmed Wetland / Wet Meadow	139/140	V	Large farmed wetland / wet meadow complex. Farmed wetland portion was planted to corn in 2012. Wet meadow dominated by reed canary grass occurs along Dorn Creek and UNT to Dorn Creek.
Southern	C	C-W13	---	Farmed Wetland	142	A	Farmed Wetland planted to corn (soil saturation and / or crop stress observed in previous years).

Appendix J Exhibit 3

Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	C	C-W14	---	Farmed Wetland / Wet Meadow (E2Kg)	142	F	Complex of farmed wetland planted to corn and wet meadow dominated by reed canary grass.
Southern	C	C-W15	---	Farmed Wetland	143	A	Farmed wetland planted to corn (soil saturation and / or crop stress observed in previous years).
Southern	C	C-W16	---	Wet Meadow	144	A	Wet meadow swale within agricultural field.
Southern	B	B-W1	---	Farmed Wetland	145/146	F	Farmed wetland planted in soybeans in 2012 (soil saturation and / or crop stress observed in previous years).
Southern	B	B-W2	---	Farmed Wetland / Wet Meadow	146	F	Primarily wet meadow swale between CTH K and agricultural field. Farmed wetland portion planted in soybeans in 2012 (soil saturation and / or crop stress observed in previous years).
Southern	B	B-W3	---	Wet Meadow	146	F	Wet meadow swale between CTH K and agricultural field.
Southern	B	B-W4	---	Farmed Wetland	146	F	Farmed wetland planted to corn, which appeared stunted at time of field assessment in 2012. Cattail and reed canary grass also present.
Southern	B	B-W5	---	Farmed Wetland	146	F	Contiguous with and similar to B-F4.
Southern	B	B-W6	<i>ANSRI - adjacent to UNT to Brewery Creek, NHI water</i>	Wet Meadow / Riparian Forest (E1K)	146/147	A	Wet meadow wetland bordered to the south and east by riparian forest associated with UNT to Brewery Creek. Forest dominated by pole and saw deciduous trees.
Southern	B	B-W7	<i>ASNRI - adjacent to Brewery Creek, NHI water</i>	Wet Meadow / Shallow Marsh / Farmed Wetland	146/147	A	Wet meadow surrounding shallow marsh east of ROW. Soil saturation evident in previous years within farmed portion.
Southern	B	B-W8	---	Hardwood Swamp	148	A	Narrow fringe of hardwood swamp surrounding wet meadow and shallow marsh east of ROW. Swamp dominated by pole and saw size deciduous trees.
Southern	B	B-W9	<i>ASNRI - adjacent to NHI water, Class I trout stream, ORW (Black Earth Creek)</i>	Wet Meadow	149	F	Narrow wet meadow fringe bordering Black Earth Creek. Dominated by reed canary grass, jewelweed, and stinging nettle.
Southern	B	B-W10	<i>ASNRI - adjacent to NHI water, Class I trout stream, ORW (Black Earth Creek)</i>	Wet Meadow	149/150	F	Contiguous with and similar to B-W9

Appendix J Exhibit 3

Badger Coulee Wetland Delineation Report

Table 1. Project Area Wetlands

Route	Segment	Wetland ID	Special Designation ¹	Resource Classification ²	Map Page Index ³	Survey Technique ⁴	Wetland Description
Southern	B	B-W11	---	Wet Meadow / Shallow Marsh	149/150	F	Wet meadow surrounding small area of shallow marsh. Dominant species include reed canary grass and cattail.
Southern	B	B-W12	<i>ASNRI - adjacent to NHI water, Class I trout stream, ORW (Black Earth Creek)</i>	Farmed Wetland (E2Kg)	149/150	F	Planted to corn in 2012. Field nut sedge, soft-stem bulrush, and cattail also present.
Southern	B	B-W13	---	Wet Meadow / Farmed Wetland	150/151	F	Small depressional wet meadow dominated by reed canary grass. Northern portion in agricultural production, but with Polygonum sp and Carex sp still persisting.
Southern	B	B-W14	---	Wet Meadow / Farmed Wetland / Hardwood Swamp (E2Ka)	151	F	Wet meadow within ROW dominated by reed canary grass. West end of wetland was plowed at time of field assessment in 2012. A small stand of mostly closed canopy hardwood swamp dominated by pole and saw size silver maple, black willow, quaking aspen, and cottonwood separates the wet meadow and driveway to the east.
Southern	B	B-W15	---	Wet Meadow / Shrub-Carr / Hardwood Swamp (T3K, T3H, E2Ka, S3K)	151	F	Large wet meadow, shrub-carr, hardwood swamp complex. The wet meadow portion is dominated by reed canary grass and cattail, whereas the shrub-carr is comprised of reed canary grass and willow and dogwood shrubs. The narrow stand of hardwood swamp is dominated by pole and saw size black willow, silver maple, cottonwood, box elder, and quaking aspen with willow shrubs and reed canary grass in the understory.

¹ Designated features refer to wetlands within or immediately adjacent to waterways considered to be Areas of Special Natural Resource Interest (ASNRI) per NR 103.04 WI. Admin. Code. ASNRI waters include those supporting occurrences listed in the Natural Heritage Inventory (NHI), and those designated as Exceptional Resource Water (ERW), Outstanding Resource Water (ORW), or Priority Navigable Water (PNW).

² For wetland areas, parenthetical values indicate WWI designation, where mapped. Waterways are named using the mapped river or creek name, or by naming the discharge point of an unnamed tributary if known (e.g. UNT to Embarrass River).

³ Page numbers for Northern Route wetlands refer to Figure 2A; all others refer to Figure 2B

⁴ Survey Technique includes: F = in-field characterization; A = off-site characterization (e.g., aerial photograph interpretation); and V = off-site characterization with limited field verification (e.g., feature viewed from public ROW such as a nearby road)

APPENDIX C

WETLAND DETERMINATION DATA FORMS