Briggs Road to La Crosse Tap (Q-1D South) 161 kV Transmission Line Rebuild Project

La Crosse County, Wisconsin

RUS Project Number 1060

Environmental Assessment

Prepared for Rural Utilities Service

United States Department of Agriculture

Submitted by:

Dairyland Power Cooperative

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Abbreviations and Acronyms

ACSR	Aluminum Core Steel Reinforced
ACSS	Aluminum Core Steel Supported
AM	Amplitude Modulated
AN	Audible Noise
AOZD	Airport Overlay Zoning District
ASNRI	Areas of Special Natural Resource Interest
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practices
BNHC	Bureau of Natural Heritage Conservation
CapX project	CapX2020 Hampton – Rochester - La Crosse 345 kV Transmission Improvement Project
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CPCN	Certificate of Public Convenience and Necessity
CR	County Road
DATCP	Department of Agriculture, Trade and Consumer Protection (Wisconsin)
DPC	Dairyland Power Cooperative
dBA	A-weighted decibel
EA	Environmental Assessment
EF	Electric Field
EIS	Environmental Impact Statement
END	Endangered
EMF	Electric Magnetic Field
ER	Environmental Report
ERW	Exceptional Resource Waters
EXPN	Experimental Non-Essential Population
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FM	Frequency Modulated
HVTL	High Voltage Transmission Line
kV	Kilovolt
kV/m	Kilovolts/Meter
MBTA	Migratory Bird Treaty Act
MF	Magnetic Field
mG	MilliGauss
MISO	Midcontinent Independent System Operator
MRO	Midwest Reliability Organization
MRRPC	Mississippi River Regional Planning Council
MVA	Mega Volt Amperes
MVAC	Mississippi Valley Archaeological Center
NAAQS	National Ambient Air Quality Standards
NA	Not Applicable

NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NESC	National Electric Safety Code
NHPA	National Historic Preservation Act
NLCD	National Land Cover Database
NPC	Noise Pollution Clearing House
NRCS	Natural Resource Conservation Service
ORW	Outstanding Resource Waters
PEM	palustrine emergent wetland
PNW	Priority Navigable Waters
PRF	Public Rights Features
PSCW	Public Service Commission of Wisconsin
RE Act	Rural Electrified Act
RI/TVI	Radio Interference/Television Interference
ROD	Record of Decision
ROW	Right-of-Way
RUS	Rural Utilities Service
SC	Special Concern
SC/P	Special Concern/Fully Protected
SC/N	Special Concern/No Laws Regulating Use, Possession, or Harvesting
SC/H	Special Concern/Take Regulated by Establishment of Open Closed Seasons
SC/FL	Special Concern Federally Protected as Endangered or Threatened
SC/M	Special Concern/ Fully protected by federal and state laws under the Migratory Bird Act
STH	State Trunk Highway
THR	Threatened
USH	U.S. Highway
USACE	U.S. Army Corp of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WDNR	Wisconsin Department of Natural Resources
WGNHS	Wisconsin Geological and Natural History Survey

1.0 Project Description

1.1 Proposed Project

Dairyland Power Cooperative (DPC), a not-for-profit generation and transmission cooperative headquartered in La Crosse, Wisconsin, intends to seek financial assistance from the U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) to rebuild approximately nine miles of the south segment of the Q-1 161 kilovolt (kV) transmission line referred to as the Q-1D South Project or Project (**Figure 1**). This nine-mile-segment extends from just southeast of the Briggs Road Substation to the La Crosse Tap in La Crosse County, Wisconsin (RUS Project Number 1060). Constructed in the 1950s, the line is now in poor condition and reaching the end of its service life. The rebuild will occur along the existing 161 kV alignment within the existing right-of-way (ROW).

RUS approval of financial assistance for the Project is a federal action subject to review under the National Environmental Policy Act (NEPA) of 1969, the National Historic Preservation Act of 1966 (NHPA), and all applicable federal environmental laws and regulations. This Environmental Assessment (EA) has been prepared to analyze potential impacts to the natural and human environments associated with the Project and to determine if there are any extraordinary circumstances that would require additional review in accordance with 7 Code of Federal Regulations (CFR) Part 1970, RUS' Environmental Policies and Procedures, and 40 CFR Parts 1500-1508, the regulations promulgated by the Council on Environmental Quality for implementing the NEPA. This EA also addresses other laws, regulations, executive orders, and guidelines promulgated to protect and enhance environmental quality including, but not limited to, the Endangered Species Act (ESA), the Farmland Protection Policy Act (FPPA), the Clean Water Act (CWA), and executive orders governing floodplain management, protection of wetlands, and environmental justice.

The term "Project area" as referenced throughout this EA generally refers to the extent shown on **Figure 1**. Detailed sheet maps that show the Project are provided in **Appendix A**. DPC is committed to following its standard best management practices (BMPs) described in DPC's *Manual for Transmission Lines and Substation Construction and Maintenance Activities* for Project construction, operation, and maintenance as described in Section 5.0.

1.2 Project History

The Project reviewed under this EA is a nine mile section of DPC's approximately 70 mile long Q-1 161 kV transmission line. The Q-1 line was constructed in the 1950s and consists of four segments in Wisconsin as described in **Table 1-1**.

Table 1-1: DPC Wisconsin Q-1 161 kV Line Segments and Status

Segment Name	Mileage	Status of Environmental Review
Alma – Marshland	27	Reviewed under the federal and State of Wisconsin CapX2020 Hampton – Rochester – La Crosse 345 kV Transmission Improvement Project (CapX project) EISs and selected as the route. Q-1 line was co-located as a double circuit with the CapX project. RUS issued Record of Decision (ROD) in January 2013. Public Service Commission of Wisconsin issued the Final Decision in May 2012.
Marshland – North La Crosse Substation (Briggs Road Substation) Q-1D North	13	Reviewed under a separate Environmental Assessment (EA) dated March 16, 2015. The Q-1D North line needed to be rebuilt as soon as possible to avoid interruptions in service and ongoing maintenance issues. Due to the need for the Q-1 D North line to remain in service during construction of the CapX project in Wisconsin, DPC constructed the Q-1D North line from August to December 2015, which was the earliest timeframe that would avoid impacts to certain protected species, wetlands, and waterways.
North La Crosse Substation (Briggs Road Substation) – La Crosse Tap Q-1D South	9	This segment is the subject of this EA. It was separated from the other Q-1 projects because it was considered as a possible route for the Badger – Coulee project planned for construction in 2018. DPC plans to begin construction on the Q-1D South in early September 2016.
La Crosse – Genoa Tap	21	Reviewed under a separate Environmental Report (ER) approved by RUS in September 2012. The project was not part of the route options considered for the CapX project and proposed Badger – Coulee 345 kV lines and was therefore reviewed on its own. Construction was recently completed.

1.3 Schedule

Construction of the Project is scheduled to begin in early September 2016. DPC anticipates that the Project would be in service in June 2017.

DPC's Briggs Road to La Crosse Tap 161 kV construction outage has been submitted to the Midcontinent Independent System Operator (MISO) outage request queue for a five month outage beginning fall of 2016. Two primary factors limit flexibility in this schedule. The first is the need to avoid summer peak load periods as this line helps to serve the City of La Crosse, Wisconsin area load. This requires an outage to the line to occur during non-summer peak load periods. Additionally, upcoming construction outages for the joint Xcel and American Transmission Company (ATC) Badger-Coulee 345 kV project could cause conflicts. The Badger-Coulee 345 kV project is an approved project connecting La Crosse to Madison, Wisconsin. Construction is planned for 2016 through 2018. The Badger-Coulee outage schedule is currently in development with construction starting in the Madison area and finishing in the La Crosse area. The Badger-Coulee construction project will require transmission outages in the La Crosse, Wisconsin area to several 345 and 161 kV transmission lines for double circuit transmission construction and the new line termination at Briggs Road. Coordination between the two projects to avoid

overlapping outages could be difficult as both projects will target the non-summer peak load periods for transmission outages. The Badger-Coulee construction outages could provide conflicts in the future if the Briggs Road-La Crosse Tap project is rescheduled and a new five month construction window in the 2017 or 2018 timeframe is needed.

1.4 Project Location

The Project is located in La Crosse County, Wisconsin as shown in **Figure 1 and Appendix A**. **Table 1-2** presents the township, range, and section for all proposed construction areas of the Project.

Table 1-2: Project Location

State	County	Township	Range	Sections
Wisconsin	La Crosse	17N	8W	13
Wisconsin	La Crosse	17N	7W	18, 19, 29, 30, 32, 33
Wisconsin	La Crosse	16N	7W	3, 4, 10, 14, 15, 23

The north end of the Project begins about 0.3 mile southeast of the Briggs Road Substation, which is located southwest of the Village of Holmen, Wisconsin. The Project then traverses generally southeast to the La Crosse Tap located approximately 0.7 mile south and west of the City of La Crosse, Wisconsin (**Figure 1 and Appendix A**).

1.5 Project Design and Construction

The design and construction of the Project is described below.

1.5.1 Access Routes and Material Staging

Access Routes

Access routes for the Project have been identified; construction would primarily follow approximately 7.1 miles of existing maintenance routes used by DPC's maintenance crews since the early 1950's and temporary access (shown on sheet maps in **Appendix A**). The majority of the access routes do not require grading or vegetation clearing and construction equipment would be driven across low-lying vegetation, existing field roads, or existing trails. However, there are some areas where grading and vegetation clearing, or trimming would be necessary. The access routes have been color-coded on the sheet maps in **Appendix A** to show where grading or tree clearing would be needed.

Access routes would be between 12 and 16 feet wide. Damage to vegetation and crops and soil compaction is possible. DPC will compensate landowners for damage resulting from construction. Appropriate stormwater management and erosion control practices will be used along access routes that require temporary grading due to the existing topography. Following construction, access to the transmission line for routine maintenance would follow the access routes.

Temporary Clear Span Bridges

In some cases temporary clear span bridges (TCSBs) may be required to access pole locations on opposite sides of a stream or steep ditch. Two TCSBs would be required to access pole locations for construction. The locations of the TCSBs are provided in **Appendix A, Sheet Map 10**. Prior to construction, DPC will obtain the necessary permits from the Wisconsin Department of Natural Resources (WDNR). Installation and maintenance of the TCSBs will be in accordance with permit conditions. A diagram showing the typical characteristics associated with DPC's TCSB design is included as **Figure 2.**

Staging Areas

DPC would use two temporary staging areas during construction (**Appendix A, Sheet Maps 2 and 10**). The northern staging area is approximately six acres and the southern staging area is approximately 2.2 acres. Both staging areas are currently vacant land. The area within the fence at the North La Crosse Substation site may also be used for staging. At this time no additional staging areas have been identified. If it is determined that additional staging areas are required, those areas would not require clearing or grading; however, damage to vegetation or ruts in the ground may occur as a result of vehicular traffic in and out of the staging areas. Specific information regarding the staging areas would be addressed in the Erosion Control Plan prepared for the WDNR, and WDNR technical standards and DPC's BMPs would be implemented during construction. Following construction, the staging areas would be restored to pre-construction conditions.

1.5.2 Transmission Structures

Rebuilding the transmission line would consist of replacing the transmission structures and wires within the existing ROW. The Project has been designed to avoid resources such as wetlands, surface waters, sensitive habitats, protected species, and historic or cultural areas to the extent possible. Potential impacts to soil and surface water resources will be minimized or avoided by using erosion and sedimentation control BMPs and other monitoring and mitigation methods during construction (Section 5 and http://www.dairylandpower.com/power_delivery/field_guide.pdf).

DPC is proposing to replace the existing wooden H-frame transmission structures with an estimated:

- 54 single-pole steel transmission structures that would be 95 to 115 feet tall with an approximate 775 to 800 foot span between structures.
- Three H-frame steel dead-end structures that would be 50 feet tall with an average 375 foot span between structures.
- Four Y-frame steel transmission structures that would be 65 feet tall with an approximate 600 to 800 foot span between structures.

Typical design characteristics associated with the transmission structures are shown in **Figure 3**. The structures would use the existing 80 foot ROW (40 feet on each side of the transmission line).

For the reasons described in Section 3.3, DPC would use Y-frame steel structures for the 0.6 mile section that crosses the La Crosse River floodplain. Single-pole steel structures would be used for the remaining 8.4 miles of the Project, to allow DPC to double circuit with the N-222 69 kV line for approximately two miles and to meet Federal Aviation Administration (FAA) and Cities of La Crosse and Onalaska height limitations established by the Airport Overlay Zoning District (AOZD) near the La Crosse Regional Airport.

Exact structure locations within the corridor described within this EA would be selected based on engineering needs, landowner input, and environmental factors including soil conditions, slope, maximum span length between transmission structures, and terrain. Transmission structures are generally designed for installation at existing grades. Typically, transmission structure sites with a slope of five percent or less would not be graded or leveled. At sites with a slope of more than five percent, working areas would be graded level or fill would be brought in to create level work pads. In some cases, construction mats would be used to create a level work pad where grading is impractical. DPC prefers to leave the leveled areas and working pads in place for use on future maintenance activities if the landowner permits. If the landowner does not want to leave the leveled area in place, the area would be graded to its original condition to the extent feasible and all imported fill would be removed from the site.

Approximately seven miles of the Project would be constructed using 161 kV single circuit transmission structures and approximately two miles would be constructed using 161/69 kV double circuit structures. Permanent impacts to land associated with construction would be limited to the footprint of the transmission structures. The 54 single-pole steel structures would result in approximately 680.4 square feet (approximately 0.01 acres) of permanent land impacts (up to 12.6 square feet per structure). The three H-frame dead-end structures would result in approximately 75.6 square feet (approximately 0.001 acres) of permanent impacts (up to 25.2 square feet per structure). The four Y-frame structures would result in approximately 50.4 square feet of permanent impacts (up to 12.6 square feet per structure). The total permanent effects associated with construction of the transmission structures is approximately 806.4 square feet (0.02 acres).

Typical conventional construction equipment that would be used on the Project consists of cranes, backhoes, digger-derrick line trucks, drill rigs, dump trucks, front-end loaders, bucket trucks, bulldozers, flatbed tractor-trailers, flatbed trucks, pickup trucks, and various trailers.

ROW and Ground Preparation

DPC would prepare the Project ROW by removing brush from areas where the transmission structures would be installed. Tree trimming may be required to maintain a safe distance between tree branches and the transmission structures. All related construction activity would take place within the existing ROW. Once the trimming has been completed the survey crew would conduct a final structure siting survey for each pole along the transmission line route. Due to the construction occurring within an existing ROW that is relatively level, limited grading is expected to be required. Approximately 4.3 acres of grading would be required for temporary access routes and construction pads. Following construction, the graded areas would be restored to pre-construction conditions.

Structure Installation

Construction would start with the crews transporting poles, insulators, and insulator hardware from the staging areas to the individual structure sites utilizing local roads, field roads, and private driveways

Upland Areas

In upland areas, physical construction of the Project would begin with the auguring of a hole for the structure. Structures would be assembled on the ground prior to placement with a mobile crane. Approximately 80 percent of the structures would be placed in augered holes. Depending on soil conditions, culvert pipes may be used as a permanent casing to hold the hole open. The excess excavated material and/or crushed stone and clean fill would be used to fill excess space in the hole or culvert pipe. Nine angle or tangent structures would require the use of concrete foundations to provide added strength. Excess spoil materials not used as backfill around replacement or new structures may be removed from the site and disposed of at an existing landfill upon completion of construction. If excess spoil removal from the site is not practicable, other measures would be used to stabilize the material disposal sites including seeding and mulch combined with silt fence or fiber roll perimeter control.

La Crosse River Floodplain

Within the La Crosse River floodplain, access to the structures would be via existing access routes and trails and may require temporary matting depending on temperatures. DPC would use specialized construction methods to minimize environmental impacts. The following construction methods eliminate the need for concrete foundations, avoid the need for dewatering, do not generate waste soil material, and would not require placing gravel or other fill for construction access.

Once a structure has been assembled on the ground, a mobile crane would use a vibratory hammer (**Graphics 1 and 2**) to vibrate the caisson to the required foundation depth at each structure location. Once the caisson is correctly installed, the crane would lift the Y-frame steel structure or the H-frame steel deadend structure in sections and attach the structure section to the foundation or previously-set lower section. The structures would be directly embedded in soil. Temporary construction matting would be required for an approximately 25-foot by 25-foot area at the base of Structures Locations123 through 125 within La Crosse River floodplain (**Appendix A, Sheet Maps 9 and 10)**.

Graphic 1: Vibratory Hammer

Graphic 2: Vibratory Hammer Installing Caisson

Wire (Conductor) Stringing

Following structure installation, several reels of wire would be placed in the wire-stringing cradles and the wire would be run through a series of sheaves that support and apply tension to the wire while it is being pulled into place by a winch. The wires would then be properly "sagged" to maintain pre-determined wire tension that meets National Electric Safety Code (NESC) standards.

Conductor and Structure Stabilization

The final construction operation is to "clip-in" the conductor. This step involves removing the stringing sheaves and replacing them with clamps, which attach and secure the conductors to the insulator strings. The construction operation would be essentially complete once the wire has been clipped in.

Reclamation

Areas of disturbance will be re-contoured, re-vegetated, and returned to pre-existing conditions after construction. In non-agricultural land, disturbed areas around the newly installed structures will be seeded and mulched per landowners' requests. Stabilization of the structure locations will be considered to be achieved when a uniform perennial vegetation cover has been established with a density of at least 70 percent cover.

Decommissioning

To prevent service disruption for the portion of the Project to be rebuilt, the existing transmission lines would not be decommissioned and removed from their current locations until construction of the Project is complete and the transmission lines are in-service. DPC would completely remove the existing wood poles and conductors in uplands by pulling them with a crane or similar equipment. Existing wood poles located within wetlands and the La Crosse River floodplain would be cut off at the base so that the surrounding soil or vegetation would not be impacted. DPC will re-contour and re-vegetate the disturbed areas to pre-existing conditions.

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2.0 Purpose and Need for the Project

2.1 Purpose and Need for DPC's Action

DPC provides wholesale electricity to 25 member cooperatives and 16 municipal utilities via 3,100 miles of transmission line and 285 substations within their service area. DPC's service area encompasses 62 counties across Wisconsin, Minnesota, Iowa, and Illinois. DPC's generation resources include coal, natural gas, hydroelectric, solar, wind, bio-mass, and landfill gas. DPC is obligated to ensure reliable electricity service to its cooperative members and their customers in order to maintain compliance with North American Electric Reliability Corporation's (NERC) transmission planning standards.

DPC's Q-1 transmission line was originally constructed in 1951 connecting what is now Xcel Energy's (Xcel's) Marshland Substation to the La Crosse substation where the Q-1D South line continued on to the La Crosse Tap and then to DPC's Genoa Substation (**Graphic 3**). The Xcel Briggs Road Substation was recently constructed as part of the CapX2020 Hampton – Rochester - La Crosse (CapX) project, and the Q-1D South line now terminates at the Briggs Road Substation instead of the La Crosse Substation north of La Crosse near Holmen, Wisconsin. When the Briggs Road substation was constructed, the Q-1D line became the Briggs Road - La Crosse Tap - Genoa 161 kV line.

In April 2013, DPC completed the "Briggs Road – La Crosse Tap 161 kV Rebuild Study" recommending replacement of the Marshland - Briggs Road Q-1D North 161 kV line due to age and condition since the majority of the route was not going to be utilized by the CapX project. It also determined that the Briggs Road - La Crosse Tap Q-1D South line needed to be replaced due to age, condition, and line loading concerns. The two high voltage projects in the area, the CapX project and the joint Xcel and ATC Badger Coulee 345 kV project will not be utilizing the Briggs Road-La Crosse Tap 161 kV ROW, allowing DPC to proceed with the Q-1D South rebuild Project.

Graphic 3: Briggs Road – La Crosse Tap Area

2.1.1 Existing Facilities and Reliability History

The existing Q-1D South line consists of 9.1 miles of H-frame wood pole construction with 336 aluminum core steel reinforced (ACSR) conductor. There is also a short 0.59 mile section of 795 ACSS conductor in the line due to past changes where the transmission line crosses Highway 53. In 1988, this line was uprated from 120 to 212 degree Fahrenheit design temperature primarily by raising cross arms and installing extensions for the static wires. The summer rating for this line is 162 mega volt amperes (MVA) and the winter rating is 211 MVA. Both ratings are the full rating of the existing 336 ACSR conductor. The Q-1D South line has been in service for 62 years and is in poor condition. In recent years there has been an increase in the amount of maintenance required on the transmission line.

The Q-1D South line has had some recent history of condition-related reliability issues. The ROW is typically not along road ROW, making some structure locations difficult to access during an outage. Several structure failures have occurred on the Q-1D North section that is of the same vintage as the Q-1D South section. The Q-1D North section had structure failures in 2002 and 2012. **Table 2-1** below is a recent reliability history of the Q-1 161 kV line from Genoa to La Crosse Tap and on to Marshland.

Table 2-1: Reliability History

Outages 2009-14	2009	2010	2011	2012	2013	2014*	5 year Average
Marshland-LAC Tap-Genoa Momentary Outages	0	0	1	0	1	3	0.4
Marshland-LAC Tap-Genoa Sustained Outages	0	1	0	0	0	1	0.2

*Note: 2014 Data is through August 3, 2014

2.1.2 Contingency Analysis

The La Crosse area load is primarily served from the north and south due to the geography of the Mississippi River to the west. The Q-1D line is one of the high voltage lines that delivers power to the La Crosse area load from the new 345 kV source at Briggs Road Substation that was constructed as part of the CapX project. The Briggs Road 345/161/69 kV transmission substation was in service in late 2015. The substation connects to DPC's Q-1D 161 kV line and Xcel's Tremval - Briggs Road - Mayfair 161 kV line. At the 69 kV level, the substation connects to DPC's North La Crosse 69 kV switching station.

A 2019 Summer Peak case from the 2014 Midwest Reliability (MRO) Model Series was used to review potential line loading on the Q-1D line. The line loading can increase during scenarios when a generation on the south side of La Crosse (Genoa #3 or Lansing #4) is off-line, either forced or for market reasons, in addition to a line outage. The scenario of one of these generators not being online and loss of Xcel's Briggs Road - Mayfair line section was studied. The resulting power flows are summarized in **Table 2- 2**.

Table 2-2: Project Contingency Analysis

Facility	Contingency	Line Loading
Briggs Road - La Crosse Tap 161 kV (Q-1D South)	Base Case	27% (44 MVA)
Briggs Road - Mayfair 161		48% (95 MVA)
Briggs Road - La Crosse Tap 161 kV (Q-1D South)	Genoa #3	68% (111 MVA)
Briggs Road - Mayfair 161		72% (144.6 MVA)
Briggs Road - La Crosse Tap 161 kV (Q-1D South	Genoa #3 and Briggs Road – Mayfair - La Crosse 161 kV	115% (189 MVA)
Briggs Road - Mayfair 161 kV		Off-line
Briggs Road - La Crosse Tap 161 kV (Q-1D South	Lansing #4	53% (86 MVA)
Briggs Road - Mayfair 161		63% (127 MVA)
Briggs Road - La Crosse Tap 161 kV (Q-1D South	Lansing #4 and Briggs Road – Mayfair - La Crosse 161 kV	92% (152 MVA)
Briggs Road - Mayfair 161 kV		Off-line
Briggs Road - La Crosse Tap 161 kV (Q-1D South	Lansing #4 and Briggs Road - Mayfair 161 kV	106% (174 MVA)
Briggs Road - Mayfair 161 kV		Off-line

During scenarios where Genoa #3 is off-line and the contingency of Xcel's Briggs Road – Mayfair - La Crosse 161 kV line occurs, the Q-1D line could overload to 189 MVA, 115 percent of its summer normal rating. The same scenario with Lansing #4 off-line instead of Genoa #3 does not result in an overload, but if Xcel were to restore the Mayfair load from their La Crosse Substation, the Q-1D line would overload to 174 MVA, 106 percent of its summer normal rating.

2.1.3 Recommended Plan

The Q-1D South line is the oldest 161 kV line on the DPC system. The Badger Coulee 345 kV Certificate of Public Convenience and Necessity (CPCN) application has been approved by the Public Service Commission of Wisconsin (PSCW) and the approved route will not follow DPC's ROW through the City of Onalaska, allowing DPC to proceed with the Project to replace the Q-1D South line. Recent reliability issues on other sections of the Q-1 line support the decision that this line is in poor condition and is in need of replacement.

This line is one of the primary outlets for power in the area with the new Briggs Road 345/161/69 kV substation in-service. The Q-1D South transmission line could become overloaded when a local generator is off-line and the Briggs Road – Mayfair-La Crosse line is out-of-service. A 656 ACCR conductor would mitigate any overload concerns for this line section and increase the existing rating from 162 MVA to 400 MVA in the summer.

The 2013 planning study recommends replacing the Q-1D South on the existing ROW. An approximately two-mile section of this line would be double circuited with DPC's adjacent 69 kV line to consolidate ROWs. Once the Project is completed, all of the sections of DPC 161 kV line between Alma and Genoa will have been replaced. Rebuilding Q-1D South with new structures and a 656 ACCR conductor will address the condition issue and ensure reliable service into the future. The new conductor will also provide enough capacity for future load growth and power flows across the transmission system.

Based on the current schedule, DPC is proposing to start construction in the fall of 2016 (**Table 2-3**).

Table 2-3: 2013 Q-1D South Project Recommended Plan

Facilities	Conductor Size	Miles	Year Installed	Cost
Briggs Road-La Crosse Tap	656 ACCR	8.8	2016	$11,908,000

2.2 Purpose and Need for RUS's Action

Under the Rural Electrification Act, as amended (RE Act), the U.S. Secretary of Agriculture is authorized and empowered to make loans for rural electrification to nonprofit cooperatives and others "for the purpose of financing the construction and operation of generating plants, electric transmission and distribution lines or systems for the furnishing and improving of electric service to persons in rural areas." A primary function or mission of RUS is to carry out this electric loan program.

3.0 Alternatives to the Proposed Project

3.1 Proposed Action

DPC's proposed action is to rebuild approximately nine miles of existing single-circuit 161 kV transmission line with 656 ACCR conductors. A summary of the transmission line route is provided below and is shown on **Figure 1** and **Appendix A.**

161 kV Transmission Line Route (north to south)

- The Project originates approximately 0.3 miles southeast of the Briggs Road Substation located in the Town of Onalaska, southwest of the Village of Holmen, Wisconsin. Beginning as a single circuit line, the Project runs southwest through a wooded area adjacent to U.S. Highway (USH) 53/ Great River Road for approximately 1,000 feet before angling further south. This section of line crosses Halfway Creek, Filler Court, Meadow PIace, Evergreen Way, Scott Drive, Kimberly Street, Gregory Street, and Ulman Street, before shifting slightly westward and crossing State Trunk Highway (STH) 35.
- The next section of the line runs adjacent to Terri Circle Drive followed by crossing County Road (CR) OT, Industrial Boulevard, Commerce Road, then crosses Cloverdale Road, Strawberry Road, Holley Drive, LB White Road, and East Avenue N.
- After crossing East Avenue N, the Project changes from single circuit to double circuit (161/69 kV) at Structure Location 151 **(Appendix A, Sheet Map 5)**. This section begins by running parallel to USH 53/ Great River Road and north of a residential area of the City of Onalaska for approximately 7,500 feet. It crosses Riders Club Road, USH 53/Sand Lake Road ramps, and Sand Lake Road.
- Just west of the Shepherd of the Hill Lutheran Church, the Project proceeds west across USH 53. It angles back southwest across a forested area, changing from double circuit to a single circuit at Structure Location136 (**Appendix A, Sheet Map 7**). The Project crosses Green Coulee Road, Grand View Boulevard, Main Street E, Heritage Lane, Interstate (I)-90, crosses the commercial area associated with Valley View Mall, Rudy Street, Lester Avenue, Theater Road, CR PH, and STH 16. It then enters the La Crosse River floodplain and crosses the La Crosse River and the La Crosse River State Trail. Upon exiting the floodplain the Project crosses CR B, Sablewood Drive, Evergreens Trail, Keil Coulee Road, and ending at the La Crosse Tap, approximately 0.7 miles south and west of the City of La Crosse, Wisconsin.

3.2 Regional Alternatives

The Project is a local load-serving facility and is not intended to be regional in nature. As such, regional studies were not performed for the Project.

3.3 Alternative Designs and Construction Methods

DPC considered alternative transmission structure types, such as steel monopoles, Y-frame steel structures, H-frame wood structures, and H-frame steel structures for the Project.

DPC would use vibratory caissons along with Y-frame steel structures and one H-frame steel deadend structure for the 0.6 mile section that crosses the La Crosse River floodplain to:

- Limit transmission line height to an average of 65 feet to remain at or below the average tree height to reduce the potential for bird strikes.
- Eliminate the need for concrete foundations.
- Avoid the need for dewatering.
- Eliminate the generation of waste soil material.
- Reduce the number of structures needed in the La Crosse River floodplain from three H-frame structures (six poles) to three single Y-frame structures and one H-frame steel dead-end structure (five poles). The shorter H-frame steel deadend structure is needed to allow the Project to be rebuilt under an existing 161 kV transmission line and the three-pole design is to maintain sufficient height above a stream crossing.

Single-pole steel structures would be used for the remainder of the Project to allow DPC to double circuit with the N-222 69 kV line for approximately two miles and to meet FAA and Cities of La Crosse and Onalaska AOZD height restrictions near the La Crosse Regional Airport. The color and scale of the new structures would not substantially adversely impact vistas, damage scenic resources, or degrade the existing visual character or quality of the corridor and its surroundings.

3.4 Alternative Routes Considered

Two alternative routes were evaluated before making the decision to stay on DPC's existing Q-1D South ROW. One alternative was to double circuit with Xcel Energy's Briggs Road – Mayfair 161 kV transmission line as described in Section 3.4.1. The second alternative followed DPC's N-222 69 kV transmission line ROW as described in Section 3.4.2.

3.4.1 Xcel Energy's Briggs Road - Mayfair 161 kV Transmission Line Route

DPC evaluated the alternative of double circuiting the Q-1D South rebuild with Xcel's Briggs Road – Mayfair 161 kV transmission line (**Figure 4**). This alternative was eliminated from further consideration due to reliability concerns, construction constraints, easement acquisition, and timing.

Redundancy is built into the transmission system to provide electric companies with alternative power paths in emergencies and to efficiently access electricity, even from other power suppliers, to provide customer service. Xcel's Briggs Road – Mayfair line provides redundancy to the Q-1D South line. Rebuilding the Q-1D South line as a double circuit with Xcel Energy's Briggs Road – Mayfair line would eliminate this redundancy creating additional reliability risk and increasing the chance of customer outages if a major weather event or other emergency caused simultaneous outages of the two lines on the same transmission poles.

DPC currently has all of the easements along the existing Q-1D South ROW. Moving to Xcel's ROW would require DPC to acquire new easements with the possibility of condemnation. Rerouting the Q-1D South Project to Xcel's ROW would also require going through the PSCW's CPCN process, which DPC would not have to do if the line is rebuilt within the existing Q-1D South ROW. This process would delay the rebuild process by up to five years and add cost.

Finally, DPC identified several physical constraints to using the Xcel 161 kV ROW. One of the identified constraints is property adjacent to Xcel's ROW that is owned by Mayo Clinic, who is proposing to build a new hospital on the site (**Appendix B**). Hospitals are considered to be "sensitive sites" in PSCW regulations and are to be avoided if possible. Also, Xcel's line currently goes over several homes, which under PSCW rules may need to be purchased. In Wisconsin, public utilities may be prohibited from building transmission lines over certain structures. Wis. Admin. Code Ch. 114, which does not apply to DPC because they are a cooperative, adopts and incorporates the NESC as the general standards for constructing and maintaining transmission lines by public utilities. In addition, when it adopted the NESC, the PSCW added Wis. Admin. Code § PSCW 114.234(a)(4) in Ch. 114, prohibiting construction of lines designed to operate in excess of 35 kV over dwellings. This provision likely applies to Xcel as a public utility but not DPC as a cooperative. **Appendix B** provides representative photographs of these constraints. Xcel has also indicated that their line is not projected to be rebuilt for more than five years, which would result in increased reliability issues and repair and maintenance requirements due to the age and condition of the existing line.

Based on these considerations this alternative was eliminated as an option going forward.

3.4.2 DPC's 69 kV Transmission Line Route Alternatives

A second alternative evaluated by DPC was to build a double circuit 161/69 kV line following DPC's 69 kV (N-222) ROW. As part of the evaluation process, DPC identified two possible alternative routes using DPC's 69 kV (N-222) ROW (**Figure 4**).

- Alternative 1 – Rebuild along DPC 69 kV (N-222) transmission line
- Alternative 2 – Rebuild along DPC 69 kV Route (N-222) transmission line with minor re-routes to:
    - Follow an existing distribution line (along CR XX and USH 35) to avoid residences.
    - Use new ROW near East Main Street to avoid a hotel.
    - Follow a short section of Q-1D near Green Coulee Road to avoid the need to acquire wider ROW in a residential area.

Based on the analysis conducted, and presented below, it was determined that rebuilding along DPC existing Q-1D South ROW was the least impactful alternative.

Impact Comparison Summary

Alternatives 1 and 2 were evaluated in terms of technical feasibility, environmental issues, and cost-effectiveness. Also, as directed by the policy of the state of Wisconsin (Wis. Stat. §1.12 (6)), the sharing of existing utility corridors, highway and railroad corridors, and recreational trails, in that order, were considered.

In comparison to rebuilding along the existing Q1-D South alignment (**Table 3-1),** Alternatives 1 and 2 would:

- Create new impacts to residences, apartments, and businesses.
- Increase the length of the transmission line rebuild by approximately 1.9 miles and the amount of double circuited transmission line by approximately 1.3 miles.
- Require approximately 26 acres (Alternative 1) to 30 acres (Alternative 2) of additional ROW.
- Be substantially costlier due to the longer overall length, longer length of double circuited line, and the need for additional dead end structures and large running angles.
- Provide the same level of sharing of existing utility corridor with Alternative 1 (100 percent),and less with Alternative 2 (75 percent).
- Moving to a new route would require DPC to go through the PSCW's CPCN process, which would delay the Project by up to five years and add cost.

Table 3-1: Alternative Comparison Summary

Resource Category	Existing Q-1D South Route (Project)	Alternative 1	Alternative 2
Length (miles)	8.8	10.7	10.7
Existing ROW (feet)	80	60	60
Proposed ROW (feet)	80	80	80
New transmission line ROW required (acres)	0	25.9	30.0
General Characteristics			
Length utilizing existing transmission corridor (miles)	8.8	10.7	8.0
% of route utilizing existing transmission corridor	100%	100%	75%
Length utilizing existing transportation corridor (miles)	0.0	0.0	2.1
% of route utilizing existing transportation corridor	0%	0%	20%
Length utilizing existing transmission corridor and/or transportation corridor (miles)	8.8	10.7	10.2
% of route utilizing existing transmission corridor and/or transportation corridor	100%	100%	95%
Length not utilizing linear features (miles)	0.0	0.0	0.5
% of route not following linear infrastructure	0%	0%	5%

Resource Category	Existing Q-1D South Route (Project)	Alternative 1	Alternative 2
Natural Resources			
Length crossing wetlands (miles)	0.6	0.6	0.6
Length crossing floodplains (miles)	0.6	0.9	0.6
Waterway crossings	8	8	8
Cost	$11,669,000	$24,570,000	$24,630,000
Residences			
Existing residences 0-30 feet	13	1	2
Existing residences 31-40 feet	11	1	2
Existing apartments 0-30 feet	0	1*	1*
Existing apartments 31-40 feet	0	6*	6*
Existing businesses 0-30 feet	2	9	5
Existing businesses 31-40 feet	0	4	2
Total existing residences, apartments, and businesses 0-40 feet	26	24	18
NEWLY impacted residences 0-30 feet	0	0	0
NEWLY impacted residences 31-40 feet	0	1	2
NEWLY impacted apartments 0-30 feet	0	0	0
NEWLY impacted apartments 31-40 feet	0	6*	6*
NEWLY impacted businesses 0-30 feet	0	0	0
NEWLY impacted businesses 31-40 feet	0	4	2
Total NEWLY impacted residences, apartments, and businesses 0-40 feet	0	11	10
State and Federal Lands			
State lands crossed (miles)	0.02	0.02	0.02
Federal lands crossed (miles)	0	0	0

* Apartments contain multiple tenants.

FAA and Cities of La Crosse and Onalaska Airport Overlay Zoning

The existing Q-1D South route and Alternatives 1 and 2 are in relatively close proximity to the La Crosse Regional Airport. DPC has notified the Administrator of the FAA of the proposed construction as required by CFR Title 14 Part 77.9 that requires a sponsor proposing any type of construction or alteration of a structure that may affect the National Airspace System to notify the FAA by completing the Notice of Proposed Construction or Alteration form (FAA Form 7460-1). FAA obstruction marking and lighting requirements are described in Advisory Circular 70/746-1K (2/1/2007). In general, any temporary or permanent structure, including all appurtenances, that exceeds an overall height of 200 feet (61m) above ground level (AGL) or exceeds any obstruction standard contained in 14 CFR part 77, would normally be marked and/or lighted, unless an FAA aeronautical study reveals that the absence of marking and/or lighting will not impair aviation safety. Conversely, an object may present such an extraordinary hazard potential the higher standard may be recommended for increased conspicuity to ensure safety to air navigation.

Wisc. Admin. Code Ch. 56, Erection of Tall Structures, prescribes procedures for the permitting of tall structures or other objects affecting airspace in Wisconsin. A permit is required from the Secretary for any structure that exceeds the limitations in §114.135 (7) Wis. Stats. The Cities of La Crosse and Onalaska zoning ordinances institute height limitations though the AOZD and also references marking and lighting requirements as established in Advisory Circular 70/746-1K (2/1/2007). The city's compliance with the ordinance affects their ability to get public funding.

Utilizing Alternatives 1 or 2 would move portions of the line approximately 0.5 mile closer to the airport than rebuilding along existing Q1-D South route as proposed. As a result, more structures would exceed by height restrictions. During early engineering when typical structure heights and spans were assumed for the Project, the existing Q-1D South route was projected to result in 24 structures that exceeded height restrictions. Using the same assumptions, Alternatives 1 and 2 were projected to result in 39 structures that exceeded height restrictions.

Ongoing engineering for the Q-1D South route eventually reduced the number of structures that would exceed FAA and AOZD height restrictions to three and these will be required to be lit. The existing Q-1D South structures at two of the three locations already exceeded height restrictions and the remaining structure in exceedance would only be 4.5 feet taller than the existing structure.

DPC engineers estimate that ongoing engineering for Alternatives 1 and 2 could potentially reduce the number of structures in violation of height restrictions to approximately 20. Lighting these structures may satisfy FAA restrictions, but would be objectionable to the neighborhoods involved, and cost $5,000-$10,000 per structure. More significantly, it is doubtful that the Cities would approve these additional variances to the AOZD restrictions.

Reliability

The North American Electric Reliability Corporation (NERC) establishes mandatory reliability standards that apply to all electric utilities in the United States. Two of the NERC criteria address situations when multiple transmission lines are placed in close proximity to each other. These criteria are the minimum reliability criteria utilized by utilities in North America.

- NERC TPL standards relate to reliability considerations of placing multiple transmission lines in close proximity. It is also considered good utility practice to locate transmission lines that serve similar purposes distant from each other. This geographic diversity reduces the risk that multiple lines will lose service due to the same event, i.e. weather.

- NERC Category P7 (NERC Standard TPL-001-4) applies to multiple transmission circuits attached to common poles or structures, commonly referred to as double circuits. Under Category P7 requirements, transmission planners must assume that both circuits of a double circuit are outaged simultaneously. When this double outage occurs the remaining transmission system must be able to perform without cascading outages or reducing system stability. The two existing 161 kV lines connecting Briggs Road and the La Crosse area load should not be built as a double circuit. This would be DPC's Q-1D South 161 kV line in combination with Xcel's Briggs Road – Mayfair 161 kV line. Loss of both 161 kV lines under a single event would sever the 345 kV source at Briggs Road from the load center of La Crosse, Wisconsin.

Separating these two 161 kV lines by a few feet and placing them on separate but immediately adjacent sets of structures would allow for technical compliance with Category P7, but the risk of a simultaneous outage of both circuits due to a single event remains. NERC acknowledges this risk as an Extreme Event, simultaneous loss of multiple circuits on adjacent ROWs. NERC does not prohibit this scenario, but requires utilities to understand and prepare for this situation. Good utility practice is to avoid creating an Extreme Event situation. Creating a scenario under which both DPC's Q1-D South 161 kV line and Xcel's Briggs Road-Mayfair 161 kV line could go out-of-service under a single event would result in a higher probability of loss of customer load in the La Crosse area and the situation should be avoided.

When evaluating potential placement for new transmission lines, planning engineers not only apply the NERC category P7 and Extreme Event standards, but also consider how geographically close the proposed facilities would be to existing facilities. Even when NERC criteria are satisfied locating lines near each other results in reduced reliability, particularly when two lines serve a common purpose such as the 161 kV lines feeding La Crosse. The more common corridors are propagated, particularly involving high voltage facilities, the more likely it becomes that an outage involving multiple facilities could occur. Routes that are more geographically distant from existing transmission facilities provide the most reliability benefit.

ROW Acquisition

Alternatives 1 and 2 would require DPC to acquire additional ROW from the YMCA (including a daycare), and Van Riper and School Parks in Onalaska, both of which received Land and Water Conservation Fund (LWCF) grants. The National Park Service administers the LWCF Act, which, in turn has delegated some roles and responsibilities to the WDNR. Section 6(f) of the Act requires that all properties "acquired or developed, either partially or wholly, with LWCF funds" must be maintained as such in perpetuity. Section 6(f)(3) states that those properties acquired or developed with LWCF funds shall not be converted to a use other than public outdoor recreation without the approval of the Secretary of the Department of the Interior, acting through the National Park Service and at the request of the state delegate/State Liaison Officer. Among other criteria for allowing for a conversion, all practical alternatives must have been evaluated and justification that there are no reasonable or prudent alternatives must be provided. As explained in the document, rebuilding the Q-1D South within its existing ROW is a reasonable and prudent alternative to acquiring ROW from these parks.

The easements obtained by DPC to allow for the construction and operation of the 69 kV lines do not allow DPC the right to construct and operate a 161 kV electrical transmission line system in the same corridor. Therefore, DPC would be required to secure separate easement documents to construct and operate the 161 kV in this same corridor, and would require DPC to secure additional lands to widen the corridor to facilitate the existing the 161/69 kV double circuit system. The estimated acquisition budget would equal approximately $5,400,000 for either Alternative 1 or 2. Further engineering analysis would need to be done to determine which properties and buildings would be physically impacted by the new double circuited transmission line system and the increased lands needed for the ROW.

The proposed route for the Project is to use DPC's existing Q-1D South ROW that has the required 80-foot-wide ROW. Both Alternatives 1 and 2 follow 69 kV transmission line ROWs that would need to be widened from 60 feet to 80 feet. A review of the alternative corridors identified constraints that would make the design and construction of the 161 kV line by expanding the 69 kV ROWs difficult (**Table 3-2**). The table presents conflicts based on the presence of homes, parks, preschools, or other facilities.. The PSCW considers daycare centers, schools, hospital, and cemeteries sensitive sites that should be avoided if at all possible. These are noted in the **Table 3-2**. Visual examples of these constraints are included in **Appendix B**.

Table 3-2: Alternative 1 and 2 Design and Construction Constraints

Constraint Number	Alternative 1	Alternative 2
1	2 houses in expanded ROW near CR OT	2 houses in expanded ROW near CR OT
2	House in expanded ROW near CR OT	House in expanded ROW near CR OT
3	4 houses in expanded ROW along Circle Drive E	House in ROW near STH 35
4	House in expanded ROW	
5	Edgewater Motel in expanded ROW	
6	2 houses in expanded ROW	
7		House in expanded ROW
8	*YMCA property, with daycare facility, and Van Riper and School Parks (LWCF Lands)	*YMCA property, with daycare facility, and Van Riper and School Parks (LWCF Lands)
9	Approx. 6 houses and 2 apartment buildings near10th Ave N	Approx. 6 houses and 2 apartment buildings near10th Ave N
10	Approx. 6 residential units near Commercial Ct	Approx. 6 residential units near Commercial Ct
11	*Shepard's Flock Church and Pre-School	*Shepard's Flock Church and Pre-School
12		House in expanded ROW near Green Coulee Rd
13	Approx. 1 house in expanded ROW near Putter Ct	Approx. 3 houses in expanded ROW near Green Coulee Rd
14	*Eagle Bluff School property	*Eagle Bluff School property
15	House in expanded ROW	House in expanded ROW
16	Hampton Inn in expanded ROW	
17	Residential unit near CR B in Expanded ROW	Residential unit near CR B in Expanded ROW
18	House in expanded ROW near Timber Creek Trail	House in expanded ROW near Timber Creek Trail
19	3 homes in expanded ROW near Evergreens Trail	3 homes in expanded ROW near Evergreens Trail

*PSCW sensitive sites

3.4.3 Underground Alternative

The existing Q-1D South line is primarily located in an urban area. Although rebuilding in the existing ROW is the least impactful alternative for an overhead line, it presents numerous obstacles to underground construction. These obstacles not only combine to make underground construction prohibitively expensive, but would require at least two miles of reroutes that would delay the Project by up to five years by triggering the PSCW CPCN process. DPC has already delayed for the Project for a year due to outages required for the CapX project. An additional five year delay would result in increased reliability issues and repair and maintenance requirements due to the age and condition of the existing line.

Obstacles to underground construction include:

1. Twenty-eight two-lane road or street crossings.
2. One three-lane state highway crossing.
3. Four four-lane highway crossings, including two limited access highways, one of which is I-90.
4. One main line, double-track railroad crossing.

5. Ten or more drive crossings.
6. Two bicycle/hiking trail crossings.
7. La Crosse River crossing, including 230 feet of wetland.
8. Two golf courses, including 1175 feet of fairway.
9. Three large commercial parking lots, including 1150 feet of pavement.
10. Two 125 to150-foot tall rock bluffs.
11. Two underground water reservoirs.
12. One sewage treatment plant.
13. One mobile home park.
14. Two large sand and gravel operations (about 2000 feet. total).
15. Numerous residential yards, totaling approximately 9000 feet.
16. Five single family homes (not including mobile home park).
17. Five commercial buildings.

An underground 161 kV line would require the installation trench of about six feet wide by six-feet deep if shoring were used, which is a costly construction method. Without shoring, the trench walls would have to be sloped making the trench much wider. Directional boring would be required under major roads, railroads, and the La Crosse River. Underground transmission cables have much more extensive requirements than underground distribution lines. Underground transmission cables are several inches in diameter and must be encased within 10 inch diameter or larger pipers. Open trench construction techniques place the cables relatively close to the ground surface and the conductors/pipes must be encased in concrete to protect them from dig-ins and rodents. Underground vaults are required approximately every 0.5 mile to contain the conductor splices. The vaults are typically ten feet wide by 20 feet long by ten feet high, and are buried at a depth of three feet.

There are other issues associated with underground construction. Higher operations and maintenance costs for underground transmission offset the ROW maintenance costs associated with overhead transmission. Also, in an urban setting, transmission lines often have to be modified to accommodate infrastructure and development projects. Modifying an underground cable is a much more arduous and expensive undertaking than modifying an overhead line. Visual inspections of underground lines are not possible. Unscheduled underground outages typically last three weeks or more compared to overhead outages, which can usually be resolved in a couple of days. DPC does not currently have any 161 kV underground lines and there would be costs associated with training and equipment to maintain an underground facility.

Rebuilding the 8.8-mile-long, 161 kV line as an overhead transmission line is estimated to cost $11,669,000. Rebuilding the 161 kV line underground, with at least two miles of reroutes required to avoid obstacles to underground construction, would be expected to cost more than $100,000,000. This is based on recent underground construction costs of approximately $10,000,000 per mile.

3.5 No Action Alternative

Under the No Action Alternative, RUS would not provide financing for the Project. DPC would likely rebuild the Project without RUS financing in order to continue to provide their customers with reliable service. If the existing transmission line were to remain in service, its 1950s-era transmission structures would continue to deteriorate. Failure to rebuild the Project would result in continued growing strain on the transmission system in the area, which in turn could result in more frequent system overloads. DPC is obligated to ensure reliable electricity to its customers, and if this lack of reliable service were not addressed, DPC would be in violation of the NERC Transmission Planning Standards. The aging transmission structures also present the potential for outages to the fiber optic line they carry.

The No Action Alternative would have impacts on natural and human resources similar to the Project because operation and maintenance activities would continue to occur along the existing ROW, including removing small trees and brush to allow vehicle and equipment access for repairs. The operation and maintenance activities would generate, in particular, temporary effects to vegetation, potential short-term displacement of wildlife, and construction noise. The No Action Alternative would potentially avoid new construction-related activities that include up to three days of intermittent construction at each transmission structure; removal and replacement of new transmission structures in wetlands; and utilization of temporary access routes. Depending on the location of transmission structure failure on the existing transmission line, however, these effects may not be avoided in the future.

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4.0 Affected Environment

The following sections describe the existing human and natural environment in the area surrounding the Project.

4.1 Land Use

4.1.1 General Land Use

Beginning 0.3 mile southeast of the Briggs Road Substation the Project crosses through the Town of Onalaska, Village of Holmen, Cities of Onalaska and La Crosse, and Town of Medary in La Crosse County, Wisconsin. The Project utilizes DPC's existing 161 kV transmission line ROW intersecting rural, residential, and commercial areas. Potential for conflict exists near the developed areas of cities and villages, such as the Holmen, La Crosse, and Onalaska areas, where residential and commercial development, existing and planned, becomes more common. Existing land use can be viewed on the aerial photographs that serve as the base for the sheet maps in **Appendix A**.

Starting near the Briggs Road substation, in the Town of Onalaska, the Project ROW crosses agricultural land, wooded land, and sand and gravel mining operations. In the Village of Holmen it crosses a portion of the wastewater treatment plant before re-entering the Town of Onalaska and crossing agricultural land, residential land, and sand and gravel mining areas. As the Project re-enters the Village of Holman it crosses residential areas, including a mobile home park. As it re-enters the Town of Onalaska it crosses industrial/commercial and residential areas. In the City of Onalaska the Project ROW parallels STH 53/Great River Road through residential land, road ROW, and church property before crossing Coulee Golf Course and residential land, including the Coachlite Greens Park that was acquired through the provisions of the City's Subdivision Ordinance in 1987. In the Town of Medary the Project crosses residential land before re-entering the City of Onalaska and crossing a commercial/industrial area including Valley View Mall, and the La Crosse River and associated floodplain. In the City of La Crosse the Project crosses La Crosse River floodplain, the Walsh Golf Center, and residential land uses. The Project then re-enters the Town of Medary where it crosses residential and agricultural land.

Following the construction of the line in the 1950s, several landowners built structures underneath the transmission line. The Project would rebuild and replace the line over up to 14 of these structures. The NESC does not prohibit constructing transmission lines over structures so long as the applicable line clearances are maintained. In Wisconsin, however, public utilities may be prohibited from building transmission lines over certain structures. Wis. Admin. Code § PSCW 114 adopts and incorporates the NESC as the general standards for constructing and maintaining transmission lines by public utilities. When it adopted the NESC, the PSCW added Wis. Admin. Code § PSCW 114.234(a)(4) prohibiting construction of lines designed to operate in excess of 35 kV over dwellings.

The existence of the PSCW's rules would not hinder DPC's ability to rebuild an existing line that members of the public have chosen to construct structures underneath. The rules adopted by the PSCW modifying the NESC do not apply to DPC per Wis. Stat. § 196.74, Wis. Stat. 196.01(5)(b)1, and Wis. Admin. Code § PSCW 114.02(2)(a). The PSCW also permits public utilities to seek waivers of any rule expanding

upon NESC requirements, including the rule prohibiting transmission line construction over a dwelling (Wis. Admin. Code § PSCW 114.005(1)).

Further, a survey of other states' laws on transmission construction indicates that the NESC's un-amended rule is an appropriate industry standard. The other states in which DPC operates do not prohibit transmission line construction over a dwelling. Minnesota adopts the NESC without modification (Minn. Stat. 326B.35 & Minn. R. 7826.0300, Subpart 1). The Iowa Utilities Board modifications a variety of provisions of the NESC, but declined to prohibit transmission line construction over a dwelling (199 IAC 59). Rather, Iowa statutes specifically permit transmission line within 100 feet of a dwelling with the owner's consent (Iowa Code § 478.20). Illinois requires transmission construction to be compliant with the NESC. Illinois does permit local governments to impose additional requirements on construction, but there is no statewide prohibition on the construction of a transmission line over a dwelling (220 ILCS 5/21-1001(3) & 220 ILCS 70/10).

La Crosse County

La Crosse County falls within the Mississippi River Regional Planning Council (MRRPC) planning area, a Commission of nine counties located along the Mississippi River in Western Wisconsin that was organized in 1964 under Wisconsin State Statutes to plan for the physical, social, and economic development of the Region. The area was identified as having development potential due to the rural nature of the region and proximity to two larger area employers and major employment centers. Residential development is described as being characterized by rural residential and denser clusters near villages and cities. The MRRPC noted that people live in rural areas and commute to jobs in La Crosse, Eau Claire, and Winona.

The La Crosse County Comprehensive Plan (March 2008) describes the County as encompassing a variety of land uses including cities, towns, and villages, along with agriculture and recreation. The land use in rural La Crosse County is typified by agricultural land with widely scattered rural farmsteads, open space, and the Black River floodplain that includes federally and state-owned tracts. The rural residential development is described as mostly concentrated starting at the Village of Holmen and running southeast along the Mississippi though the City of La Crosse.

The Comprehensive Plan recognizes the Wisconsin's Citizen Utility Board assessment that the electrical system in western Wisconsin is congested and not as robust as in other parts of the state and the importance of considering energy needs over this planning horizon and the coordination of transmission planning with Minnesota. The county's code of ordinances exempts transmission poles and lines from height requirements.

The Environmental Features Map (Map 6.2, La Crosse County Comprehensive Plan) maps environmentally sensitive areas such as slopes, erosion prone areas, floodplains, and water resources. This map is also referenced by towns, villages, and cities that have developed their own comprehensive plans. Steep slopes and erosion prone areas are found throughout La Crosse County. The County identifies these areas as environmentally sensitive from a water quality perspective because increased erosion and stormwater runoff occurs when steep slopes are developed. To protect the area's rivers, lakes, and streams from excessive stormwater runoff, the County Land Conservation Department and

Committee enforce a construction site erosion control ordinance that calls for approval of an erosion control plan prior to construction activity taking place. The Project within DPC's existing ROW also crosses the La Crosse River floodplain identified as an environmentally sensitive area on the map.

According to the La Crosse County Comprehensive Plan future land use mapping shows that the Project crosses Residential, Non Residential, Public-Institutional (wastewater treatment plant, golf courses, cemeteries, and similar uses), and Environmental (floodplains and slopes or erosion-prone areas).

The La Crosse County Zoning Map shows that the area crossed by the transmission line is zoned as Incorporated, consisting of the Village of Holmen and Cities of Onalaska and La Crosse (59 percent), with the remaining areas zoned as Agricultural (9.3 percent), Commercial (7.0 percent), Residential (8.9 percent), Industrial (5.8 percent), Right of Way (3.8 percent), Transitional Agriculture (3.5 percent), and Exclusive Agricultural (2.3 percent). Transmission lines are specifically permitted in Agricultural District and Exclusive Agriculture District as well as between the setback lines and the highway. They are not addressed in the other zoning districts crossed.

Towns, Villages, and Cities

Town of Onalaska

The Town of Onalaska Comprehensive Plan, adopted in May of 2005, established as one of its goals to ensure Town residents and businesses are adequately served by desired public utilities and facilities in a cost effective way and in a manner that promotes a high quality of life. The Plan specified that environmentally sensitive areas and visual resources should be protected when extending and constructing new utilities and community facilities. An element of this is to consult the Environmental Features Map (Map 6.2 in La Crosse County Comprehensive Plan) and relevant agencies before making decisions regarding new utilities or community facilities and encourage development and redevelopment practices that will maintain or improve the natural environment (May 2005). The Town of Onalaska has adopted the La Crosse County Code of Ordinances (July 2013), which exempts transmission poles and lines from height requirements.

Village of Holmen

The Village of Holmen established a comprehensive plan in 2004 that expresses the goal of providing services and facilities necessary to improve the quality of life for residents, property owners, businesses, and visitors. It also outlines the need to coordinate the location of public utilities with projected growth and development patterns as well as ensuring affordable utilities in Holmen. Environmentally sensitive areas are to be avoided when extending and constructing utilities by discouraging development of electric lines above 900 feet in elevation, prohibiting development on slopes greater than 12 percent, encouraging preservation of the maximum amount of native vegetation in construction areas, and discouraging development below 700 feet in elevation (the floodplain area) (December 2004). The Village of Holman has adopted its own zoning ordinance. The Project crosses land zoned as A Agricultural District and R-5 Multiple-Family Residential.

Town of Medary

The Town of Medary comprehensive plan states that since the Town does not own, operate, or provide electrical service, the expansion of these services will need to be determined and provided by other municipalities and either Xcel Energy or DPC. The Town of Medary has adopted the La Crosse County Code of Ordinances, which exempts transmission poles and lines from height requirements.

City of Onalaska

The City of Onalaska adopted a comprehensive plan in 2005 and has a zoning and land division ordinance, as well as many other ordinances and plans that inform community decisions (Updated June 2009). The City proposes to coordinate the location of public facilities with projected growth and development patterns as well as provide efficient and cost-effective utilities. Environmentally sensitive areas are to be avoided when extending and constructing utilities by prohibiting development that would require public water lines on land above 900 feet in elevation, prohibiting development on slopes greater than 30 percent, and consulting the Environmental Features Map before making decisions regarding location of new utilities. The Project is adjacent to USH 53/Great River Road along much of its route through the City. Future land uses crossed by the Project include Commercial Industrial, Mixed Density Residential, Conservation Cluster Development that would preserve open space, Environmental Corridor (an area east of 53 and the La Crosse River Floodplain) and Park and Recreation (golf course).

The City of Onalaska has adopted its own zoning ordinance in 2009. The Project ROW crosses land zoned as M2 Industrial, TC Transitional Commercial, R2 Single Family and Duplex Residential District, R160 Single Family Residential District, A1 Agricultural District, P1 Public and Semi-Public District (Coachlite Greens Park and golf course), R4 Multi-Family Residential District, M1 Light Industrial District, and Flood Hazard Zones along the La Crosse River. Coachlite Greens Park was acquired through the provisions of the City's Subdivision Ordinance in 1987. It has been developed and improved by the City as a playground site. Features of the site include trees and plantings, sidewalk access along Grandview Boulevard, playground equipment, a basketball court, and open play space.

Except for areas affected by the City of La Crosse Airport Zoning Overlay Regulations, the City of Onalaska zoning code exempts transmission poles and lines from height requirements of zoning districts. The Project falls within the Airport Zoning Overlay in both the City of Onalaska and the City of La Crosse (**Figure 5**). The City has assumed jurisdiction to administer the City of La Crosse's Airport Zoning Overlay Regulations for those areas affected by the Airport Zoning Overlay District that fall within the City of Onalaska corporate limits that establishes the height limitations for structures within the Airport Zoning Overlay.

City of La Crosse

The City of La Crosse comprehensive plan dated December 2002 identifies that the siting of utility lines and towers should, to the extent possible, accentuate and not obstruct important views. The plan states that major roadways and adjacent development appears visually cluttered due to excessive and haphazard signage, utility poles, inadequate landscaping and screening of large surface parking lots, and little consistency in building design or materials. The plan identifies the La Crosse River as an important natural resource and a critical river. The City will continue to pursue developing establishing

environmental corridors and parkland along rivers. Development in environmentally sensitive areas such as steep slopes and river corridors are to consider BMPs such as avoiding steep slopes, maintaining vegetative buffers, and minimizing the removal of vegetation.

Future land uses crossed by the Project include High Intensity Retail, Office, or Housing; Wetland; Parks and Conservancy; and Fringe Residential Housing. Environmentally sensitive areas are to be avoided when extending and constructing utilities by prohibiting development that would require public water lines on land above 900 feet in elevation, prohibiting development on slopes greater than 30 percent,

The City of La Crosse issued a draft Zoning Ordinance in October 2013. The La Crosse Municipal Airport Land Use Plan (adopted January 2011) was developed to be used with Comprehensive Plan and to assist local planning and zoning administrators with the implementation and enforcement of the Airport Zoning Overlay. The Project falls within the AOZD Ordinance of the La Crosse Municipal Airport. It also crosses Commercial, Right-of-Way, Agricultural, Single Family and Multiple Dwelling zoning districts.

The City of La Crosse AOZD imposes land use controls, in addition to underlying zoning classifications, to maintain a compatible relationship between airport operations and existing and future land uses within the three mile jurisdictional boundary as define in Section (A) (6) (a). The boundaries of each district are shown on the "*La Crosse Municipal Airport Overlay Zoning District Map, La Crosse, Wisconsin*" dated December 9, 2010 or as amended, and the height restrictions are established on the *"Height Limitations Zoning Map, La Crosse Municipal Airport, La Crosse, Wisconsin."* The elevation numbers shown on the height limitations map are the maximum permissible height above mean sea level (msl) that buildings, structures, objects, or vegetation in that cell shall not exceed. **Figure 5** identifies this area in relation to the Project*.*

4.1.2 Important Farmland, Prime Forest Land, and Prime Rangeland

The Project ROW and access routes cross prime farmland and farmland of statewide importance (**Figure 6**). The Project ROW crosses approximately 0.7 miles (6.7 acres) of prime farmland. Proposed access routes would cross approximately 1.0 miles (2.0 acres) of prime farmland. Farmland of statewide importance is designated along approximately 0.4 miles (3.0 acres) of the Project ROW. The proposed access routes would cross approximately 0.1 miles (0.2 acres) of farmland of statewide importance. The Project and access routes would not cross any potential prime farmland, if drained (USDA, NRCS 2014). Prime farmland and farmland of statewide importance are shown on **Figure 6**. A consultation letter was sent to the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) on January 16, 2015 (**Appendix C**). No response has been received.

DPC would not acquire any new easements for ROW and temporary staging areas, if required, would be leased and revert back to agricultural use. As a result, the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) will not require the preparation of an Agricultural Impact Statement. The consultation letter from the DATCP addressing this is included in **Appendix C**.

No prime forest land or prime rangeland was identified within the Project area (**Appendix C**).

4.1.3 Formally Classified Land

Formally classified lands are shown on **Figure 7**. Within DPC's existing ROW, the Project crosses the La Crosse River State Trail (**Appendix A, Sheet Map 10**), a 21.5 mile walking and bicycling path between Sparta and La Crosse managed by WDNR. It is a connection trail between the Great River State Trail and the Elroy-Sparta State Trail, opening up approximately 117 miles of continuous trail between Reedsburg and Perrot State Park near Trempealeau. Prairie remnants, farmlands, trout streams, hardwood forests, and wetlands are intersected by the trail. During winter months, the trail is used for winter activities such as snowmobiling and skiing. (http://www.lacrosseriverstatetrail.org/)

The Great River State Trail, managed by the WDNR, is 0.20 miles from the Project centerline. It consists of 24 miles of trail running through prairies, wetlands, hardwood forests, oak savannas, and backwaters of the upper Mississippi River valley. It is utilized year round for both summer and winter activities. (http://dnr.wi.gov/topic/parks/name/greatriver/)

The Upper Mississippi River National Wildlife and Fish Refuge (Refuge) is 0.20 miles from the Project and is managed by the U.S. Fish and Wildlife Service (USFWS). The Refuge covers over 240,000 acres between Minnesota, Wisconsin, Iowa, and Illinois, consisting of one of the largest segments of floodplain habitat in the lower 48 states. The Refuge offers fish and wildlife habitat and has been designated as a Wetland of International Importance and a Globally Important Bird Area. (http://www.fws.gov/refuge/Upper_Mississippi_River/about.html)

Part of Coachlite Greens Park in the City of Onalaska (**Appendix A, Sheet Map 8**) appears to include some plantings within the Project ROW. The Park was acquired through the provisions of the City's Subdivision Ordinance in 1987 as described in the land use section of this document. It has been developed and improved by the City as a playground site.

4.2 Vegetation

The Project is located within the Western Coulee and Ridges ecological landscape (WDNR 2013). The Western Coulee and Ridges ecological landscape is a topographically diverse area that developed as a result of erosive forces down-cutting previously uplifted bedrock (WGNHS 1984). This region is characterized by forested land (mostly oak-hickory and bottomland hardwoods), agricultural land, grassland, and wetlands (WDNR 2013).

The Project area occurs in a region that is also referred to as the Driftless Area ecoregion. The Driftless Area ecoregion is characterized by pasture and cropland on the more level upland areas and woodlands and forest on steeper slopes and ravines. Livestock and dairy farming are major land uses and have had a major impact on stream quality. Corn, soybeans, feed grains, and hay are principal crops (Omernik 1988).

The vegetation of the Driftless Area is transitional between the mixed forests of North Central Wisconsin and the oak savannas of Iowa. Upland hardwood forests consist primarily of red oak, white oak, bitternut hickory, shellbark hickory, sugar maple, and wild cherry. Low areas support forests dominated by elm, cottonwood, river birch, ash, silver maple, and willow. Savanna communities of bur oak and bluestem grasses grow in some areas, particularly on sandy soils; however, the grasslands have largely been

converted for cropland or invaded by forests (Omernik 1988). Based on the National Land Cover Database (NLCD), the Project crosses barren land, cultivated crops, deciduous forest, developed land (multiple types), evergreen forest, hay/pasture, and shrub/scrub land. A summary of the distribution of land cover types crossed by the Project is provided in **Table 4-1**.

Table 4-1: Land Cover Types Crossed by Project ROW

NLCD Land Cover Type	161 kV Transmission Line ROW
Barren Land	1%
Cultivated Crops	18%
Deciduous Forest	13%
Developed – Low Intensity	23%
Developed – Medium Intensity	11%
Developed – High Intensity	2%
Developed – Open Space	24%
Evergreen Forest	1%
Hay/Pasture	6%
Shrub/Scrub Land	1%
Total	100%

*Note that a portion of developed land consists of areas identified by NLCD as the ROW along the roads that parallel the Project

The Project ROW will utilize an existing transmission corridor and is located within a portion of La Crosse County that includes cities, towns, and villages, along with agriculture and recreation uses. As confirmed with site visits and wetland delineations in May 2013, vegetation observed included species associated with disturbed areas along roadways, residential yards, field edges, recreational land, and riparian wetlands (associated with the La Crosse River). The Project ROW consists of herbaceous vegetation because woody vegetation within the ROW has been mowed or removed to meet federal regulatory guidelines and facilitate maintenance access. Due to this mowing and maintenance that has occurred since the Project was constructed, woody vegetation has been almost entirely eliminated from within the existing ROW.

4.3 Wetlands

DPC's environmental consultant, AECOM, conducted wetland and waterway mapping as part of the biological work conducted for the Project. Wetlands within the Project area were identified using on-site identification and delineation methodologies outlined in the U.S. Army Corps of Engineers (USACE) *Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (USACE 2010).

The Project is located within a region that is highly developed and generally well drained, so most wetlands within the Project area are located adjacent to waterways or within linear drainage ways that lack sufficient flow to develop a bed and bank. The wetland delineation conducted in May 2013 identified five wetlands within the Project area (**Appendix A, Sheet Maps 9 and 10**). Of the five identified wetlands, two are classified as palustrine emergent (PEM) wetlands and three wetlands are stormwater basins associated with residential communities and commercial development. These three areas are

called out as wetland for the purpose of the land use survey, but are not jurisdictional. Three structures would be placed in wetlands. The *Wetland Delineation, Stream Survey, and Natural Heritage Inventory Habitat Survey Report* for the Project is included as **Appendix D.**

4.4 Threatened and Endangered Species

The USFWS and the WDNR Bureau of Natural Heritage Conservation (BNHC) were contacted to investigate the potential for federal and/or state-listed threatened and endangered species to occur along the Project ROW. Habitats along the existing ROW were identified and characterized through aerial photograph interpretation, direct contact with agencies, review of available internet resources, and by conducting on-site observations in May 2013.

No areas of USFWS-mapped critical habitat occur along the Project ROW. Two federally listed mussel species have been recorded by the USFWS for La Crosse County, Wisconsin (**Table 4-2**). The Higgens eye pearly mussel (*Lampsilis higginsii*) and the Sheepnose mussel (*Plethobasus cyphyus*) are both listed as endangered.

Table 4-2: Analysis of Habitat Suitability for Federally Protected Species along Project ROW

Species	Federal Status[1]	Preferred Habitat	Recommended Conservation Actions[2]
Higgens Eye Pearly Mussel (*Lampsilis higginsii*)	LE	Found in large rivers in the western part of the state in flowing waters with various stable substrate types, but seems to prefer stable sand. Several common fish species have been recorded as its host, including drum, large and small mouth bass, walleye, and sauger.	Project will have "No Effect" on the listed species or their habitats as it will not affect any large streams/rivers within the Project ROW (Halfway Creek or La Crosse River). Strict erosion control measures will be implemented to avoid indirect impacts. If needed, temporary clear span bridges will be used to cross small streams for access along the ROW.
Sheepnose Mussel (*Plethobasus cyphyus*)	LE	Found in clean water of large rivers in the Western part of the state. It prefers a stable sand substrate, but has been found in mixed sand and gravel. It is always rare where found. Sauger is the only known fish host reported.	
Eastern Massasauga (*Sistrurus catenatus*)	Candidate	Found in open to forested wetlands and adjacent uplands.	NA
Northern long-eared bat (*Myotis septentrionalis*)	LE	Hibernates in caves and mines, swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests during summer.	NA
Whooping Crane (*Grus americanus*)	Non-essential experimental population (EXPN)	Found in open wetlands and lakeshores.	NA

NOTES:

1 LE = Listed Endangered

Candidate Species: A species under consideration for official listing for which there is sufficient information to support listing. Candidate species receive no statutory protection under the ESA. The USFWS encourages cooperative conservation efforts for these species because they are, by definition, species that may warrant future protection under the ESA.

EXPN = Experimental non-essential population. Experimental, nonessential populations of endangered species (e.g., whooping crane) are treated as threatened species on public land, for consultation purposes, and as species proposed for listing on private land.

2 NA = Not applicable

The Bald eagle (*Haliaeetus leucocephalus*) is no longer federally listed, but is protected under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act (MBTA). Bald eagles are known to occur in La Crosse County. While there are no known nests in the Project area, there is suitable habitat for the eagle to nest south of I-90. If bald eagles and/or nests are observed within the Project area, WDNR and USFWS will be contacted for further information.

A Certified Endangered Resources review (ER Log #14-634_uttn) was completed on September 8, 2014 and approved by the WDNR-BNHC on September 12, 2014. This review was updated on January 27, 2015. An endangered resources search is performed as part of all Endangered Resources reviews. The Project area includes both the specific Project site and a buffer area surrounding the site. The size of the buffer varies depending on the ecological and land use characteristics of the site and surrounding area. A one-mile buffer is considered for terrestrial species and a two-mile buffer is considered for aquatic species.

Table 4-3 summarizes the species known to occur within the one to two-mile buffer of the Project ROW. Recommended conservation actions for the species are also indicated. There were no actions that are required to comply with state and/or federal endangered species laws. Actions listed are recommendations to help conserve Wisconsin's endangered resources. Although these actions are not required by state or federal endangered species laws, they may be required by other laws, permits, granting programs, or policies of the WDNR or other regulatory agencies. Examples include the federal MBTA, BGEPA, State Natural Areas law, WDNR Chapter 30 Wetland and Waterway Permits, WDNR Stormwater Permits, and Forest Certification.

Table 4-3: Analysis of Habitat Suitability for State Listed Species along Project ROW

Species	State Status[1]	Preferred Habitat	Required or Recommended Conservation Actions
BIRDS			
Bell's Vireo (*Vireo bellii*)	THR	Prefers dense shrubby areas within an open prairie landscape.	Project work is scheduled for early September – December 2016, which falls outside of Bell's vireo nesting period from May 25-August 15. Bell's vireo could be present in suitable habitat areas of the Project area. The birds, their nests, and eggs are protected under the federal MBTA. To avoid impacts to this listed species the Project is required to follow one of two options: Option 1: Assume birds are present within Project area, and avoid all disturbances from May 25 – August 15. If Project can avoid disturbing areas of suitable habitat for these species during this time period, there would not be any further Project restrictions related to this species. If Project cannot completely avoid all areas of suitable habitat or take of the species, DPC will coordinate with WDNR BNHC regarding the possibility of applying for an ITP. Option 2: Not assume birds are present within Project area and have a qualified biologist conduct surveys of suitable habitat to determine if present. Survey protocols must be sent to the Review Program for approval prior to the initiation of surveys and results submitted to the Endangered Resources Review Program. If Bell's vireo is not found within the Project area as a result of the surveys, there would not be any Project restrictions related to this species. If surveys are conducted and this bird is recorded, Option 1 must be followed.
Bald Eagle (*Haliaeetus leucocephalus*)	SC/P	Prefers large lakes and rivers with nearby tall pine trees are for nesting.	While the Bald eagle was removed from the Federal Endangered Species list in August 2007, it is still federally protected by the BGEPA and the MBTA. Project work is scheduled to occur outside of the Bald eagle's nesting season of January 15 – July 30. If this schedule changes to occur within the nesting season, while there are no known nests in the area, there is suitable habitat for the eagle to nest south of I-90. If bald eagles and/or nests are observed within the Project area, WDNR and USFWS will be contacted for further information.
FISH			
River Redhorse (*Moxostoma carinatum*)	THR	Prefers moderate to swift currents in large rivers systems, including impoundments and pools. With clean gravel river bottoms. Spawning occurs from mid May - June when water temperatures reach 68 to 74 degrees Fahrenheit.	No work in waterways will be conducted. Waterways will be spanned, erosion and runoff prevention measures will be implemented during the course of the Project to avoid take of the eight fish species listed.
Paddlefish (*Polyodon spathula*)	THR	Prefers large rivers and their lakes. Species spawns over mud or gravel in from early May - early June during high flows.	
Blue Sucker (*Cycleptus elongatus*)	THR	Prefers large, deep rivers with moderate to strong currents over substrates of gravel or cobble. Spawning occurs from late April - early May.	
Mud Darter (*Etheostoma asprigene*)	SC/N	Prefers moderate currents in sloughs, overflow areas, riffles, and pools of large, low-gradient rivers over bottoms of mud, sand, gravel, clay, or bedrock. Spawning occurs from mid-May - June.	

Table 4-3: Analysis of Habitat Suitability for State Listed Species along Project ROW

Species	State Status[1]	Preferred Habitat	Required or Recommended Conservation Actions
Pugnose Minnow (*Opsopoeodus emiliae*)	SC/N	Prefers quiet, weedy lakes, sloughs, and low-gradient rivers over bottoms of mud, sand, rubble, silt, or clay. Spawning occurs from mid-June- mid-July.	
American Eel (*Anguilla rostrata*)	SC/N	Prefers large streams, rivers and lakes with muddy bottoms and still waters. Spawning occurs in the Sargasso Sea.	
Pirate Perch (*Aphredoderus sayanus*)	SC/N	Prefers the quiet waters of oxbows, overflow ponds, sloughs, marshes, ditches, and the pools of medium to large rivers. Spawning occurs during May.	
Silver Chub (*Macrhybopsis storeriana*)	SC/N	Prefers large, low gradient rivers. Species is found in moderate to strong currents, riffles, pools and sloughs with or without vegetation over substrates of sand, mud, slay or gravel. Spawning occurs in June and July.	
AMPHIBIANS			
Blanchard's Cricket Frog (*Acris blanchardi*)	END	Prefer ponds, lakes, and a variety of habitats along and adjacent to streams and rivers including marshes, fens, sedge meadows, low prairies, and exposed mud flats. Cricket frogs are active from late-March through November. Breeding occurs from mid-May through mid-August, with some larvae not transforming until late September.	Because of the Northern cricket frog's decline over the past several decades throughout most of Wisconsin, per the *Northern Cricket Frog Species Guidance Document (Screening Procedures)*, the WDNR does not believe cricket frogs are still present in this area (last observation was 1988). Project does not need to be altered to avoid impacts to this species. However, if Northern cricket frogs would be observed during the course of the Project, the Endangered Resources Review Program should be contacted.
PLANTS			
Hill's Thistle (*Cirsium hillii*)	THR	Found in dry prairies and oak barrens; in neighboring states it is found in pine barrens. Blooming occurs mid-June through early August; fruiting occurs late July through late August. Optimal identification period for this species is mid-June - late August.	Suitable habitats for the eight identified plant species have been recorded within the vicinity and may be impacted by the Project. Although not required because plants are not protected on private lands, it is recommended that DPC avoid or minimize take of the identified species.
Prairie Milkweed (*Asclepias sullivantii*)	THR	Found in moist prairies. Blooming occurs early June through early July; fruiting occurs throughout July. The optimal identification period for this species is early June - early July.	
Oregon Woodsia (*Woodsia oregana ssp. cathcartiana*)	SC	Found on moist, shaded (occasionally exposed) basaltic or, less commonly, dolomite cliffs. The optimal identification period for this species is late May - late September.	
Small-flowered Woolly Bean (*Strophostyles leiosperma*)	SC	Found in dry, sandy soil, as well as margins of upland woods, dunes and shores. Blooming occurs from August through September. The optimal identification period for this species is late July - late August.	
Silky Prairie-clover (*Dalea villosa var. villosa*)	SC	Found on dry sandy river terraces and hillside prairies (often being invaded by red cedar) near the St. Croix and Mississippi Rivers. Blooming occurs late July through early September; fruiting occurs throughout September. The optimal identification period for this species is early August - late September.	
Clustered Poppy-mallow (*Callirhoe triangulata*)	SC	Is found in sand terrace prairies. Blooming occurs early July through late September; fruiting occurs early August through late September. The optimal identification period for this species is early July - late September.	

Table 4-3: Analysis of Habitat Suitability for State Listed Species along Project ROW

Species	State Status[1]	Preferred Habitat	Required or Recommended Conservation Actions
Wild Licorice (*Glycyrrhiza lepidota*)	SC	Found in dry to moist prairies and other grasslands, stream banks, and lake shores. It has been found naturalized on cinders of railroads and in other disturbed areas. Blooming occurs throughout July; fruiting occurs early August through late October. The optimal identification period for this species is early August - late October.	
REPTILES			
Gophersnake (Pituophis catenifer)	SC/P	Prefers sand prairies, bluff prairies, oak savannas, and pine and oak barrens. Overwintering can occur in sand prairies, where they often den singly by using mammal burrows or other structures to get below the frost line or they may den communally using deep rock fissures on southerly exposed bluff prairies. Species is active from late March - early October, breeds mid-April - May and lays its eggs in sand cavities they create or under large flat rocks in late June - early July. The eggs hatch in late August - early September.	The Gophersnake may be active from late March to the end of Project construction. Species overwinters in mammal burrows and rock crevices. Therefore, it is recommended that when possible, mammal burrows and rock crevices be avoided from the beginning of Project construction through the end of March.
Timber Rattlesnake (Crotalus horridus)	SC/P	Adult males and non-gravid adult females prefer deciduous forests and woodland edges in an agricultural setting during summer. Gravid females and juvenile timbers prefer to remain in open-canopy bluff prairies during summer because of higher preferred body temperatures, but avoid overheating by taking advantage of various structures to provide shade, such as brush, trees, or rock shelves. Timbers emerge from hibernation as early as mid-April, but may continue to emerge well into June. They remain active until as late as mid-October, with the females that give birth in a given year remaining active longer than other individuals. Timbers primarily breed in August and females give birth the following mid-August or mid-September. Individual females in Wisconsin usually produce young only once every three to four years.	The Timber rattlesnake may be active from mid-April through the end of Project construction. The species overwinters in rock crevices. Therefore, it is recommended that when possible, rocky areas be avoided from the beginning of Project construction through late April.
COMMUNITY TYPES			
Dry Prairie Sand Prairie Dry-Mesic Prairie Riverine Lake/Pond Northern Wet Forest Shrub-Carr Emergent Marsh Alder Thicket	NA	NA	Project consists of construction of a transmission line within an already disturbed corridor (existing transmission line ROW and adjacent to road ROW. It is recommend minimizing impacts to and/or incorporating buffers along edges of these community types if found within Project area.

NOTES:

[1] NA = Not applicable (this is assigned to all natural community records in the database)

END = Endangered (legally protected)

THR = Threatened (legally protected)

SC = Special Concern

SC/P = Fully protected
SC/N = No laws regulating use, possession, or harvesting
SC/H = Take regulated by establishment of open closed seasons
SC/FL = Federally protected as endangered or threatened, but not so designated by WDNR
SC/M = Fully protected by federal and state laws under the Migratory Bird Act

4.5 Fish and Wildlife Resources

Based on the habitat present along the Project ROW, fisheries and wildlife resources include a range of species groupings (birds, mammals, fish, reptiles, amphibians, and insects), both resident and migratory. Habitat is likely used by one or more of these species groupings in almost every life-cycle stage (e.g. forage, shelter, breeding, rearing, migration, etc.). The Project would be built within the existing ROW within predominantly disturbed habitats. However, some species, including small mammals, such as voles, shrews, mice, squirrels, and rabbits; larger mammals, such as coyote, raccoon, fox, white tailed deer; and birds, including migratory waterfowl and songbirds, will continue to use the developed areas and cultivated croplands found along the Project ROW. In the limited natural habitats, more species, including fish, reptiles, and amphibians, such as snakes, turtles, toads and frogs, would likely be found near the wetlands and waterway crossings along the Project ROW.

4.6 Floodplains

Floodplain data were obtained from the Federal Emergency Management Agency (FEMA). The Project crosses three 100-year floodplains. **Table 4-4** shows the waterbodies associated with the floodplains as well as the approximate width that the Project crosses. Floodplains are shown on **Figure 8**.

Table 4-4: 100-year Floodplains Crossed by Project

Waterway ID	City, Township, or Village	Section	Stream Name	Approximate Width (feet)
S-3	City of La Crosse	14	Unnamed Tributary (UNT) to the La Crosse River	6
S-4	City of Onalaska	14	La Crosse River	50
S-5	City of Onalaska	10	Unnamed Tributary (UNT) to the La Crosse River	9
S-9	Village of Holmen	19	Unnamed	8

4.7 Water Quality

Waterways crossed by the Project were identified using the U.S. Geological Survey National Hydrography Dataset and field observation. Review of these resources identified three perennial, four not classified, and two intermittent tributary crossings located along the Project (**Appendix A**). **Table 4-5** lists the nine named and unnamed waterbodies crossed by the Project.

Table 4-5: Surface Waters Crossed by Project

County	Township/Range	Section	Waterbody	Flow	Trout Streams	Endangered, Threatened or Special Concern Habitat Streams	Outstanding / Exceptional Resource Waters
La Crosse	16N 7W	23	Unnamed	Intermittent	No	No	No
	16N 7W	14	Unnamed	Not Classified	No	No	No
	16N 7W	14	Unnamed	Perennial	No	No	No
	16N 7W	14	La Crosse River	Perennial	No	Yes	No
	16N 7W	10	Unnamed	Not Classified	No	No	No
	16N 7W	10	Unnamed	Not Classified	No	No	No
	17N 7W	18	Halfway Creek	Perennial	No	No	No
	16N 7W	4	Unnamed	Not classified	No	No	No
	17N 7W	19	Unnamed	Intermittent	No	Yes	No

The Project crosses the La Crosse River which is identified as impaired water on the Section 303(d) list of impaired waters. The La Crosse River is impaired for total phosphorus.

The WDNR Surface Water Data Viewer was reviewed to identify any Areas of Special Natural Resource Interest (ASNRI), Public Rights Features (PRF), or Priority Navigable Waters (PNW) that may be present within the Project area (WDNR 2015). ASNRI waters include several classes of designated waters including trout streams, outstanding resource waters (ORW) or exceptional resource waters (ERW) and waters or portions thereof that may be inhabited by endangered, threatened, or special concern species or unique ecological communities identified in the Natural Heritage Inventory. ASNRI waters and PRF waters are also considered PNW waters.

There are no waterways crossed by the Project that are designated trout streams by the WDNR.

Two unnamed waterways crossed by the Project are classified as being potential habitat for endangered, threatened, or special concern species by WDNR. Endangered, threatened, and special concern species that may occur within the Project area are described in Section 4.4.

No waterways crossed by the Project are classified as an ERW/ORW by WDNR. ORWs and ERWs are surface waters that provide outstanding recreational opportunities, support valuable fisheries and wildlife habitat, have good water quality, and are not significantly impacted by human activities. ORWs typically do not have any point source discharges of pollutants, while ERWs may have point source pollutant discharges but both are protected from the effects of pollution.

Groundwater resources are plentiful in La Crosse County and it is the sole source of residential water supply for county residents. A sandstone and dolomite aquifer coupled with the soil types in the area allow for rapid groundwater recharge, which supplies a constant supply of water. Groundwater in the area is generally considered to be of good quality.

Groundwater in La Crosse County is characterized as having moderate to high susceptibility to contamination. This characterization is based on five factors: depth to bedrock, bedrock type, soil permeability, depth to water table, and surficial deposits. Depth to groundwater in the Project area can range from 0 feet to over 50 feet in depth (USGS 2007).

4.8 Coastal Areas

The Project is not located within any coastal zones or Coastal Barrier Resources System Units.

4.9 Air Quality

La Crosse County is in attainment with Wisconsin and National Ambient Air Quality Standards (NAAQS) for all criteria pollutants (ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, and lead). The only areas in Wisconsin currently not meeting NAAQS are in the eastern part of the state, along Lake Michigan, where several counties are designated as “nonattainment” with respect to the NAAQS for 8-hour average ozone (USEPA 2014).

4.10 Cultural Resources

In April, May, and June 2015, Mississippi Valley Archaeology Center (MVAC) performed a Phase I archaeological survey for the Project (**Appendix E**). Structure locations were staked prior to the survey. These structure locations were surveyed along with any new access roads where ground disturbance is proposed. The Project passes through several previously recorded sites including two sites that are uncatalogued burial sites and are also currently on the National Register of Historic Places (NRHPs), the Tremaine site (47LC95/BLC71) and the Midway Village Complex (47LC19/BLC1).

4.11 Aesthetics

Visual or aesthetic resources are naturally-occurring or manmade visible physical features (e.g., land, water, vegetation, structures, etc.) that occur along a landscape. Landscape character includes the distinctive qualities and arrangement of these features. The Project would be located within DPC’s existing ROW through a variety of land uses. These uses include agricultural land and residential development that is mostly concentrated starting at the Village of Holmen and running southeast along the Mississippi though the Cities of Onalaska and La Crosse. Developed areas include commercial/industrial uses such as sand and gravel operations and the Valley View Mall. The Project ROW also crosses the La Crosse River floodplain and recreational land such as golf courses, the La Crosse River Trail, and a neighborhood Coachlite Greens Park.

Riparian vegetation is also present in the Project area and is associated with the La Crosse River, Halfway Creek, and seven unnamed streams that traverse the landscape.

Man-made modifications that have locally modified the Project area include dispersed rural residences associated with agricultural lands and associated ancillary structures (e.g., barns, maintenance sheds, fences, etc.) and residential development in the Village of Holmen and Cities of Onalaska and La Crosse. Local infrastructure modifications within the area include I-90, USH 53, STH 35, STH 16, county roads, and local paved and unpaved roads; one communication tower; one railroad corridor; substations; and electrical distribution lines and the existing transmission lines.

The Project falls within the La Crosse Regional Airport Zoning Overlay as described in the land use section of this document. The closest heliport to the Project is a hospital heliport located 4.3 miles southwest of the Project in La Crosse. The closest private airport to the Project is the Parkway Farm Strip Airport, located approximately 3.9 miles north of the Project in the Town of Holland.

Potential visually sensitive areas would be limited to the areas around residences and recreational users associated with community parks, the La Crosse River floodplain, trails, and golf courses. Given the rolling terrain and the largely uniform vegetation coverage of the existing landscape, views of the Project from areas not directly adjacent to it would generally be screened (either partially or completely) by topography and/or vegetation. Residences located within or immediately adjacent to the Project ROW would typically have unobstructed views of the transmission structures. Vegetation associated with residential landscaping or naturally occurring vegetation around residential structures not located within or directly adjacent to the Project ROW may provide complete or partial screening of the Project.

4.12 Socioeconomics and Community Resources

According to the U.S. Census Bureau, in 2012 La Crosse County had a total population of 116,461. This is an increase of 1.6 percent for La Crosse County since the 2010 census. U.S. Census demographics from 2012 for La Crosse County show a 48.9 percent male and 51.1 percent female distribution of the predominantly (92.2 percent) white population. Per capita income in La Crosse County is $25,680 approximately 5.5 percent lower than the statewide average of $27,192 (U.S. Census Bureau 2014).

July 2014 unemployment in La Crosse County was 4.7 percent, according to the U.S. Department of Labor: Bureau of Labor Statistics (Federal Reserve Economic Data 2014 a, b). The August 2013 statewide average for unemployment was 5.8 percent (U.S. Bureau of Labor Statistics 2013).

4.13 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, states that “each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations.” The analysis pursuant to this executive order follows guidelines from the Council on Environmental Quality (CEQ), Environmental Justice Guidance under the National Environmental Policy Act (CEQ 1997).

The CEQ guidelines state that minority populations should be identified where "… (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis" (CEQ 1997).

In compliance with the CEQ guidelines, the minority and economic aspects of the Project were evaluated on a regional basis. Minority and low-income data were evaluated; comparing data for the census block groups in the Project to the average data for La Crosse County and the state of Wisconsin. Minority and low-income data were analyzed for each census tract that the Project would cross. It should be noted that the census tracts that were analyzed encompass a much larger area than the Project, so the actual population located adjacent to the Project is smaller than what is shown for the census tract. The socioeconomic trends shown by the census tract are expected to be representative of the population located in proximity to the Project. **Table 4-6** shows the census data for the state, for the county crossed by the Project, and for the census tracts crossed by the Project (U.S. Census 2010).

Data for 2010 were available for Wisconsin and La Crosse County, including census tracts that would be crossed by the Project. Use of these datasets represents the most recent available data and provides an appropriate comparison given the low incidence of minority populations across datasets. According to the 2010 data, minority populations are less than 6.3 percent of the populations in La Crosse County. Minority populations within the county census tracts that would be crossed by Project range from approximately 2.9 percent to 8.4 percent, which is lower than the state-level data. Per capita income in La Crosse County and the census tracts crossed by the Project range from $23,695 up to $39,515. Poverty level in La Crosse County is higher than what is reported for the state of Wisconsin, but lower in the census tracts crossed by the Project.

Table 4-6: Census Data

Location	Population	Race Percentages		Per Capita Income	Population Below Poverty Level
		Caucasian	Minority		
State of Wisconsin	5,686,986	86.2%	12.0%	$26,624	11.6%
La Crosse County	114,638	92.1%	6.3%	$24,917	13.5%
Census Tract 102.01	9,503	91.7%	7.0%	$26,211	5.5%
Census Tract 102.02	6,688	93.8%	5.4%	$23,695	7.7%
Census Tract 104.01	9,730	93.6%	5.3%	$39,515	3.1%
Census Tract 104.02	5,214	89.6%	8.4%	$27,129	9.9%
Census Tract 105.00	5,761	92.0%	6.4%	$27,885	5.4%
Census Tract 106.00	3,266	96.4%	2.9%	$35,328	8.4%

Source: U.S. Census (2010)

4.14 Transportation

Transportation corridors in proximity to the Project consist of residential roads, county roads, two-lane Wisconsin state highways, and an interstate highway. The Project crosses four county roads, three STHs, one USH, one interstate highway, and 27 local road crossings (36 total road crossings). Since the Project follows the existing transmission corridor, the number of crossings would not change. **Table 4-7** shows traffic counts available from WisDOT on roads crossed by the Project.

Table 4-7: Roads Crossed by the Project and Associated Average Annual Daily Traffic Volumes

County	Road	Traffic Count[1]	Traffic Year[1]	Traffic Count Point Location[1]
La Crosse County	County Highway OT (Filler Ct)	2,900	2011	North of CTH ZN
	State Highway 35	11,200	2014	S of USH 53 & CTH OT
	County Highway OT	7,200	2014	CTH OT East of STH 35
	East Avenue North	3,900	2011	North of Riders Club Rd
	Riders Club Road	4,300	2011	East of East Ave
	State Highway S (Sand Lake Road)	9,400	2014	CTH S South of South
	US Highway 53	34,900	2014	South of CTH S
	County Highway OS (Main Street)	17,300	2014	CTH OS SE of Green Coulee Rd
	Interstate Highway 90	33,400	2011	West of Theater Rd
	County Highway PH	1,500	2011	CTH PH West of STH 16
	State Highway 16	26,600	2014	Between CTH PH and Kinney Coulee Rd
	County Highway B	4,700	2014	1.15 mi E of STH 16

[1] Traffic counts were not available for nine of the road crossings.

Code of Federal Regulations (CFR) Title 14 Part 77.9 states that any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the Federal Aviation Administration (FAA):

- Any construction or alteration exceeding 200 feet above ground level
- Any construction or alteration
  - Within 20,000 feet of a public use or military airport that exceeds a 100:1 surface from any point on the runway of each airport with its longest runway more than 3,200 feet
  - Within 10,000 feet of a public use or military airport that exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet
  - Within 5,000 feet of a public use heliport which exceeds a 25:1 surface
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed the above-noted standards
- When requested by the FAA
- Any construction or alteration located on a public use airport or heliport regardless of height or location

The closest public airport to the Project is the La Crosse Regional Airport located immediately west of the Project on the northwestern quadrant of I-90 and STH 35, which is approximately 4.3 miles south of the Briggs Road Substation. The Project falls within the La Crosse Regional Airport Zoning Overlay as described in the land use section of this document (**Figure 5**). The closest heliport to the Project is a hospital heliport located 4.3 miles southwest of the Project in La Crosse. The closest private airport to the Project is the Parkway Farm Strip Airport, located approximately 3.9 miles north of the Project in the Town of Holland.

Holmen cell communication tower located north of Schilling Road, 1.3 northeast of the Project ROW. No communication towers are located within the Project ROW.

The Project would cross the Chicago Milwaukee St Paul and Pacific Railroad which is located east of STH 16 and south of the La Crosse River.

4.15 Human Health and Safety

The Project consists of rebuilding approximately nine miles of an existing transmission line within the existing ROW. All DPC facilities are designed, constructed, operated, and maintained to meet or exceed applicable standards of design and performance set forth in the NESC. Specific health and safety measures associated with overhead transmission lines are discussed in Section 5.15.

4.15.1 Electrical Characteristics

Electrical characteristics associated with transmission lines are those associated with electric and magnetic fields (EMF), corona, audible noise, and radio and television interference. Corona, audible noise, and radio and television interference are discussed in Section 4.16. Electric and magnetic fields are described below.

Voltage on any wire (conductor) produces an electric field. The intensity of the electric field is proportional to the voltage of the transmission line. The flow of electrical current on a wire produces a magnetic field. The intensity of the magnetic field is proportional to the current flow through the conductors. EMF extends outward from the conductor and decreases rapidly with distance from the conductor.

Electric and magnetic fields arise from the flow of electricity, are dependent on the voltage and current carried by a transmission line, and are measured in kilovolts per meter (kV/m) and milliGauss (mG), respectively. The intensity of the electric field (EF) is proportional to the voltage of the line, and the intensity of the magnetic field (MF) is proportional to the flow of current through the conductors.

Transmission lines operate at a power frequency of 60 hertz (cycles per second). Current passing through any conductor produces an MF in the area surrounding the wire. The MF associated with a high voltage transmission line (HVTL) surrounds the conductor and decreases rapidly with increasing distance from the conductor. The MF associated with a transmission line is expressed in units of magnetic flux density, or mG.

There is no federal or Wisconsin state standard for transmission line EMF. Considerable research has been conducted throughout the past three decades to determine whether exposure to power-frequency (60 Hertz) MFs cause biological responses and health effects.

Additional information can be found in the Wisconsin Public Service Commission brochure on EMF. This brochure is available online at <http://psc.wi.gov/theLibrary/publications/electric/electric12.pdf>.

4.16 Corona, Audible Noise, Radio and Television Interference

4.16.1 Corona

Corona is the electrical breakdown of the air near high voltage conductors into charged particles. Corona consists of audible noise and radio and television interference from electromagnetic interference, both of which are described below.

4.16.2 Audible Noise

Audible noise (AN) may consist of a variety of sounds of different intensities across the entire frequency spectrum. AN is measured in units of decibels on a logarithmic scale. Because human hearing is not equally sensitive to all frequencies of sound, certain frequencies are given more "weight." The A-weighted decibel (dBA) scale corresponds to the sensitivity range for human hearing. Noise levels capable of being heard by humans are measured in A-weighted decibels (dBA). **Table 4-8** shows noise levels associated with common everyday sources.

Table 4-8: Common Noise Sources and Levels

Sound Pressure Level (dBA)	Typical Sources
100–105	Leaf blower
100–104	Circular Saw
84–89	Vacuum Cleaner
76–83	Garbage disposal
68–73	Inside car, windows closed, 30 MPH
55–65	Normal conversation
50	Background music
40	Living room
28–33	Quiet Room

Source: NPC (2011)

The primary land uses in proximity to the Project are urban residential, commercial, and light industrial. Current average background noise levels in these areas are typically in the range of 50 to 60 dBA. Ambient noise in urban residential, commercial, and light industrial areas are commonly caused by traffic on nearby roadways, human activity in urban areas, and commercial and industrial properties (MPCA 2013).

Sources of AN in proximity to the Project include the equipment noise from agricultural operations, and residential activities, and noise generated by cars and trucks on local, county, state, U.S. highways, and interstate highways.

4.16.3 Radio and Television Interference

Corona on transmission line conductors can generate noise at the frequencies at which radio and television signals are transmitted. This noise can interfere with receiving signals and is called radio and television interference (RI/TVI). Radio reception in the AM (amplitude modulated) broadcast band (535 to 1605 kilohertz) is most often affected with what is commonly referred to as static. Frequency modulated reception, or FM (frequency modulated) radio reception, is rarely affected. Only radio receivers very near to transmission lines have the potential to be affected by radio interference. Corona can affect the reception of the video (picture) portion of a television signal. Television interference caused by corona appears as three bands of "snow" on the television screen. Television interference at the edge of the ROW due to corona primarily occurs during rain or snow.

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5.0 Environmental Effects

This section describes potential environmental effects associated with the construction, operation, and maintenance of the Project, and associated mitigation measures. DPC is also committed to following mitigation guidelines in the *U.S. Department of Agriculture/U.S. Department of the Interior "Environmental Criteria for Electric Transmission System* to the extent applicable and practicable (USDI 1970). DPC would also, as appropriate, implement BMPs outlined in its *Manual for Transmission Lines and Substation Construction and Maintenance Activities* http://www.dairylandpower.com/power_delivery/field_guide.pdf).

5.1 Land Use

5.1.1 General Land Use

Impacts to land use resulting from construction, operation, and maintenance of the Project are expected to be less than significant. Temporary impacts within the existing transmission line ROW would be limited to those occurring during construction and are not anticipated to be significant. Landowners may be restricted from accessing the ROW during construction activities (vegetation clearing, transmission structure installation, conductor stringing, and conductor tensioning) at each transmission structure location. DPC would utilize existing local roads, existing maintenance roads, and field edges for construction of the Project. Access routes for the Project have been identified; construction would primarily follow approximately 7.1-miles of existing maintenance routes used by DPC's maintenance crews since the early 1950's and temporary access (shown on sheet maps in **Appendix A**). Access routes through active agricultural fields may require that agricultural operations be suspended for a short period of time while the construction crews are hauling equipment to the transmission structure locations. Temporary impacts would be minimal and would be limited to the disturbance around the foundation of each structure. Areas of temporary disturbance will be re-vegetated and returned to pre-existing conditions after construction.

Since the Q-1D South line was constructed in the 1950's, development has occurred within the Project ROW. There are 42 residences and four businesses located within the 80-foot ROW. Landowners owning property that is crossed by the Project would be permitted to continue using their land in the same manner that they currently do, although height restrictions concerning the use of tall equipment under the new transmission line would apply. Land owners would also need to use caution when working around structures with guy wires.

In the City of Onalaska, a portion of Coachlite Greens Park that was acquired through the provisions of the City's Subdivision Ordinance in 1987, uses some of the transmission ROW. Plantings have been installed within the Project ROW. Areas of temporary disturbance will be re-vegetated and returned to pre-existing conditions after construction.

Permanent impacts are also expected to be less than significant. The permanent area of disturbance for the Project would be limited to the approximately 12.6-square-foot footprint of each transmission structure. It is anticipated that approximately 61 transmission structures would be placed along the route, resulting in up to 769 square feet of permanent disturbance.

The Project is not expected to have an impact on any of the goals, policies, existing or future land use plans as outlined in the La Crosse County, Towns of Onalaska and Medary, Village of Holmen, and Cities of Onalaska and La Crosse Comprehensive Plans. The Project consists of rebuilding nine miles of existing transmission line within an existing ROW. The existing ROW would not be widened and would not result in a change in land classification. In areas where the Project would cross shoreland, floodplain, and/or AOZDs, DPC would work with La Crosse County and local municipalities to obtain the appropriate permits. Replacing H-frame structures with single pole structures would reduce the visual impact of the transmission line. DPC's BMP's will minimize erosion, impacts on water quality, and vegetation.

No impacts on schools or daycares are anticipated as the closest school to the Project, Shepherd's Flock Pre-School/Daycare is located approximately 104 feet from the Project centerline. The International School is located 258 feet from the Project centerline.

Construction and operation of the Project is not anticipated to have significant effects on land use because activities would be permitted to take place in the manner that they currently do and the majority of the length of the Project consists of rebuilding an existing electric transmission line in the same ROW that it currently occupies. Any impacts resulting from the Project would be further reduced by implementing the mitigation measures described in Section 5.1.4.

5.1.2 Important Farmland, Prime Forest Land, and Prime Rangeland

All disturbed areas surrounding structures would be re-vegetated following construction of the Project. Construction and operation of the transmission line would not interfere with continued use of the surrounding areas for agricultural uses. Temporary impacts to prime farmland and farmland of statewide importance would be minimal and would be limited to the disturbance around the foundation of each structure. As with the existing transmission line, access through agricultural areas would continue to be required for maintenance purposes. However, access routes in agricultural areas almost entirely follow the existing ROW or field edges, so that farming activities can continue, and do not result in a change from existing conditions.

The Project will not impact prime forest land or rangeland because there is no prime forestland or rangeland within La Crosse County, Wisconsin.

Permanent impacts to prime farmland and farmland of statewide importance are also expected to be minimal and would be limited to the footprint of the structure foundations because the Project would be located within an existing transmission line ROW. Similar to the existing transmission line, an estimated six single pole steel structures and two H-frame steel deadend structures in prime farmland would result in approximately 0.002 acres (126 square feet) of permanent impacts to prime farmland. One single-pole steel structure would result in approximately 12.6 square feet of permanent impacts to farmland of statewide importance.

The Project ROW and access routes cross prime farmland and farmland of statewide importance (**Figure 6**). The Project ROW crosses approximately 0.7 miles (6.7 acres) of prime farmland. Proposed access routes would cross approximately 1.0 mile (2.0 acres) of prime farmland. Farmland of statewide importance is designated along approximately 0.4 miles (3.0 acres) of the Project ROW. The proposed

access routes would cross approximately 0.1 miles (0.2 acres) of farmland of statewide importance. The Project and access routes would not cross any potential prime farmland, if drained (USDA, NRCS 2014).

Temporary and permanent impacts as described above would be minimized by implementing the mitigation measures listed in Section 5.1.4 and in **Appendix A**.

5.1.3 Formally Classified Land

Temporary and permanent impacts to the portion La Crosse River State Trail and Coachlite Greens Park that will be crossed by the Project are expected to be less than significant. The impacts would be similar to impacts from the existing transmission line that crosses the trail and park. It is not anticipated that Project would impact recreation opportunities along the trail or within the park. Tree clearing is not anticipated near the trail or within the park because the existing ROW has been maintained by DPC since the early 1950s. However, minor vegetation clearing may be required around structure locations. Disturbed areas will be re-vegetated following the completion of construction.

The Project is located approximately 0.2 miles from the Great River State Trail and the Upper Mississippi River National Wildlife and Fish Refuge. Therefore, no impacts are anticipated.

5.1.4 Mitigation and Monitoring

In addition to implementing the BMPs described in *DPC's Manual for Transmission Lines and Substation Construction and Maintenance Activities*, the following mitigation measures will be employed to reduce potential impacts to land use:

- The removal of landscaping will be avoided whenever possible.
- Access to all residences and businesses will be maintained during construction.
- Landowners will be notified of construction activities prior to the start of construction.
- Disturbed areas will be reseeded according to landowner requests.

5.2 Vegetation

Proposed construction activities would involve excavation and grading in limited areas around each proposed transmission structure that would temporarily disturb herbaceous vegetative cover. Equipment access also has the potential to disturb vegetation. The long-term effects of these actions are not expected to result in measurable losses; rather, short-term effects (during construction) would result in areas of bare ground. Permanent impacts to vegetation would be limited to the footprint of each structure.

The Project would continue to have the same effect on limited natural vegetation within the ROW as the existing transmission line. Along access routes that traverse forested areas with overhanging or overgrown woody vegetation, some trimming would be necessary to permit passage within a cross-sectional area measuring approximately 15 feet in height and width. The long-term effects of these actions are not expected to result in measurable losses, but short-term effects (during construction) would result in areas of bare ground.

The northern staging area (**Appendix A, Sheet Map 2**) is a portion of an existing gravel mine and the southern staging area (**Appendix A, Sheet Map 10**) is non-agricultural vacant land. Activities within the staging areas would temporarily disturb herbaceous vegetative cover. If it is determined that additional staging areas are required, those areas would not require clearing or grading; however, damage to vegetation or ruts in the ground may occur as a result of vehicular traffic in and out of the staging areas. Upon completion of construction DPC will re-vegetate the disturbed areas to pre-construction conditions.

Overall, impacts to vegetation are anticipated to be less than significant because the Project would be located within an existing ROW that is currently maintained for operation of a transmission line. Permanent impacts would be primarily limited to the footprint of transmission structures. There would be no permanent access roads and no permanent impacts as a result of the construction of the staging areas, because these areas would be re-vegetated to pre-construction conditions after construction.

5.2.1 Mitigation and Monitoring

In addition to implementing the BMPs described in *DPC's Manual for Transmission Lines and Substation Construction and Maintenance Activities*, the following mitigation measures would be employed to reduce potential impacts to vegetation:

- DPC will use methods such as installing silt fence or using matting to protect existing vegetative cover where necessary and practicable to avoid erosion or sedimentation.
- On non-agricultural land, disturbed areas will be restored by re-grading, seeding, and/or mulching as necessary per landowners' preferences.
- On non-agricultural land, vegetation monitoring will take place until 70 percent (or greater if requested by the landowner) of the original cover is attained or applicable permit conditions are otherwise satisfied.

5.3 Wetlands

The Project is expected to result in minimal impacts to wetlands given the avoidance efforts taken in design of the Project and planned for construction and operation. The current engineered design of the Project would result in three structures permanently placed in delineated wetlands and 0.6 miles of access routes would cross wetlands.

The area of wetland that would be permanently impacted by each of the two Y-frame steel transmission structures is approximately 12.6 square feet and the wetland permanently impacted by the one H-frame steel deadend is approximately 25.2 square feet. Total permanent wetland impacts resulting from the Project are estimated to be approximately 50.4 square feet. Temporary impacts to wetlands would be limited to a 625-square-foot (25 feet by 25 feet) work pad around each Y-frame steel structure. Wetlands impacted by the Project are shown on the sheet maps in **Appendix A**. The remaining delineated wetlands within the Project area would be spanned by the Project.

While some of the routes to be utilized to access the Project ROW for construction cross wetlands, they were selected because they have historically been used for maintenance of the existing Q-1D South transmission line, or because they are seasonally dry or otherwise passable during some times of the year. In this way, use of these routes minimizes wetland impacts. Depending on temperatures some of

the existing access routes and trails within the La Crosse River floodplain may require temporary matting. A worst case temporary matting scenario was calculated using a 16-foot wide access route for approximately 0.7 miles, all the access routes within the La Crosse River floodplain. Temporary impacts to wetlands from access route matting are approximately 1.4 acres.

The Project is expected to fall under WDNR General Permit for Utilities to place Structures on the Bed or to place Temporary Bridges across Waterways, or to place Fill in Wetlands (WDNR-GP3-2013) and USACE Regional General Permit GP-002 WI. Two temporary clear span bridges (TCSBs) would be needed for equipment, vehicles, and personnel to cross a waterway and a deep ditch. Construction-related liquids (e.g., equipment lubricants) would be managed to avoid spills on the ground surface. Vehicle fueling will occur off site. Mitigation measures described below will help minimize impacts on quality of surface water run-off. After construction, no impact on surface water quality is anticipated to result from operations and maintenance of the transmission line.

Upon completion of construction, the existing transmission structures would be cut off at ground level and removed from their current location within wetlands. Disturbed areas would be re-vegetated and graded to pre-construction conditions.

5.3.1 Mitigation and Monitoring

Wetland impacts have been avoided to the extent practicable through preliminary design and the identification of off-ROW access to minimize the need for wetland crossings with heavy construction equipment. In addition to implementing the BMPs described in *DPC's Manual for Transmission Lines and Substation Construction and Maintenance Activities*, the following mitigation measures would be employed to reduce potential impacts to wetlands:

- Crews will take advantage of periods of dry and frozen ground conditions, to the extent possible during the construction period.
- During periods that the ground is not dry or frozen, or in wetland locations with low stability conditions, temporary construction matting may be used to minimize impacts if access into wetlands cannot be rescheduled or relocated.
- Erosion control measures will be installed and maintained upslope of wetlands wherever erosion potential exists as a result of upland ground disturbance.
- DPC will monitor construction activities to promote the use of impact avoidance measures and appropriate impact minimization practices (e.g., erosion control, low ground pressure equipment, matting).
- DPC will obtain all permits listed in Section 6 of this EA.

5.4 Threatened and Endangered Species

The Project ROW crosses a complex landscape of varying ecological regions (Section 4.2). Given the diversity and uniqueness of microhabitats known to occur within these landscapes, a number of species that are adapted to these microhabitats are likely to be present.

The USFWS Section 7 technical assistance website (http://www.fws.gov/midwest/Endangered/section7/index.html) was reviewed for federally listed

threatened and endangered species and any critical habitat. The following species are listed that may be present in La Crosse County, Wisconsin; Northern long-eared bat (endangered), Whooping crane (non-essential experimental population), Eastern massasauga (Candidate species), Higgins eye pearly mussel (endangered), and the Sheepnose mussel (endangered). No critical habitat is listed for La Crosse County.

No long-term impacts to existing habitat for threatened or endangered species are expected to result because the Project consists of rebuild of a transmission line within an already disturbed corridor (existing transmission line ROW and adjacent to road ROW) and because impacts to surface waters would be avoided and/or mitigated as described in this section. Based on a review of the USFWS species list it has been determined that the Project will have "no effect" on federally threatened or endangered species or critical habitat in accordance with Section 7 of ESA.

Potential exists for impacts related to construction, operation, and maintenance activities to occur to certain state listed species that are assumed or known to occur in the area surrounding the Project ROW (Section 4.4). **Table 5-1** describes the potential for impacts to the resources of concern to WDNR-BNHC state listed species.

Table 5-1: State-Listed Species and Potential for Project Impacts

Species	State Status[1]	Impact Probability Comments
BIRDS		
Bell's Vireo	THR	Potential: The Project work is being completed from early September - December 2016 outside of the nesting period for Bell's vireo (May 25 - August 15). Avoidance of habitat during the nesting period, bird surveys, or application for an ITP are required.
Bald Eagle	SC/P	Low: While there are no known nests in the area, there is suitable habitat for the eagle to nest south of I-90. DPC will patrol the construction areas for nests and avoid construction during the breeding and nesting period if any nests are identified.
FISH		
River Redhorse	THR	Low: No work in waterways will be conducted. Waterways will be spanned, erosion and runoff prevention measures will be implemented during the course of the Project to avoid take of the eight fish species listed.
Paddlefish	THR	
Blue Sucker	THR	
Mud Darter	SC/N	
Pugnose Minnow	SC/N	
American Eel	SC/N	
Pirate Perch	SC/N	
Silver Chub	SC/N	
AMPHIBIANS		
Blanchard's Cricket Frog (*Acris blanchardi*)	END	Negligible: Project does not need to be altered to avoid impacts to this species. . However, if Northern cricket frogs would be observed during the course of the Project, the Endangered Resources Review Program should be contacted.

Table 5-1: State-Listed Species and Potential for Project Impacts

Species	State Status[1]	Impact Probability Comments
PLANTS		
Hill's Thistle	THR	Negligible: Protective measures would be applied as needed in coordination with the WDNR. .
Prairie Milkweed	THR	
Oregon Woodsia	SC	
Small-flowered Woolly Bean	SC	
Silky Prairie-clover	SC	
Clustered Poppy-mallow	SC	
Wild Licorice	SC	
REPTILES		
Gophersnake	SC/P	Low: These snake species may be active from late March to the end of Project construction. Species overwinters in mammal burrows and rock crevices. Therefore, it is recommended that when possible, mammal burrows and rock crevices be avoided from the beginning of Project construction- late April.
Timber Rattlesnake	SC/P	
COMMUNITY TYPES		
Dry Prairie Sand Prairie Dry-Mesic Prairie Riverine Lake/Pond Northern Wet Forest Shrub-Carr Emergent Marsh Alder Thicket	NA	Negligible: Project consists of construction of a transmission line within an already disturbed corridor (existing transmission line ROW and adjacent to road ROW. It is recommend minimizing impacts to and/or incorporating buffers along edges of these community types if found within Project area.

NOTES:

[1] NA = Not applicable (this is assigned to all natural community records in the database)
END = endangered (legally protected)
THR = threatened (legally protected)
SC = Special Concern
SC/P = fully protected
SC/N = no laws regulating use, possession or harvesting
SC/H = take regulated by establishment of open closed seasons
SC/FL = federally protected as endangered or threatened, but not so designated by WDNR
SC/M = fully protected by federal and state laws under the Migratory Bird Act

5.4.1 Mitigation and Monitoring

DPC will incorporate the protective measures recommended by WDNR for avoiding and minimizing impacts to state special status species as listed in **Table 5-2**, during facility design, access planning, and development of construction sequencing plans. DPC will coordinate in advance with WDNR to determine alternative protective measures if the measures in **Table 5-2** are deemed impracticable because of unavoidable scheduling and/or construction sequencing requirements. Impacts to natural communities are not anticipated as the Project would be constructed within a corridor with previously-disturbed vegetation. Monitoring will occur during construction activities, per agency agreements and permit conditions.

Table 5-2: Mitigation Measures for State Special Status Species

Affected Species	Proposed Mitigation
Bell's Vireo	Project work is scheduled for early September - December 2016, which falls outside of Bell's vireo nesting period from May 25-August 15. Bell's vireo could be present in suitable habitat areas of the Project area. The birds, their nests, and eggs are protected under the federal MBTA. To avoid impacts to this listed species the Project is required to follow one of two options: Option 1: Assume birds are present within Project area, and avoid all disturbances from May 25 – August 15. If Project can avoid disturbing areas of suitable habitat for these species during this time period, there would not be any further Project restrictions related to this species. If Project cannot completely avoid all areas of suitable habitat or take of the species, DPC will coordinate with WDNR BNHC regarding the possibility of applying for an ITP. Option 2: Not assume birds are present within Project area and have a qualified biologist conduct surveys of suitable habitat to determine if present. Survey protocols must be sent to the Review Program for approval prior to the initiation of surveys and results submitted to the Endangered Resources Review Program. If Bell's vireo is not found within the Project area as a result of the surveys, there would not be any Project restrictions related to this species. If surveys are conducted and this bird is recorded, Option 1 must be followed.
Bald Eagle	DPC will conduct nest surveys in construction areas and avoid construction during the breeding and nesting period if any nests are identified.
River Redhorse	DPC will not drive on the bed of waterways and will install two TCSBs. DPC does not propose installation of culverts or permanent bridges during construction. Erosion control and runoff prevention measures will be implemented and maintained per WDNR protocols.
Paddlefish	
Blue Sucker	
Mud Darter	
Pugnose Minnow	
American Eel	
Pirate Perch	
Silver Chub	
Blanchard's Cricket Frog	None: Species is not expected to be present.
Hill's Thistle	Erosion control and runoff prevention measures will be implemented and maintained per WDNR protocols.
Prairie Milkweed	
Oregon Woodsia	
Small-flowered Woolly Bean	
Silky Prairie-clover	
Clustered Poppy-mallow	
Wild Licorice	
Gophersnake	These snake species may be active from late March to the end of Project construction. Species overwinters in mammal burrows and rock crevices. Therefore, it is recommended that when possible, mammal burrows and rock crevices be avoided from the beginning of Project construction- late April.
Timber Rattlesnake	

5.5 Fish and Wildlife Resources

There is minimal potential for long-term displacement of wildlife and loss of habitat from the Project because it would be rebuilt along an existing transmission ROW. Wildlife could be temporarily displaced within the immediate area of construction activity.

5.5.1 Mitigation and Monitoring

Coordination with the WDNR and USFWS has not identified any additional concerns beyond those related to special status species, therefore, mitigation measures beyond those associated with erosion and sediment control measures to prevent impacts to water bodies are not proposed.

5.6 Floodplains

The Project would result in up to four transmission structures being placed in 100-year floodplains. Disturbance in floodplains would be limited to the area needed for the new structures and would result in up to 63 total square feet of permanent disturbance in the floodplain associated with the La Crosse River (approximately 12.6 square feet at each of the three Y-frame structure locations and approximately 25.2 square feet at the one H-frame deadend structure location). During construction, ground cover and soils would be temporarily disturbed. Effects resulting from the removal of groundcover and soils in floodplains would be temporary in nature and the area not occupied by the transmission structures would be reclaimed and re-vegetated to pre-construction conditions. Potential floodwater displacement could occur where structures are placed in floodplains. Based on the low volume of potential floodwater displacement, impacts on flooding are not anticipated.

Upon completion of construction, the existing transmission structures within the La Crosse River floodplain would be cut off at ground level and removed from their current location within the floodplain. The disturbed area associated with the removal of the existing structures would be re-vegetated and graded to pre-construction conditions so that water flow is not impeded during flooding events.

With implementation of the mitigation measures described below, it is not anticipated that construction or operation would have significant effects on floodplains.

5.6.1 Mitigation and Monitoring

In addition to implementing the BMPs described in *DPC's Manual for Transmission Lines and Substation Construction and Maintenance Activities*, the following mitigation measures would be employed to reduce potential impacts to floodplains:

- DPC will coordinate with the USACE, WDNR, and local authorities for approval of structure locations.
- DPC will follow all floodway development requirements as outlined in Title 13, Chapter 2, Part 2 of the City of Onalaska Code of Ordinances and Title 15, Chapter 15.13 of the City of La Crosse Unified Development Ordinance.
- DPC will obtain all required permits listed in Section 6 of this EA.
- DPC will preserve existing natural vegetation to the extent practicable.
- DPC will restore temporary ground disturbance within 100-year floodplains caused by construction activities by re-vegetating the area impacted to pre-construction conditions.

5.7 Water Quality

Although nine waterways would be crossed by the Project ROW, none of the waterways intersected by the ROW would be crossed with construction vehicles or equipment. Two temporary clear span bridges (TCSBs) would be needed for equipment, vehicles, and personnel to cross a waterway in the La Crosse River floodplain area and a deep ditch south of the La Crosse River floodplain area (**Appendix A, Sheet Map 10**). Ground-disturbing construction activities and operation of construction vehicles adjacent to waterways involves some risk to water quality, such as sediments reaching surface waters during construction if ground disturbance results from excavation, grading, and construction traffic. Impacts are unlikely provided the Project-specific mitigation measures provided in this EA and in the Erosion Control Plan (to be completed prior to construction) are properly installed and maintained.

After construction, impacts to surface water quality are not anticipated. Impacts resulting from structure placement would not occur because all surface waters crossed by the Project would be spanned.

It is not anticipated that construction, operations, and maintenance of the Project would result in significant impacts to surface or groundwater quality if the mitigation measures described below are implemented.

5.7.1 Mitigation and Monitoring

During construction, the most effective way to avoid impacts is to avoid wet areas, streams, and rivers. Equipment fueling and lubricating would not occur on site. In addition to implementing the BMPs described in *DPC's Manual for Transmission Lines and Substation Construction and Maintenance Activities*, the following construction practices would help prevent and/or contain accidental spills, soil erosion, and sedimentation:

- DPC will thoroughly plan, install, and maintain erosion control measures and re-vegetate and stabilize disturbed soil adjacent to waterways.
- Spill prevention, control, and countermeasures will be implemented as detailed in the Erosion Control Plan developed for the Project.
- All waterbodies will be spanned.
- No fuel storage or refueling will take place on site.
- Once construction has been completed, construction areas, laydown areas, and access routes will be cleared of debris and disturbed ground cover and soils will be returned to pre-construction conditions so that sedimentation will not occur.
- Construction activity will not be permitted below the ordinary high water line of any water body.
- DPC will obtain permits listed in Section 6 of this EA.

5.8 Coastal Areas

There are no coastal areas that would be impacted by the Project.

5.9 Air Quality

Construction of the Project would result in relatively small amounts of construction equipment exhaust emissions, and if soil along access routes is loose and dry, there would be some potential for fugitive dust emissions.

Wisc. Admin. Code Ch. NR415.04 states that no person shall allow materials to be transported without taking precautions to prevent the particulate matter from becoming airborne. Temporary impacts from fugitive dust would be minimized or avoided by using mitigation measures as described below.

Emissions resulting from corona-related ozone and nitrogen during operation of the transmission line are discussed in Section 5.16.

5.9.1 Mitigation and Monitoring

In addition to implementing the BMPs described in *DPC's Manual for Transmission Lines and Substation Construction and Maintenance Activities*, the following mitigation measures would be employed to reduce potential impacts to air quality:

- Water will be applied to alleviate dust nuisance generated by construction activities.
- If water proves to be ineffective as a dust suppressant, soil binders will be used.

5.10 Cultural Resources

At the Tremaine site (47LC95/BLC71), four new structures would be placed in the uncatalogued burial portion of the site. Originally a proposed access road and pad around one structure were proposed near the Village of Holmen wastewater treatment plant. However, since artifacts were discovered within the proposed pad location, construction plans were altered and ground disturbance for the proposed access road and pad have been eliminated to avoid an adverse effect to the site. Matting will be used to access the structure location and to build a pad around this structure during non-frozen and frozen ground conditions. The other three structures within the Tremaine site boundary would be located in two adjacent plowed fields. DPC plans to construct during frozen ground conditions, so driving heavy equipment over these plowed fields should not have an adverse effect to the site. However, if construction plans change and the structures would be placed during non-frozen ground conditions, mats will be placed on the fields' surface for heavy equipment to drive on. Since this site is a burial site, Wisc. Stat. 157.70 requires monitoring of the structure placements in this site take place during construction. MVAC has already mitigated the structure locations at the Tremaine site through shovel testing, therefore placing the structures in the same locations should not have an adverse effect to the site.

At the Midway Village Complex (47LC19/BLC1), one new structure would be placed within the site boundaries. Shovel testing did not locate any cultural material or human remains at this structure location. An existing access route that is partially disturbed would be used to access the structure location for construction. DPC plans to place this structure during frozen ground conditions, so that heavy equipment driving over the undisturbed portion of the access route that overlaps the site boundaries should not have an adverse effect on the site. If construction plans change and the structure location needs to be accessed during non-frozen ground conditions, DPC will place matting on the ground surface within the site area in the undisturbed portion of the access route to drive heavy equipment on. Since this

site is a burial site, Wisc. Stat. 157.70 requires monitoring of the structure placements in this site take place during construction. MVAC has already mitigated the structure location at the Midway site; therefore placing the structure in the same location should not have an adverse effect to the site. A disturbed portion of the site would be used for the base of operations for the Project and laydown yard for structures and heavy equipment. However, since this area has been confirmed to be completely disturbed and there is no potential for intact cultural deposits or burials, this should not have an adverse effect on the site.

Two structure locations would be located within uncatalogued burial site BLC142, called Woodlawn North Cemetery. The location of BLC142 is an open lot that has been recorded as a cemetery, however it is currently an open field and no headstones or other grave markers are apparent. MVAC confirmed with the Catholic Diocese of La Crosse, who owns this property, that there have been no burials in this site area to date and it is currently recorded as a cemetery for tax exempt purposes, but at some point in the future it will be used as a cemetery (there is an existing cemetery immediately adjacent to it). Based on this information, no monitoring of structure placements or matting under heavy equipment is recommended within the BLC142 site boundary since no human remains have been interred. However, prior to construction, MVAC will field check the conditions of this area to make sure that the "cemetery" has not been utilized for interment and will confirm this with the landowner. If at that time the "cemetery" location has been used for burials, then monitoring during construction is recommended as is matting under heavy equipment during non-frozen ground conditions (in frozen ground conditions no matting will be necessary). However, if no burials have been placed in the "cemetery" location, then no further work is recommended.

RUS has submitted the surveys to Indian Tribes for review and comment. A copy of the letters that were sent to Indian Tribes and the responses that were received are provided in **Appendix C**.

5.10.1 Mitigation and Monitoring

In addition to implementing the BMPs described in *DPC's Manual for Transmission Lines and Substation Construction and Maintenance Activities*, the following mitigation measures would be employed to reduce potential impacts to cultural resources:

- Supervisory construction personnel will be instructed on the protection of cultural resources, with reference to relevant laws and penalties and the need to cease work in the location if cultural resource items are discovered.
- If human bone or cultural resources are discovered during construction, work will be immediately suspended and DPC would contact RUS and Wisconsin Historical Society Burial Sites Preservation Office.

5.11 Aesthetics

The proposed transmission structure locations would be offset from the existing structure locations within the existing ROW to allow the existing transmission line to remain in service during construction of the new transmission line. Reconstruction of the existing transmission line would create direct short-term effects to visual resources by introducing vehicles, equipment, materials, and a workforce during the construction period. Viewers would see transmission line structure assembly and erection and conductor

stringing activities. Visual effects from construction activities would not be significant because of the short-term duration of the construction timeframe, anticipated to be an intermittent 4 to 5 days at each structure.

The Project would change visual resources in the long-term because the new single-pole transmission structures would be taller and made of different materials than the existing wood H-frame structures to be replaced. The new Y-frame steel structures would be approximately five to 10 feet taller than the existing wood H-frame structures that would be replaced in the La Crosse River floodplain. The ROW would remain at 80 feet (40 feet on either side). The ROW would continue to be cleared on a regular basis, so changes to the casual observer would be less than significant due to the clearing that has occurred previously on a regular basis in the existing ROW. In addition, the Project would not be out of character with the aesthetic character of the existing landscape because man-made features (e.g., high-voltage transmission lines, substations, and communication towers) are common within the area. Given the presence of existing man-made features including the existing transmission line, the landscape has a higher visual absorption capacity for the new elements compared with landscapes that are less modified by man-made structures, because similar vertical elements had previously been introduced into the landscape setting. The high degree of existing modification to the landscape, and the visual variability in the landscape (including a mosaic of agricultural lands, forested areas, farms, transmission lines, residences, buildings, and other man-made structures) would allow the rebuilt transmission line to blend with the existing landscape.

Local community plans specified that environmentally sensitive areas and visual resources should be protected when extending and constructing new utilities and community facilities. Rebuilding the transmission line within the existing ROW in the La Crosse River floodplain is consistent with these goals.

Sensitive viewsheds include the views from local residences. Residences within or adjacent to the Project ROW have views that range from unobstructed to partially or intermittently screened by vegetation located between the residential building and the existing ROW. The Project would not have a significant effect on these sensitive viewers because it would be rebuilt within the existing ROW. Although the new transmission structures would be taller than the existing structures (five to 10 feet in the La Crosse River floodplain and 40 to 55 feet taller in the remainder of the Project), the number of poles would be reduced by replacing the existing two-pole H-frame wood structures with single-pole steel structures. Residences located farther away would have a less prominent view of the Project and modifications would not be discernible to the casual observer. Sensitive viewers would also include recreational users of and visitors to the La Crosse River floodplain and recreational land such as golf courses, the La Crosse River Trail, and the neighborhood Coachlite Greens Park. Views of the Project by recreational users associated with these areas would be screened by existing vegetation and/or by the rolling topography, with the exception of river, creek, and trail users who would pass beneath the power lines and could view the lines and some structures. The rebuilt transmission line would not have a significant impact on viewers because the structures would be placed within the existing disturbed ROW. Viewers positioned directly adjacent to or within the Project ROW would have unobstructed views of the rebuilt transmission line; however, even though the transmission structures would be taller than the existing structures there would be fewer poles. The rebuilt line would be visible where it parallels and crosses roadways. Again, the rebuilt transmission line would not have a significant impact on viewers because the structures would be placed within the

existing disturbed ROW and although the new structures would be taller than the existing structures, there would be fewer poles.

Overall, effects to the aesthetic environment are anticipated to be less than significant because vertical elements similar to the rebuilt 161 kV transmission line already exist in the landscape, so the Project would not be out of character with the existing landscape. Furthermore, many sensitive views would be partially to completely screened by existing vegetation and/or topography.

After construction, the Project would not be out-of-character with the aesthetic character of the existing landscape. The transmission line is already present in the landscape.

5.11.1 Mitigation and Monitoring

The Project design reduces aesthetic and visual impacts to a level that is less than significant by locating the Project within an already disturbed corridor. In addition, to further minimize potential visual effects, existing undisturbed trees, shrubs, and native vegetation will be preserved to the extent possible to maintain visual contrast in the landscape.

5.12 Socioeconomic and Community Resources

Any impacts to social and economic resources would generally be of a short-term nature. DPC anticipates that one crew of 15 to 20 construction workers would be needed for construction of the Project. The construction contractors would not likely be local. Revenue, therefore, would likely increase for some local businesses, such as restaurants, gas stations, grocery stores, and hotels, because of an increase in the number of out-of-town workers in the area. Other local businesses, such as gravel suppliers, hardware stores, welding and machine shops, and heavy equipment repair and maintenance service providers, would also likely benefit from construction of the Project. The existing businesses and social services would be adequate to support the Project because of the small size of the construction crew and the short-term nature of the construction activities. The increased availability of reliable power in the area would have a positive effect on local businesses and the quality of service provided to the general public.

Since the Project has existed in its current location for approximately 62 years and it would be rebuilt within its existing ROW, its impact on property values are expected to less than discernable.

Given the relatively small size of the construction crew needed for construction of the Project, no impacts to emergency health care facilities or law enforcement services are anticipated.

5.12.1 Mitigation and Monitoring

Negative effects resulting from construction of the Project are not anticipated, so no mitigation is necessary.

5.13 Environmental Justice

The percentages of minority populations in the census tracts that cross the Project range from 2.9 to 8.4. Two of the census tracts crossed by the Project have lower minority populations than La Crosse County and three of the census tracts crossed by the Project have higher minority populations that La Crosse

County (**Table 4.6**). La Crosse County and all of the census tracts crossed by the Project have lower minority populations that the state of Wisconsin. Although low income populations would be crossed, the Project is a rebuild of the existing Q-1D South transmission line, so it is anticipated that the Project would have no disproportionate environmental effects to minority and low-income populations within La Crosse County. Further, no new easements would be required for the Project.

5.13.1 Mitigation and Monitoring

Construction of the Project would not have disproportionate impacts on minority and low-income populations, so no mitigation is necessary.

5.14 Transportation

Effects to transportation resulting in construction of the Project are not expected to be significant and would be temporary in nature. Construction crews would use the identified access routes, roadways, farm roads, and trails to access structure locations and to string conductor along the Project. A small construction crew consisting of approximately 15 to 20 people for the transmission line would be required. It is not anticipated that construction equipment or labor transportation would have a significant impact on traffic volumes or flow on local roadways or state/county highways. Any increases in traffic would be short-term in nature and would be limited to the construction time period near individual transmission structures.

Transportation corridors in proximity to the Project consist of residential roads, county roads, two-lane STHs, and an interstate highway. Since the Project follows the existing corridor, the number of crossings would not change. It would be necessary to cross four county roads, three STHs, one USH, one interstate highway, and twenty-seven local roads (36 total road crossings) while stringing the conductor, and traffic would temporarily be delayed for the time that it would take to string the conductor across the road. Conductor stringing at these locations is estimated to require only a few hours per crossing. If lane closures are necessary while conductor stringing takes place, at least one lane would remain open to traffic at all times. Temporary guard or clearance poles would also be installed to ensure that conductors do not obstruct traffic during stringing. Once the installation of new conductor has been completed, the temporary guard poles would be removed.

No impacts to airports or heliports during construction of operation of the Project are anticipated. The closest public airport to the Project is the La Crosse Regional Airport located immediately west of the Project on the northwestern corner of I-90 and USH 53, which is approximately 4.3 mile south of the Briggs Road Substation (**Figure 5**). DPC is working with the FAA regarding marking and lighting and the Cities of La Crosse and Onalaska regarding AOZD ordinance requirements as described in Sections 3.4.2 and 4.14. The closest heliport to the Project is a hospital heliport located 4.3 miles southwest of the Project in La Crosse. The closest private airport to the Project is the Parkway Farm Strip Airport, located approximately 3.9 miles north of the Project in the Town of Holland. DPC will continue to coordinate with local governmental units with jurisdiction over airports in the vicinity of the Project to determine if permits are required.

The Holmen cell communication tower is located north of Schilling Road, approximately 1.3 miles northeast of the Project ROW. No communication towers are located within the Project ROW.

The Project would cross the Chicago Milwaukee St Paul and Pacific Railroad which is located east of STH 16 and south of the La Crosse River.

Construction, operation, and maintenance of the Project would have no significant effects on transportation or access in the Project area. The minor effects that would take place during construction would be minimized by utilizing the mitigation measures described below.

5.14.1 Mitigation and Monitoring

In addition to implementing those BMPs described in *DPC's Manual for Transmission Lines and Substation Construction and Maintenance Activities*, the following mitigation measures will be employed to reduce potential impacts to transportation:

- Roadway crossings will be maintained in a condition that will prevent tracking of sediment onto the roadway.
- Mud tracked onto paved roadways will be shoveled or swept off the road daily.
- Road crossings resulting from stringing operations will be discussed with the appropriate transportation organization and, if required, personnel will be enlisted to assist with public safety and to ensure minimal disruption to traffic flow.
- The contractor will not utilize state or county road/highway ROW for parking.
- The contractor will be required to make necessary provisions for conformance with federal, state, and local traffic safety standards using traffic control, signage, and hazard cones as necessary to minimize the obstruction and to provide for the smooth flow of traffic around or through the construction area.
- Temporary guard or clearance poles may be installed to ensure that conductors do not obstruct traffic during stringing.

5.15 Human Health and Safety

5.15.1 Electrical Characteristics

No health impacts would result from the construction and operation of the Project either through the effect on air quality or because of the electromagnetic or electrostatic characteristics are nonexistent. Sources of EMF in the proximity to the Project include 161 and 69 kV transmission lines, several distribution lines, and four substations. The Project would consist of rebuilding an existing 161 kV transmission line and would not introduce a new source of EMF in this portion of the Project area. Many studies of EMF have been conducted but none has identified a mechanism by which EMF can cause disease. Considerable research has been devoted to this subject over the past 30 years. More information and questions and answers can be found on the website for The National Institute of Environmental Health Sciences at http://www.niehs.nih.gov/health/ topics/agents/emf/.

Epidemiological and toxicological studies have shown no statistically significant association or weak associations between EMF exposure and health risks.

The possible impact of exposure to EMFs upon human health has been investigated by public health professionals for the past several decades. While the general consensus is that EFs pose no risk to humans, the question of whether exposure to MFs can cause biological responses or health effects continues to be debated.

The most recent reviews of research regarding health effects from power-frequency MFs conclude that the evidence of health risk is weak. The National Institute of Environmental Health Sciences (NIEHS) issued its final report on June 15, 1999, following six years of investigation. NIEHS concluded that there is little scientific evidence linking extra low frequency MF exposures with health risk.

In 2007, the World Health Organization (WHO) concluded a review of the health implications of EMFs. In this report, the WHO stated:

> *Uncertainties in the hazard assessment [of epidemiological studies] include the role that control selection bias and exposure misclassification might have on the observed relationship between magnetic fields and childhood leukemia. In addition, virtually all of the laboratory evidence and the mechanistic evidence fail to support a relationship between low-level ELF magnetic fields and changes in biological function or disease status. Thus, on balance, the evidence is not strong enough to be considered causal, but sufficiently strong to remain a concern. (Environmental Health Criteria Volume N°238 on Extremely Low Frequency Fields at p.12, WHO [2007]).*

Also, regarding disease outcomes, aside from childhood leukemia, the WHO stated that:

> *A number of other diseases have been investigated for possible association with ELF magnetic field exposure. These include cancers in both children and adults, depression, suicide, reproductive dysfunction, developmental disorders, immunological modifications and neurological disease. The scientific evidence supporting a linkage between ELF magnetic fields and any of these diseases is much weaker than for childhood leukemia and in some cases (for example, for cardiovascular disease or breast cancer) the evidence is sufficient to give confidence that magnetic fields do not cause the disease.*

(Id. at p.12.)

Furthermore, in their "Summary and Recommendations for Further Study," WHO emphasized that:

> *the limit values in [EMF] exposure guidelines [not] be reduced to some arbitrary level in the name of precaution. Such practice undermines the scientific foundation on which the limits are based and is likely to be an expensive and not necessarily effective way of providing protection.*
>
> *(Id. at p. 12).*

WHO concluded that:

> *given both the weakness of the evidence for a link between exposure to ELF magnetic fields and childhood leukemia, and the limited impact on public health if there is a link, the benefits of exposure reduction on health are unclear. Thus, the costs of precautionary measures should be very low.*
>
> *(Id. at p.13).*

Wisconsin, Minnesota and California have all conducted literature reviews or research to examine this issue. Since 1989, PSCW has periodically reviewed the science on EMF, and has held hearings to consider the topic of EMF and human health effects. The most recent hearings on EMF were held in July 1998. In January 2008, the PSCW published a fact sheet (https://psc.wi.gov/thelibrary/publications/electric/Electric12.pdf) regarding EMF. In it, PSCW noted that:

> *Many scientists believe the potential for health risks for exposure to EMF is very small. This is supported, in part, by weak epidemiological evidence and the lack of a plausible biological mechanism that explains how exposure to EMF could cause disease. The magnetic fields produced by electricity are weak and do not have enough energy to break chemical bonds or to cause mutations in DNA. Without a mechanism, scientists have no idea what kind of exposure, if any, might be harmful. I in addition, whole animal studies investigating long-term exposure to power-frequency EMF have shown no connection between exposure and cancer of any kind.*

In a March 2013 CPCN Order, the PSCW affirmed the conclusions in the fact sheet, noting that "A 'perception of harm' from EMF emanating from overhead transmission lines is not rationally founded and cannot be the basis of a Commission decision that must be based upon fact." Western Milwaukee County Electric Reliability Project, Final Decision at 32, PSCW Docket No. 5-CE-139 (March 20, 2013; as modified March 27, 2013).

DPC recognizes its responsibility to provide wholesale electric service at the lowest possible cost in a manner that is safe, reliable and environmentally sound. This responsibility includes carefully designing and locating our facilities in accordance with the National Electric Safety Code and all applicable federal, state and local regulations. Despite the lack of clear evidence from reliable studies of any adverse effect EMF may have on human health, DPC will continue to construct and operate our facilities in a manner that minimizes, to the extent prudent and practical, the amount of EMF that is created. The new design for the 161kV line will have lower EMF reading than the existing transmission line.

Since there are still unanswered questions and opposing theories, DPC agrees that limited research should continue in a credible and objective manner even though the federal government has ceased funding all such research studies. Accordingly, DPC will continue to be a sponsor of the EMF research program of the Electric Power Research Institute (EPRI), of which we are a member. DPC will continue to closely monitor the results of these and other scientific studies as they are completed.

A summary of the existing and proposed EMF calculations for the proposed Project is provided in **Appendix G**. Structure type drawings for the proposed Project are also provided along with an overview map showing the location where the structure types may be used.

EF and MF calculation tables presented in **Appendix G** were obtained from ENVIRO, a software program, licensed by EPRI. All information under this section (phase angles, pole design diagrams and height of lowest conductors at mid-span) are shown in **Appendix G**.

The potential for injuries or mortality from a variety of accidental causes involving transmission lines is a valid consideration with any high voltage facility. DPC's transmission line design is in accordance with the NESC and Wisconsin State Electric Code-Part 2 and designed to minimize the possibility of injury from either inadvertent causes or ill-advised tampering by the public. There exists a possibility of human hazards despite all attempts to educate the public and design tamper-proof facilities. However, this hazard would be no greater for the Project than presently exists from existing similar facilities in the area.

5.15.2 Mitigation and Monitoring

DPC will continue to communicate with landowners adjacent to the Project ROW on the safe operation of equipment near a transmission line. Because no additional impacts to human health and safety are anticipated, no mitigation measures are proposed.

5.16 Corona, Audible Noise, Radio, and Television Interference

Corona from transmission lines can create buzzing, humming, or crackling. Measures such as carefully handling the conductor during construction to avoid nicking or scraping or otherwise damaging the surface and using hardware with no sharp edges or points are typically adequate to control corona. Corona effects are expected to be low enough that no objectionable audible noise would result outside the Project ROW. Corona-related ozone and nitrogen oxide emissions are the primary air quality concerns related to transmission line operation. The concentration of ozone caused by corona is a few parts per million near the conductor and is not measurable at any distance from the conductor.

The construction of the Project would result in AN from the transmission line and temporary short-term noise increases in areas where construction and staging are taking place. Indirect effects from post construction activities, which would include the AN effects from the transmission line and inspection and maintenance activities, would be insignificant because of their short duration and infrequency. The AN generated during construction would be caused by foundation construction, assembly and erection of the transmission line structures, and noise generated by construction equipment such as auguring machines, cranes, heavy machinery, and trucks.

Typical equipment associated with transmission line construction and the associated noise levels at full power are shown in **Table 5-3**. Shaded areas indicate reference noise levels.

Under peak conditions during construction, with the noisiest construction equipment operating simultaneously, the highest average expected noise level is estimated to be 89 dBA-equivalent sound level (referred to as Leq) at a reference distance of 50 feet (DOE 2002). This noise level is approximately equivalent to noise experienced on a sidewalk next to a busy urban street. Noise decreases with distance at a rate of approximately six dBA per doubling of distance from the noise source. Based on this attenuation rate, at distances above 0.25 mile, peak construction noise would be approximately 61 dBA, or equivalent to normal conversation at 6 feet.

Noise from heavy machinery during construction of the Project may create a short-term nuisance to nearby residents. DPC would mitigate the nuisance by ensuring that construction vehicles and equipment are maintained in proper operating condition and equipped with manufacturer's standard noise control devices or better (e.g., mufflers or engine enclosures).

Table 5-3: Construction Equipment Noise Levels

Equipment	Typical Noise Levels 50 feet from Source (dBA)[1]
Rural area during daytime[1]	40
Residential area during daytime	50
Normal conversation at 6 feet	55–65
Trucks	75
Air compressor	81
City traffic	80
Backhoe	80
Concrete mixer	85
Mobile crane	83
Bulldozer	85
Grader	85
Rotary drilling rig[2]	87
Peak combined equipment[3]	89
Lawn mower	90

Note: Shaded areas indicate reference noise levels.

1 Source: DOT (2006) except as noted.

2 Yantak (2007)

3 DOE (2002)

Landowners in proximity to electric transmission lines are often concerned that new transmission lines would affect their radio or television reception. This is a legitimate concern, not only related to transmission lines, but for distribution and communications lines as well. It is DPC's general experience that when the radio or television receiver is located outside the ROW, very few problems with radio or television reception are encountered.

Corona associated with the Project is expected to be low enough so that no radio or television interference is anticipated outside of the ROW, consistent with the operation of the existing transmission line. However, DPC is committed to taking all reasonable steps to assure area landowners that the Project would not interfere with radio or television reception. In cases where there is a demonstrable effect from the transmission line on reception, very often simple corrective steps, such as checking line

hardware for loose or defective hardware and repairing or replacing defective items is sufficient to solve the problems. In a very limited number of cases, it has been necessary to take more extensive corrective steps such as relocating individual television or radio antenna systems or installing systems where none previously existed. In most cases, however, it is possible to entirely avoid radio and television interference by appropriate routing steps and by post-construction adjustments of line hardware.

5.16.1 Mitigation and Monitoring

The Project intersects rural residential, residential, industrial, recreational, and commercial areas. Significant impacts resulting from construction noise are not anticipated. Impacts associated with the generation of corona are not anticipated and there would be no impact to radio and television interference; therefore, no mitigation measures are proposed.

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6.0 Agencies Consulted and Permitting Requirements

DPC consulted with agencies to solicit comments regarding potential impacts associated with the Project. DPC sent consultation letters to the following resource management agencies:

- USFWS concerning federally listed threatened or endangered species and wetlands
- WDNR concerning state-listed threatened and endangered species
- Wisconsin State Historic Preservation Office (SHPO) concerning cultural and historic resources
- Tribal Consultation
- NRCS concerning prime farmland

Copies of the consultation letters sent to resource management agencies and responses received to date are provided in **Appendix C**.

At the time this EA was submitted to RUS, response from the DATCP had been received. No concerns were raised by the DATCP and no AIS will be required for the Project. DPC submitted a form requesting SHPO Comment and Consultation on a Federal Undertaking in July 2015. DPC indicated that no historic properties would be affected by the Project. A concurrence letter from SHPO was received on August 6, 2015 and is provided in **Appendix C**.

DPC also sent a Notification of Undertaking Subject to Section 106 of the National Historic Preservation Act to nine Indian Tribes to inform them of the Project and to request review of potential impacts to cultural and historic properties. DPC has received responses from two of the Indian Tribes consulted. Both asked to be notified if any burial, sites, archaeological, or traditional properties were found. A copy of the letters and responses are provided in **Appendix C**.

In addition to those consultations listed above, DPC will also be consulting with the following resource management agencies or state and local jurisdictions when the following permits are applied for:

- WDNR General Permit for Wetland Discharges
- Notification to USACE that a Permit for Wetland Discharges will be filed with WDNR
- WDNR General Permit to Discharge Under the Wisconsin Pollutant Discharge Elimination System
- Permits to cross county and state roads/highways
- Permits to perform work in county and state roads/highways
- Permits potentially required by La Crosse County
    - Special Exception Permit – Airport Height Restrictions
    - County Stormwater Permit

DPC anticipates applying for all necessary federal, state, and county permits for the Project in late 2015 and would provide RUS with acquired permits as they are received.

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7.0 Public Notice and Comments

In conformance with 7 CFR 1794.32, DPC was required to notify the public about proposals that impact important land resources, which are defined in USDA Departmental Regulation 9500-3, Land Use Policy, as important farmland, prime forestland, prime rangeland, wetlands, and floodplains. Given the anticipated permanent impacts to important farmland, floodplains, and wetlands associated with the Project, DPC placed an advertisement in the La Crosse Tribune on August 31, 2015 to inform the public of the proposed construction. A copy of the newspaper advertisement is included in **Appendix F**.

The public notice asked that the public to submit comments within 30-days. In response to public comments received during the initial 30-day comment period, DPC published a second public notice in the La Crosse Tribune on October 3, 2015 extending the comment period by 10 days. A total of 45 written comments were received. **Appendix H, Table 1** provides list of comments. Comments received are also available on the DPC's website at http://www.dairynet.com/power_delivery/project_updates.php and are available for public examination locally, at DPC's office, 3200 East Avenue South, La Crosse, Wisconsin 54602. The responses to comments in **Appendix H** have been organized by topic following the order that the topics are discussed in this EA

Under the NEPA process and in conformance with 7 CFR 1970.102, DPC is required to notify the public of the availability of the Draft EA and solicit comments on the Project. The public will be afforded 30 days to comment on the Draft EA (this document), which will be available on RUS and DPC websites and in hard copy at DPC offices in La Crosse, Wisconsin and public libraries in Holmen and Onalaska, Wisconsin. Publication of a newspaper advertisement and legal notice in local newspapers initiates the comment period. A copy of the newspaper advertisement and legal notice is provided in **Appendix F**. Upon the completion of the comment period, RUS will determine the significance of the Project's effects on the quality of the human environment and make a Finding of No Significant Impact (FONSI) or prepare an Environmental impact Statement (EIS). Upon making a determination, a second newspaper advertisement and legal notice will be published in local newspapers.

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8.0 Conclusion

The Project is not expected to result in unmitigated impacts to environmental, social, cultural, or historical resources. The final transmission line design would be engineered to comply with the NESC, and protected species habitat and surface waters would be spanned by the transmission line. Construction of the Project would require that structures be placed in wetlands and DPC would coordinate with the appropriate agencies to determine the best ways to minimize and mitigate impacts and would obtain the necessary permits to construct. Potential impacts to soils and surface water resources would be minimized and avoided by using erosion and sedimentation control BMPs during construction.

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9.0 References

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FIGURES

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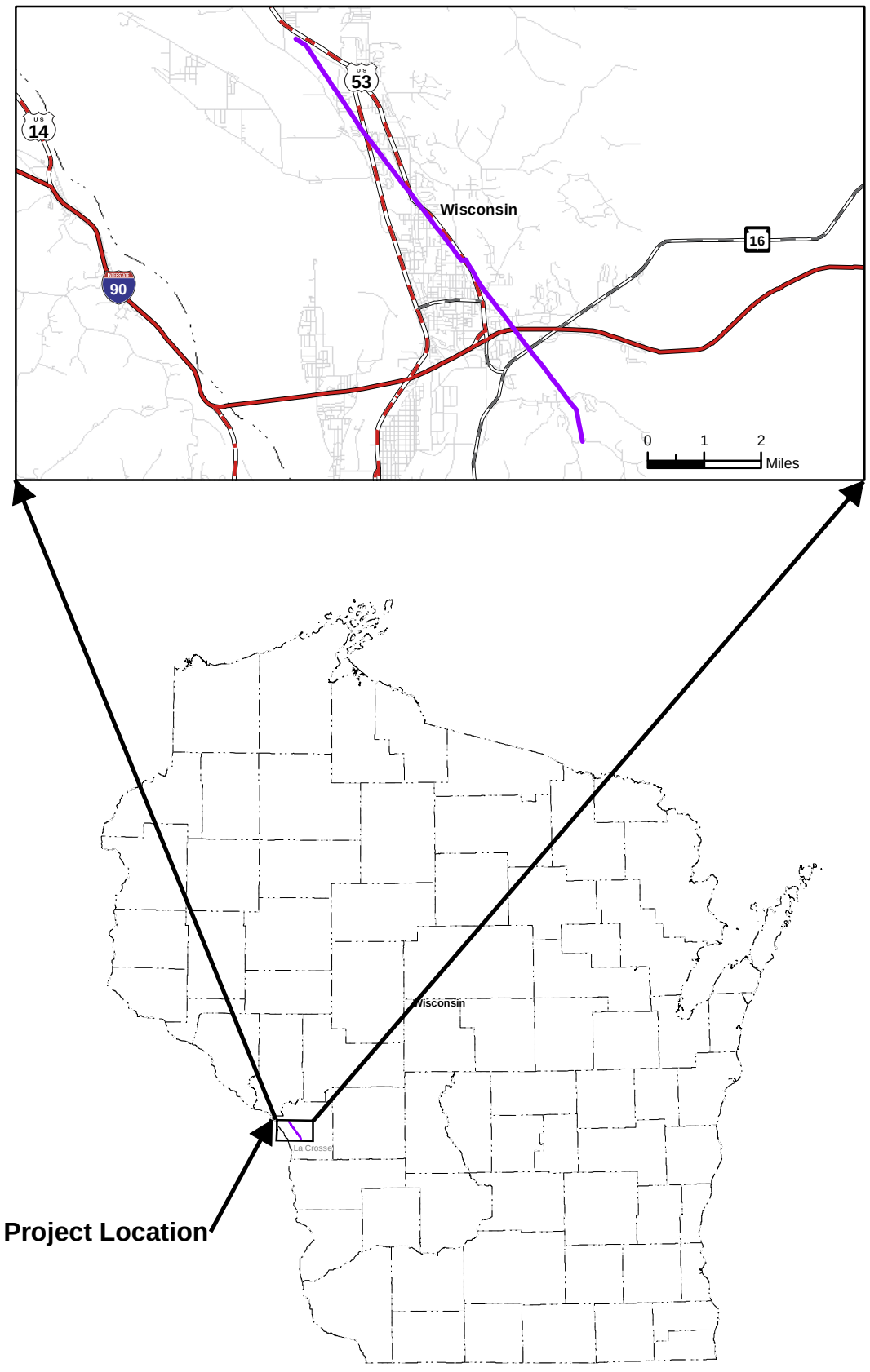

Legend

Project Feature
- Project Centerline

Jurisdiction
- State

Transportation
- Interstate Highway
- US Highway
- State Highway

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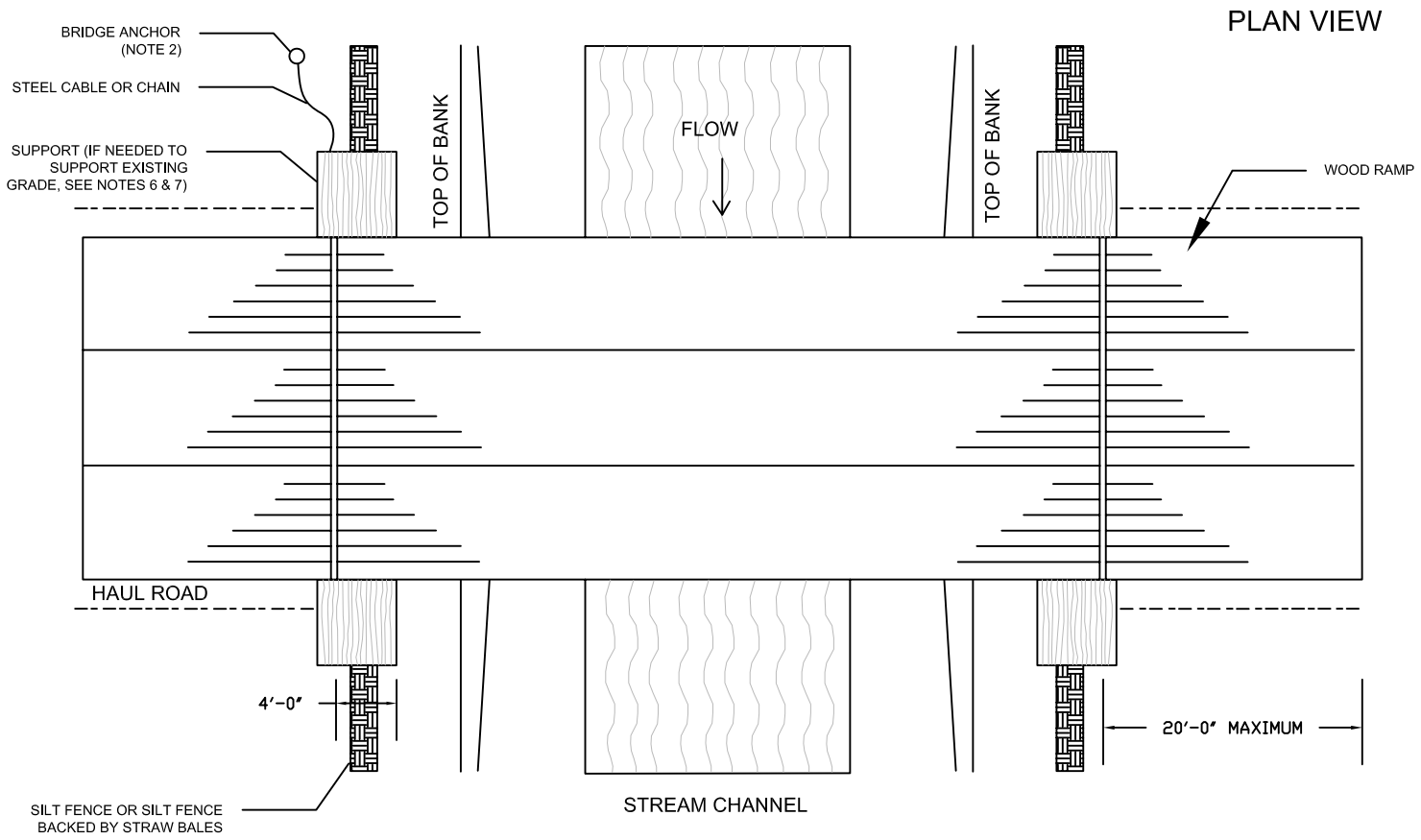
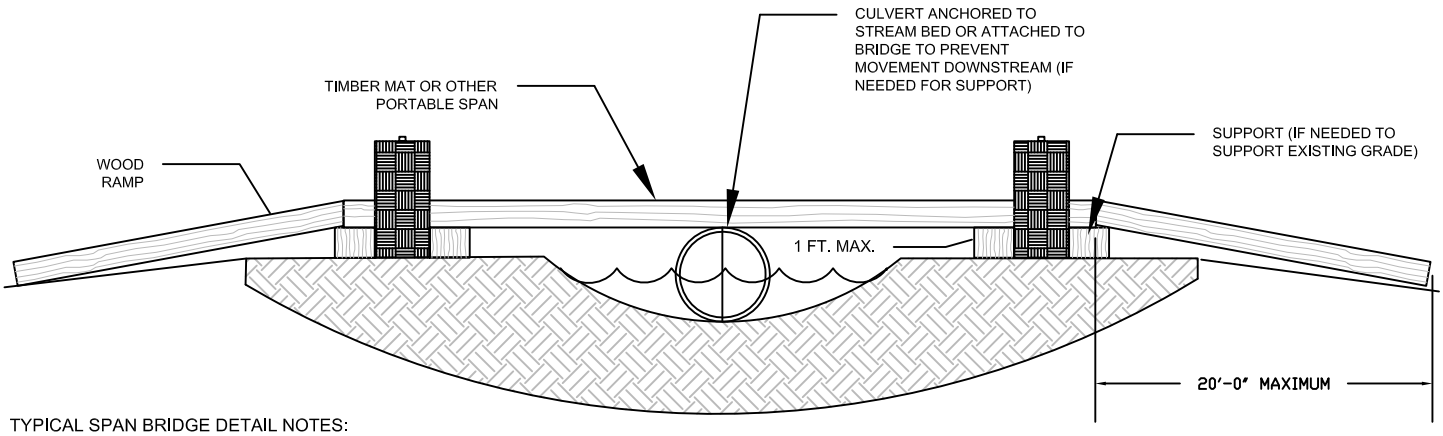
DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Figure 1
Project Location Map
April 2016





TYPICAL SPAN BRIDGE DETAIL NOTES:

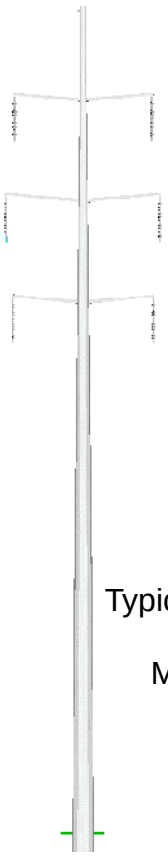
1. THE BRIDGE MUST SPAN FROM TOP OF BANK TO TOP OF BANK.
2. THE BRIDGE MUST BE FIRMLY ANCHORED TO PREVENT IT FROM BEING TRANSPORTED DOWNSTREAM DURING HIGH FLOW. (FOR EXAMPLE: A STEEL POST DRIVEN TO A MINIMUM DEPTH OF 30").
3. THE BRIDGE SHOULD REMAIN IN PLACE UNTILL ALL WORK AT THAT LOCATION IS COMPLETED UNLESS OTHERWISE REQUIRED BY PERMIT CONDITION.
4. THE CULVERT SUPPORT MUST BE ANCHORED TO THE STREAM BOTTOM AND MAY NOT BE SUPPORTED WITH FILL. CULVERT SUPPORTS MAY ONLY BE USED WHERE AUTHORIZED IN THE REGULATORY PERMIT.
5. INSPECT BRIDGE OPENING PERIODICALLY AND FOLLOWING RAINFALLS OF OVER 0.5". REMOVE ANY DEBRIS RESTRICTING FLOWS AND DEPOSIT IT IN AN UPLAND SITE OUTSIDE THE FLOODPLAIN.
6. INSPECT THE BRIDGE ELEVATION SO THE BRIDGE REMAINS SUPPORTED ABOVE HIGH BANK AND DOES NOT SINK INTO THE BANK.
7. ADDITIONAL SUPPORT MUST BE ADDED ON TOP OF BANK AND UNDER SPAN IF INITIAL SUPPORT STARTS TO SETTLE.
8. ALL RESTORATION SHALL CONFORM TO WDNR APPROVED RESTORATION PLANS.
9. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH EROSION CONTROL REQUIREMENTS SPECIFIED WITHIN PERMIT CONDITIONS.

SPAN BRIDGE - TYPICAL
WITH OR WITHOUT INSTREAM SUPPORT

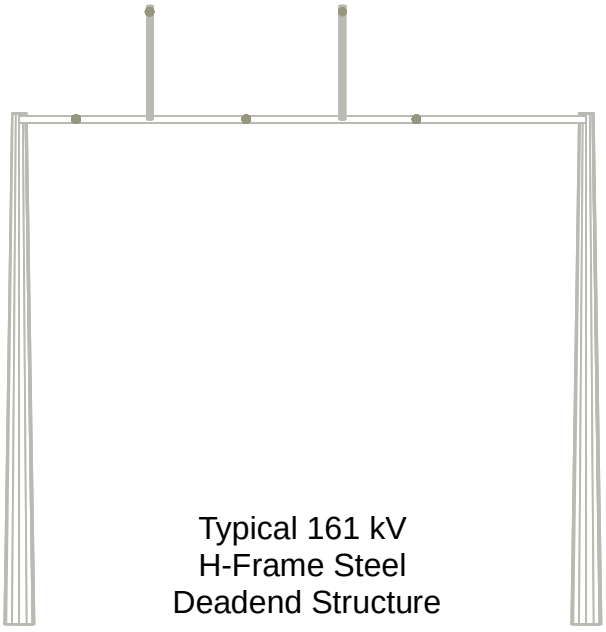
DRAWN BY: RLDV
DATE: 2010-10-29

NOT TO SCALE

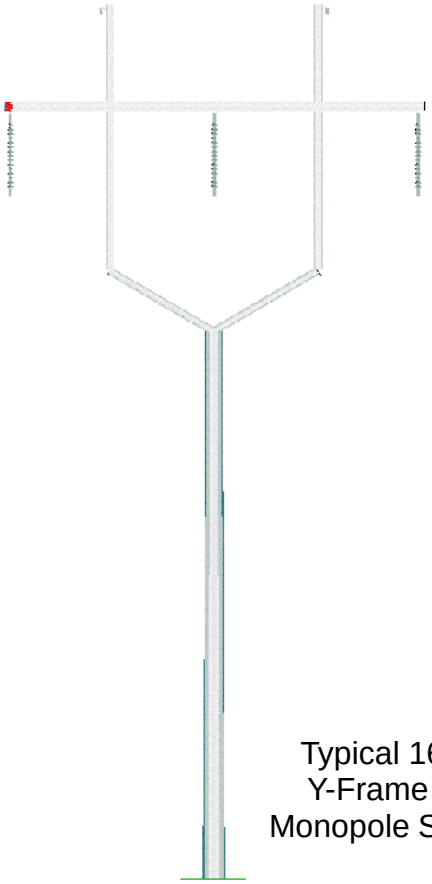
Typical 161kV Single Circuit Steel Monopole Structure



Typical 161/69 kV Double Circuit Steel Monopole Structure



Typical 161 kV H-Frame Steel Deadend Structure



Typical 161 kV Y-Frame Steel Monopole Structure

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A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV
Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Figure 3
Q-1D South Rebuild Project
Structure Diagrams
April 2016

Town of Holland

Long Lake

The Bullet Chute

Briggs Road Substation

Village of Holmen

Town of Farmington

US 53

Town of Onalaska

Town of Hamilton

16

Village of West Salem

Lake Onalaska

LA CROSSE

WINONA

INTERSTATE 90

Town of Campbell

City of Onalaska

La Crosse River

French Lake

Black River

Black River Channel

Round Lake

City of La Crosse

La Crosse Tap

Town of Medary

Town of Barre

WINONA

HOUSTON

Mississippi River

Legend

Alignment Alternative

- Alterantive 1
- Alterantive 2
- Xcel Energy 161 kV Alignment

Project Feature

- Project

Highway

- Interstate Highway
- US Highway
- State Highway

Jurisdiction

- City or Village
- Town

0 1 Miles

Data Sources: WDNR, WisDOT, BTS, USGS, and Census
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Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

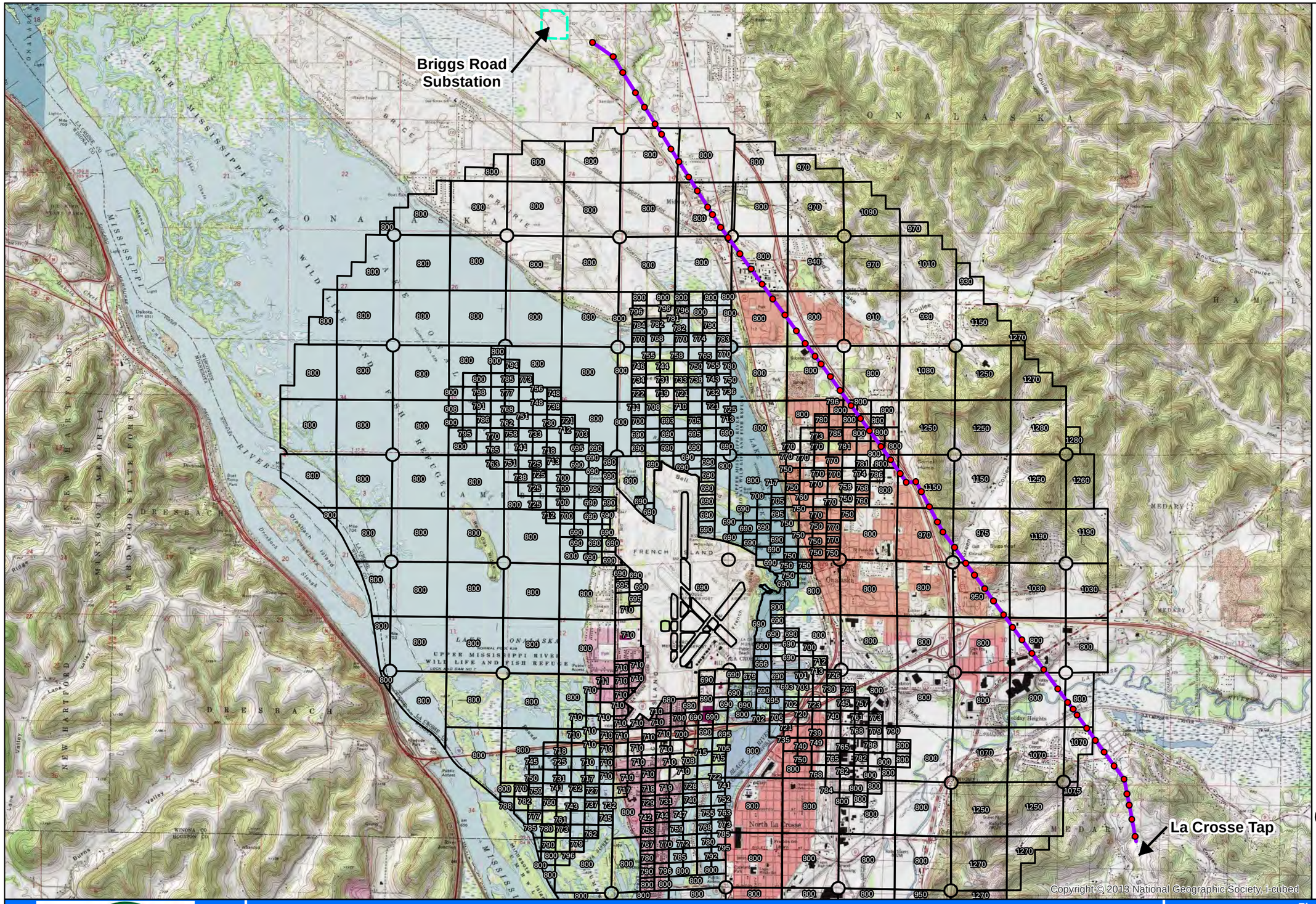
La Crosse County, Wisconsin

Figure 4

Q-1D South Rebuild Project

Alterantives Considered but Eliminated

April 2016



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Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Figure 5
City of La Crosse Airport Zoning Overlay Map
April 2016

Town of Holland

Briggs Road Substation

Village of Holmen

US 53

Town of Onalaska

Lake Onalaska

City of Onalaska

Town of Hamilton

16

Village of West Salem

Mississippi River

Town of Campbell

LA CROSSE
WINONA

INTERSTATE 90

French Lake

Black River

Black River Channel

Round Lake

La Crosse River

City of La Crosse

Town of Medary

La Crosse Tap

Town of Barre

WINONA
HOUSTON

Prime Farmland

Legend

Project Feature
- Project Centerline
- Briggs Road Substation

Prime Farmland
- All Areas are Prime Farmland
- Farmland of Statewide Importance
- Prime Farmland If Drained

Highway
- Interstate Highway
- US Highway
- State Highway

Jurisdiction
- City or Village
- Town

0 0.75 Miles

Data Sources: WDNR, WisDOT, BTS, USGS, Census, NRCS
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A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Figure 6

Prime Farmland Map

April 2016

Town of Holland

Briggs Road Substation

Village of Holmen

US 53

Town of Onalaska

Lake Onalaska

Town of Hamilton

City of Onalaska

16

Village of West Salem

Town of Campbell

Mississippi River

LA CROSSE
WINONA

INTERSTATE 90

French Lake

Black River

Black River Channel

Round Lake

La Crosse River

City of La Crosse

Town of Medary

La Crosse Tap

Town of Barre

WINONA
HOUSTON

Formally Classified Land

Legend

Project Feature

- Project Centerline
- Briggs Road Substation

Jurisdiction

- City or Village
- Town
- Federal Land
- State Land

Transporation

- Interstate Highway
- US Highway
- State Highway

0 0.75 Miles

Data Sources: WDNR, WisDOT, BTS, Census
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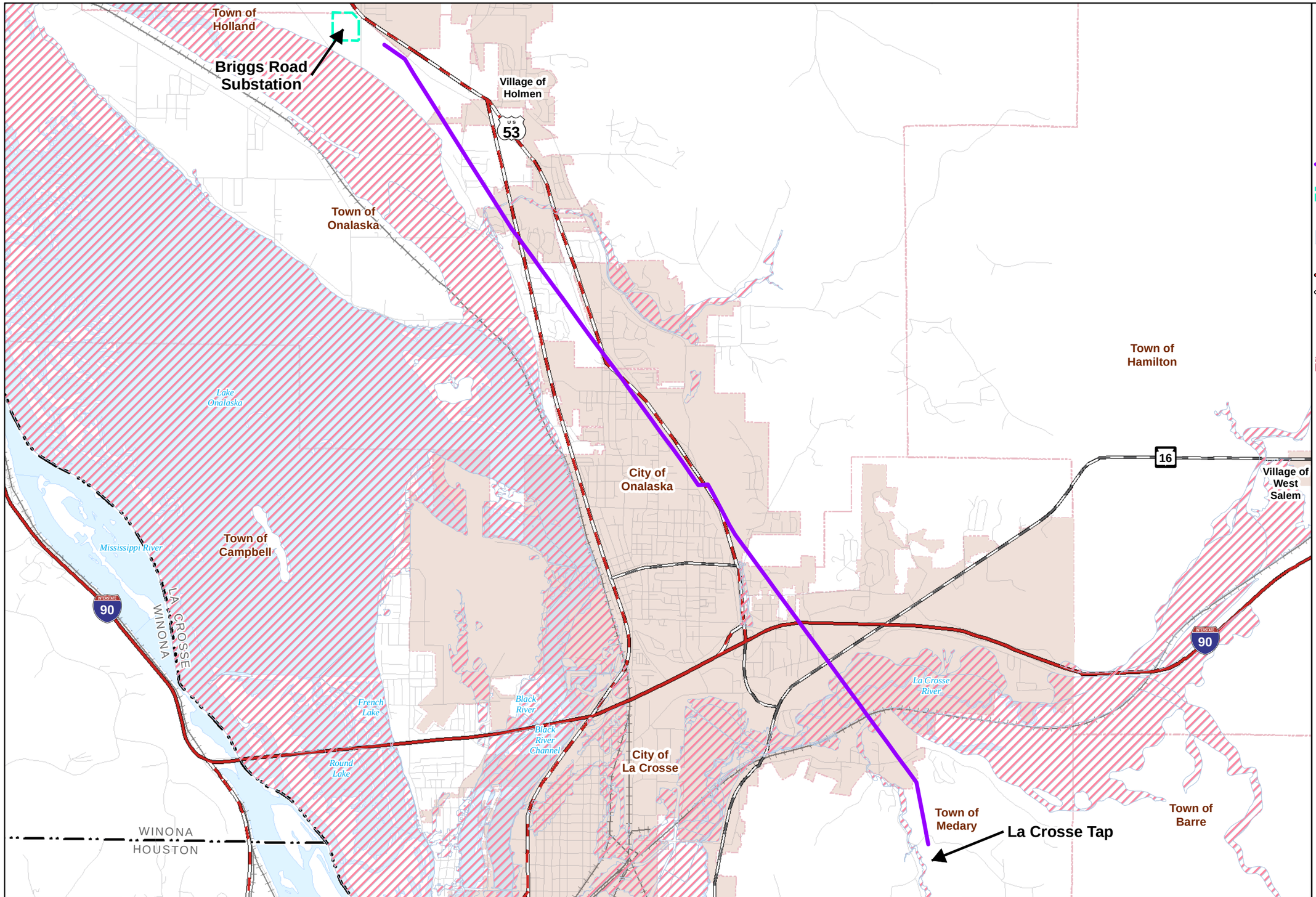
Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Figure 7

Formally Classified Land Map

April 2016



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A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Figure 8

FEMA Floodplain Map

April 2016

APPENDICES

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Appendix A:
Q-1D South Rebuild Project Mapbook

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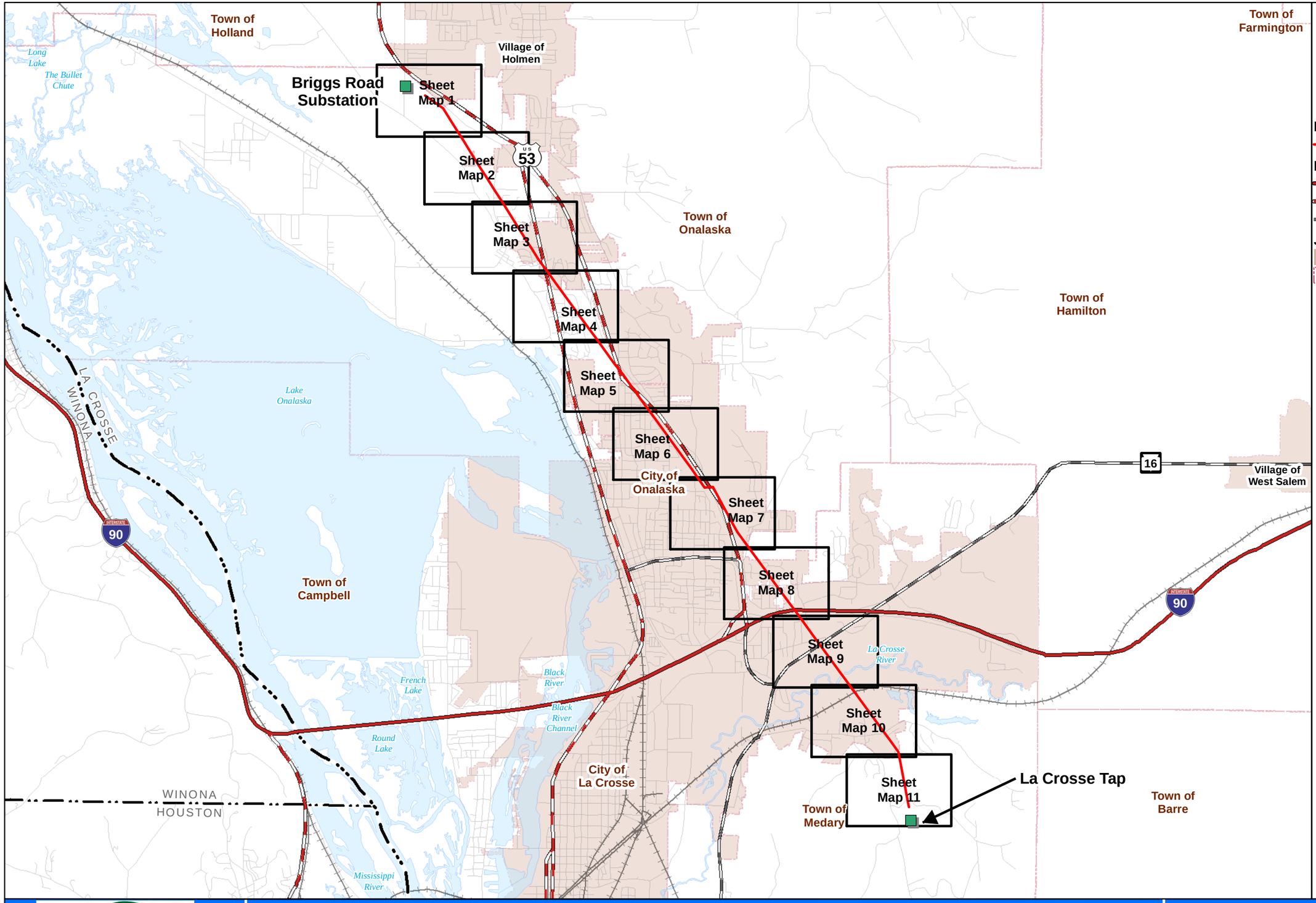

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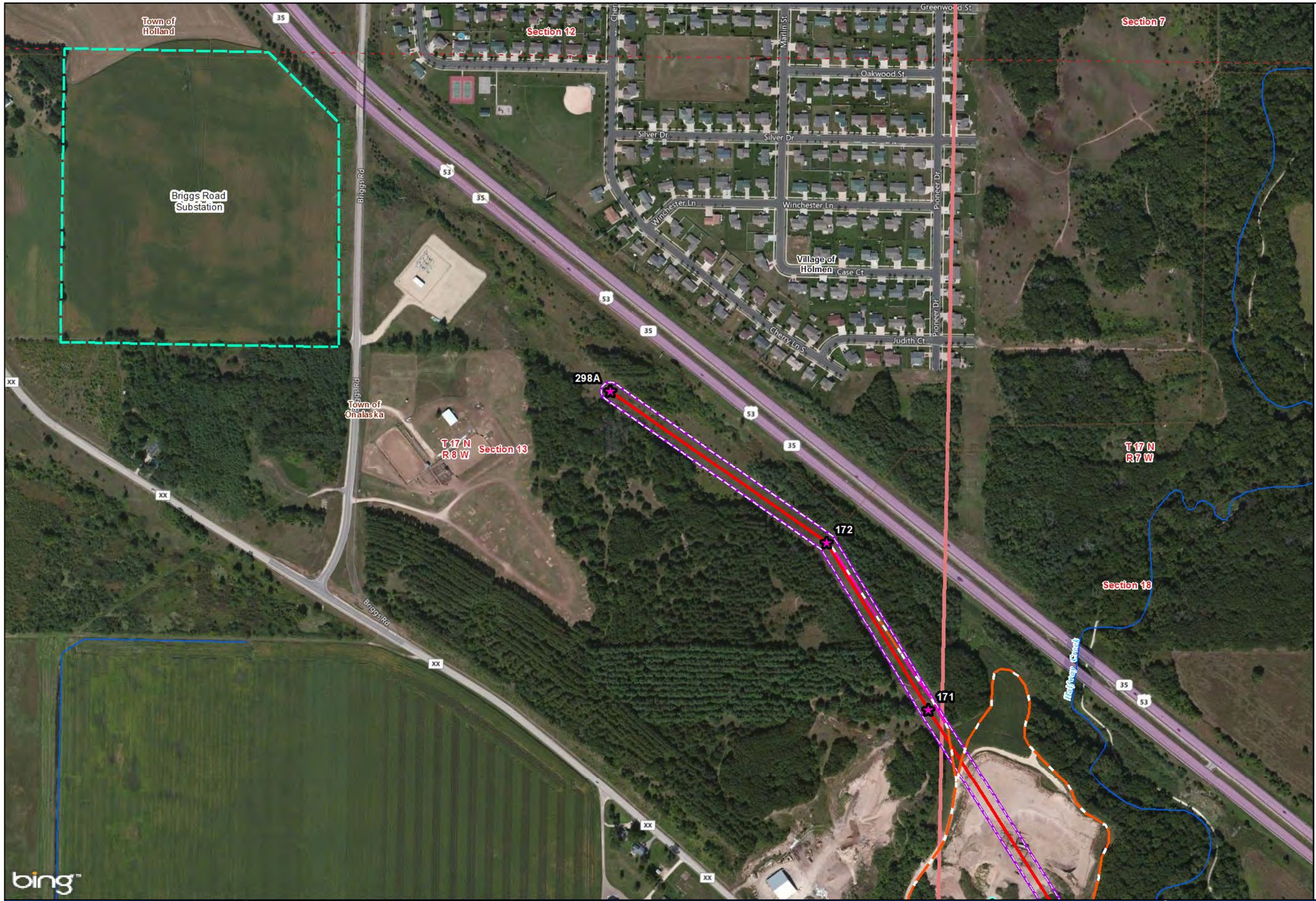
Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Overview Map

April 2016



Sheet Map 1

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
- Access Route - No Grading Required
- Access Route - Grading Required
- Temporary Clear Span Bridge
- Staging Area

Water Feature
- Waterbody
- Field Sketched Waterway
- Delineated Wetland

WDNR 24K Hydrography
- Intermittent Stream
- Perennial Stream

Jurisdiction
- County
- Township
- Section
- City, Village or Town
- Federal Land
- State Land

0 400 Feet

Sheet Map Index

Data Sources: WDNR, WisDOT, BTS, Census, and Dairyland Power
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Aerial Photography Published by Microsoft Bing Maps

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

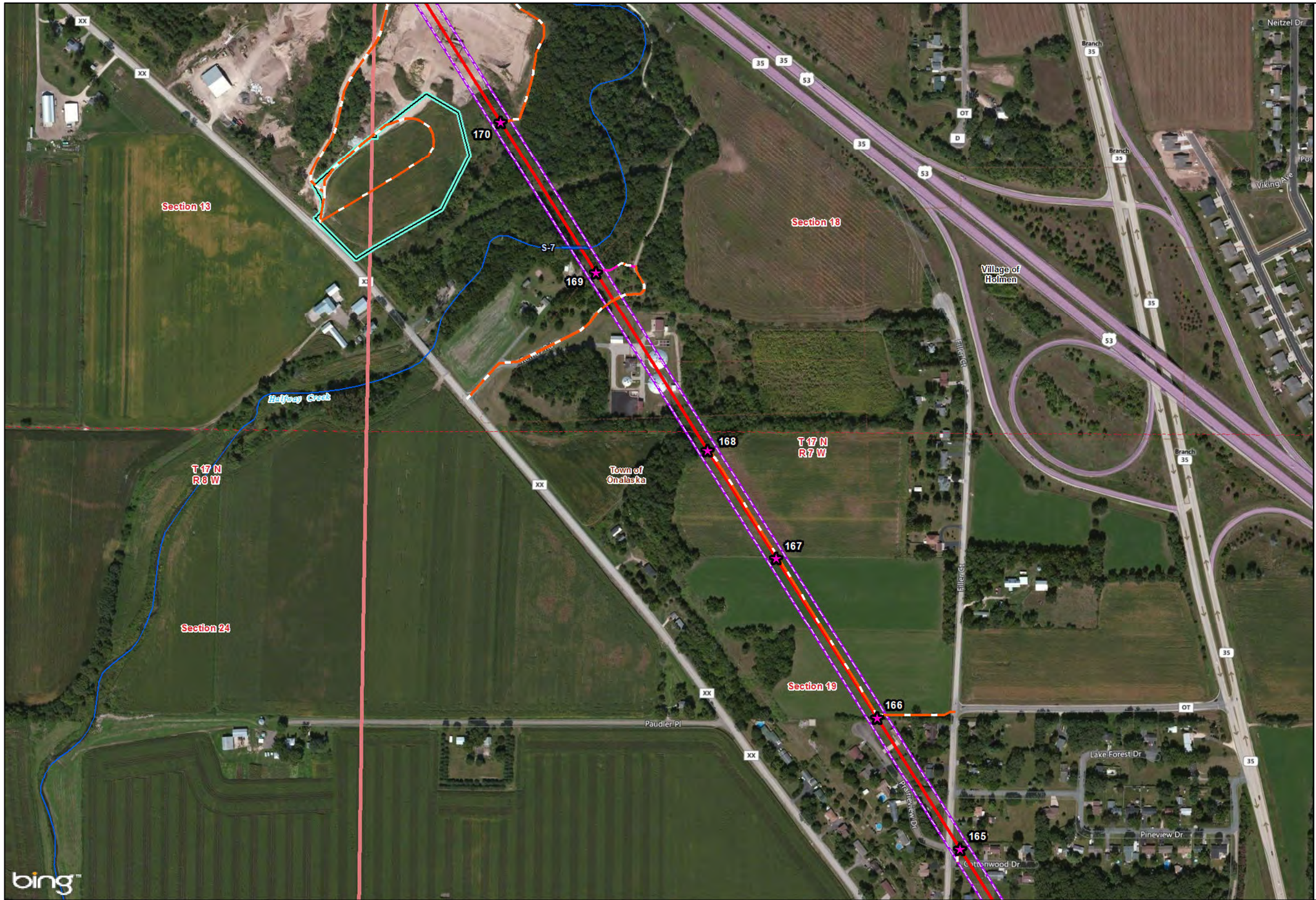
Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

April 2016



Sheet Map 2

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
- Access Route - No Grading Required
- Access Route - Grading Required
- Temporary Clear Span Bridge
- Staging Area

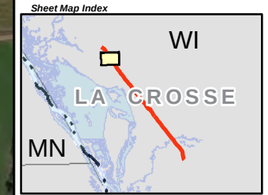
Water Feature
- Waterbody
- Field Sketched Waterway
- Delineated Wetland

WDNR 24K Hydrography
- Intermittent Stream
- Perennial Stream

Jurisdiction
- County
- Township
- Section
- City, Village or Town
- Federal Land
- State Land

0 400 Feet

Sheet Map Index



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Aerial Photography Published by Microsoft Bing Maps

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

April 2016

Sheet Map 3

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
- Access Route - No Grading Required
- Access Route - Grading Required
- Temporary Clear Span Bridge
- Staging Area

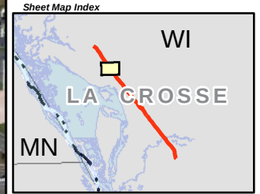
Water Feature
- Waterbody
- Field Sketched Waterway
- Delineated Wetland

WDNR 24K Hydrography
- Intermittent Stream
- Perennial Stream

Jurisdiction
- County
- Township
- Section
- City, Village or Town
- Federal Land
- State Land

0 400 Feet

Sheet Map Index



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DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

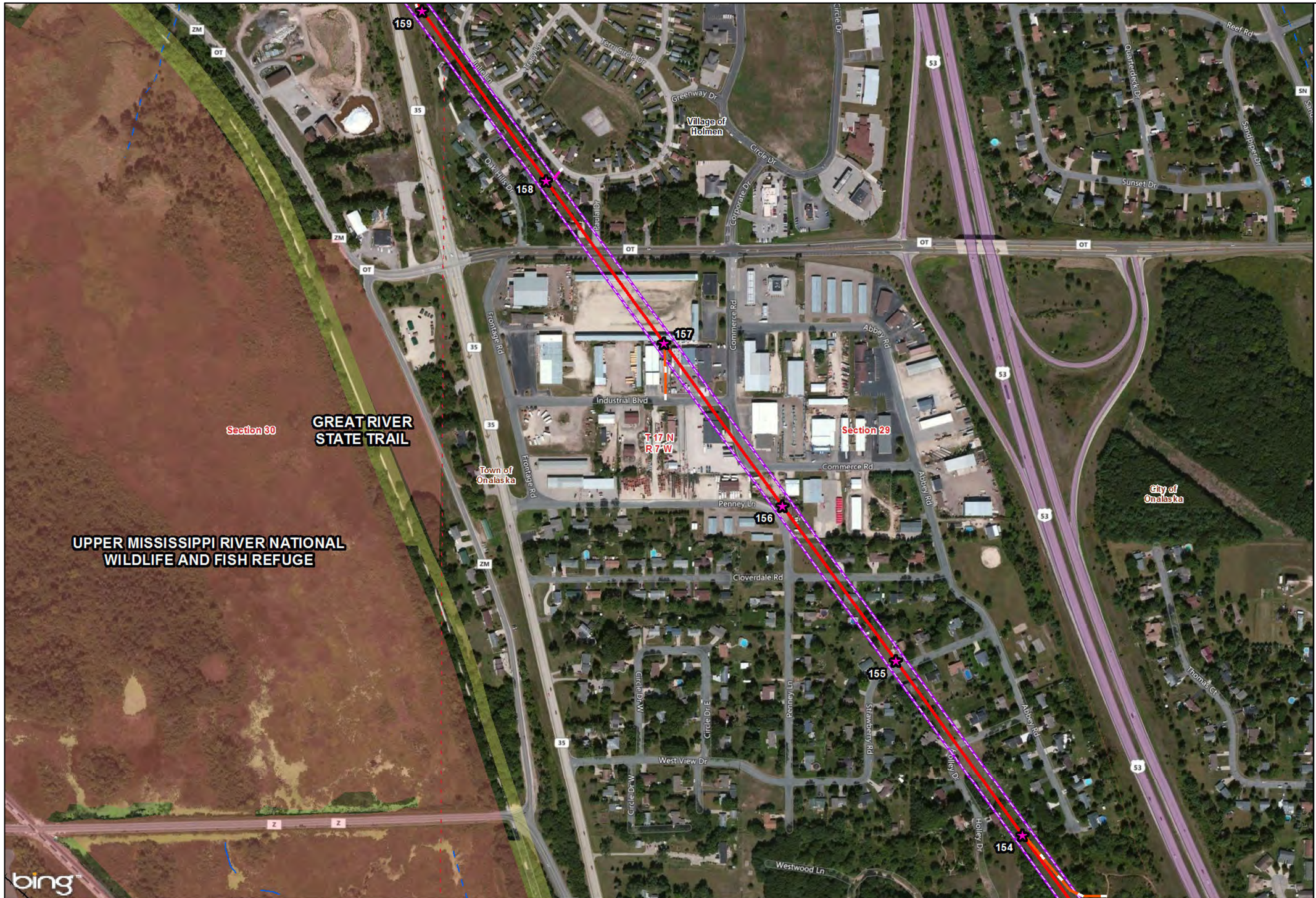
Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

April 2016



Sheet Map 4

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
- Access Route - No Grading Required
- Access Route - Grading Required
- Temporary Clear Span Bridge
- Staging Area

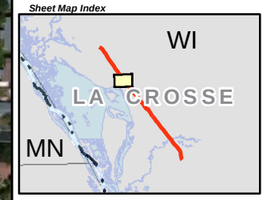
Water Feature
- Waterbody
- Field Sketched Waterway
- Delineated Wetland

WDNR 24K Hydrography
- Intermittent Stream
- Perennial Stream

Jurisdiction
- County
- Township
- Section
- City, Village or Town
- Federal Land
- State Land

0 400 Feet

Sheet Map Index



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Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

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April 2016

Sheet Map 5

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
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- Briggs Road Substation
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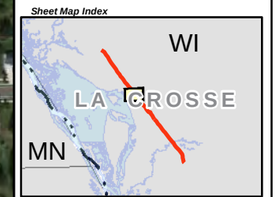
Sheet Map Index



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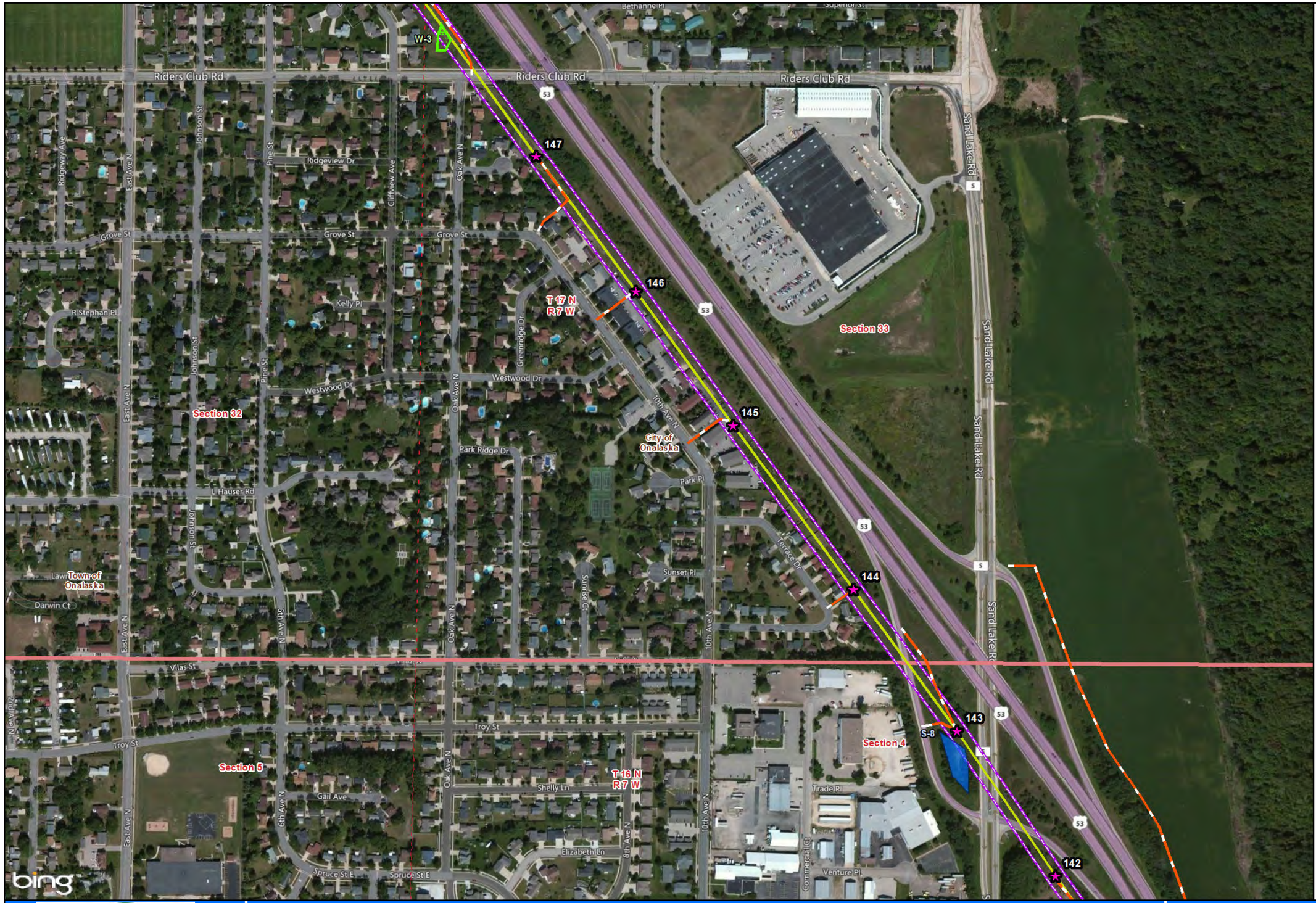
Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

April 2016



Sheet Map 6

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
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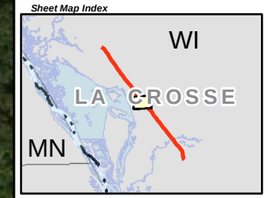
Sheet Map Index



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Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

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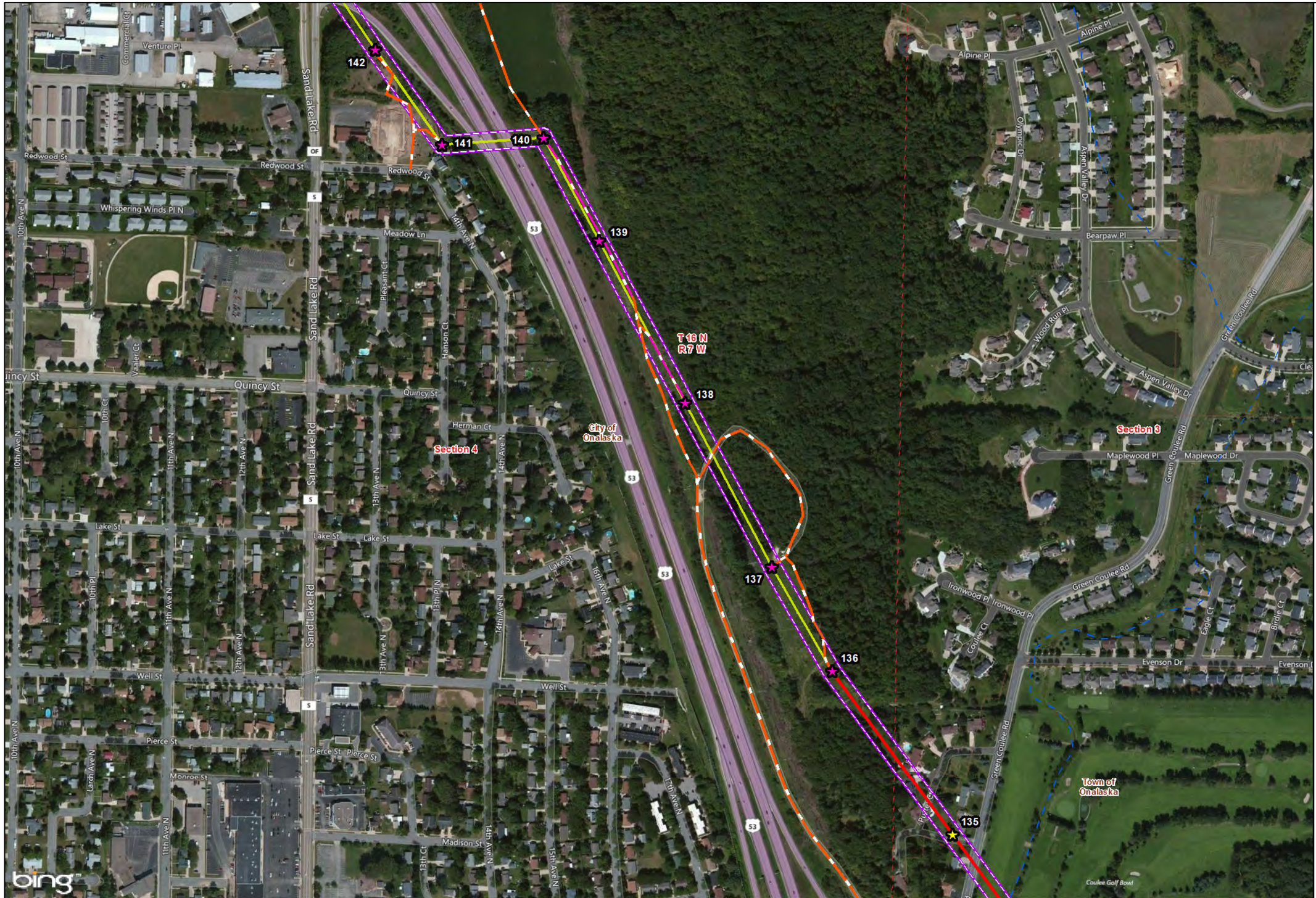
Q-1D South Rebuild Project Mapbook

April 2016



Sheet Map 7

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
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0 400 Feet

Sheet Map Index

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Aerial Photography Published by Microsoft Bing Maps

DAIRYLAND POWER COOPERATIVE
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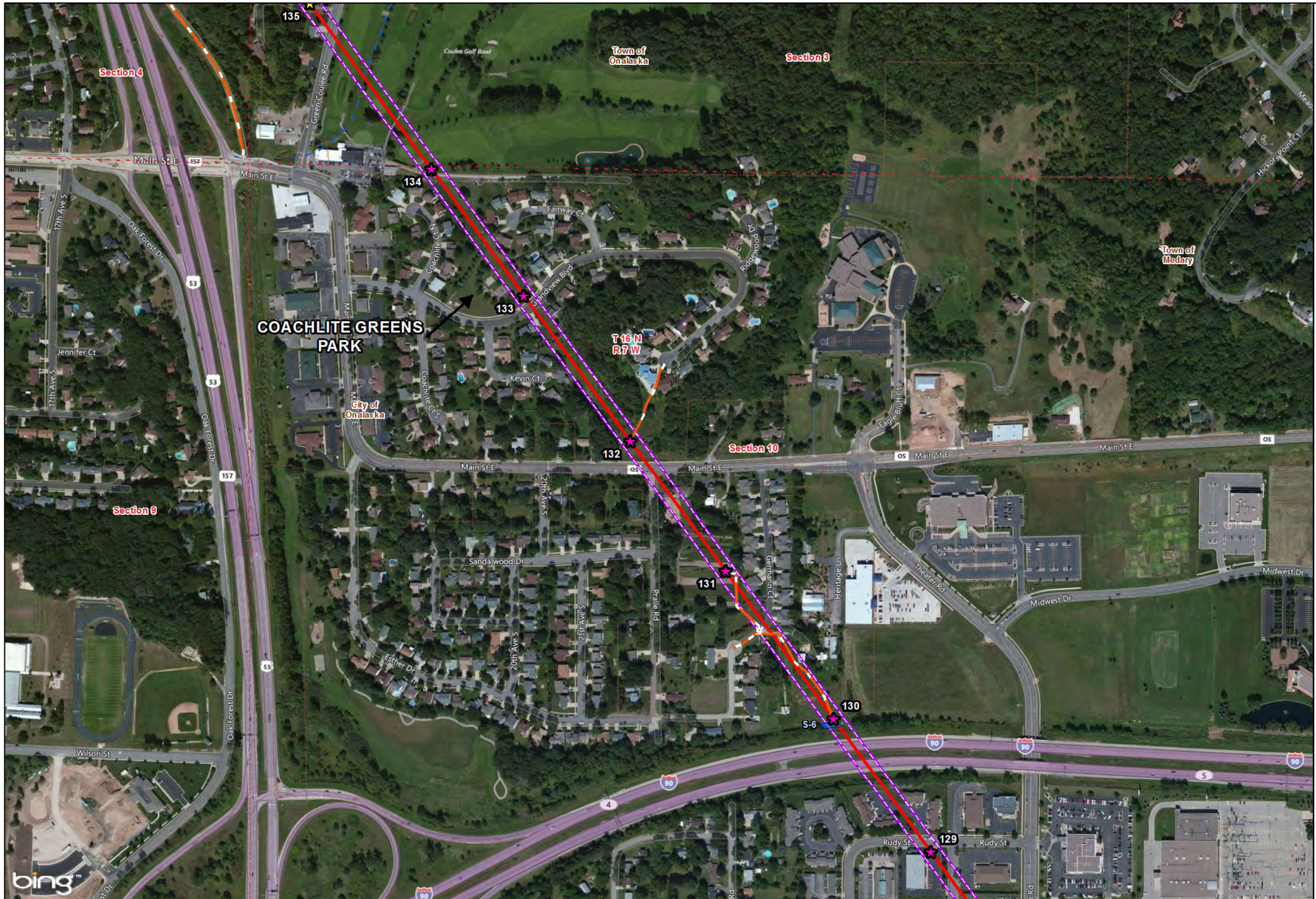
Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

April 2016



Sheet Map 8

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
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- Y-Frame Steel
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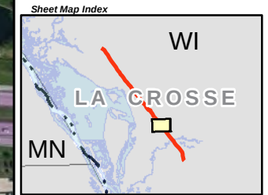
0 400 Feet

Sheet Map Index



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Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

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Q-1D South Rebuild Project Mapbook

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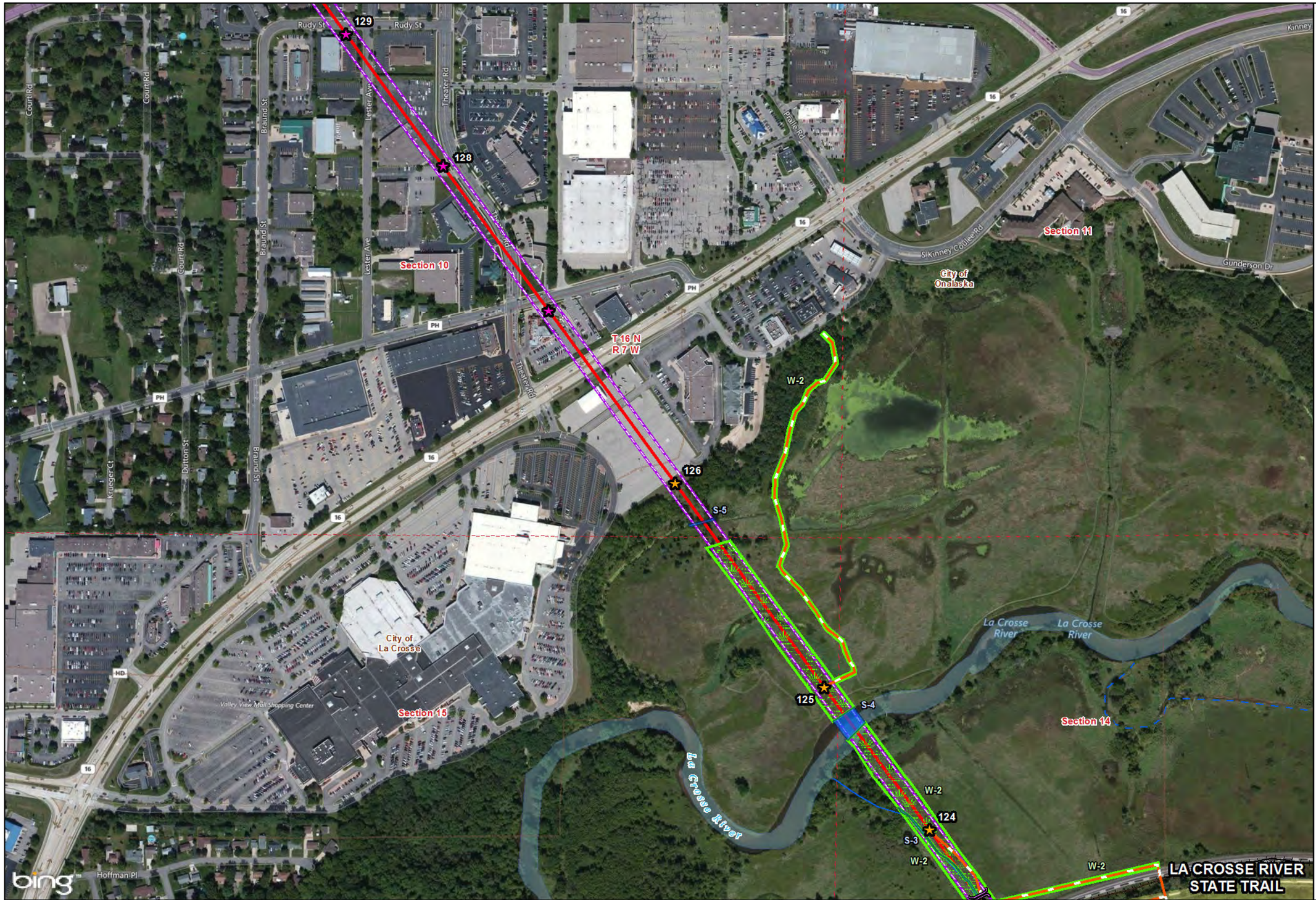

Sheet Map 9

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
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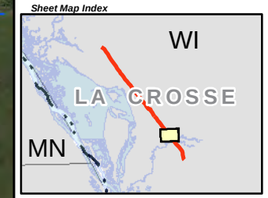
0 400 Feet

Sheet Map Index



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Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

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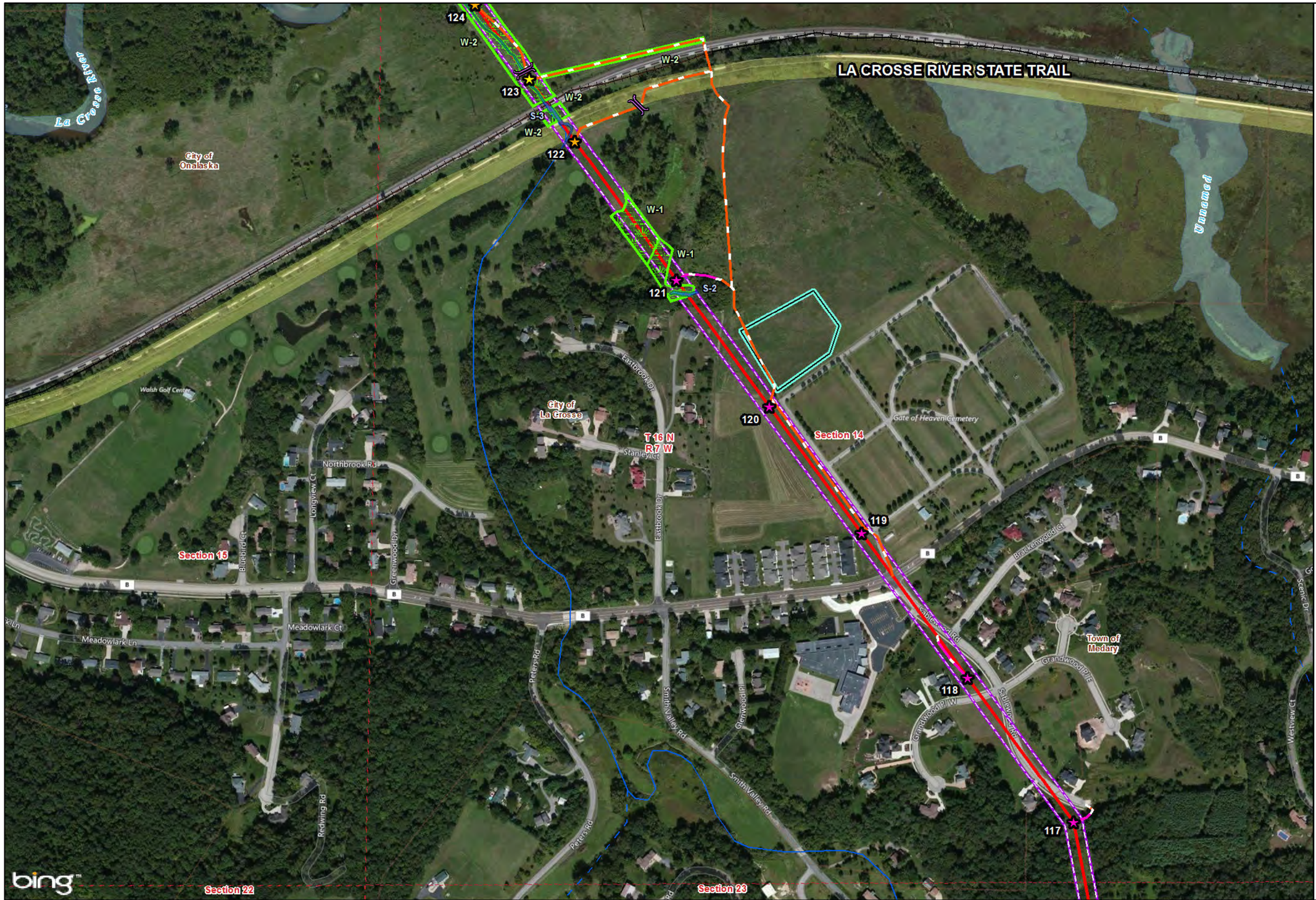
Q-1D South Rebuild Project Mapbook

April 2016



Sheet Map 10

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
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- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
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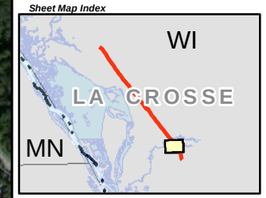
- State Land

0 400 Feet

Sheet Map Index



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A Touchstone Energy® Cooperative

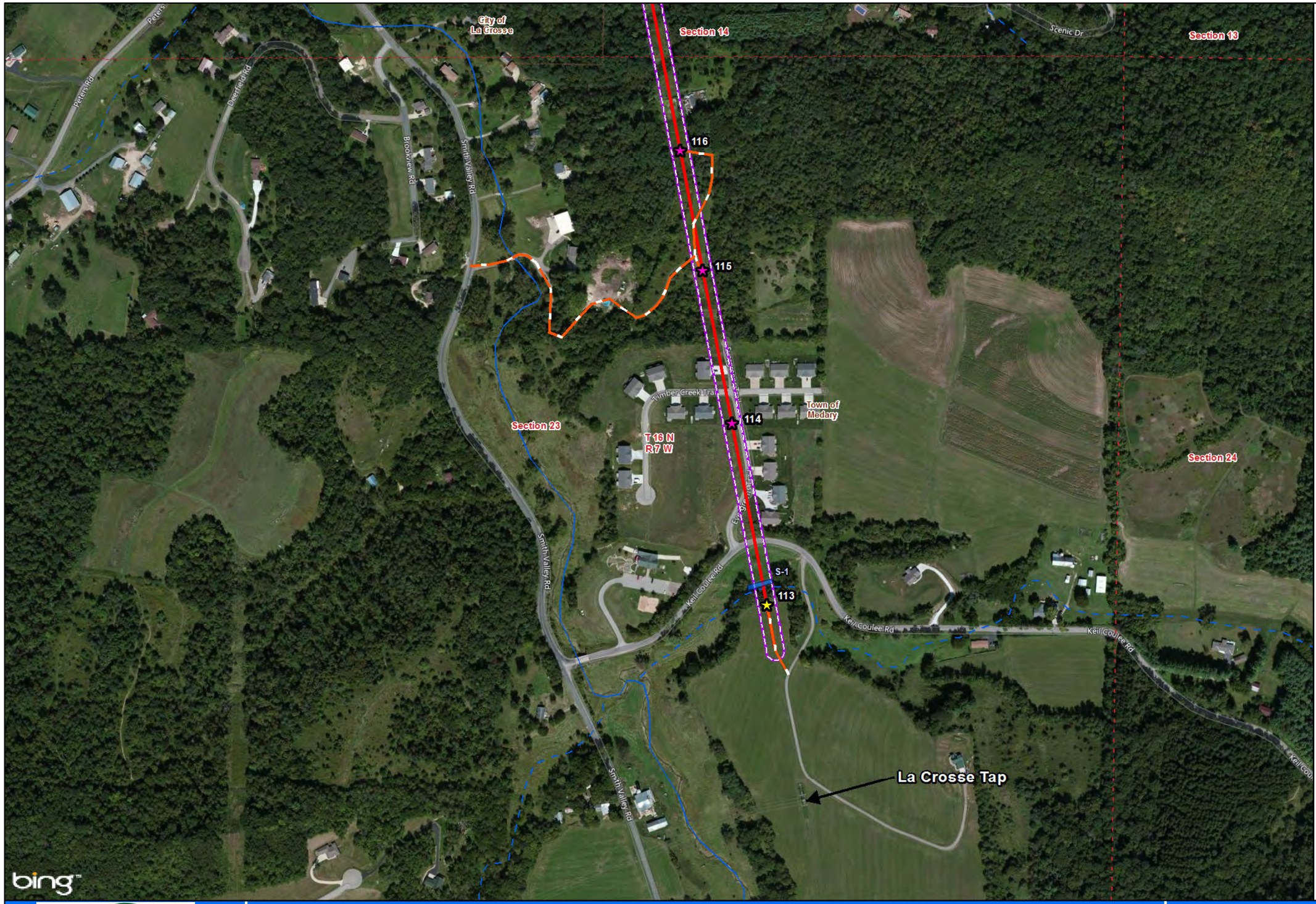
Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

April 2016



Sheet Map 11

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
- Access Route - No Grading Required
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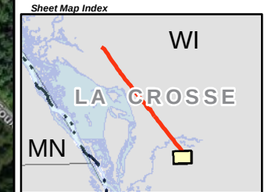
WDNR 24K Hydrography
- Intermittent Stream
- Perennial Stream

Jurisdiction
- County
- Township
- Section
- City, Village or Town
- Federal Land
- State Land

0 400 Feet

Sheet Map Index



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A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

April 2016

Appendix B:
Constraint Examples

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Town of Holland

Holmen

Village of Holmen

Town of Farmington

Briggs Road Substation

US 53

Town of Onalaska

Golf Club at Cedar Creek

Mayo Property

Village of West Salem

Lake Onalaska

Rosebud Island

Mississippi River

YMCA

Riders Club Park

LCWF Land

City of Onalaska

Onalaska

Coulee Golf Bowl

Onalaska Park

Town of Campbell

WISCONSIN

IESOTA

French Island

French Lake

Black River

Black River Channel

Round Lake

La Crosse River

Eagle Bluff School

Shepherd's Flock Church & Daycare

City of La Crosse

La Crosse Tap

Town of Medary

Town of Barre

Mississippi River

Fox Hollow

Legend

Alignment Alternative

- Alterantive 1
- Alterantive 2
- Xcel Energy 161 kV Alignment

Project Feature

- Project
- Constraint Example

Highway

- Interstate Highway
- US Highway
- State Highway

Jurisdiction

- City or Village
- Town

0 1 Miles

Data Sources: WDNR, WisDOT, BTS, USGS, and Census
Map Date: April 2016
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DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix B

Q-1D South Rebuild Project

Constraint Examples

April 2016

Appendix C:
Agency and Tribal Letters

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The following letter and attachments were sent to the following tribes on June 30, 2014:

- Prairie Island Indian Community in the State of Minnesota
- Santee Sioux Nation
- Ho-Chunk Nation
- Upper Sioux Community
- Spirit Lake Tribe
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation
- Lower Sioux Indian Community in the State of Minnesota
- Winnebago Tribe of Nebraska
- Flandreau Santee Sioux Tribe of South Dakota

June 30, 2014

Ho-Chunk Nation of Wisconsin
ATTN: William Quackenbush, THPO
West 9814 Airport Road
Black River Falls, Wisconsin 54615

Subject: Notification of Proposed Federal Undertaking (Off Tribal Land) Dairyland Power Cooperative Q1 South 161 kV Rebuild La Crosse County, Wisconsin

Dear Mr. Quackenbush:

Dairyland Power Cooperative (DPC) intends to seek financial assistance from the USDA Rural Utilities Service (RUS). DPC is planning a rebuild of approximately 9 miles of their 161 kilovolt (kV) transmission line (the south segment of the Q-1 line), which extends from the Briggs Road Substation located in La Crosse County, Wisconsin to the La Crosse Tap in the Town of Medary in La Crosse, County (the Project). Constructed in the 1950s, the Q-1 line is now in poor condition and reaching the end of its service life. The rebuild of the Q-1 line is necessary so that DPC can continue to provide reliable electric service to our customers.

RUS may fund the Project, thereby making it an undertaking subject to review under Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f), and its implementing regulations (36 CFR part 800). You are receiving this notification because the Project is located in an area where there may be historic properties of concern to your Tribe. It is the intent of this notification to provide you an opportunity to identify and/or advise on the identification of any historic properties you are aware of in the Project area. In recognition of the unique government-to-government relationship between tribal sovereign nations and federal agencies of the United States government, an agency contact is provided below should you have information to share related to this Project.

Mississippi Valley Archeology Center (MVAC) has completed a review of the Project and the findings report is enclosed for your reference. MVAC conclusion, based on the literature review, is that there is fifteen (15) sites are located within three (3) alternative project areas and two (2) additional sites are located immediately adjacent to the project areas. In addition, one hundred and fifty (150) sites are located within one mile of the project alternatives. The sites have affiliation ranging from Paleoindian to Historic Euroamerican. MVAC is recommending to Dairyland Power Cooperative a survey of areas not previously surveyed along with any access routes that may be constructed in areas of concern and DPC is currently planning on conducting a survey the late summer of 2014 in this area. The full report from Mississippi Valley Archaeology Center is attached for your review.

Should the Ho-Chunk Nation of Wisconsin elect to participate in Section 106 review of the referenced project, please notify me in writing via letter or email by ***August 8, 2014*** at 3200 East Avenue South | La

Crosse, WI 54602. Please include with your affirmative response a description of any specific historic properties or important tribal resources in the APE and recommendations that you may have about the level of effort for additional survey. Dairyland Power Cooperative will respect the confidentiality of the information which you provide to the fullest extent possible.

Dairyland Power Cooperative has been advised by RUS to proceed to the next step in Section 106 review if you fail to provide a timely response. Should you have any questions or require additional information you may contact me at 608-781-1432 or cat@dairynet.com. If at any time you wish to share your interests, recommendations and concerns directly with RUS, the agency responsible for conducting Section 106 review, or to request that RUS participate directly in Section 106 review, please submit your request to: Emily Beth Orler | Environmental Protection Specialist | USDA Rural Utilities Service | Engineering & Environmental Staff | 1400 Independence Ave, SW | Mail Stop 1571 | Washington, DC 20250.

Sincerely,

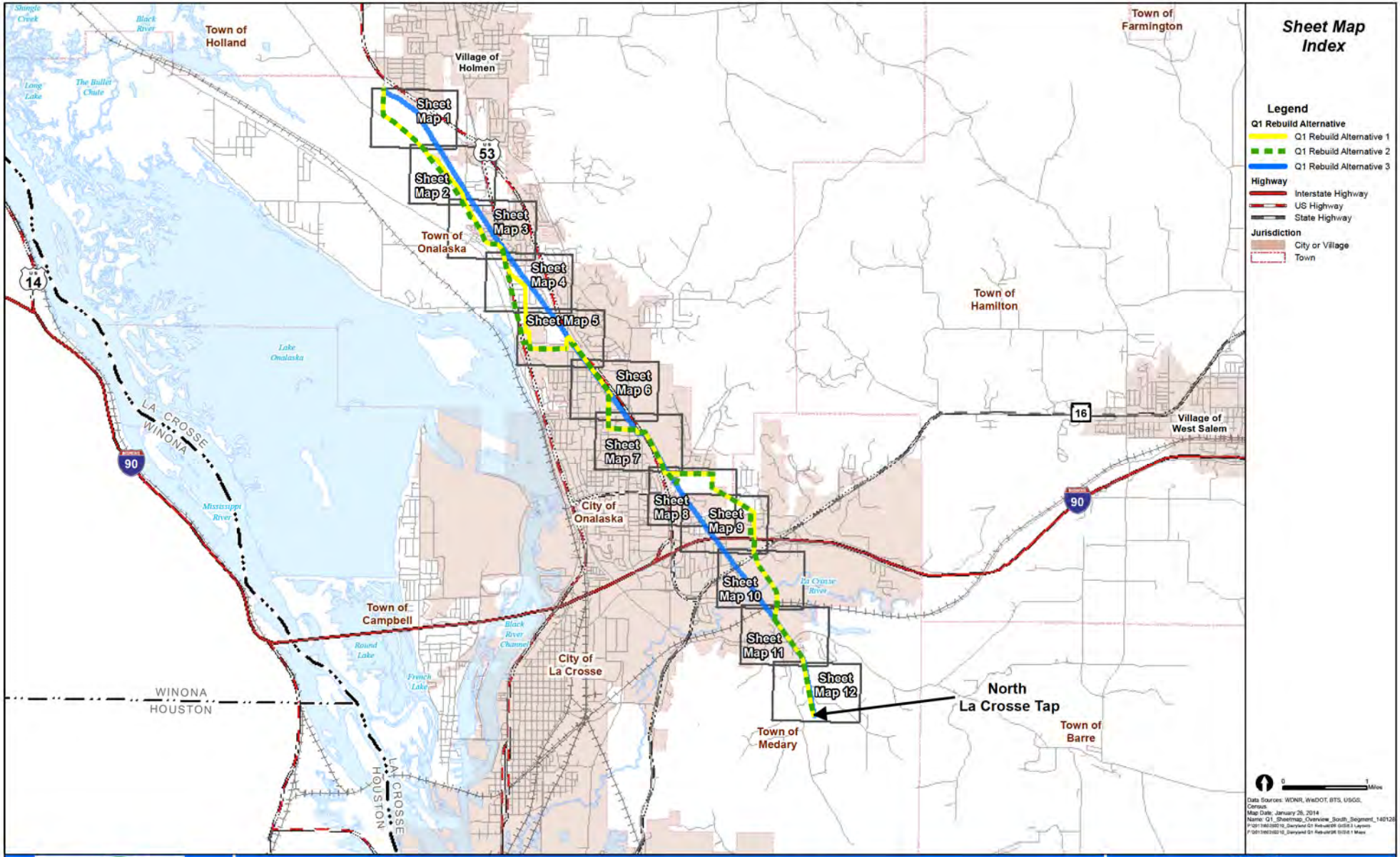
Chuck Thompson

Chuck Thompson,

Manager of Siting and Regulatory Affairs

Cc: Emily Orler, USDA Rural Utilities Service

Enclosures



DAIRYLAND POWER COOPERATIVE
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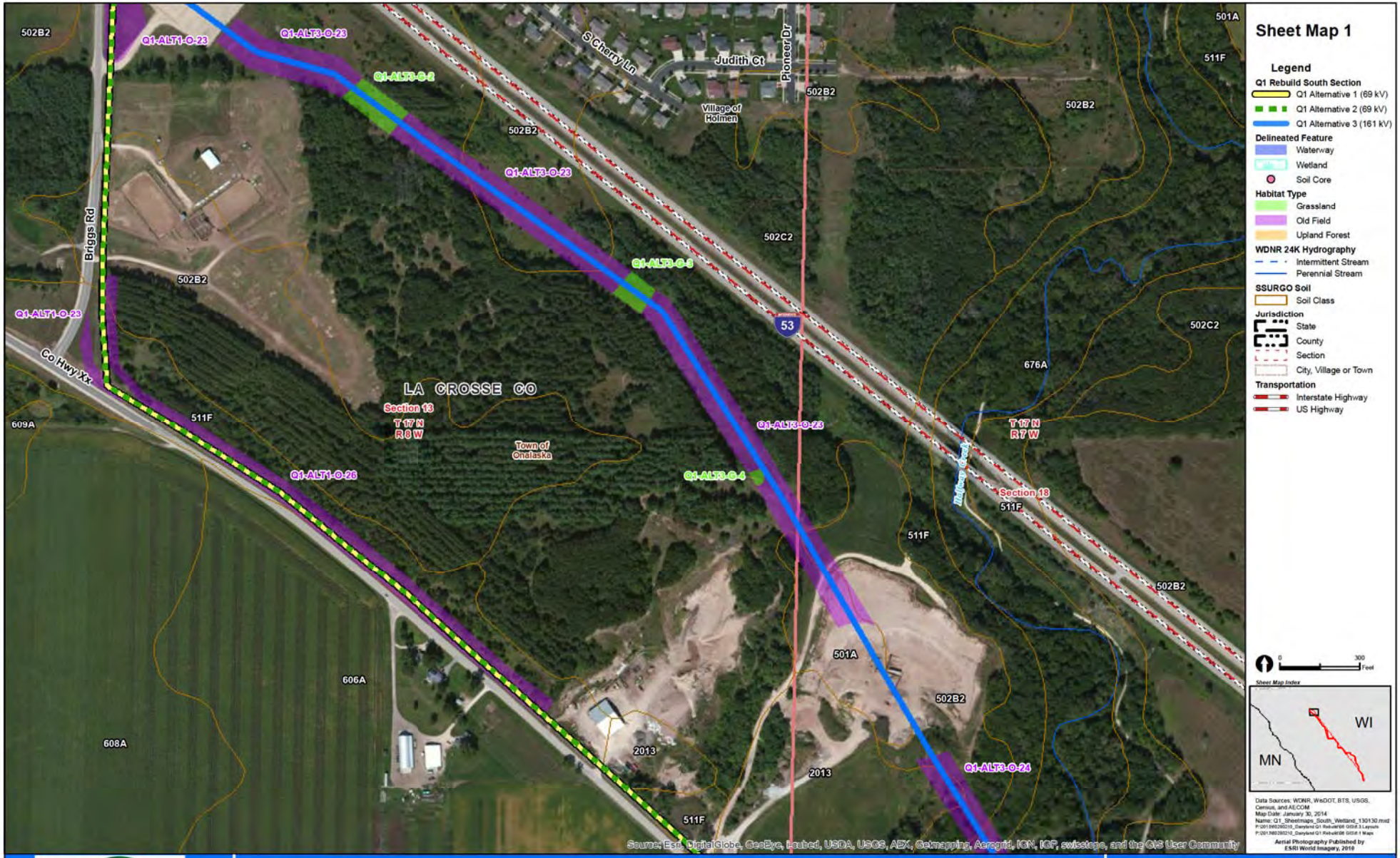
Marshland Substation to North La Crosse Tap Q-1 161 kV Rebuild Project

Dairyland Power Cooperative

Figure 2
Sheet Map Index
for Detailed Field Survey Maps
January 2014

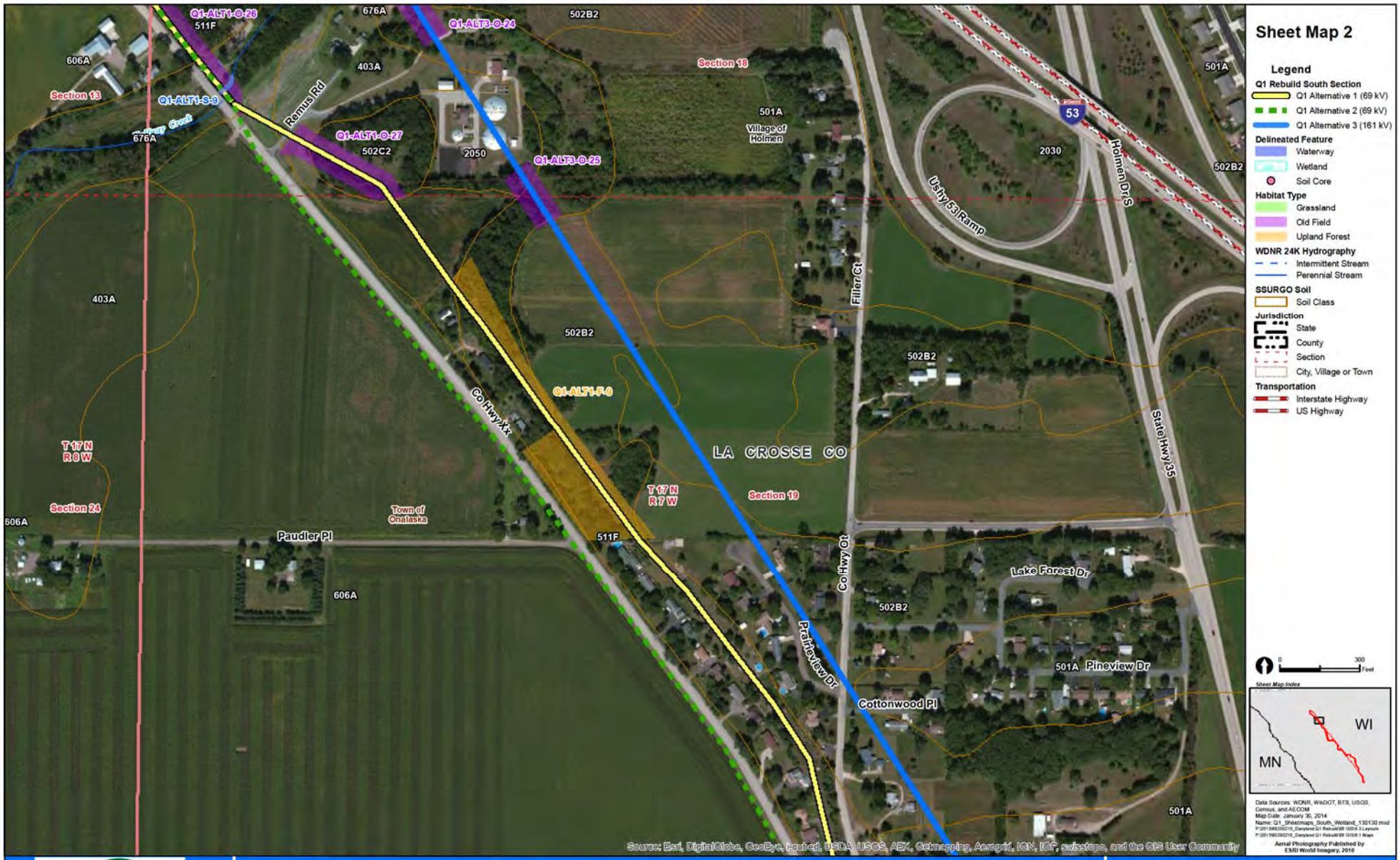


DAIRYLAND POWER COOPERATIVE
A Touchstone Energy Cooperative

Marshland Substation to North La Crosse Tap Q-1 161 kV Rebuild Project

Dairyland Power Cooperative

Figure 2
Field Survey Detail Sheet Map
January 2014



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Dairyland Power Cooperative

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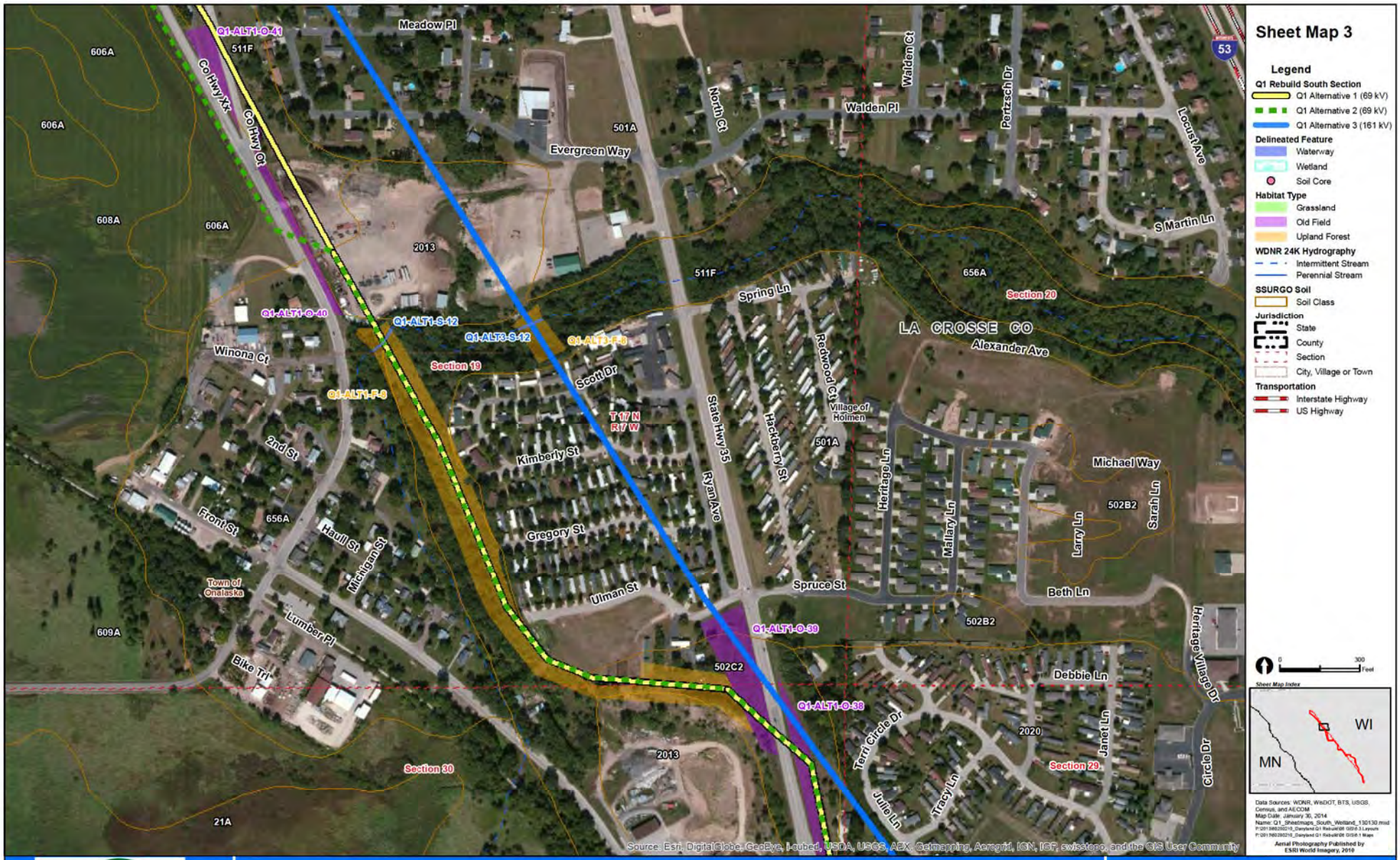

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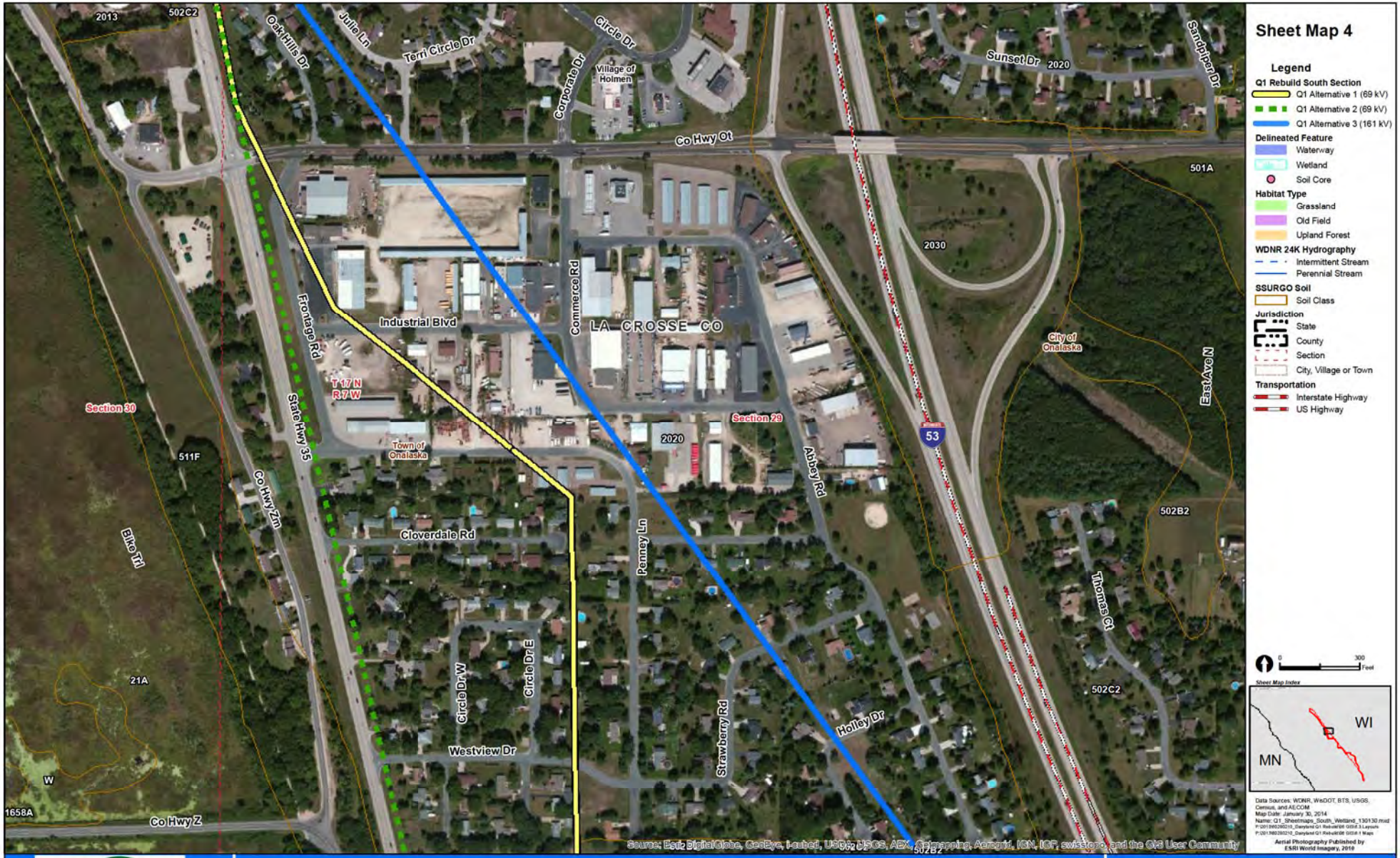

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Dairyland Power Cooperative

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January 2014

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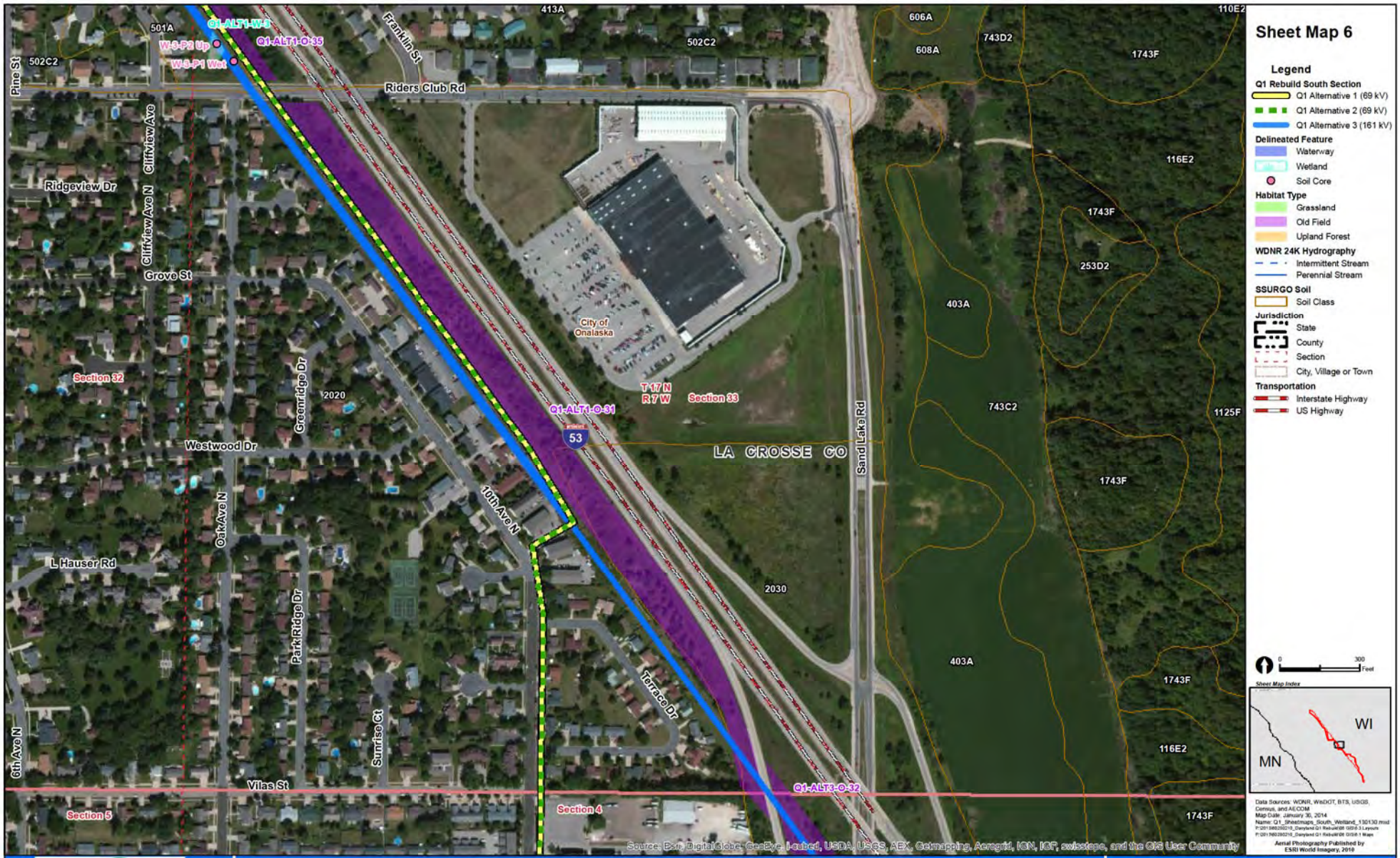
Field Survey Detail Sheet Map
January 2014


Sheet Map 6
Legend
Q1 Rebuild South Section
Q1 Alternative 1 (69 kV)
Q1 Alternative 2 (69 kV)
Q1 Alternative 3 (161 kV)
Delineated Feature
Waterway
Wetland
Soil Core
Habitat Type
Grassland
Old Field
Upland Forest
WDNR 24K Hydrography
Intermittent Stream
Perennial Stream
SSURGO Soil
Soil Class
Jurisdiction
State
County
Section
City, Village or Town
Transportation
Interstate Highway
US Highway
Q1-ALT1-W-3
Q1-ALT1-O-35
W-3-P2 Up
W-3-P1 Wet
Q1-ALT1-O-31
Q1-ALT3-O-32
Riders Club Rd
Franklin St
Pine St
Cliffview Ave
Cliffview Ave N
Ridgeview Dr
Grove St
Greenridge Dr
Westwood Dr
Oak Ave N
10th Ave N
L Hauser Rd
Park Ridge Dr
Sunrise Ct
Terrace Dr
6th Ave N
Vilas St
Sand Lake Rd
City of Onalaska
LA CROSSE CO
T 17 N
R 7 W
Section 32
Section 33
Section 4
Section 5
2020
2030
53
501A
502C2
413A
606A
608A
743D2
1743F
110E2
116E2
253D2
403A
743C2
1125F
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
Sheet Map Index
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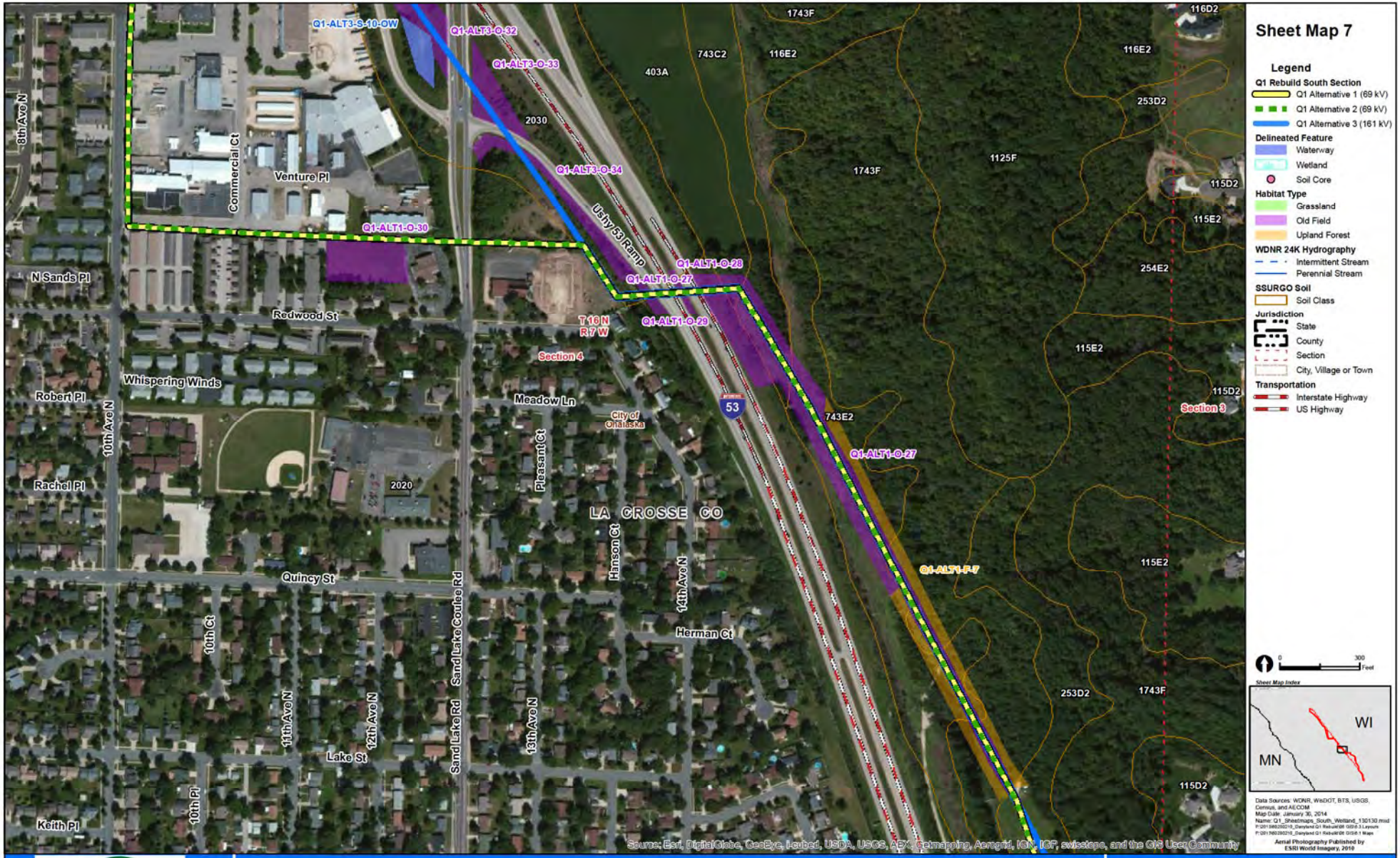
Data Sources: WDNR, WisDOT, BTS, USGS, Census, and AECOM
Map Date: January 30, 2014
Aerial Photography Published by ESRI World Imagery, 2010
DAIRYLAND POWER COOPERATIVE
A Touchstone Energy Cooperative
Marshland Substation to North La Crosse Tap Q-1 161 kV Rebuild Project
Dairyland Power Cooperative
Figure 2
Field Survey Detail Sheet Map
January 2014



DAIRYLAND POWER COOPERATIVE
A Touchstone Energy Cooperative

Marshland Substation to North La Crosse Tap Q-1 161 kV Rebuild Project

Dairyland Power Cooperative

Figure 2
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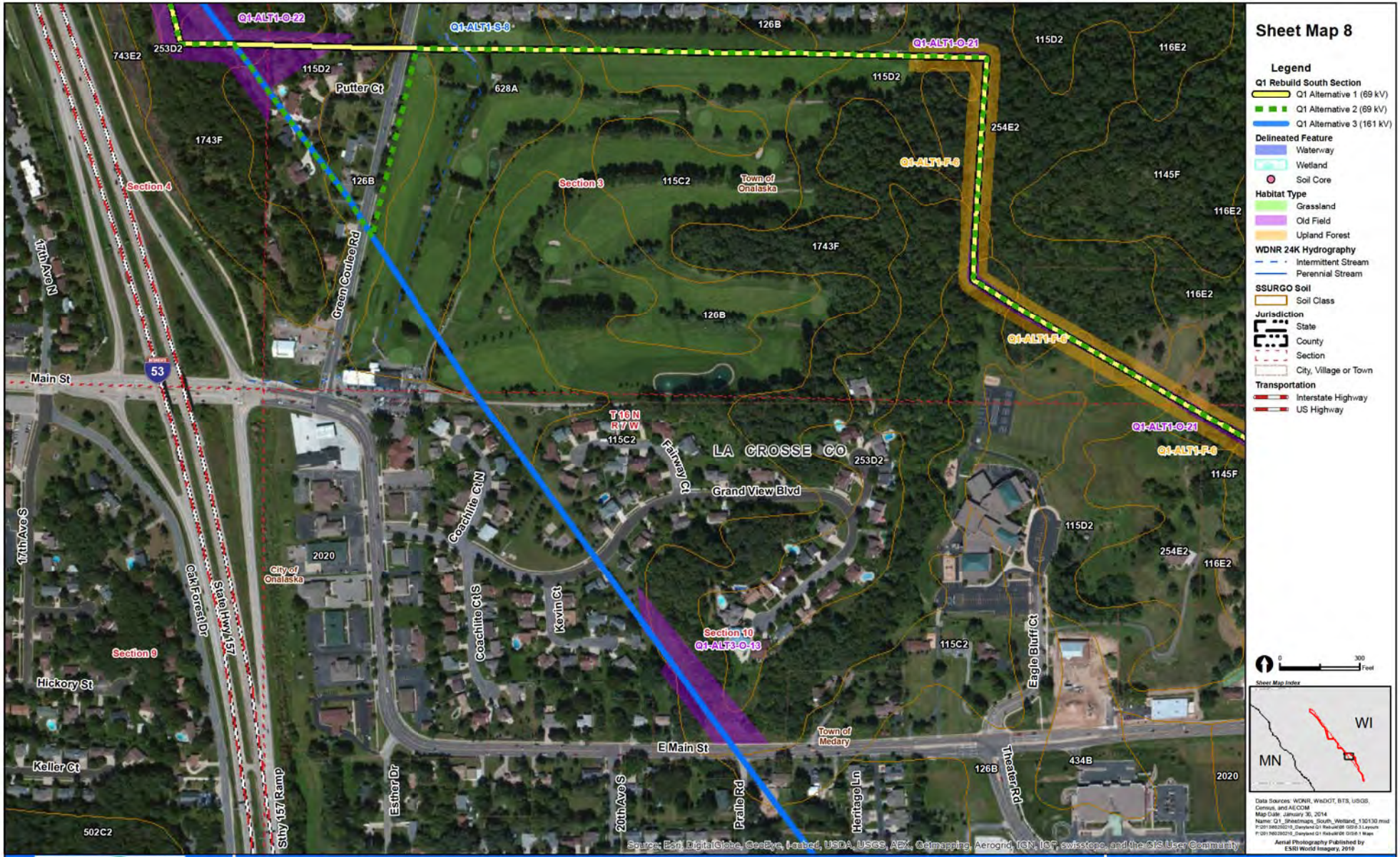

Sheet Map 8

Legend

- **Q1 Rebuild South Section**
  - Q1 Alternative 1 (69 kV)
  - Q1 Alternative 2 (69 kV)
  - Q1 Alternative 3 (161 kV)
- **Delineated Feature**
  - Waterway
  - Wetland
  - Soil Core
- **Habitat Type**
  - Grassland
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  - Upland Forest
- **WDNR 24K Hydrography**
  - Intermittent Stream
  - Perennial Stream
- **SSURGO Soil**
  - Soil Class
- **Jurisdiction**
  - State
  - County
  - Section
  - City, Village or Town
- **Transportation**
  - Interstate Highway
  - US Highway

0 300 Feet

Sheet Map Index

Data Sources: WDNR, WisDOT, BTS, USGS, Census, and AECOM
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Aerial Photography Published by ESRI World Imagery, 2010

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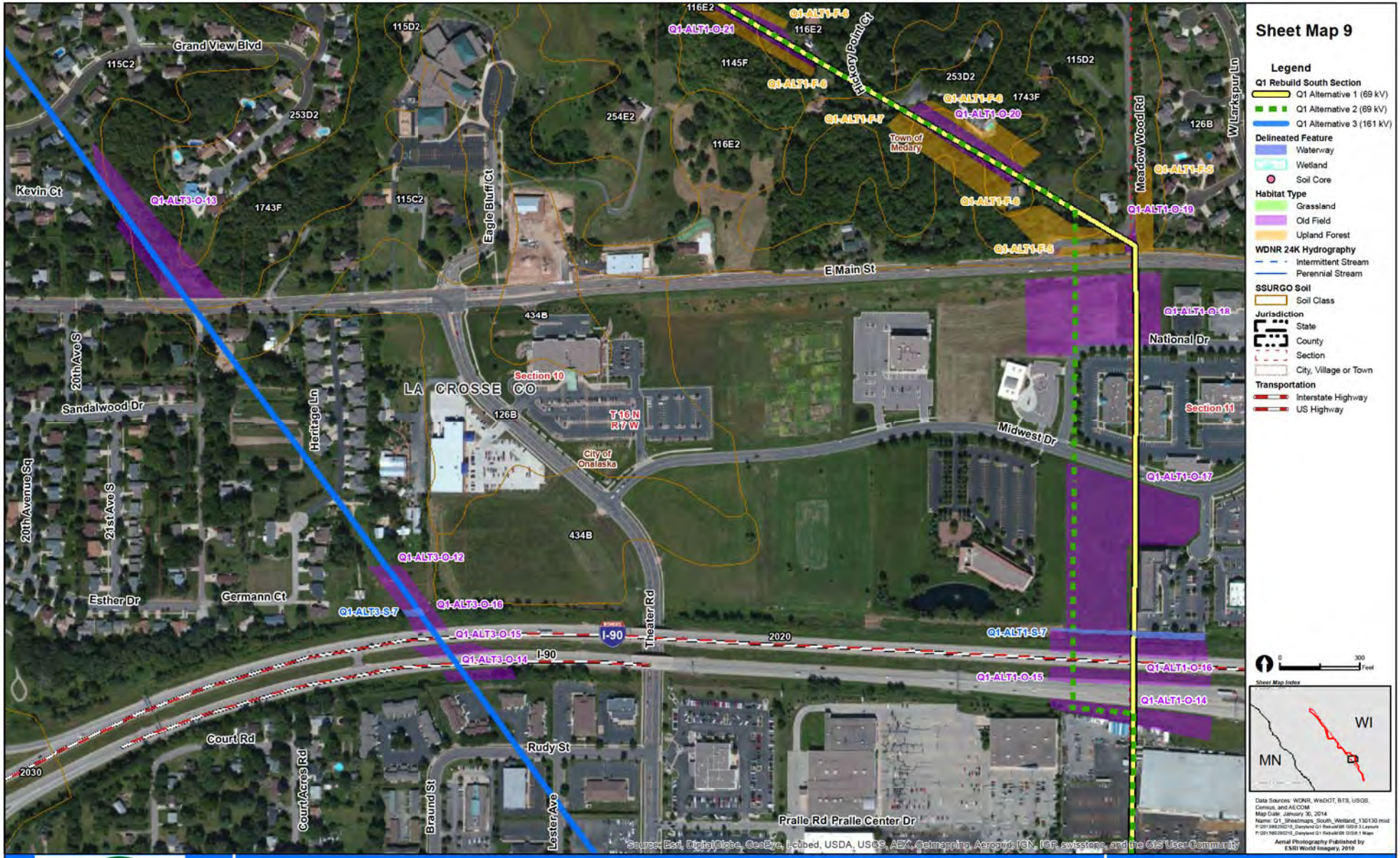

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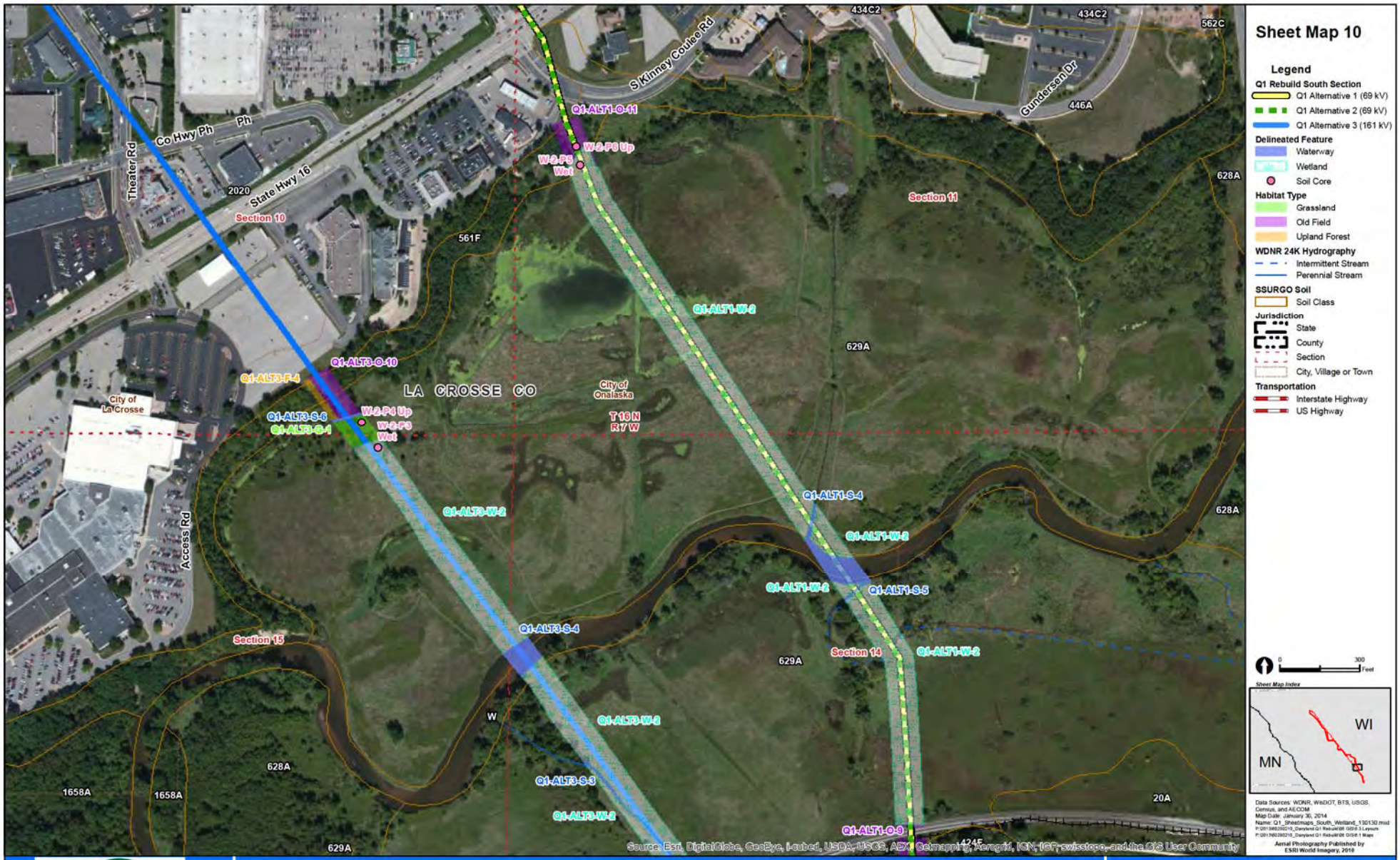

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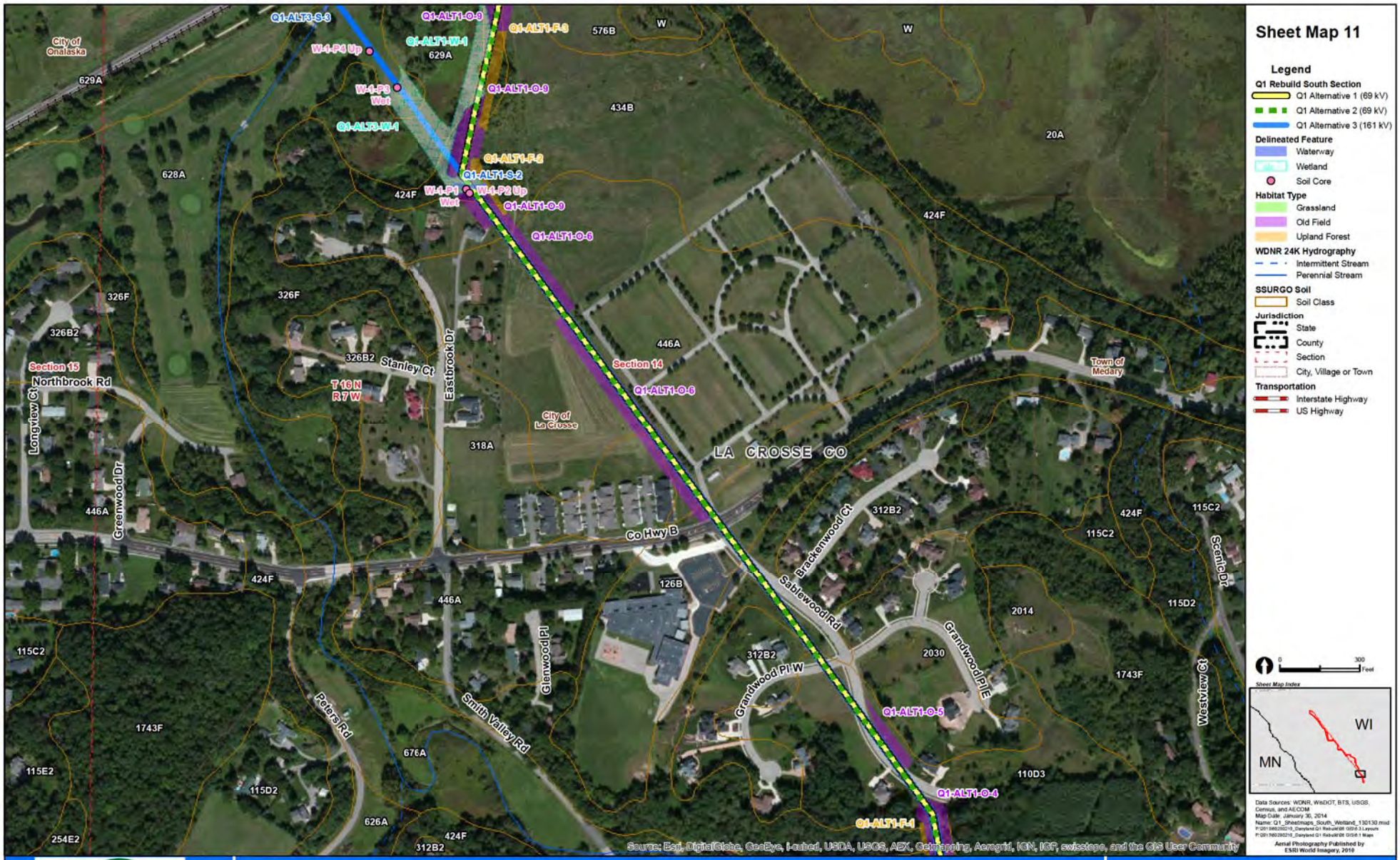

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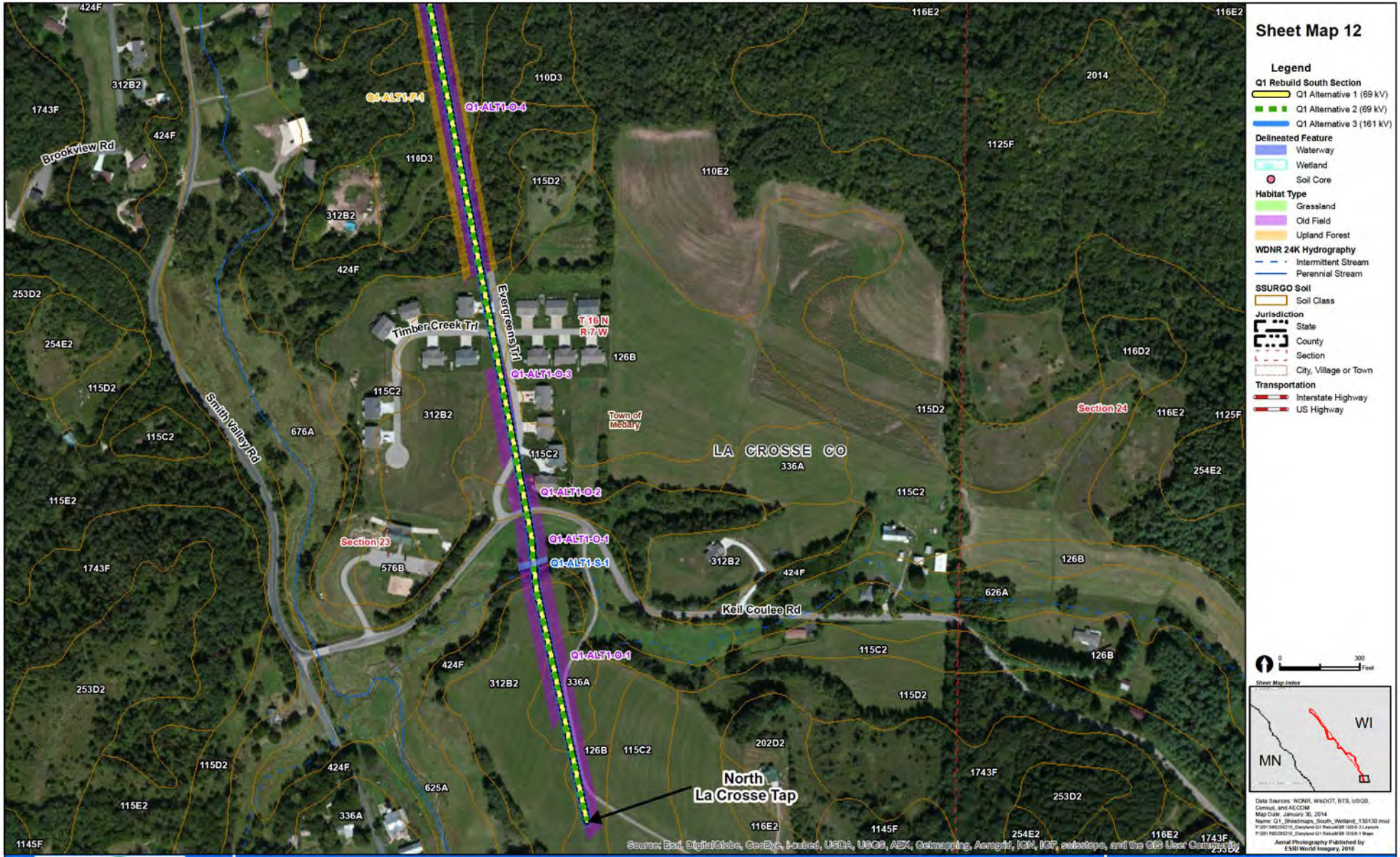

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy Cooperative

Marshland Substation to North La Crosse Tap Q-1 161 kV Rebuild Project

Dairyland Power Cooperative

Figure 2
Field Survey Detail Sheet Map
January 2014

Archival Literature Review for Proposed Changes to Approximately Nine Miles of the Q-1 Transmission Line, Briggs Road Substation to North La Crosse Tap, La Crosse County, Wisconsin

Report Prepared for:
Diaryland Power Cooperative
3200 East Ave South
La Crosse, WI 54602

Prepared by:
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Mississippi Valley Archaeology Center
University of Wisconsin-La Crosse

Reports of Investigations No. 964

August 2013

ABSTRACT

The Mississippi Valley Archaeology Center conducted an archival literature review for changes to approximately nine miles of the existing Q-1 transmission line, Briggs Road Substation to North La Crosse Tap, located in La Crosse County, Wisconsin. The locations of three project alternatives were looked at for the proposed changes. Fifteen previously recorded sites are located within the three alternative project areas including two cemetery/burials and two additional cemetery/burials sites located immediately adjacent to the project areas. Additionally, 150 sites are located within one mile of the project alternatives.

Avoidance of known archaeological sites is recommended, however this may not be feasible due to the large amounts of sites in and around the alternatives. Based on the large number of archaeological sites reported within one mile of the alternatives, it is recommended that an archaeological survey be conducted in those areas not previously surveyed. Additionally, any access roads that may be constructed should also be surveyed.

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INTRODUCTION

The Mississippi Valley Archaeology Center (MVAC) was contracted by Dairyland Power Cooperative (DPC) to conduct an archival literature review of proposed changes to approximately nine miles of the existing Q-1 transmission line located in La Crosse County, Wisconsin (Figure 1). The portion of the Q-1 transmission line involved in this review includes from the Briggs Road Substation to the North La Crosse Tap. This literature review includes analysis of three alternates for the proposed changes.

ENVIRONMENTAL SETTING

The proposed project alternatives are located in: Section 13 of Township 17 North, Range 8 West; Sections 18, 19, 29, 30, 32, and 33 of Township 17 North, Range 7 West; and, Sections 3, 4, 10, 14, 15, and 23 of Township 16 North, Range 7 West (Figures 2, 3, and 4). The proposed project is broken down into three alternatives. At various points, two or all three of the alternatives overlap. The project starts at the Briggs Road Substation east of Briggs Road located southeast of the Village of Holmen and heads south, to the east of community of Midway, and through portions of Onalaska and La Crosse.

Alternatives 1 and 2 begin on the east side of Briggs Road at the Briggs Road Substation From this point, Alternatives 1 and 2 travel south to CTH XX, where they turn east and follow CTH XX on the northeastern side of the road. Near the intersection of Remus Road and CTH XX, the alternatives split, and Alterative 1 is located on the northeastern side of CTH XX and Alternative 2 is located on the southwestern side of CTH XX. The two alternatives are split for approximately a mile, and join again and continue south and then head east until they cross STH 35. They then parallel STH 35 on its east side heading south for approximately a quarter mile to CTH OT, then split again. Alternative 1 turns southwest then south while Alternative 2 continues south. The two alternatives join, and then head east towards USH 53. They then join Alternative 3 (the existing Q-1 transmission line) and parallel USH 53 on its west side heading south. Alternatives 1 and 2 again split from Alternative 3 and head south along 10th Ave North, then head east to join Alternative 3 again crossing to the east side of USH 53. Alternatives 1 and 2 then join with Alterative 3 for approximately a half mile then Alternative 1 splits off to the east while Alternative 2 continues following Alternative 3 for a short distance then turns northeast to join Alternative 2 on the east side of Greens Coulee Road. Alternatives 1 and 2 head east for close to a half mile, then southeast and split again just north of CTH OS/Main Street. They both head south, then rejoin on the south side of Interstate 90. The two lines then continue south crossing STH 16, then head southeast crossing the La Crosse River and then turn southwest after the La Crosse River State Trail and join Alternative 3. Alternatives 1 and 2 then follow Alternative 3 to the south crossing CTH B where they terminate at the North La Crosse Tap.

Alternative 3 (the existing Q-1 transmission line) begins at Briggs Road at the Briggs Road Substation and heads southeast towards STH 35. It crosses STH 35 and continues southeast towards USH 53 where it parallels USH 53 on the west side until it crosses to the east side of USH 53 just south of the USH 53/CTH S intersection. Alternative 3 then continues southeast crossing CTH OS/Main Street, Interstate 90, STH 16, the La Crosse River State Trail, and CTH

Figure 1. Project Areas in Wisconsin.

B. It terminates at the North La Crosse Tap. As described above and shown on Figures 2, 3, and 4, at various locations, Alternatives 1 and 2 overlap Alternative 3.

La Crosse County is situated within the Driftless Area of Wisconsin. This region was not covered by glaciation as other parts of the state and the upper Midwest. In the 1960's, it was proposed that glaciation did occur in the Driftless Area (Black 1960), however, Mickelson et al. (1982) determined that the area was not glaciated. The Driftless Area in Wisconsin is unique in relation to other parts of the United States that are driftless because it is surrounded by glaciated territory (Martin 1965).

The project area lies in the Western Uplands Geographic Province. The Western Uplands is a thoroughly-dissected upland and is considered rough, highland region (Martin 1965). This regions' strongest topographic features are the great trenches or gorges of the Mississippi and Wisconsin rivers and numerous tributaries. The topography consists of deeply dissected plateaus with narrow, deeply incised, dendritic drainages.

The bedrock geology of the project area is part of the Cambrian system. The bedrock of the Cambrian system which the project crosses consists of sandstone with some dolomite and shale including Trempealeau, Tunnel City and Elk Mound Groups. These are Phanerozoic rocks which were formed approximately 450 to 500 million years ago. The depth to bedrock is approximately 0 to 15 meters on the ridge tops. This depth allows for generally good to excellent outcrops, particularly on hillsides, road cuts, and in river valleys (Mudrey et al. 1982).

The original mid-19th century vegetation cover of the project area was mainly deciduous forest, consisting of oak and oak openings with bur, white, and black oak and grassland and brush consisting of prairie (Finley 1976). As a result of the lack of glacial effect on southwestern Wisconsin, the regon was a mix of prairie grasslands and patches of forest. At the end of the Pleistocene, a variety of megafauna including mastodon, mammoth, caribou, horses, and the giant beaver lived on the margins of glacial ice (West and Dallman 1980, Ojankangas and Matsch 1982).

CULTURAL CONTEXT

PALEOINDIAN

With the retreat of the last glaciers at the end of the Pleistocene came the first Native American occupation of the Mississippi River Valley. These migratory bands of hunters and gatherers, or Paleoindians, were present in this area from approximately 11,500 to 9500 years before present (B.P.). This Native American population represents the earliest verified human presence in the Americas. Paleoindians moved in small mobile hunting bands that followed the Pleistocene megafauna, including mastodon, mammoth, and extinct forms of giant bison (Mason 1997; Theler and Boszhardt 2003).

Early Paleoindian fluted point varieties in the Upper Mississippi River Valley include Folsom, Clovis, and Gainey. These fluted points are often found as isolated surface finds, but are sometimes associated with a limited set of tools used for skinning and butchering animal carcasses. Although many times these point types are associated with megafauna procurement, the Early Paleoindians probably hunted small animals as well, and would have also consumed

Holmen and Onalaska, WI 7.5' Quadrangles

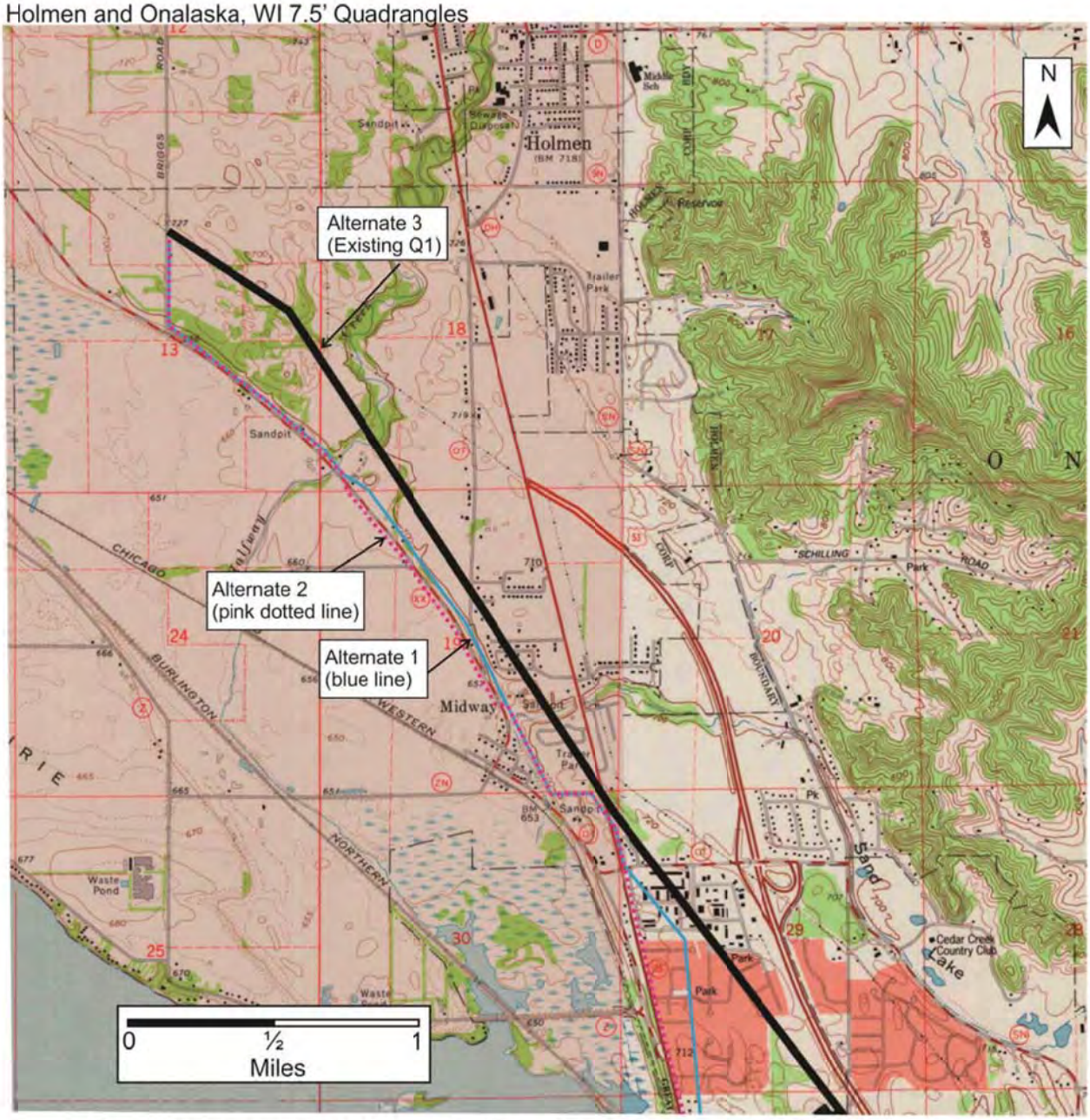

Figure 2. Approximate Location of Northern Portion of Project Areas.

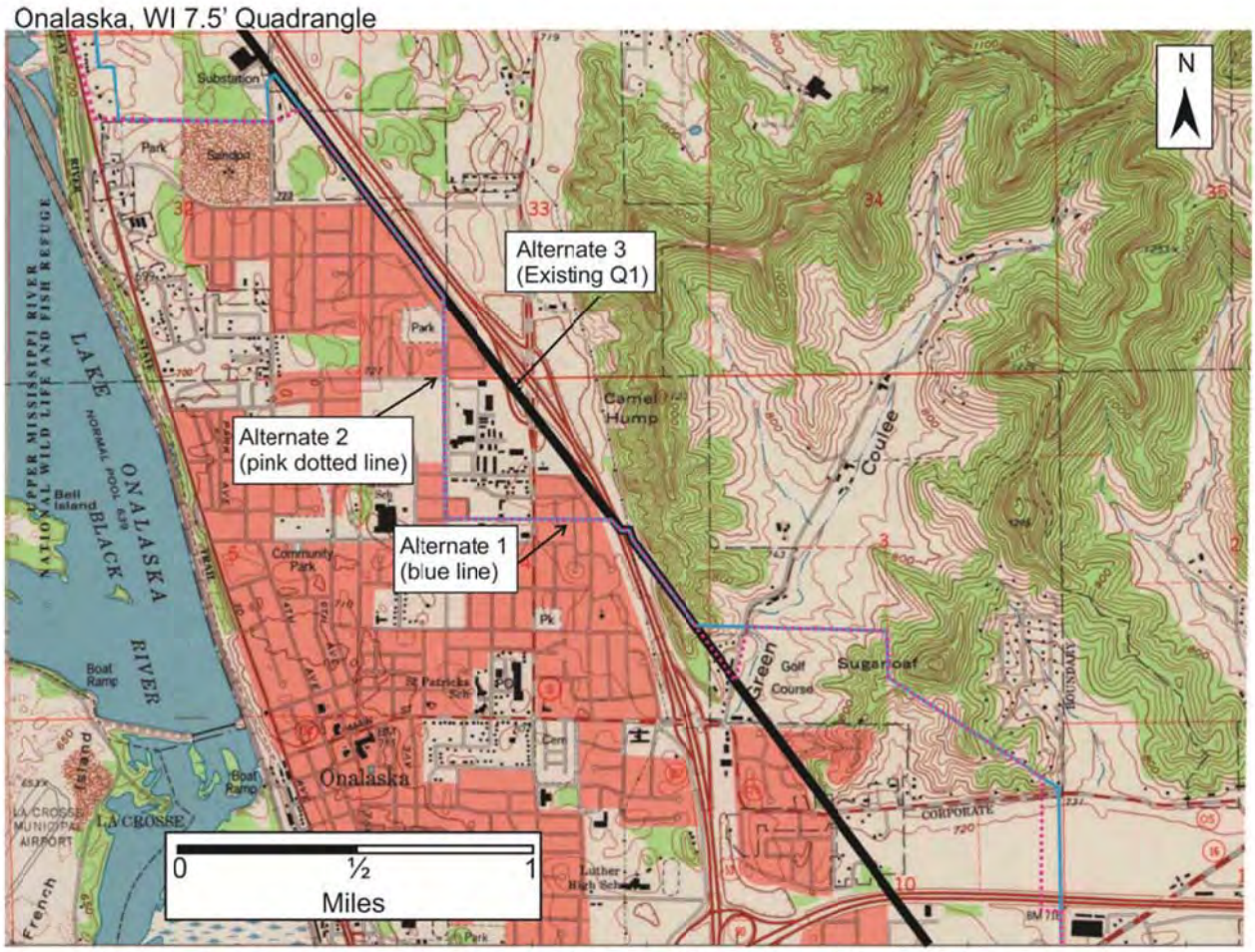

Figure 3. Approximate Location of Central Portion of Project Areas.

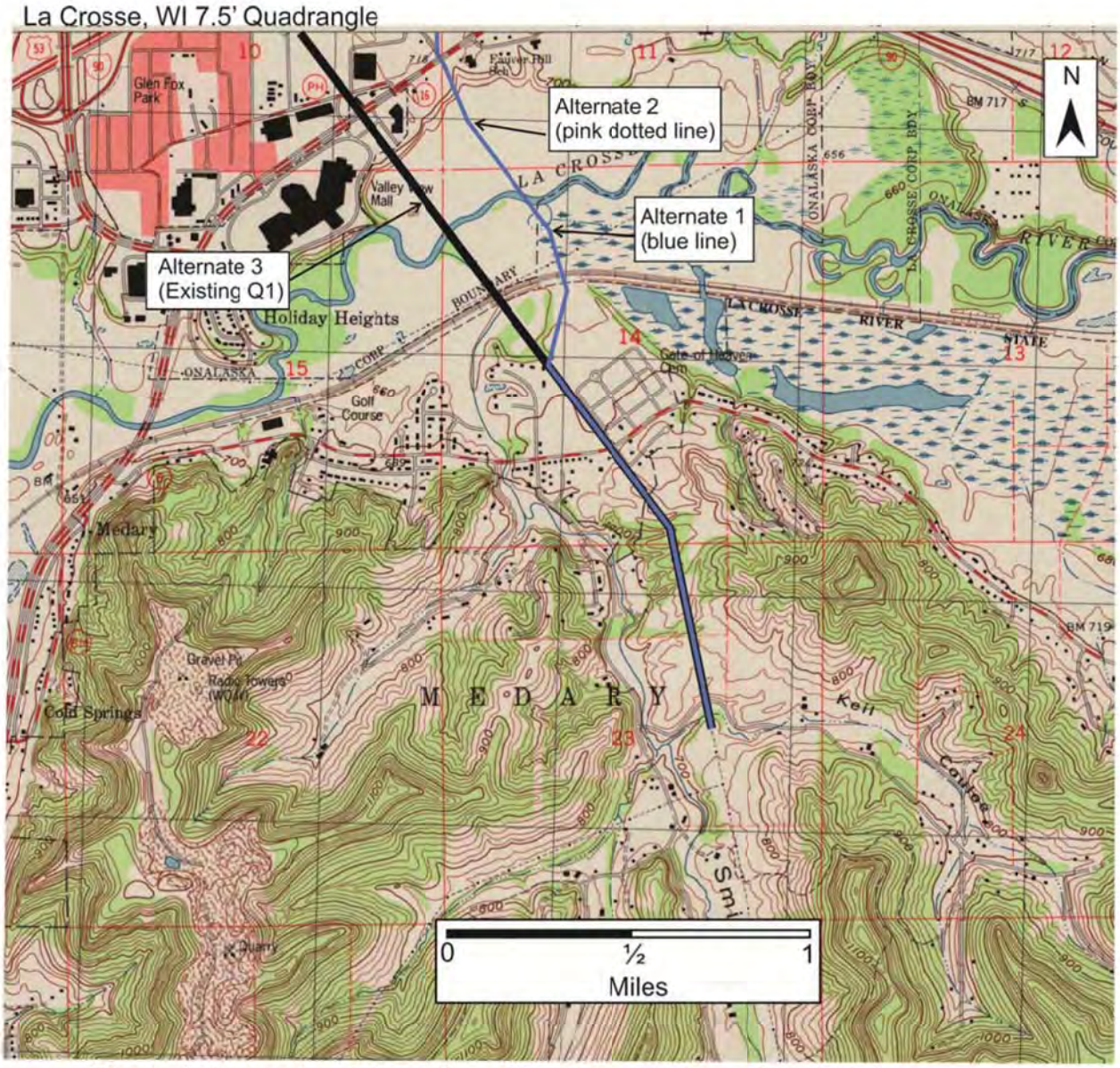

Figure 4. Approximate Location of Southern Portion of Project Areas.

berries and other wild plants as opportunity presented itself (Mason 1997; Theler and Boszhardt 2003).

Late Paleoindians in southwestern Wisconsin used unfluted spear tips of the Plano and Cody Complexes to adapt to the extinction of most megafauna species by 10,000 years ago. The Late Paleoindian stage may have corresponded with the introduction of the first ground stone woodworking implements (adzes) in the Midwest. These Native Americans were apparently attracted to a forest and river margin habitat because of the greater ecological richness of these zones (Mason 1997; Theler and Boszhardt 2003).

ARCHAIC

The longest prehistoric Native American Tradition is the Archaic (9500-2500 B.P.) The extinction of megafauna by 10,000 B.P. (probably caused by a combination of climatic change and possible overexploitation by Paleoindians) forced Archaic people to seek a new type of subsistence. Archaic subsistence still relied on hunting and gathering, but was probably more balanced than the Paleoindian diet in the sense that plants and aquatic resources became more important, particularly toward the end of the tradition. In order to adapt to the diversity of procurement resources available in the changing environment, Archaic peoples developed an increasingly varied technology. For example, Archaic components are recognized by a variety of stemmed and notched point types emphasizing the use of local cherts and using heat treating when poor quality stone was available. Bone artifacts, ground stone adzes, axes, grinding stones, grinding slabs, and copper artifacts are some tools utilized by the Archaic people. In some areas they manufactured specialized fishing gear such as hooks and harpoons, and used milling stones for the bulk processing of nuts and other plants (Stoltman 1997; Theler and Boszhardt 2003).

The Early Archaic stage (9500-7500 B.P.) is considered to be a transitional period between cultures adapting to a foraging type of subsistence from those relying on big game. Large and small mammals (primarily deer and elk), fish, waterfowl, and a variety of wild plants would have made up a large portion of their diet. Evidence for the earliest occupation in Wisconsin is sparse, but it is believed that these people lived in small, widely scattered family or extended-family groups (Stoltman 1997; Theler and Boszhardt 2003).

During the Middle Archaic stage (7500-4500 B.P.), there is evidence for the recurrent use of cemeteries and the first substantial use of rockshelters for occupation. Technological innovations such as grooved axes and bannerstones, specialized fishing gear, ground stone plant-processing tools, and copper tool manufacture are found in Wisconsin's Middle Archaic context. There is also evidence of shellfish exploitation, long-distance trade of exotic materials, and the domestication of dogs during this period (Stoltman 1997; Theler and Boszhardt 2003).

By the Late Archaic stage (4500-2500 B.P.), gathering and foraging in the forest became the principle subsistence procurement strategy. Nuts especially were focused on during gathering and foraging. During this period, the human population in the Midwest began to grow substantially. There was increased territoriality, development of intergroup trading networks, local differentiation in artifact styles, and the use of communal cemeteries. There was a decline in the use of copper to make utilitarian implements, and the appearance of new small stemmed and corner-notched point styles. By the end of the Late Archaic stage, populations were using uplands for both temporary and seasonal habitations. Some small scale cultivation was initiated during this period (Stoltman 1997; Theler and Boszhardt 2003).

WOODLAND

The Woodland Tradition (2500-1000 B.P.) represents a more sedentary lifestyle including the regular practice of horticulture, the construction of earthen burial mounds, and the introduction of grit or sand tempered ceramic containers. Some Woodland people relied heavily on fish and mussels in major river valleys, but continued to exploit deer and elk. An increase in cultivated plant use was evident throughout the tradition. These people were semi-nomadic, moving to different locations during the year, drawn by seasonally food resources available (Stevenson et al. 1997; Theler and Boszhardt 2003).

Early Woodland (2500-1900 B.P.) lifestyles were similar to that of Archaic people, but with the innovation of ceramics. The introduction of ceramic vessels is one indication that these people began to settle in areas longer than the Archaic people before them (Stevenson et al. 1997). The earliest ceramics are thick-walled, flat-bottomed vessels that are rarely decorated. These are distinctive of the Indian Isle Phase in southwestern Wisconsin (Stoltman 1990). Later, thinned cone-shaped pots, which are often sand tempered and decorated with incised lines and fingernail impressions, appear and mark the Prairie Phase in Southwestern Wisconsin (Stoltman 1986, 1990; Theler and Boszhardt 2003).

Early Woodland people in southwestern Wisconsin probably lived in small bands, exploiting food resources in both the upland and river valleys. Wild plants used as a significant source of subsistence included a variety of nuts, predominately walnut and hickory and some hazel and acorn, and also berries such as grape, raspberry, sumac, blackberry, hawthorn, and black nightshade (Stevenson et al. 1997; Theler and Boszhardt 2003).

The Middle Woodland stage (1900 -1600 B.P.) is most notable for the Hopewell Interaction Sphere. This stage is distinguished by refined artwork, complex mortuary programs, and extensive trade networks. In southwestern Wisconsin, many Middle Woodland sites include large mound complexes and campsites predominately located along the Mississippi River (Stevenson et al. 1997; Theler and Boszhardt 2003).

The Late Woodland (1600-950 B.P.) stage is distinguished by distinctive regional styles and a rapid population growth. Diverse hunting and continued crop cultivation were utilized for subsistence, and animal-shaped burial mounds were common during this time period. This period saw the introduction of the bow and arrow and an increasing emphasis on growing corn. There is evidence in southwestern Wisconsin of Late Woodland sites on variable types of settings from major river valleys to small spring-fed streams (Stevenson et al. 1997; Theler and Boszhardt 2003).

ONEOTA

By 900 B.P., the Oneota culture (900-350 B.P.) spread across much of the Midwest. This was the last group of prehistoric Native Americans to inhabit this area prior to the arrival of the Euro-Americans in the mid-1700's. The Oneota utilized a mixed hunting, foraging, and an increased agricultural economy, and often used crushed clam shells as tempering for their ceramics. They are believed to have had a tribal level society, and lived in large villages that were permanent or semi-permanent (Benn 1989; Theler and Boszhardt 2003).

The La Crosse locality was first occupied by Oneota people around A.D. 1300. The Oneota occupation at La Crosse persisted for approximately three centuries, before ending rather abruptly just prior to the introduction of European artifacts into this region. Thus, the Oneota did not cross the threshold from prehistory to the historic era at La Crosse, although the abandonment of this locality was likely spurred in part by European influences (Theler and Boszhardt 2003).

During the three centuries of Oneota settlement at La Crosse, changes in artifacts and settlement patterns occurred, and the chronology of these shifts is documented by over 100 radiocarbon dates from local Oneota sites. This information provided the foundation for defining three sequential phases: Brice Prairie, Pammel Creek, and Valley View.

Brice Prairie Phase

This is the earliest of the La Crosse Oneota phases, named after a several-hundred acre site complex at the southeast end of an outlier terrace called Brice Prairie. Brice Prairie phase chipped stone artifacts include the ubiquitous Oneota unnotched triangular points, end scrapers, and straight drills, but they are distinguished by a preference for good quality orthoquartzite (apparently Hixton silicified sandstone) and Grand Meadow chert (originating from southeastern Minnesota). Brice Prairie phase ceramic vessels are all shell-tempered globular jars and tend to be of medium size. Most distinctive are rims decorated by notching on the inner edge of the lip, a trait that does not occur in the subsequent phases. Handles tend to be undecorated loops or narrow straps, their upper ends affixed directly to the lip top (Theler and Boszhardt 2003).

Pammel Creek Phase

By circa A.D. 1400, the major settlements at Trempealeau and on Brice Prairie ended, with the La Crosse Oneota populations congregating on the Onalaska and La Crosse terraces. At the same time a subtle settlement shift was initiated away from the Mississippi floodplain margins and toward the bluffs. Coinciding with this shift were changes in lithic raw material preferences and ceramic styles. Pammel Creek phase lithic assemblages still include ubiquitous Oneota tool forms but no longer are dominated by orthoquartzite. Grand Meadow chert is very rare. Instead, local Prairie du Chien chert becomes the main material, despite being of generally poorer flaking quality. Pammel Creek phase ceramics are dominated by vessels with "bold" impressions on the top or, occasionally, the exterior edge of the lip. While finger ("bold") notching is also common on vessels of the Brice Prairie phase, it is distinguished from Pammel Creek phase notching by its placement on the interior edge of the lip rather than the top or exterior edge (Theler and Boszhardt 2003).

Valley View Phase

By about A.D. 1500, bold lip treatment was replaced by "finer" lip top (tool) notching, a shift that marks the transition from the Pammel Creek phase to the Valley View phase. The major ceramic types of this latter phase are Midway Incised, Allamakee Trailed, and Koshkonong Bold. Handles on the fine lip-notched varieties are usually wide straps, nearly always attached noticeably below the lip. Average rim height increases from preceding phases,

and tool trails, like lip notches, are finer. Valley View lithic materials continue to emphasize local Prairie du Chien chert, with little change in the tool kits. However, Valley View phase assemblages also contain several protohistoric artifacts such as copper coils and rib rasps (Theler and Boszhardt 2003).

HISTORIC

By 1680 French explorers had mapped the Black River and the area that would come to be known as Prairie La Crosse. The French and British held claim to this region before and following the Revolutionary War when it was ceded to the United States. A band of Winnebago (Ho-Chunk) resettled from Green Bay and Baraboo to the La Crosse area, at least seasonally, from the late 1700s to the early part of the twentieth-century, and had documented camps at La Crosse in the early 1800s (Boszhardt 1989).

After the 1832 Black Hawk War, the United States pressured the La Crosse Winnebago to cede their lands north of the Wisconsin River in an 1837 treaty. Immediately thereafter, traders and speculators began establishing claims in advance of public survey and land sale (Boszhardt 1989). In the 1850s, La Crosse developed as an important Euro-American river town, becoming a major steamboat and railroad stop and the center of the areas burgeoning lumber trade (Hill and Conell 1992).

METHDOLOGY

The Wisconsin Office of the State Archaeologist (OSA) maintains a database of all the known archaeological sites and surveyed areas reported in the state. The Wisconsin Historic Preservation Database (WHPD) is an internet-based interface which allows approved archaeologists to access data on each site in the state. The Township, Range, and Sections through which the three alternates are located were accessed via the WHPD. A list of previously recorded sites within the alternatives was compiled and brief summaries of those sites are provided in the Results section of this report. Additionally, previously recorded sites and previous surveys within one mile of the three alternatives was compiled and placed into tables in numerical order. Maps of the alternatives were compiled over WHPD screenshots of previously recorded sites and surveys.

RESULTS

Previous Investigations/Surveys

There are a large number of sites reported in La Crosse County which is the result of several factors. The Great River Road survey conducted by the Museum Archaeology Program in the early 1980's was conducted through a portion of La Crosse County, thus many sites were initially reported in the early 1980's through this survey. The Mississippi Valley Archaeology Center was founded in 1982, and the Regional Archaeology program established through the

Wisconsin Historical Society began in 1984. Contract and research projects over the last three decades conducted by MVAC has recorded many sites in the region. As a regional center, MVAC archaeologists were contacted by and still maintain a large network of avocational archaeologists who report sites to the center. Also, several other contract and research firms have conducted projects in the county.

Since the La Crosse area has been surveyed extensively in the past, according to the WHPD, there are several previous surveys within one mile of the three alternatives (Table 1). Table 1 represents a list previous surveys, the year they were conducted, and the level of archaeological research. Information for some of the surveys is unknown, as information is not provided in the WHPD. Figures 5, 6, 7, and 8 show several of the previous survey areas highlighted in green on the maps.

Table 1. Previous Archaeological Surveys Within One Mile of the Project Areas.

SHSW#	Year	Investigation Type and Purpose
AA-0134	?	Unknown
AA-0325	?	Unknown
AA-0326	?	Unknown
LL-0306	?	Unknown
78-0162	1978, 1981	Phase I survey of Holmen Wastewater Treatment Facility and sewer lines
79-1271	1980	Phase I survey of a portion of Sand Lake Creek stream bank
79-6621	1979	La Crosse Area Archaeological Survey
80-6621	1980-82	La Crosse Area Archaeological Survey
81-0014	1981	Phase I survey along portions of CTH OS
82-0697	1983-85	Phase I and II investigations along CTH SN
83-0720	1983	Phase I survey of proposed road improvements in Onalaska Township
83-0802	?	Unknown
84-0238	1984-85	Phase I survey of the Krause Substation and Sand Lake transmission route
85-0126	1987-95	Phase I, II, and III investigations at the OT site and Tremaine Complex
85-0999	1985	Phase I survey of a proposed bridge replacement site in Medary Township
85-1071	?	Unknown
85-1108	1986	Phase I survey for the K-22 Transmission line and Mt. La Crosse Substation
86-1199	1987	Phase I survey of proposed I-90 connection in Medary Township
87-1071	?	Unknown
87-6603	1988	Phase I survey for of shorelines of Mississippi River Navigation Pools 6, 7, and 8
87-6604	?	Unknown
88-1299	1988	Phase I survey for proposed reconstruction of a portion of USH 53
88-5563	1988	Phase I survey of a proposed borrow pit for a project on Gillette Street
89-1046	1989, 1992	Phase I survey of the proposed Midvale Interceptor Sewer and Phase II excavations at the Tremaine site
89-1458	1989	Phase I survey of a proposed motor vehicle building
90-0816	1989	Phase I survey of three parcels in the Town of Holmen (the old post office, the new post office, and a proposed elderly housing unit)
90-1030	1990	Phase I survey of proposed Keil Coulee bridge reconstruction and relocation project
91-0223	1991	Phase I survey of a proposed city park in Onalaska
91-0361	1990, 1992	Phase I survey along STH 16 in La Crosse County, and Phase II investigations at 3 sites along STH 16
91-4401	1990-91	Summary of the 1990-91 Region 6 Archaeology Program
91-5506	?	Unknown
91-7704	1992	Phase II investigation at the Holley Street Site
95-0899	1994	Phase I and II investigations along Theatre Road, Onalaska

95-1569	1996, 1998	Phase I, II, and III investigations at the Elmwood Site
95-1605	1996	Phase I survey of the proposed Halfway Creek Marsh Enhancement project
95-5526	?	Unknown
96-0248	?	Unknown
97-0988	1997	Phase I survey for reconstruction of the CTH OT/STH 35 intersection
98-0507	1998	Phase I survey for reconstruction of portions of CTH B-STH 16 to Greenwood Road
98-0284	1997	Phase I survey of a portion of CTH S
98-1234	?	Unknown
99-1057	1999	Phase I survey of portions of CTH OT
00-1470	2000	Phase I survey of a proposed cell tower location in Onalaska Township
01-0243	2002	Phase I survey of 4 scrape areas in the La Crosse River floodplain for a wetland restoration program
01-0220	2000	Phase I survey of reconstruction of CTH SN – Main St to Sand Lake Road
01-1703	2001	Phase I survey of reconstruction of CTH PH – STH 157 to Braund Street
02-0401	2001	Phase I survey of North Kinney Coulee Road
02-0846	2002	Phase I survey of the proposed Merchants Bank in La Crosse County
02-1108	2002	Phase I survey of reconstruction of CTH SN/Sand Lake Road – Alpine Lane to Gaardner Road
05-0876	2005	Phase I survey for a proposed rip rapping project along the banks of the La Crosse River
06-0107	2011	Phase I survey for approximately 23 miles of the Q-1 transmission line
06-0230	2006	Phase I survey of a proposed cell tower in the City of Onalaska
06-0249	2005	Phase I survey along portions of STH 35, from Poplar Street to USH 53
06-7729	2006	Phase I survey for improvements at CTH XX and Briggs Road intersection
10-0707	2010	Phase I survey of proposed natural gas route (Tomah Branchline Anomaly project) in La Crosse County
12-0112	2011	Phase I survey along STH 157 at interchange bridges over I-90

Previously Recorded Sites

According to the WHPD, there are 15 previously recorded sites within the project alternatives, including two cemetery/burial sites. Also, there are also two cemetery/burial sites immediately adjacent to the project alternatives. Figures 5, 6, 7, and 8 show the locations of these sites highlighted in yellow in relationship to the project alternatives.

Previously Recorded Sites Overlapping Project Alternatives

47LC19/BLC1, called the Midway Village Complex, is located in Section 13 of Township 17 North, Range 8 West, and Section 18 of Township 17 North, Range 7 West. 47LC19/BLC1 is located south of USH 53, north of CTH XX, and west of Remus Road and overlaps Alternative 3 (Figure 5). This site is listed as a cemetery/burial, campsite/village, and mound(s) – other unk site affiliated with the Middle and Late Woodland and Oneota. This site was first recorded in the 1920's. Over the past thirty years, major excavations at portions of the site have discovered several burials and numerous cultural features. This site is listed as an uncatalogued burial/cemetery. Pursuant to Wisconsin's burial sites protection law [Wis.Stats. 157.70 and Wis. Admin. Code HS 2.02(15), 2.04 (2)], any subsurface exploration within a reported burial site will require a permit from the Wisconsin Historical Society, and testing must be conducted by a "qualified archeologist," as specified under Wis. Stats. 157.70(1)(i) and Wis.

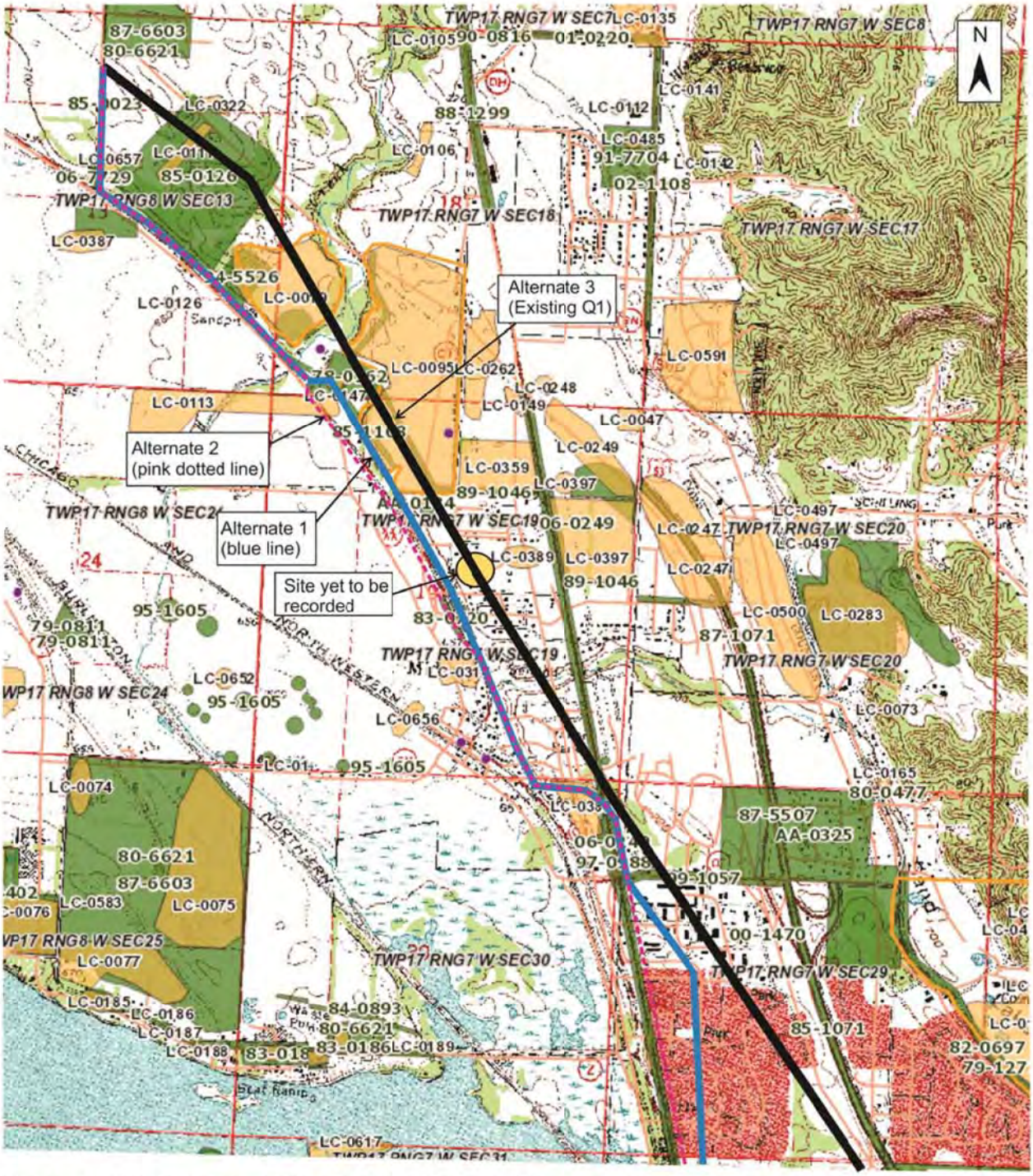

Figure 5. Relationship of Previously Recorded Sites and Previous Surveys to Northern Portion of Project Areas. Previously Recorded Sites are in Yellow While Previously Surveyed Areas Are in Green.

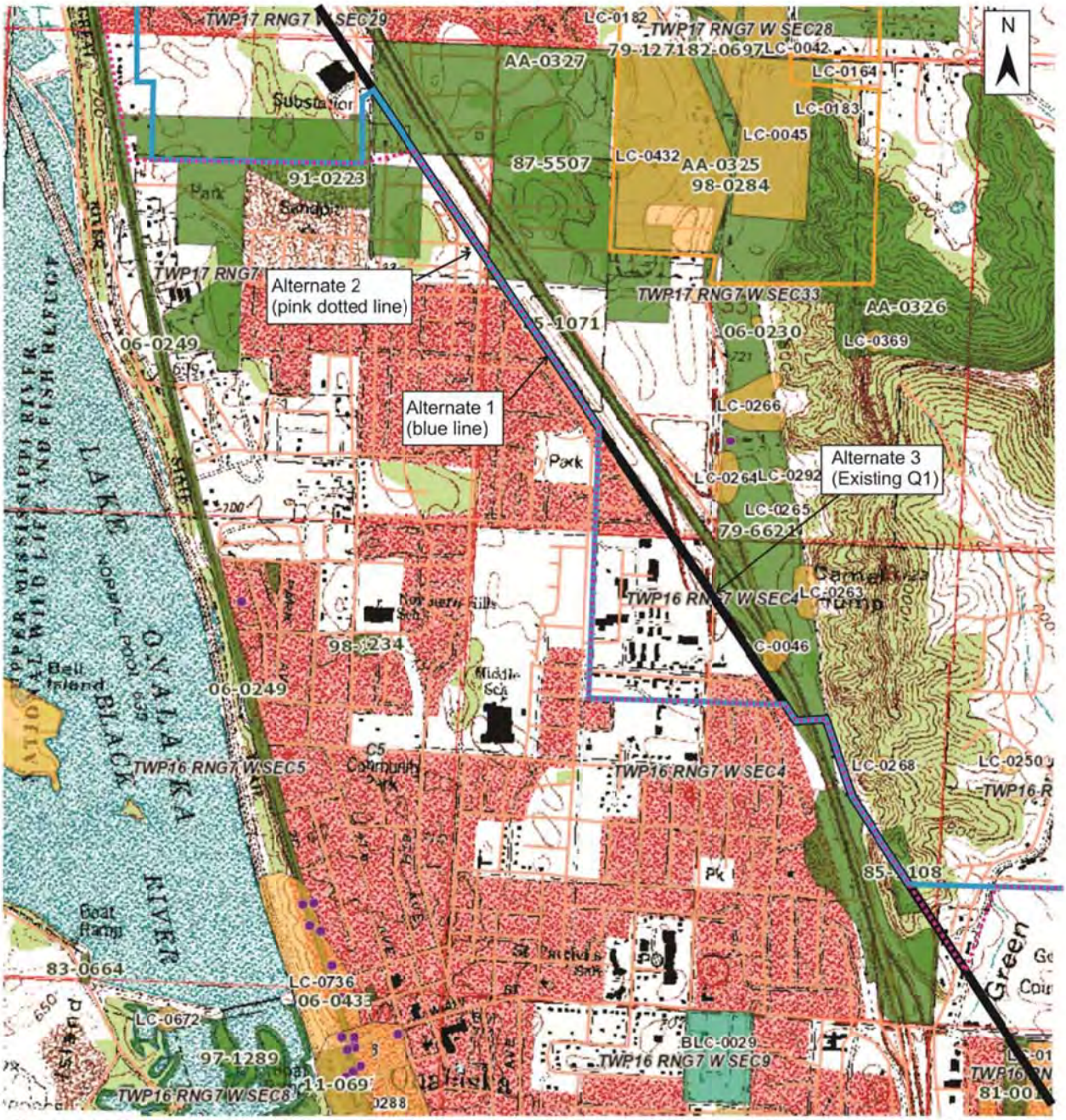

Figure 6. Relationship of Previously Recorded Sites and Previous Surveys to Northern Central Portion of Project Areas. Previously Recorded Sites are in Yellow While Previously Surveyed Areas Are in Green.

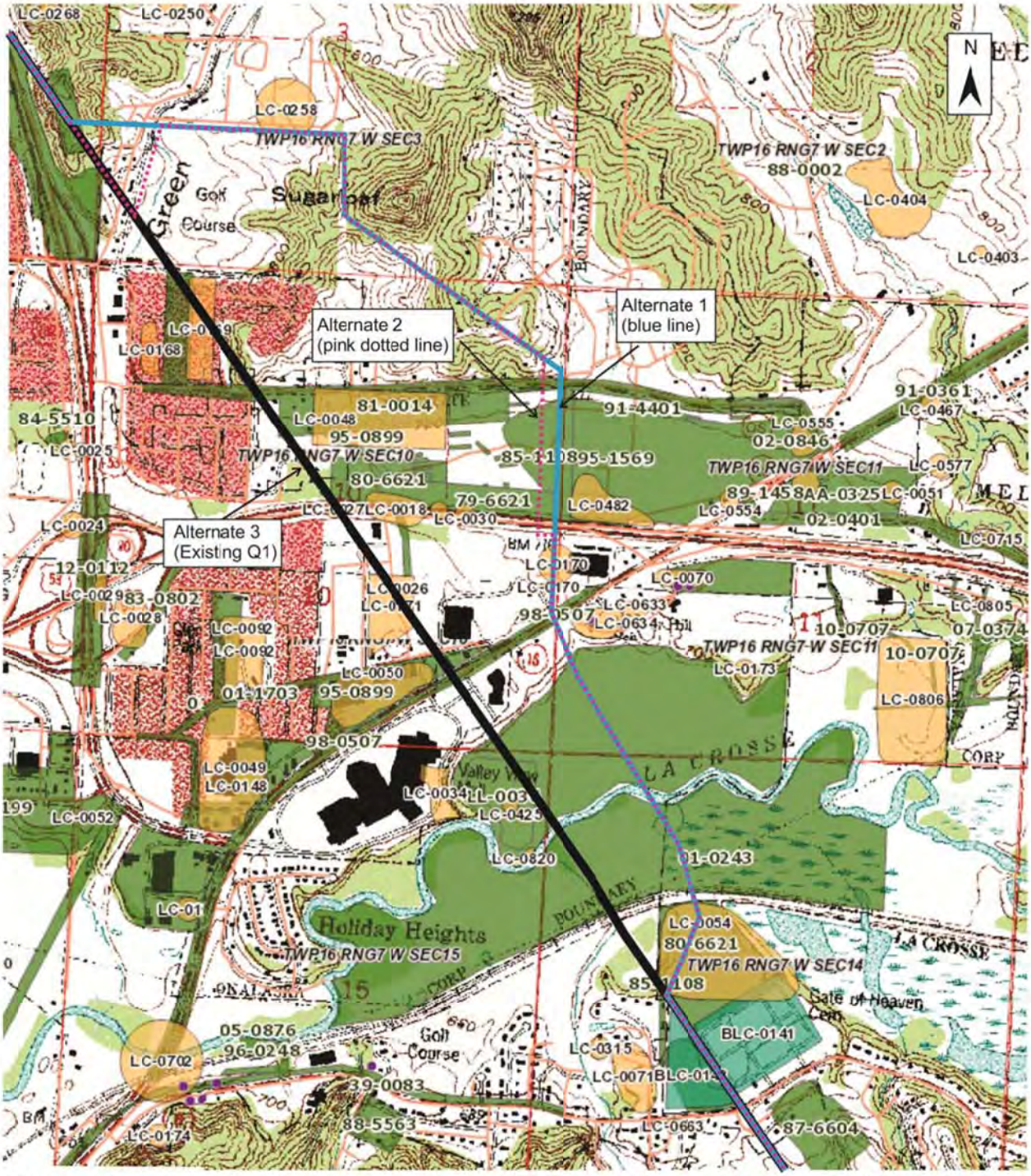

Figure 7. Relationship of Previously Recorded Sites and Previous Surveys to South Central Portion of Project Areas. Previously Recorded Sites are in Yellow While Previously Surveyed Areas Are in Green.

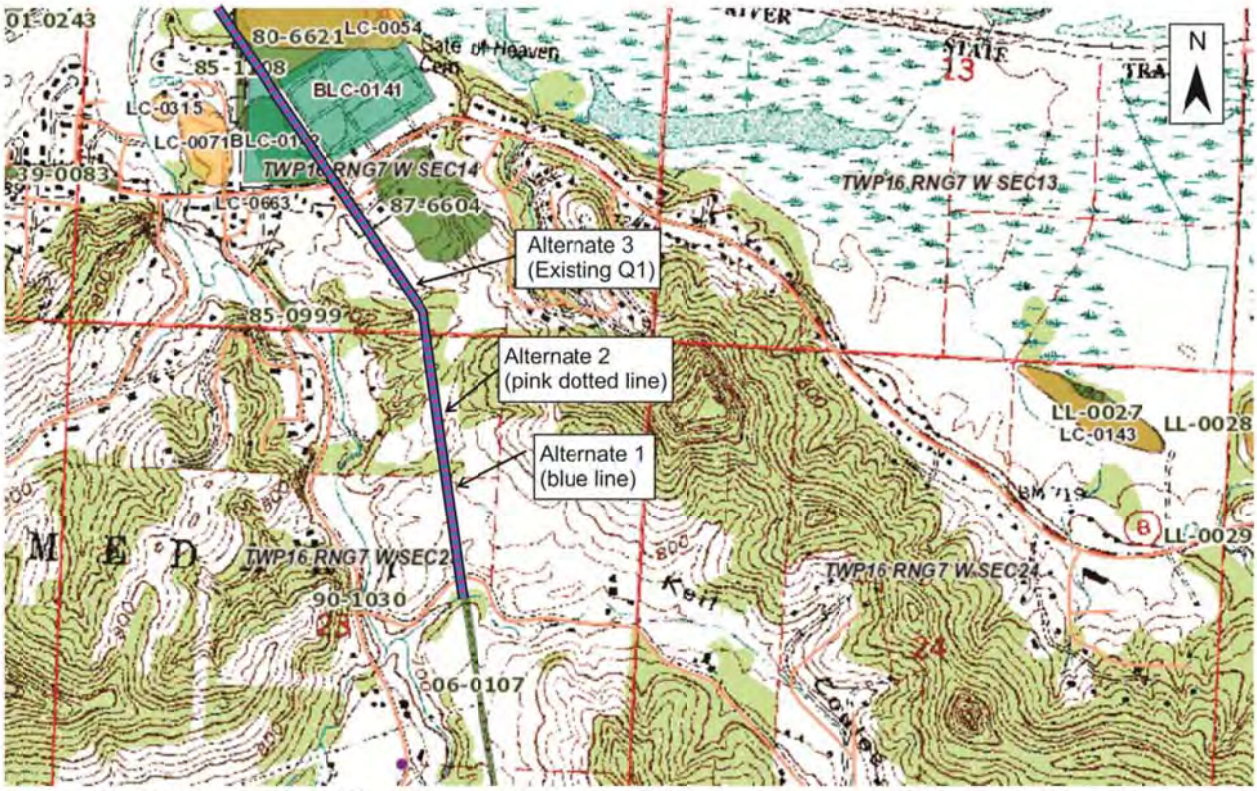

Figure 8. Relationship of Previously Recorded Sites and Previous Surveys to Southern Portion of Project Areas. Previously Recorded Sites are in Yellow While Previously Surveyed Areas Are in Green.

Admin.Code HS 2.04(6). Therefore consultation with the Wisconsin Historical Society is required before any ground disturbing activities take place within the boundaries of this uncatalogued burial, including the driving of heavy equipment within the site boundaries.

47LC26, called Gensch, is located in Section 10 of Township 16 North, Range 7 West. 47LC26 is located north of CTH PH and east of Lester Avenue and overlaps Alernative 3 (see Figure 7). This prehistoric campsite/village was recorded in 1963 and is located within the site boundaries of 47LC171. Excavations performed in 1964 encountered features below the plow zone.

47LC27, called A. Pralle, is located in Section 10 in Township 16 North, Range 7 West. It is currently located in the Interstate 90 right of way and overlaps Alternative 3 (see Figure 7). This Oneota campsite/village was found during surface survey in 1963. According to WHPD, the site was located on top of a sandy knoll, within the Interstate 90 right of way and adjacent to the right of way of CTH OS. When discovered, the site consisted of a scatter of Oneota and Woodland habitation debris.

47LC46, called Hauser, is located in Section 4 in Township 16 North, Range 7 West. This site is located east of Sand Lake Road in the USH 53 right of way and overlaps Alernative 3 (see Figure 6). This unknown prehistoric campsite/village is located between CTH SN and the surrounding bluffs and was discovered in 1980. According to the WHPD, subsequent surveys have reported that this site is destroyed.

47LC54, called Gates of Heaven, is located in Section 14 of Township 16 North, Range 7 West. This site is located north of CTH B in a field between two active historic Euro-American cemeteries and railroad tracks and overlaps Alternatives 1, 2, and 3 (see Figure 7). This site is recorded as a Middle and Late Woodland and Oneota campsite/village and was discovered in 1980.

47LC95/BLC71, called Tremaine, is located in Sections 18 and 19 of Township 17 North, Range 7 West. 47LC95/BLC71 is located east of CTH XX, west of CTH OT, and both north and south of USH 53 and overlaps Alternatives 1 and 3 (see Figure 5). This site is listed as a cemetery/burial and campsite/village definitely affiliated with the Middle and Late Woodland time periods and Oneota time period and probably the Late Paleoindian, Early Archaic, and Early Woodland time periods. This site was first recorded in 1981. Over the past three decades, major excavations have been performed at the site and have discovered several burials and hundreds of cultural features. Although some of the site was destroyed during the construction of USH 53, much remains intact both north and south of the road. Portions of this cemetery/burial are considered catalogued and portions are considered an uncatalogued burial/cemetery. Pursuant to Wisconsin's burial sites protection law [Wis.Stats. 157.70 and Wis. Admin. Code HS 2.02(15), 2.04 (2)], any subsurface exploration within a reported burial site will require a permit from the Wisconsin Historical Society, and testing must be conducted by a "qualified archeologist," as specified under Wis. Stats. 157.70(1)(i) and Wis. Admin.Code HS 2.04(6). Therefore consultation with the Wisconsin Historical Society is required before any ground disturbing activities take place within the boundaries of this cemetery/burial, including the driving of heavy equipment within the site boundaries.

47LC111, called Holmen Honey Wagon, is located in Section 13 of Township 17 North, Range 8 West. 47LC111 is located northeast of the intersection of Briggs Road and CTH XX and overlaps Alternative 3 (see Figure 5). This site is listed as a Woodland and Oneota campsite/village and was recorded in 1981 and was reported as a surface scatter.

47LC113, called Groovy Ol' Man, is located in Section 19 of Township 17 North, Range 7 West, and Section 24 of Township 17 North, Range 8 West. This prehistoric campsite/village is located close to Halfway Creek on both sides of CTH XX and overlaps Alternative 2 (see Figure 5). The site was recorded in 1981, and contained three clusters of artifacts found during surface survey.

47LC147, called North Texas, is located in Section 19 of Township 17 North, Range 7 West. 47LC147 is located east of CTH XX and southeast of Remus Road and overlaps Alternative 1 (see Figure 5). This Late Woodland and Oneota campsite/village was recorded in 1981 and was located on top of a 40 foot knoll at the time of its discovery.

47LC169, called B. Pralle II, is located in Section 10 of Township 16 North, Range 7 West. 47LC169 is located east of USH 53 and north of County Road OS near the mouth of Green's Coulee and overlaps Alternative 3 (see Figure 7). This Oneota campsite/village was recorded in 1983. Cultural material was recovered on each of several rises within the site area.

47LC170, called B. Pralle III, is located in Section 10 of Township 16 North, 7 West. 47LC170 is located south of Interstate 90, and north of STH 16, near Pralle Road and overlaps Alternatives 1 and 2 (see Figure 7). This Oneota campsite/village was discovered in 1983 and was identified by lithic debitage found on two rises on an east-west oriented field near some farm buildings.

47LC171, called B. Pralle IV, is located in Section 10 of Township 16 North, Range 7 west. 47LC171 is located north of CTH PH and east of Lester Avenue and overlaps Alternative 1 (see Figure 7). This Oneota campsite/village was recorded in 1983.

47LC258, called Senn Site, is located in Section 3 of Township 16 North, Range 7 West. This site was recorded in 1986, and is a possible Oneota campsite/village located east of Greens Coulee Road and split by Evenson Road. This site overlaps Alternatives 1 and 2 (see Figure 7).

47LC388, called Wheel Rust, is located in Section 30 of Township 17 North, Range 7 West. This Oneota campsite/village is located east of CTH XX, north of CTH OT, and west of STH 35 and overlaps Alternatives 1 and 2 (see Figure 5). This site was recorded in 1988.

47LC657, called Rider's Club, is located in Section 13 of Township 17 North, Range 8 West. 47LC657 is located northeast of the intersection of Briggs Road and CTH XX and overlaps Alternatives 1 and 2 (see Figure 5). This Woodland campsite was recorded in 1996, and was identified by two positive shovel tests.

One additional site found in 2013 located in Section 19 of Township 17 North, Range 7 West. This site is located north of Meadow Court and east of Filler Court. This site was discovered by the University of Wisconsin – La Crosse archaeology field school in 2013 and has not yet been recorded with the Wisconsin Historical Society. This site is likely an Oneota campsite/village (Dave Anderson, personal communication 2013). This site overlaps Alternative 3 (see Figure 5).

Previously Recorded Sites Immediately Adjacent to Project Alternatives

BLC141, called Gate of Heaven Cemetery, is located in Section 14 of Township 16 North, Range 7 West. This active historic Euro-American cemetery/burial is located northeast of CTH B and just east of the existing Q-1 transmission line. Woodlawn Cemetery is located immediately to the west (see Figure 8). BLC141 is considered an uncatalogued burial/cemetery and pursuant to Wisconsin's burial sites protection law [Wis.Stats. 157.70 and Wis. Admin.

Code HS 2.02(15), 2.04 (2)], any subsurface exploration within a reported burial site will require a permit from the Wisconsin Historical Society, and testing must be conducted by a "qualified archeologist," as specified under Wis. Stats. 157.70(1)(i) and Wis. Admin.Code HS 2.04(6). Therefore consultation with the Wisconsin Historical Society is required before any ground disturbing activities take place within the boundaries of this uncatalogued burial, including the driving of heavy equipment within the site boundaries. Alternatives 1, 2, and 3 border this cemetery to the west.

BLC142, called Woodlawn North Cemetery, is located in Section 14 of Township 16 North, Range 7 West. This active historic Euro-American cemetery/burial is located north of CTH B, just west of the existing Q-1 transmission line, and east of Eastbrook Drive. Gate of Heaven Cemetery is located immediately to the east (see Figure 8). BLC142 is considered an uncatalogued burial/cemetery and pursuant to Wisconsin's burial sites protection law [Wis.Stats. 157.70 and Wis. Admin. Code HS 2.02(15), 2.04 (2)], any subsurface exploration within a reported burial site will require a permit from the Wisconsin Historical Society, and testing must be conducted by a "qualified archeologist," as specified under Wis. Stats. 157.70(1)(i) and Wis. Admin.Code HS 2.04(6). Therefore consultation with the Wisconsin Historical Society is required before any ground disturbing activities take place within the boundaries of this uncatalogued burial, including the driving of heavy equipment within the site boundaries. Alternatives 1, 2, and 3 border this cemetery on the east.

Sites Within One Mile of Project Alternatives

Aside from the 17 sites previously mentioned, there are an additional 150 previously recorded sites within one mile of the project alternatives (Table 2). These include historic Euro-American, historic Native American, and prehistoric cemeteries/burials, prehistoric earthworks and garden beds, prehistoric mounds, several Woodland and/or Oneota campsite/villages, prehistoric lithic scatters, historic Native American cache/pit/hearth and dance rings, and historic Euro-American quarries, historic material concentrations, cabins/homesteads, and dam/historic earthwork. Figures 5, 6, 7, and 8 show the locations of several of these sites highlighted in yellow in relationship to the project alternatives.

Table 2. Previously Recorded Sites Within One Mile of the Project Alternatives.

Site No.	Site Name	Site Type	Cultural Period/Affiliation	Township, Range, Section
BLC9	Hauser Private Cemetery	Cemetery/Burial	Historic Euro-American	16-7W-16
BLC29	Onalaska Cemetery	Cemetery/Burial	Historic Euro-American	16-7W-9
LC18	Kramer	Campsite/Village	Late Woodland, Oneota	16-7W-10
LC24	Pertzsch	Campsite/Village	Oneota	16-7W-9
LC25	MVE Lutheran Church	Campsite/Village	Unknown Prehistoric	16-7W-9
LC26	Gensch	Campsite/Village		16-7W-10
LC27	A. Pralle	Campsite/Village	Oneota	16-7W-10
LC28	Gilster 1	Campsite/Village	Oneota	16-7W-10
LC29	Gilster 2	Campsite/Village	Unknown Prehistoric	16-7W-10
LC30	H. Pralle	Campsite/Village		16-7W-10
LC31	Hauser	Campsite/Village		16-7W-16
LC32	Collins	Campsite/Village	Unknown Prehistoric	16-7W-16

LC33	Urley	Campsite/Village	Unknown Prehistoric	16-7W-16
LC34/BLC73	Valley View	Campsite/Village, Enclosure/Earthworks, Corn Hills/Garden Beds	Archaic, Early/Middle/Late Woodland, Oneota, Historic Indian	16-7W-10, 15, 16
LC35	Jorstad	Campsite/Village	Woodland, Oneota	16-7W-10
LC41/BLC 65	Krause Site	Cemetery/Burial, Campsite/Village	Woodland, Oneota	17-7W-28
LC42	Iva	Campsite/Village	Late Woodland, Middle Mississippian	17-7W-28
LC43	Herbert	Campsite/Village		17-7W-28
LC44	Sand Lake	Campsite/Village, Corn hills/Garden beds	Oneota	17-7W-28
LC45	Lower Sand Lake	Campsite/Village	Early, Middle, and Late Woodland, Oneota, Middle Mississippian	17-7W-33
LC46	Hauser	Campsite/Village		16-7W-4
LC47	Cliff View	Campsite/Village	Oneota	17-7W-18
LC48	Dayton	Campsite/Village	Oneota	16-7W-10
LC49	Leon	Campsite/Village	Oneota	16-7W-15
LC50	Fireside	Campsite/Village		16-7W-10
LC51	Wimpy		Unknown Prehistoric	16-7W-11
LC52	Medary	Campsite/Village	Late Archaic, Woodland, Oneota	16-7W-15
LC53	Staubly	Campsite/Village	Middle and Late Woodland, Oneota	16-7W-16
LC69	Blue Heather	Lithic Scatter	Middle and Late Archaic	16-7W-11
LC70	Russel Pertzsch	Foundation/Depression, Campsite/Village	Unknown Prehistoric, Oneota, Historic Euro-American	16-7W-11
LC71	Gates of Heaven II	Lithic Scatter	Unknown Prehistoric	16-7W-14
LC73/BLC100	Pertzsch Mound	Mound(s)-Conical	Oneota	17-7W-20
LC88	Society	Campsite/Village	Unknown Prehistoric	17-7W-30
LC90	Dale	Campsite/Village		17-7W-30
LC92	Braund	Campsite/Village	Oneota	16-7W-10
LC105	Roger	Campsite/Village	Woodland	17-7W-18
LC106	David	Campsite/Village	Archaic, Middle Woodland	17-7W-18
LC112	Suburbia	Campsite/Village		17-7W-18
LC114	Trashed Penthouse	Campsite/Village	Unknown Prehistoric	17-8W-12
LC115		Campsite/Village	Unknown Prehistoric	17-7W-7
LC119	Stremcha	Campsite/Village	Oneota	17-8W-13
LC120	Dummer	Campsite/Village	Oneota	17-8W-11
LC126	Bob Marley	Campsite/Village	Woodland	17-8W-13
LC135/BLC139	Tenant's Rights	Campsite/Village, Cemetery/Burial	Late Woodland, Oneota	17-7W-7
LC137	No Holiday	Campsite/Village	Woodland, Oneota	16-7W-15
LC141	McCabe	Campsite/Village	Oneota	17-7W-7
LC142	Younger	Isolated Finds	Oneota	17-7W-7
LC143	La Fleur			16-7W-24
LC146	Palace	Campsite/Village	Unknown	16-7W-16
LC148	Dahl	Campsite/Village	Late Woodland	16-7W-15

LC149/BLC117	Filler Site	Cemetery/Burial, Campsite/Village	Oneota	17-7W-18, 19
LC156	Stanley Fantastic	Campsite/Village	Late Woodland	17-7W-33
LC158	Bird Bluff	Campsite/Village	Late Woodland	17-7W-28
LC159	Wald	Campsite/Village	Middle Woodland	16-7W-16
LC164	Northern Engraving	Campsite/Village	Oneota	17-7W-33
LC165	Thunderbird Hills	Campsite/Village		17-7W-20
LC166	Dunn	Campsite/Village	Late Woodland, Oneota	17-7W-28
LC167	Schaller	Campsite/Village	Oneota	17-7W-28
LC168	B. Pralle I	Campsite/Village	Woodland, Oneota	16-7W-10
LC172	B. Pralle V	Campsite/Village	Oneota	16-7W-13
LC173	R. Pertzch	Campsite/Village	Oneota	16-7W-11
LC174	Buteo Rockshelter	Cave/Rockshelter	Oneota	16-7W-15
LC175/BLC101	Sand Lake Mounds	Mound(s) – Conical, Mound(s) – Other/Unk	Woodland	17-7W-28
LC177	Halfway Creek Delta	Corn Hills/Garden Beds, Isolated Finds	Oneota	17-7W-9
LC178	Rosebud II	Campsite/Village	Oneota, Woodland	17-7W-31
LC179	Rosebud I	Campsite/Village	Woodland	17-7W-31, 17-8W-36
LC182	Jackie Smith	Campsite/Village	Oneota	17-7W-28
LC183/BLC102	Northern Engraving Mounds	Mound(s) – Conical	Woodland	17-7W-33
LC189	Van Aelstyn	Campsite/Village	Oneota	17-7W-30
LC192	Krause Substation	Campsite/Village	Oneota	17-7W-28
LC193	Sand Lake Sandstone Lodge	Cabin/Homestead, Campsite/Village	Historic Euro-American, Oneota	17-7W-28
LC198	Krause Ridges	Corn Hills/Garden Beds	Oneota, Woodland	17-7W-28
LC247	The Gamroth Site	Campsite/Village	Archaic, Late Archaic, Early Woodland	17-7W-20
LC248		Campsite/Village		17-7W-18
LC249	You Kids	Campsite/Village	Oneota	17-7W-19
LC250	Schoenburger	Campsite/Village	Oneota	16-7W-3
LC258	Senn Site	Campsite/Village	Oneota	16-7W-3
LC262/BLC66	OT	Cemetery/Burial, Campsite/Village	Oneota	17-7W-18
LC263	Hauser VI	Campsite/Village	Late Woodland, Oneota	16-7W-4
LC264	Hauser V	Campsite/Village	Unknown Prehistoric	17-7W-33
LC265	Hauser IV	Campsite/Village	Unknown Prehistoric	17-7W-33
LC266	Hauser I	Campsite/Village	Oneota	17-7W-33
LC267	Hauser II	Campsite/Village	Unknown Prehistoric	17-7W-33
LC268/BLC103	Senn Mounds	Mound(s)-Other/Unk, Mound(s) - Conical	Woodland	16-7W-4
LC283/BLC99	Don Pertzsch	Cemetery/Burial, Campsite/Village	Middle Woodland, Oneota	17-7W-20
LC288/BLC104	Onalaska Village and Cemetery	Campsite/Village, Cemetery/Burial	Oneota	16-7W-8, 9
LC292	Hauser II	Campsite/Village	Unknown Prehistoric	17-7W-33
LC297	Bell Island	Campsite/Village	Woodland	16-7W-5,6
LC314	Town of Medary	Campsite/Village	Woodland, Oneota	17-7W-19

LC315	C. Viner	Campsite/Village	Early and Late Paleoindian	16-7W-14
LC318	McHugh Road	Campsite/Village	Middle Woodland, Late Archaic	17-8W-11
LC322	Unitrust	Campsite/Village	Unknown Prehistoric	17-8W-13
LC331	Blumentritt	Campsite/Village	Late Woodland	17-7W-31
LC359	Firesign	Campsite/Village	Oneota	17-7W-19
LC360/BLC62	Area G	Cemetery/Burial	Oneota, Unknown Prehistoric	17-7W-28
LC363	Sand Lake Hills B	Campsite/Village, Workshop Site	Oneota	17-7W-28
LC364	Sand Lake Hills B	Workshop Site, Campsite/Village	Oneota	17-7W-28
LC365	Sand Lake Hills A	Campsite/Village	Oneota	17-7W-28
LC369	William Hauser Quarry	Quarry	Historic Euro-American	17-7W-33
LC387	Halfway Creek Delta II	Campsite/Village	Unknown Prehistoric	17-8W-13
LC389	Surplus South	Campsite/Village	Unknown Prehistoric	17-7W-19
LC392	Korschgen II	Campsite/Village	Oneota	17-7W-28
LC397	Kloppenburg	Campsite/Village	Oneota	17-7W-19
LC398	Oak Forest	Campsite/Village	Unknown Prehistoric	16-7W-9
LC415	Rosebud North Farm	Cabin/Homestead, Farmstead	Historic Euro-American	17-7W-31
LC416	Rosebud Center Farm	Cabin/Homestead	Historic Euro-American	17-7W-31
LC419		HCM Concentration	Historic Euro-American	16-7W-16
LC420		Cabin/Homestead	Historic Euro-American	16-7W-16
LC421	Isolated Find	Isolated Finds	Unknown Prehistoric	16-7W-16
LC425/BLC77	Valley View Tombs	Cemetery/Burial	Historic Indian	16-7W-15
LC428	Holmen Industrial	Campsite/Village	Unknown Prehistoric	17-7W-7
LC432	New Road-Meier Farm Site	Campsite/village	Late Woodland, Oneota	17-7W-33
LC436	Grokowsky Site	Campsite/Village	Oneota	17-7W-7
LC437	Prairie Heights	Campsite/Village	Unknown Prehistoric	17-7W-18
LC440	Onalaska Library	Campsite/Village	Woodland	16-7W-9
LC444	Substation Site	Campsite/Village	Unknown Prehistoric	17-8W-12
LC445	FWS-21	HCM Concentration	Historic Euro-American	17-8W-12
LC467	Site #1	Campsite//village	Unknown Prehistoric	16-7W-11
LC473	Sand Lake Hills D	Campsite/Village	Oneota	17-7W-28
LC474	Sand Lake Hills E	Campsite/Village	Unknown Prehistoric	17-7W-28
LC475	Sand Lake Hills F	Campsite/Village	Unknown Prehistoric	17-7W-28
LC476	Duplicate of LC360			
LC482	Elmwood III	Campsite/Village	Oneota	16-7W-11
LC497	New Church Site	Isolated Finds	Unknown Prehistoric	17-7W-20
LC485	Holley Street	Campsite/Village	Oneota	17-7W-18
LC500	Weinkauf Site	Campsite/Village	Oneota	17-7W-20
LC532	Dust Devil	Campsite/Village	Woodland, Oneota	17-7W-7
LC533	Hang Tight	Workshop Site	Unknown Prehistoric	17-7W-7
LC553	Duplicate of LC262			
LC554	Motel Madness	Campsite/Village	Unknown Prehistoric	16-7W-11
LC555	Thistlerium	Campsite/Village	Unknown Prehistoric	16-7W-11
LC577	Moyer Site	Campsite/Village		16-7W-11
LC586	Sand Lake Hills Area H	Campsite/Village	Unknown Prehistoric	17-7W-28

LC617	Lively	Campsite/Village	Early and Middle Woodland, Late Archaic	17-7W-30
LC633	Sutter's Lawn and Garden	Lithic Scatter	Late Woodland, Unknown Prehistoric	16-7W-11
LC634	Fauver School Yard Fill	Redeposited Artifacts	Unknown Prehistoric	16-7W-11
LC652	Unnamed Isolated Find	Isolated Finds	Unknown Prehistoric	17-8W-24
LC656	Halfway Creek Delta III	Campsite/Village	Unknown Prehistoric	17-7W-19
LC663	North Woods Isolated Find	Isolated Finds	Unknown Prehistoric	16-7W-14
LC702	Medary Ho-Chunk Village	Cache/pit/hearth	Historic Indian	16-7W-15
LC704	Aspen Valley	Campsite/Village	Late Prehistoric	16-7W-3
LC707	Humfeld Development	Campsite/Village	Late Woodland, Oneota	16-7W-3
LC715	North Kinney Coulee	Lithic Scatter	Unknown Prehistoric	16-7W-11
LC737	Kyo Site	Lithic Scatter	Unknown Prehistoric	17-7W-7
LC742	Sarazin Site	Campsite/Village	Unknown Prehistoric	17-8W-24
LC781	Brady Farm	Campsite/Village	Unknown Prehistoric	17-8W-13
LC801/BLC138	North La Crosse Dance Circle	Dance Ring, Enclosure/Earthwork, Mound(s)- Conical	Woodland, Oneota, Historic Indian	16-7W-16
LC805	Kinney Coulee Road Site	Lithic Scatter	Unknown Prehistoric	16-7W-11
LC806	Kinney Coulee Race Track	Dam/Historic Earthwork	Historic Euro-American	16-7W-11
LC820	Valley View East	Campsite/Village	Oneota, Unknown Historic	16-7W-15

CONCLUSIONS AND RECOMMENDATIONS

The Mississippi Valley Archaeology Center conducted an archival literature review for changes to approximately nine miles of the existing Q-1 transmission line, Briggs Road Substation to North La Crosse Tap, located in La Crosse County, Wisconsin. The locations of three project alternatives were looked at and data on previously existing archaeological sites and previous archaeological surveys was found in the Wisconsin Historic Preservation Database. Fifteen sites are located within the three alternative project areas and two additional sites are located immediately adjacent to the project areas. Additionally, 150 sites are located within one mile of the project alternatives. These sites have cultural affiliation ranging from Paleoindian to Historic Euroamerican.

Avoidance of known archaeological sites is recommended, however this may not be feasible due to the large amounts of sites in and around the alternatives. The large number of archaeological sites reported within one mile of the alternatives indicates high potential for the discovery of additional archaeological sites during the construction of the transmission line. Therefore, it is recommended that an archaeological survey be conducted in those areas not previously surveyed. Additionally, any access roads that may be constructed should also be surveyed. The survey would determine the presence or absence of cultural materials along the route, and minimize the negative impact on archaeological sites. Depending on the type of

survey conducted and the year it was done, some previously surveyed areas that overlap the alternatives may not have to be resurveyed, providing that the original surveys were done in compliance with current WAS (2012) survey standards, (i.e. shovel testing and surface survey in 15 meter intervals or less). For those surveys that overlap the alternatives where information is unknown when and how the survey was conducted, survey would need to be conducted.

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DAIRYLAND POWER
COOPERATIVE

January 16, 2015

Ms. Alice Halpin
Wisconsin Department of Agriculture, Trade and Consumer Protection
Agricultural Impact Program
2811 Agricultural Drive
P.O. Box 8911
Madison, WI 53708-8911

Subject: **Dairyland Power Cooperative Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project; La Crosse County, Wisconsin**

Dear Ms. Halpin:

The purpose of this letter is to solicit input from the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) regarding a proposed transmission line rebuild project. Dairyland Power Cooperative (DPC), a not-for-profit generation and transmission cooperative headquartered in La Crosse, Wisconsin, intends to seek financial assistance from the U.S. Department of Agriculture Rural Utilities Service (RUS) to rebuild approximately nine miles of the south segment of the Q-1 161 kilovolt (kV) transmission line (Q-1D South or Project, Figure 1). This nine mile segment extends from the Briggs Road Substation to the La Crosse Tap in La Crosse County, Wisconsin (RUS Project Number 1060). Constructed in the 1950s, the line is now in poor condition and reaching the end of its service life. The rebuild will occur along the existing 161 kV alignment within existing right of way (ROW).

The Project will be reviewed under the jurisdiction of RUS. In accordance with RUS National Environmental Policy Act (NEPA) regulations, the Project falls under criteria that would typically require the preparation of a Categorical Exclusion (CE), including biological and cultural studies and related state and federal permitting. In addition, federal permits will likely be required from the U.S. Army Corps of Engineers (USACE) for Section 404 and Section 10 of the Clean Water Act compliance, as well as a review pursuant to Section 106 of the National Historic Preservation Act. Review by the U.S. Fish and Wildlife Service (USFWS) will be required pursuant to Section 7 of the Endangered Species Act (ESA). A Certified Endangered Resources (ER) review (ER Log #14-634_uttn) was completed on September 8, 2014 and approved by the Wisconsin Department of Natural Resources Bureau of Natural Heritage Conservation (WDNR-BNHC) on September 12, 2014.

Project Summary

The Project begins approximately 0.3 mile southeast of the Briggs Road Substation, which is located southwest of the Village of Holmen, Wisconsin. The Project then traverses generally southeast to the La Crosse Tap located approximately 0.7 mile south and west of the City of La Crosse, Wisconsin (Figure 1). The Briggs Road Substation and a 0.3 mile section of the Q-1D South transmission line is currently being constructed as part of a separate project - the CapX2020 Hampton-Rochester-La Crosse 345 kV Transmission Improvement Project or "CapX project". The Briggs Road Substation is located on the opposite side of Briggs Road from the North La Crosse Substation.

Project Would Rebuild 9 Miles of 70-Mile Q-1 Transmission Line

DPC's Q-1 Line was constructed in the 1950s; it is in poor condition and is reaching the end of its service life. The entire Q-1 Line consists of approximately 70 miles in four Wisconsin segments as follows (north to south):

- Alma – Marshland (27 miles)
- Marshland – North La Crosse Substation (Q-1D North, 13 miles)
- Briggs Road Substation – La Crosse Tap (Q-1D South, 9 miles)
- La Crosse Tap – Genoa Tap (21 miles)

The Project consists of rebuilding nine miles of the Briggs Road Substation – La Crosse Tap segment to address condition concerns. Detailed sheet maps showing the route, proposed access routes, and structure locations are provided in Figure 2. Table 1 below presents the Project location details.

Table 1: Project Location

State	County	Township	Range	Sections
Wisconsin	La Crosse	17N	8W	13
Wisconsin	La Crosse	17N	7W	18, 19, 29, 30, 32, 33
Wisconsin	La Crosse	16N	7W	3, 4, 10, 14, 15, 23

The 27 mile Alma – Marshland segment is being constructed as a co-located double circuit as part of the CapX project. The other two segments of the Q-1 Line (north of the Project) are also separate projects: the Marshland – North La Crosse Substation Q-D North segment required preparation of a separate Environmental Assessment (EA); the La Crosse Tap – Genoa Tap segment was recently rebuilt.

East of the intersection of U.S. Highway 53 (US 53) and Interstate 90 (I-90), and approximately one mile south of I-90, the Project crosses the La Crosse River floodplain area that is made up of floodplain forest, streams, and emergent wetlands.

Design and Construction to Minimize Impacts

Rebuilding the transmission line consists of replacing the transmission structures and wires, within the existing ROW. The Project has been designed to avoid resources such as wetlands, surface waters, sensitive habitats, protected species and historic or cultural areas to the extent possible. Potential impacts to soil and surface water resources would be minimized or avoided by using erosion and sedimentation control best management practices (BMPs) during construction. Permanent impacts include the installation of 56 new single pole steel transmission structures that would be 95-115 feet tall with an average span of 770 feet, and 5 Y-frame steel transmission structures that would be 65 feet tall with an approximate 600 to 800 foot span between structures.

The Y-frame steel transmission structures would be used for the 0.6-mile long portion of the Project through the La Crosse River floodplain area to minimize impacts. The Project will utilize the existing 80-foot ROW, with 40 feet on either side of the 161-kV transmission centerline. The existing transmission structures will not be replaced at their current locations; rather structure locations will be selected based on engineering, landowner input, and environmental factors including soil conditions, slope, and maximum span length between transmission structures, and terrain.

As noted above, DPC has made design choices and identified construction methods to minimize Project impacts, particularly within the La Crosse River floodplain area. Within the La Crosse River floodplain, existing wooden H-frame transmission structures would be cut off at ground level and removed by low ground pressure equipment. Access to the structures in the La Crosse River floodplain would be via an existing access route that has been used for operation and maintenance of the existing transmission line (Figure 2). Once a structure has been assembled on the ground, a mobile crane would use a vibratory hammer to vibrate the caisson to the required foundation depth at each structure location. The use of the vibratory hammer would eliminate excess spoil material. Once the caisson is correctly installed, the crane would lift the Y-frame steel structure in sections and attach the structure section to the foundation or previously-set lower section. The structures would be directly embedded in soil. Temporary construction matting would be required for an approximately 25-foot by 25-foot area at the base of the 5 Y-frame structures (122 through 126) that are located within La Crosse River floodplain.

Construction of the La Crosse River floodplain section is scheduled to commence in the fall of 2015 and take approximately two to three weeks to complete. The remaining eight miles of line would be built following the completion of the CapX project in 2015. Construction phasing will reflect any avoidance measures required to protect sensitive resources including threatened and endangered species, surface waters and wetlands. The in-service date for the Project is June 2016.

AECOM Technical Services, Inc. (AECOM) has been retained to assist DPC with the preparation of environmental studies, permits and consultations required for planning and construction of the Project. AECOM office is located at 800 LaSalle Avenue, Suite 500, Minneapolis, MN 55402.

If you have any questions regarding the information presented in this letter, please contact Chuck Thompson at Dairyland Power Cooperative 608-787-1432 or at cat@dairynet.com, or Joleen Trussoni at 608-787-1472 or jkt@dairynet.com. Thank you for your assistance regarding the Project.

Sincerely,

Chuck Thompson
Manager of Siting and Regulatory Affairs

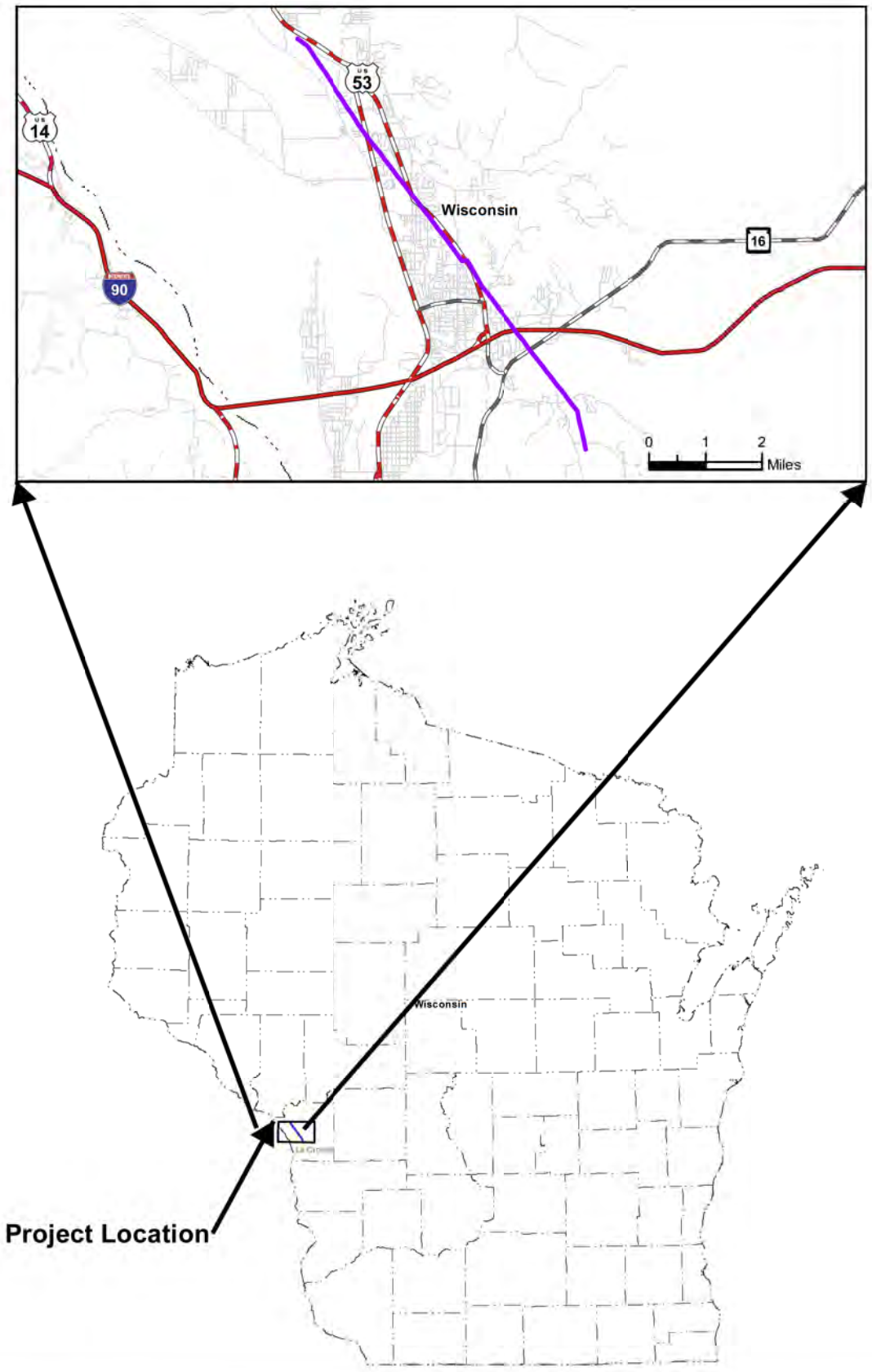
Joleen Trussoni
Environmental Coordinator

Enclosures:

Figure 1 - Project Location (on 7.5 Minute USGS topographic quadrangle)
Figure 2 – Sheet Maps (showing Project location on aerial photography)

cc:
Stephanie Strength, RUS
Mark Rothfork, AECOM
Leslie Knapp, AECOM

ENCLOSURES



Legend

- Project Centerline
- State

Transportation

- Interstate Highway
- US Highway
- State Highway

30 0 30 Miles

Data Sources: DPC, ESRI, WisDOT
Map Date: January 2015
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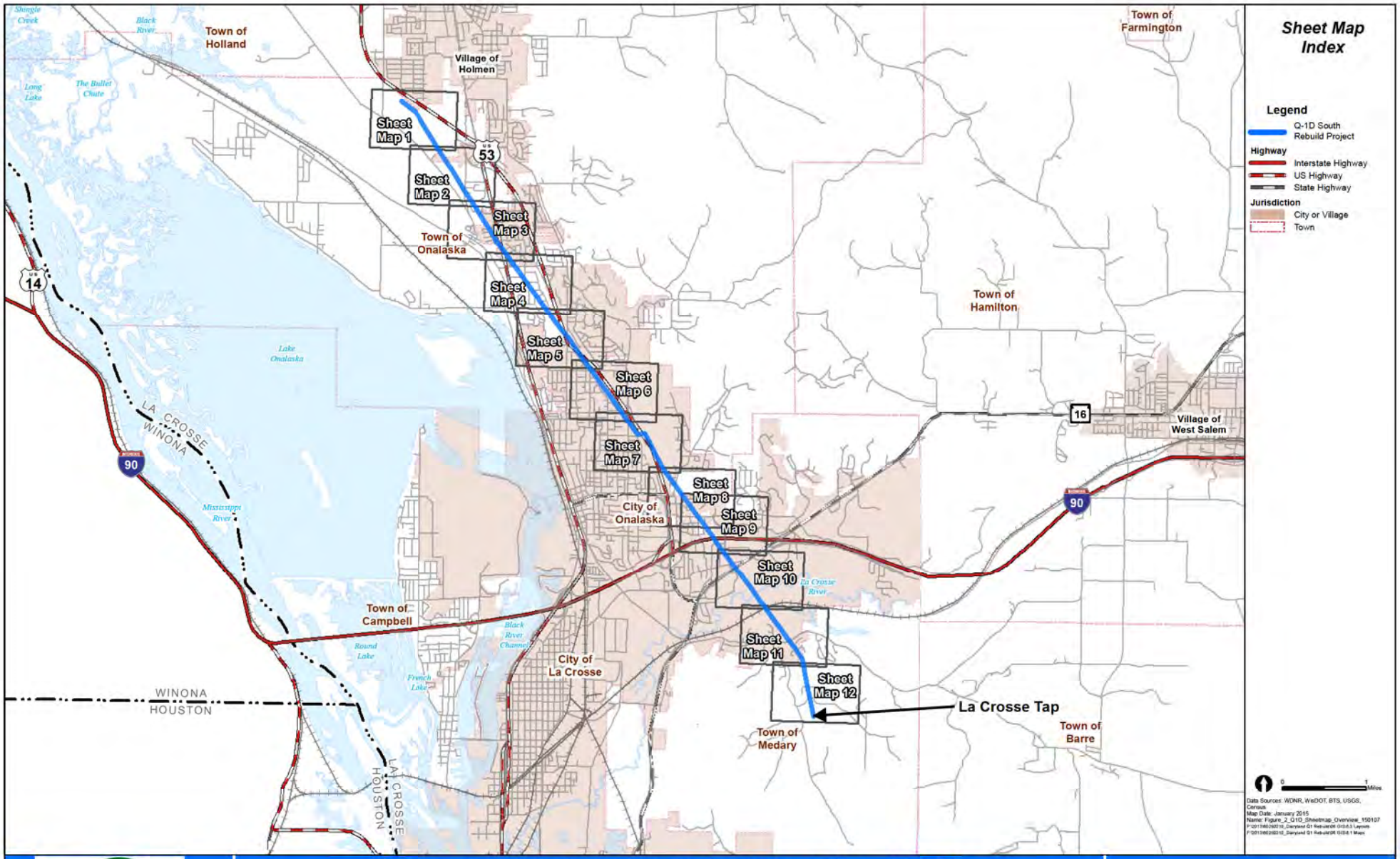
DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Figure 1
Project Location Map
January 2015



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Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

Dairyland Power Cooperative

Figure 2
Q-1D South Sheet Map Index
January 2015

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

Dairyland Power Cooperative

Figure 2
Q-1D South Sheet Map
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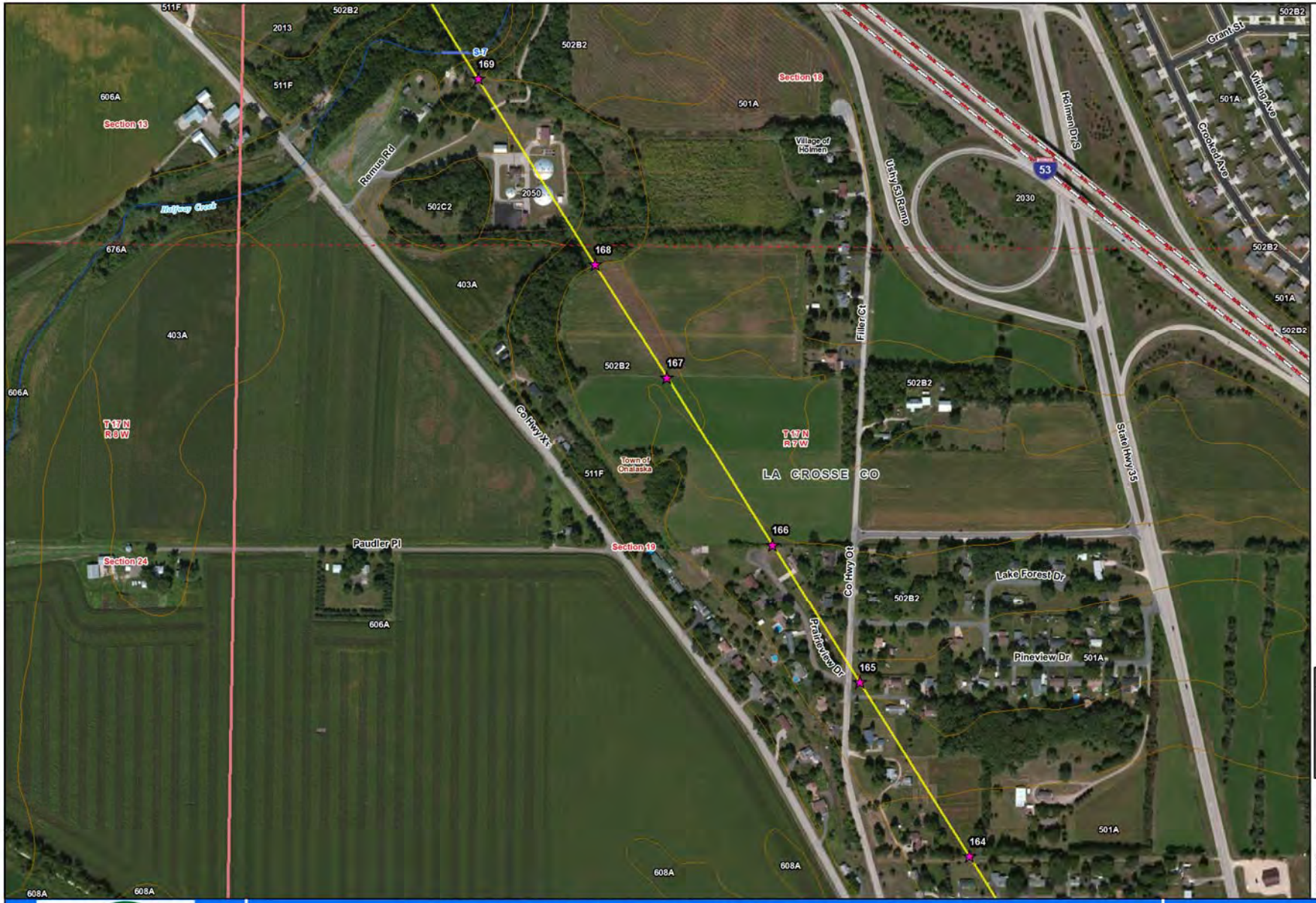

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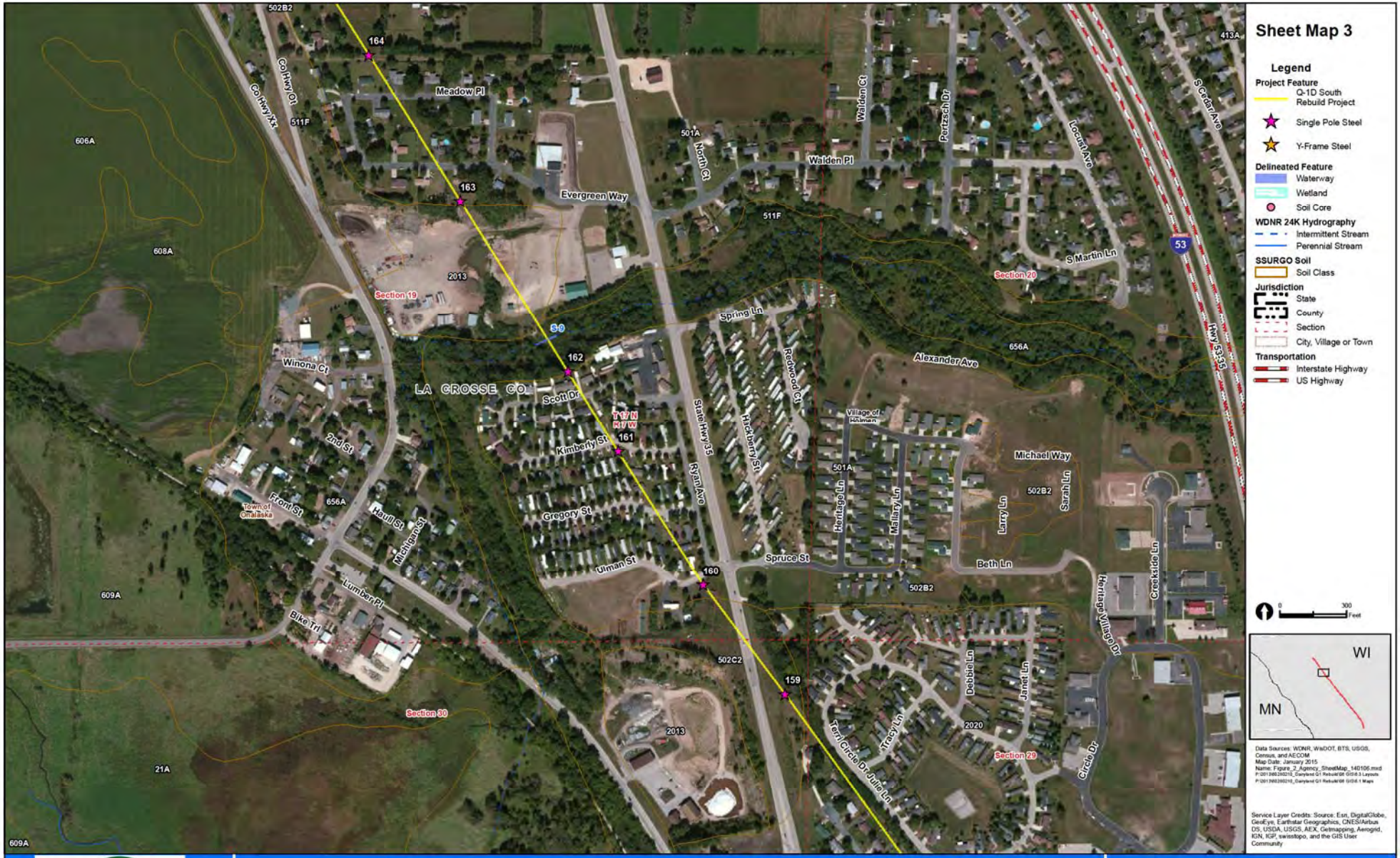

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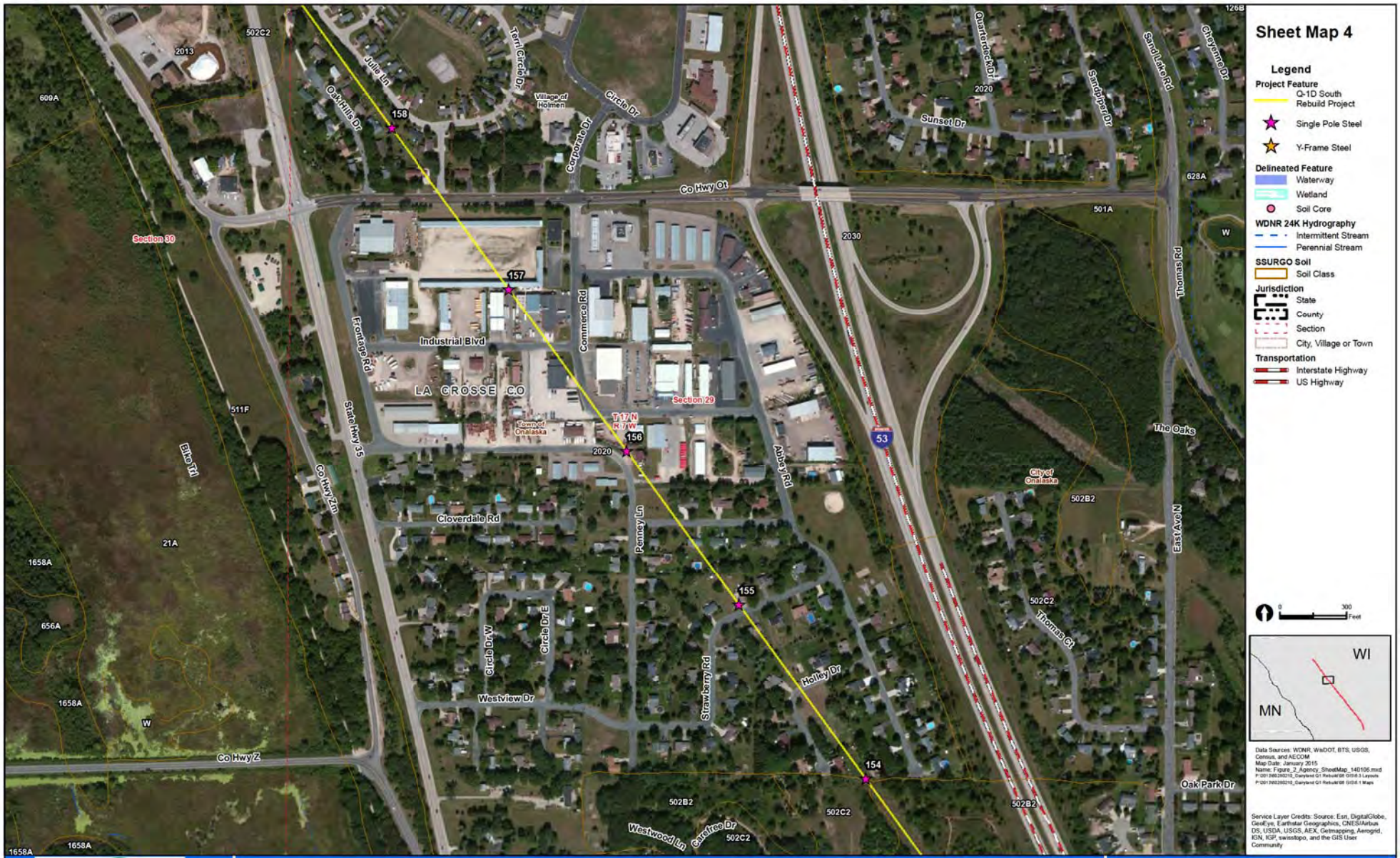

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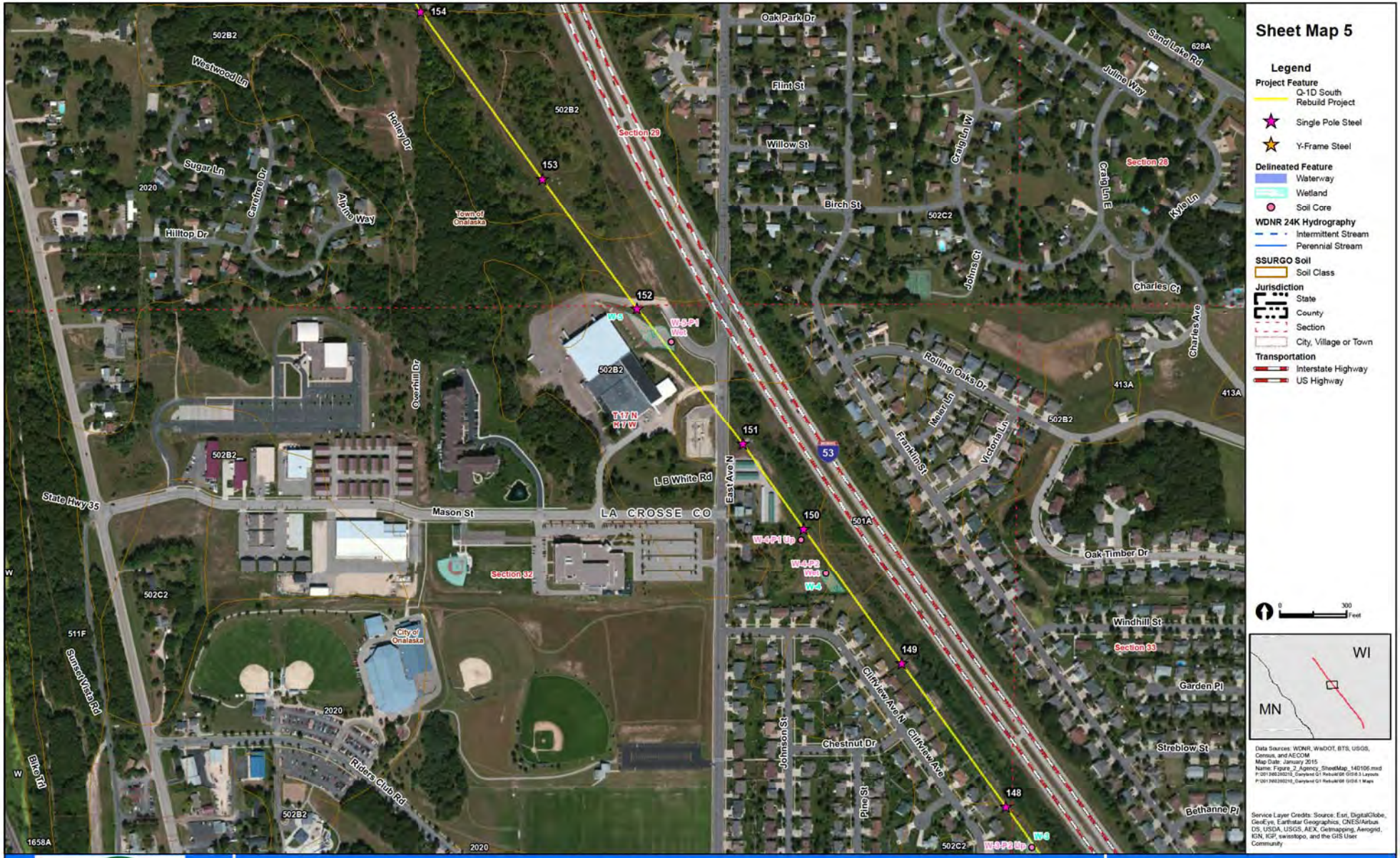

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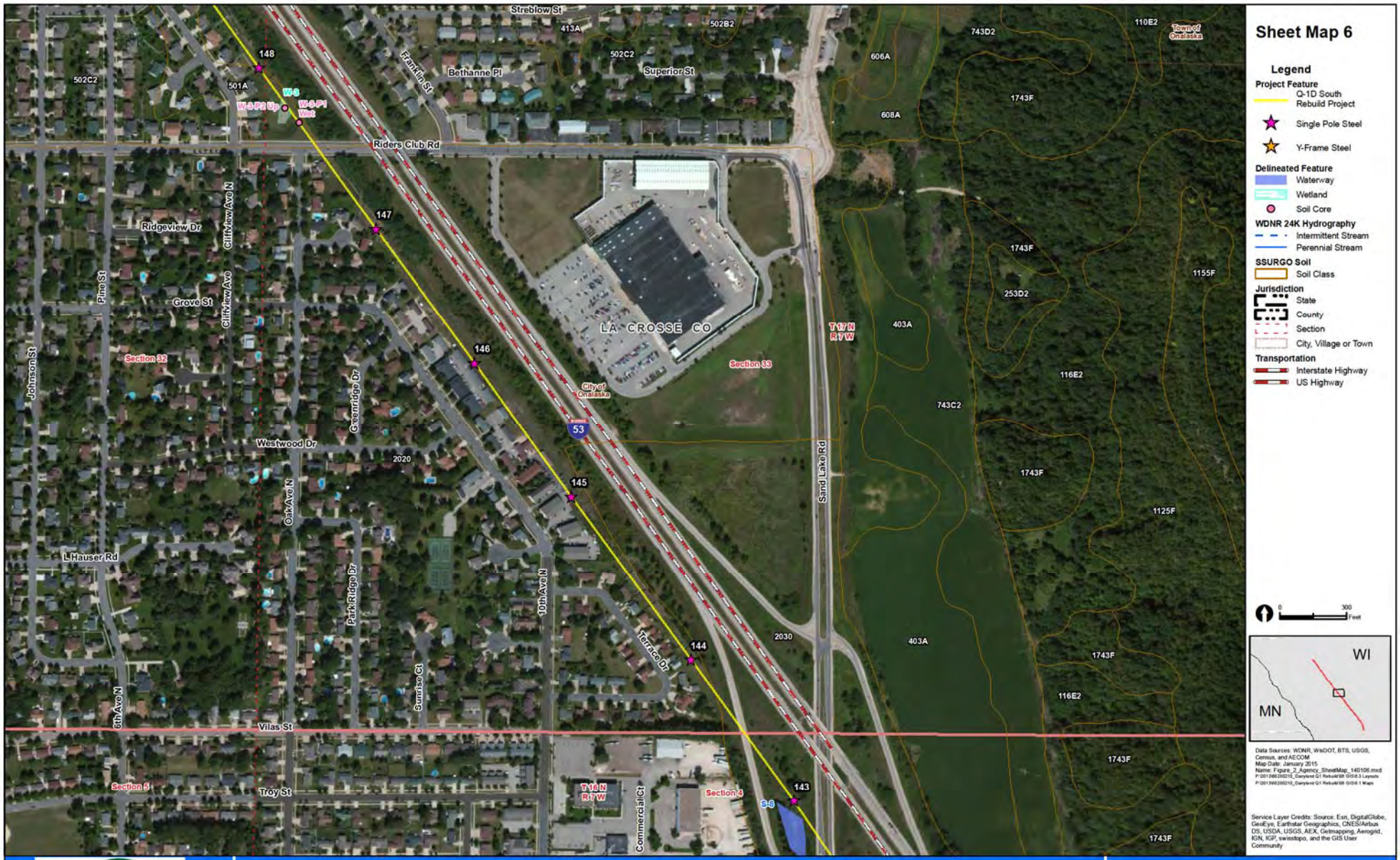

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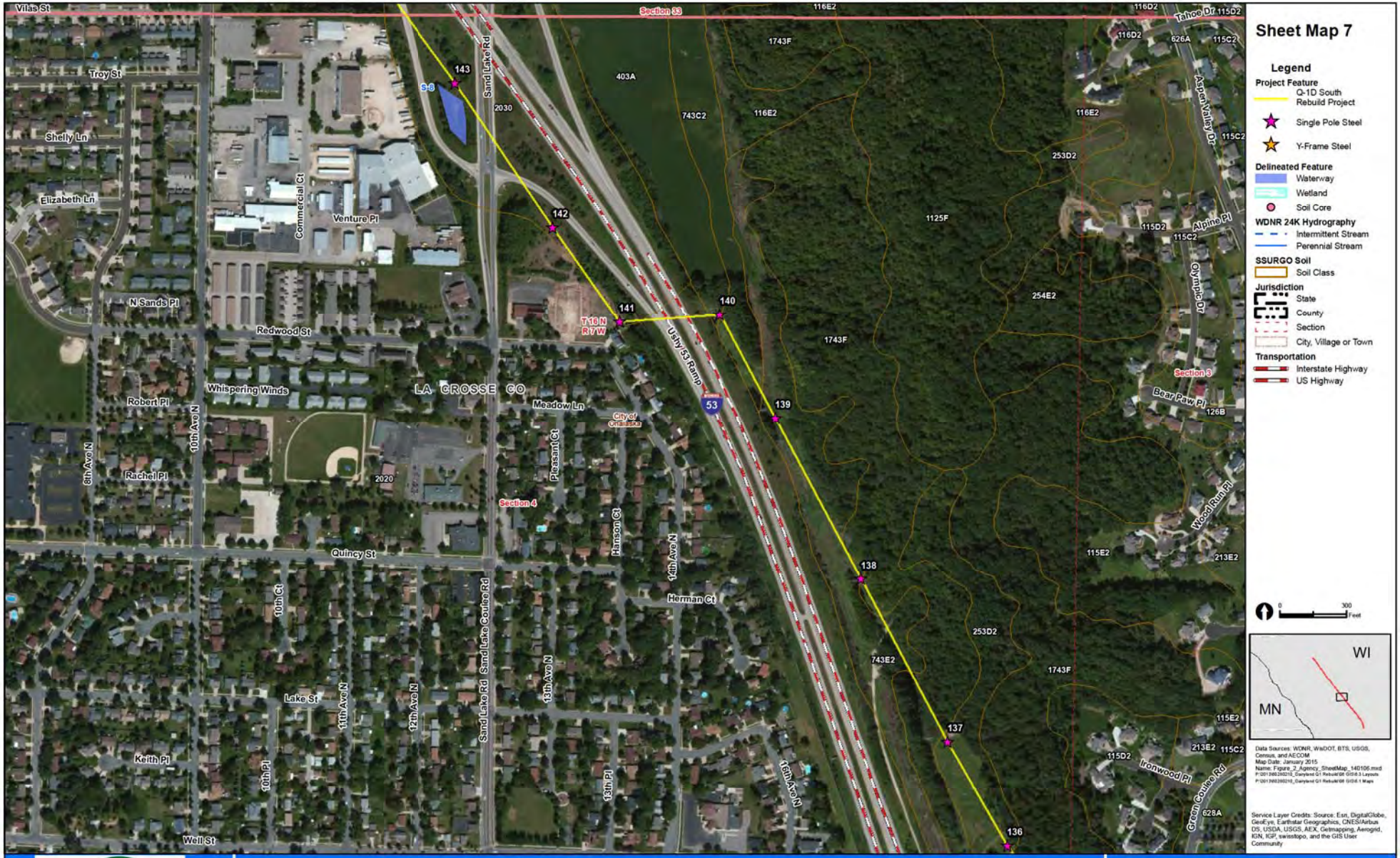

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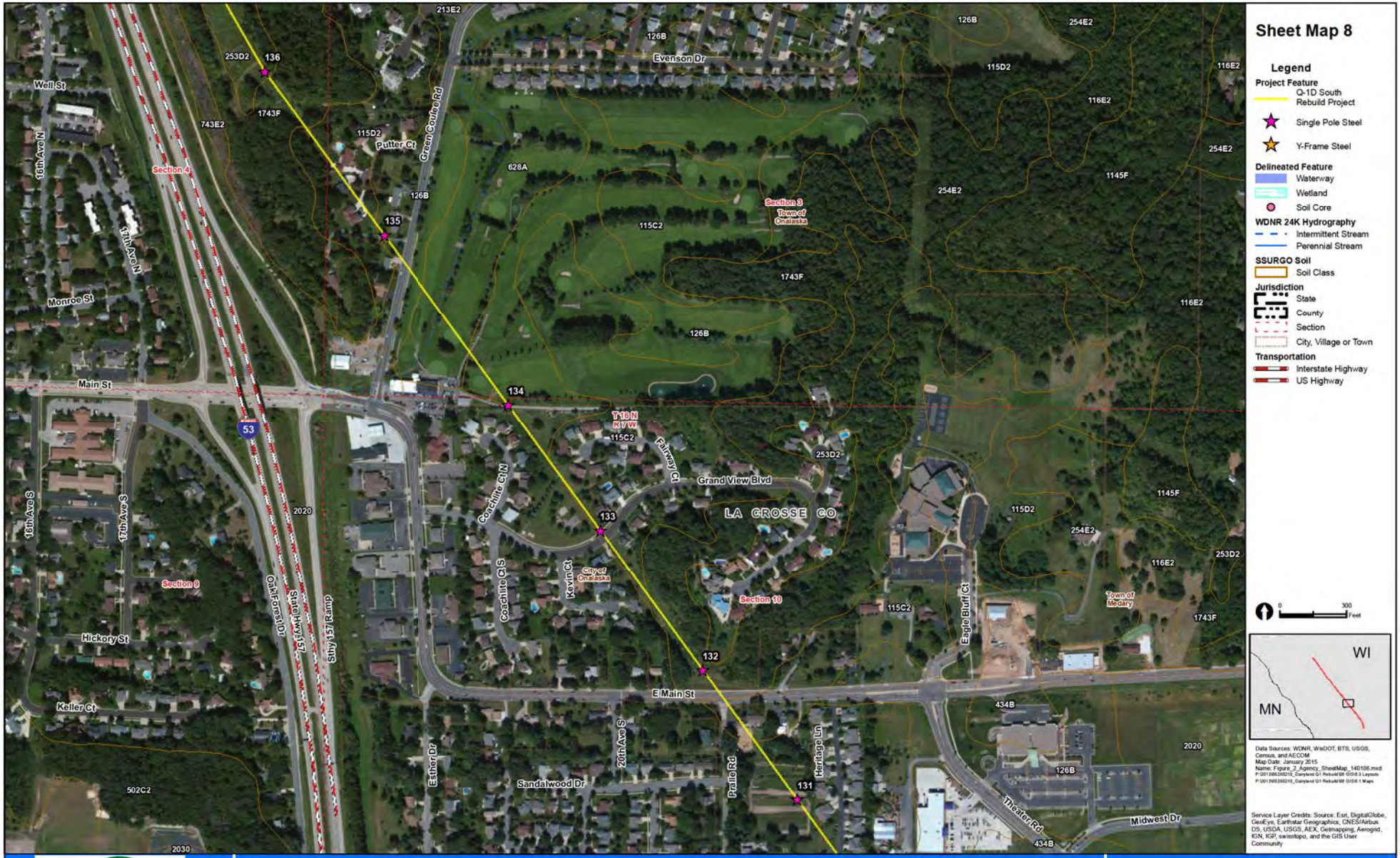

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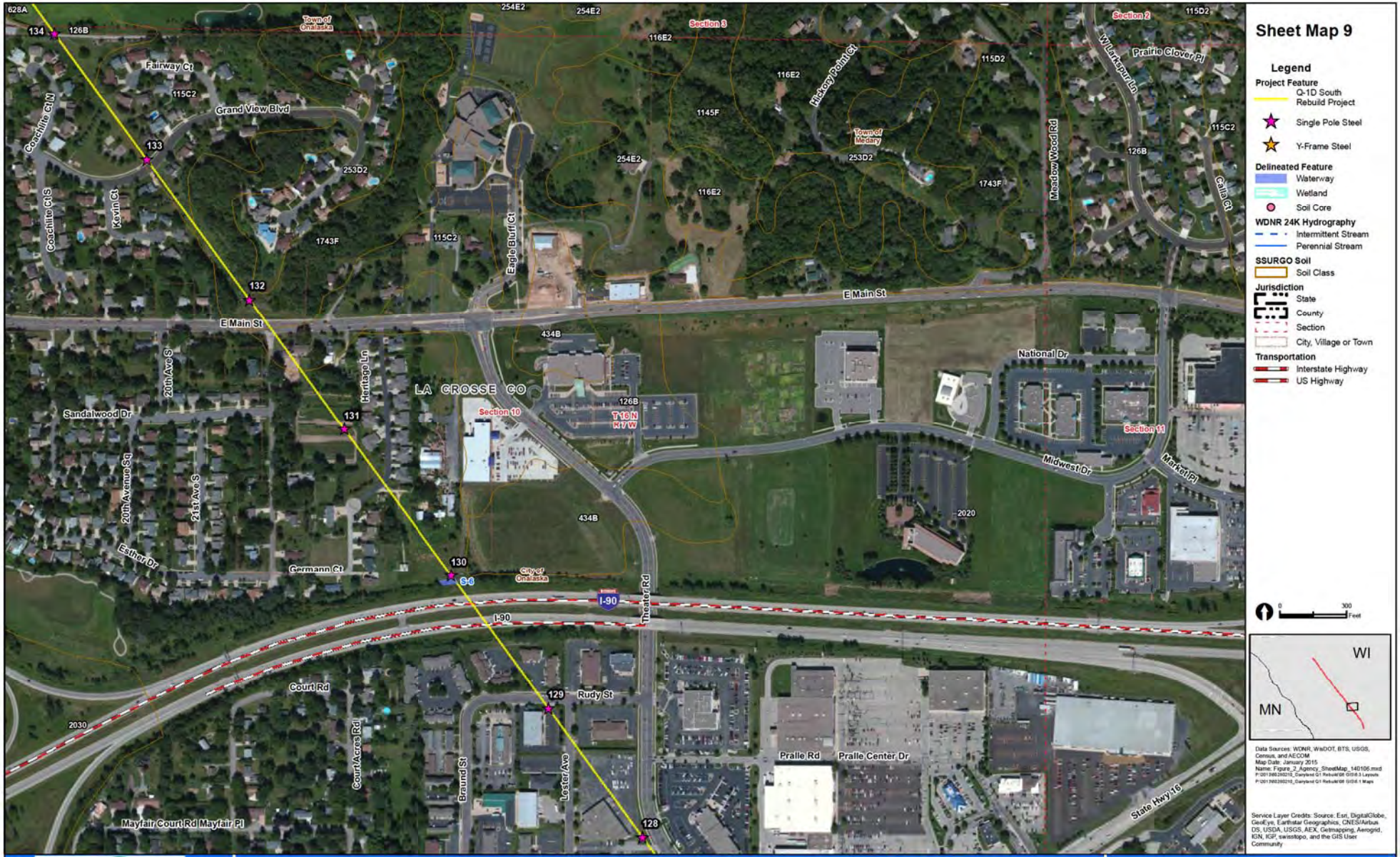

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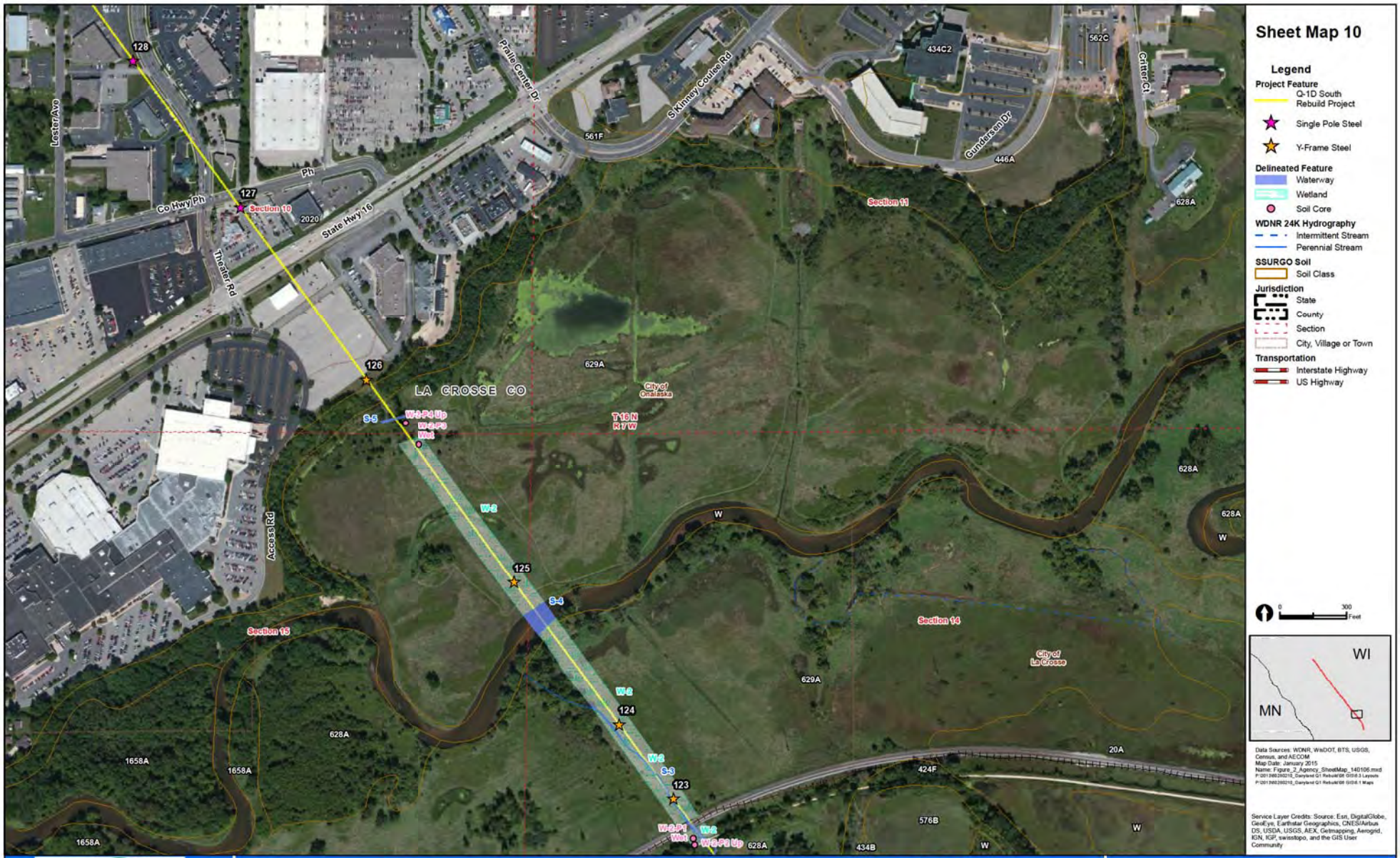

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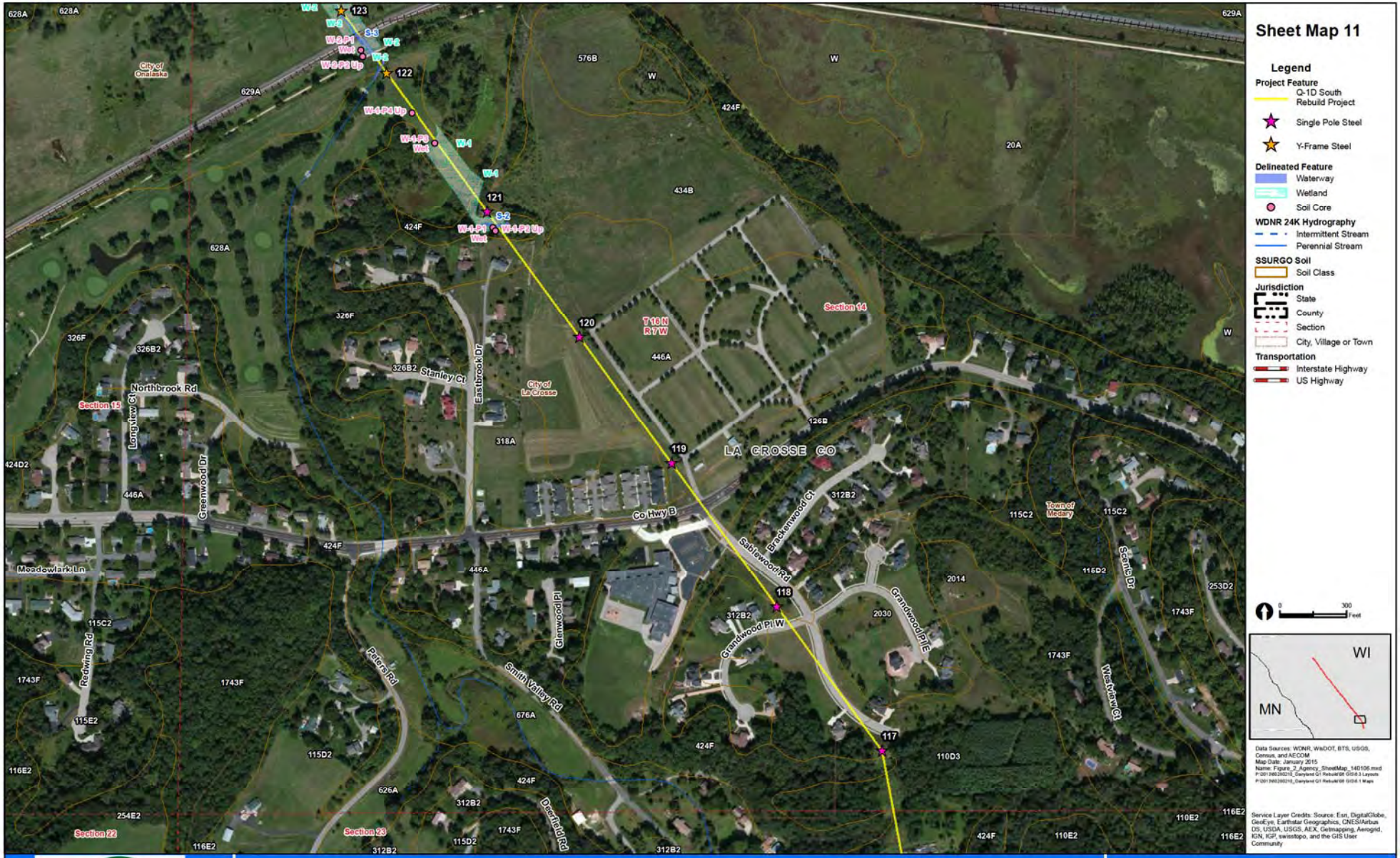

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A Touchstone Energy Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

Dairyland Power Cooperative

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January 2015

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy Cooperative

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Dairyland Power Cooperative

Figure 2
Q-1D South Sheet Map
January 2015

DAIRYLAND POWER
COOPERATIVE

January 16, 2015

Mr. Gregory Yakle
U.S. Department of Agriculture
Natural Resources Conservation Service
Onalaska Service Center – La Crosse County
1107 Riders Club Road
Onalaska, WI 54650-2079

Subject: **Dairyland Power Cooperative Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project; La Crosse County, Wisconsin**

Dear Mr. Yakle:

The purpose of this letter is to solicit input from the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) – La Crosse County regarding a proposed transmission line rebuild project. Dairyland Power Cooperative (DPC), a not-for-profit generation and transmission cooperative headquartered in La Crosse, Wisconsin, intends to seek financial assistance from the U.S. Department of Agriculture Rural Utilities Service (RUS) to rebuild approximately nine miles of the south segment of the Q-1 161 kilovolt (kV) transmission line (Q-1D South or Project, Figure 1). This nine mile segment extends from the Briggs Road Substation to the La Crosse Tap in La Crosse County, Wisconsin (RUS Project Number 1060). Constructed in the 1950s, the line is now in poor condition and reaching the end of its service life. The rebuild will occur along the existing 161 kV alignment within existing right of way (ROW).

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If you have any questions regarding the information presented in this letter, please contact Chuck Thompson at Dairyland Power Cooperative, 608-787-1432 or at cat@dairynet.com, or Joleen Trussoni at 608-787-1472 or jkt@dairynet.com. Thank you for your assistance regarding the Project.

Sincerely,

Chuck Thompson
Manager of Siting and Regulatory Affairs

Joleen Trussoni
Environmental Coordinator

Enclosures:

Figure 1 - Project Location (on 7.5 Minute USGS topographic quadrangle)
Figure 2 – Sheet Maps (showing Project location on aerial photography)

cc:
Stephanie Strength, RUS
Mark Rothfork, AECOM
Leslie Knapp, AECOM

DAIRYLAND POWER
COOPERATIVE

January 16, 2015

Mr. Dave Studenski
U.S. Army Corps of Engineers
ATTN: Regulatory Branch
180 5th Street East, Suite 700
St. Paul, MN 55101-1678

Subject: **Dairyland Power Cooperative Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project; La Crosse County, Wisconsin**

Dear Mr. Studenski:

The purpose of this letter is to solicit input from the U.S. Army Corps of Engineers (USACE) regarding a proposed transmission line rebuild project. Dairyland Power Cooperative (DPC), a not-for-profit generation and transmission cooperative headquartered in La Crosse, Wisconsin, intends to seek financial assistance from the U.S. Department of Agriculture Rural Utilities Service (RUS) to rebuild approximately nine miles of the south segment of the Q-1 161 kilovolt (kV) transmission line (Q-1D South or Project, Figure 1). This nine mile segment extends from the Briggs Road Substation to the La Crosse Tap in La Crosse County, Wisconsin (RUS Project Number 1060). Constructed in the 1950s, the line is now in poor condition and reaching the end of its service life. The rebuild will occur along the existing 161 kV alignment within existing right of way (ROW).

The Project will be reviewed under the jurisdiction of RUS. In accordance with RUS National Environmental Policy Act (NEPA) regulations, the Project falls under criteria that would typically require the preparation of a Categorical Exclusion (CE), including biological and cultural studies and related state and federal permitting. In addition, federal permits will likely be required from the USACE for Section 404 and Section 10 of the Clean Water Act compliance, as well as a review pursuant to Section 106 of the National Historic Preservation Act. Review by the U.S. Fish and Wildlife Service (USFWS) will be required pursuant to Section 7 of the Endangered Species Act (ESA). A Certified Endangered Resources (ER) review (ER Log #14-634_uttn) was completed on September 8, 2014 and approved by the Wisconsin Department of Natural Resources Bureau of Natural Heritage Conservation (WDNR-BNHC) on September 12, 2014.

Project Summary

The Project begins approximately 0.3 mile southeast of the Briggs Road Substation, which is located southwest of the Village of Holmen, Wisconsin. The Project then traverses generally southeast to the La Crosse Tap located approximately 0.7 mile south and west of the City of La Crosse, Wisconsin (Figure 1). The Briggs Road Substation and a 0.3 mile section of the Q-1D South transmission line is currently being constructed as part of a separate project - the CapX2020 Hampton-Rochester-La Crosse 345 kV Transmission Improvement Project or "CapX project". The Briggs Road Substation is located on the opposite side of Briggs Road from the North La Crosse Substation.

Project Would Rebuild Nine Miles of 70-Mile Q-1 Transmission Line

DPC's Q-1 Line was constructed in the 1950s; it is in poor condition and is reaching the end of its service life. The entire Q-1 Line consists of approximately 70 miles in four Wisconsin segments as follows (north to south):

- Alma – Marshland (27 miles)
- Marshland – North La Crosse Substation (Q-1D North, 13 miles)
- Briggs Road Substation – La Crosse Tap (Q-1D South, 9 miles)
- La Crosse Tap – Genoa Tap (21 miles)

The Project consists of rebuilding nine miles of the Briggs Road Substation – La Crosse Tap segment to address condition concerns. Detailed sheet maps showing the route, proposed access routes, and structure locations are provided in Figure 2. Table 1 below presents the Project location details.

Table 1: Project Location

State	County	Township	Range	Sections
Wisconsin	La Crosse	17N	8W	13
Wisconsin	La Crosse	17N	7W	18, 19, 29, 30, 32, 33
Wisconsin	La Crosse	16N	7W	3, 4, 10, 14, 15, 23

The 27 mile Alma – Marshland segment is being constructed as a co-located double circuit as part of the CapX project. The other two segments of the Q-1 Line (north of the Project) are also separate projects: the Marshland – North La Crosse Substation Q-D North segment required preparation of a separate Environmental Assessment (EA); the La Crosse Tap – Genoa Tap segment was recently rebuilt.

East of the intersection of U.S. Highway 53 (US 53) and Interstate 90 (I-90), and approximately one mile south of I-90, the Project crosses the La Crosse River floodplain area that is made up of floodplain forest, streams, and emergent wetlands.

Design and Construction to Minimize Impacts

Rebuilding the transmission line consists of replacing the transmission structures and wires, within the existing ROW. The Project has been designed to avoid resources such as wetlands, surface waters, sensitive habitats, protected species. and historic or cultural areas to the extent possible. Potential impacts to soil and surface water resources would be minimized or avoided by using erosion and sedimentation control best management practices (BMPs) during construction. Permanent impacts include the installation of 56 new single pole steel transmission structures that would be 95-115 feet tall with an average span of 770 feet, and 5 Y-frame steel transmission structures that would be 65 feet tall with an approximate 600 to 800 foot span between structures.

The Y-frame steel transmission structures would be used for the 0.6-mile long portion of the Project through the La Crosse River floodplain area to minimize impacts. The Project will utilize the existing 80-foot ROW, with 40 feet on either side of the 161-kV transmission centerline. The existing transmission structures will not be replaced at their current locations; rather structure locations will be selected based on engineering, landowner input, and environmental factors including soil conditions, slope, and maximum span length between transmission structures, and terrain.

As noted above, DPC has made design choices and identified construction methods to minimize Project impacts, particularly within the La Crosse River floodplain area. Within the La Crosse River floodplain, existing wooden H-frame transmission structures would be cut off at ground level and removed by low ground pressure equipment. Access to the structures in the La Crosse River floodplain would be via an existing access route that has been used for operation and maintenance of the existing transmission line (Figure 2). Once a structure has been assembled on the ground, a mobile crane would use a vibratory hammer to vibrate the caisson to the required foundation depth at each structure location. The use of the vibratory hammer would eliminate excess spoil material. Once the caisson is correctly installed, the crane would lift the Y-frame steel structure in sections and attach the structure section to the foundation or previously-set lower section. The structures would be directly embedded in soil. Temporary construction matting would be required for an approximately 25-foot by 25-foot area at the base of the 5 Y-frame structures (122 through 126) that are located within La Crosse River floodplain.

Construction of the La Crosse River floodplain section is scheduled to commence in the fall of 2015 and take approximately two to three weeks to complete. The remaining eight miles of line would be built following the completion of the CapX project in 2015. Construction phasing will reflect any avoidance measures required to protect sensitive resources including threatened and endangered species, surface waters and wetlands. The in-service date for the Project is June 2016.

AECOM Technical Services, Inc. (AECOM) has been retained to assist DPC with the preparation of environmental studies, permits and consultations required for planning and construction of the Project. AECOM, 800 LaSalle Avenue, Suite 500, Minneapolis, MN 55402.

If you have any questions regarding the information presented in this letter, please contact Chuck Thompson at Dairyland Power Cooperative, 608-787-1432 or at cat@dairynet.com, or Joleen Trussoni at 608-787-1472 or jkt@dairynet.com. Thank you for your assistance regarding the Project.

Sincerely,

Chuck Thompson
Manager of Siting and Regulatory Affairs

Joleen Trussoni
Environmental Coordinator

Enclosures:

Figure 1 - Project Location (on 7.5 Minute USGS topographic quadrangle)
Figure 2 – Sheet Maps (showing Project location on aerial photography)

cc:
Stephanie Strength, RUS
Mark Rothfork, AECOM
Leslie Knapp, AECOM

DAIRYLAND POWER
COOPERATIVE

January 16, 2015

Mr. Peter Fasbender
U.S. Fish and Wildlife Service
Wisconsin Ecological Services Field Office – Green Bay
2661 Scott Tower Drive
Green Bay, WI 54229-9565

Subject: **Dairyland Power Cooperative Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project; La Crosse County, Wisconsin**

Dear Mr. Fasbender:

The purpose of this letter is to solicit input from the U.S. Fish and Wildlife Service (USFWS) regarding a proposed transmission line rebuild project. Dairyland Power Cooperative (DPC), a not-for-profit generation and transmission cooperative headquartered in La Crosse, Wisconsin, intends to seek financial assistance from the U.S. Department of Agriculture Rural Utilities Service (RUS) to rebuild approximately nine miles of the south segment of the Q-1 161 kilovolt (kV) transmission line (Q-1D South or Project, Figure 1). This nine mile segment extends from the Briggs Road Substation to the La Crosse Tap in La Crosse County, Wisconsin (RUS Project Number 1060). Constructed in the 1950s, the line is now in poor condition and reaching the end of its service life. The rebuild will occur along the existing 161 kV alignment within existing right of way (ROW).

The Project will be reviewed under the jurisdiction of RUS. In accordance with RUS National Environmental Policy Act (NEPA) regulations, the Project falls under criteria that would typically require the preparation of a Categorical Exclusion (CE), including biological and cultural studies and related state and federal permitting. In addition, federal permits will likely be required from the U.S. Army Corps of Engineers (USACE) for Section 404 and Section 10 of the Clean Water Act compliance, as well as a review pursuant to Section 106 of the National Historic Preservation Act. Review by the USFWS will be required pursuant to Section 7 of the Endangered Species Act (ESA). A Certified Endangered Resources (ER) review (ER Log #14-634_uttn) was completed on September 8, 2014 and approved by the Wisconsin Department of Natural Resources Bureau of Natural Heritage Conservation (WDNR-BNHC) on September 12, 2014.

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If you have any questions regarding the information presented in this letter, please contact Chuck Thompson at Dairyland Power Cooperative, 608-787-1432 or at cat@dairynet.com, or Joleen Trussoni at 608-787-1472 or jkt@dairynet.com. Thank you for your assistance regarding the Project.

Sincerely,

Chuck Thompson
Manager of Siting and Regulatory Affairs

Joleen Trussoni
Environmental Coordinator

Enclosures:

Figure 1 - Project Location (on 7.5 Minute USGS topographic quadrangle)
Figure 2 – Sheet Maps (showing Project location on aerial photography)

cc:
Stephanie Strength, RUS
Mark Rothfork, AECOM
Leslie Knapp, AECOM

DAIRYLAND POWER
COOPERATIVE

January 26, 2015

Ms. Melissa Tumbleson
Wisconsin Department of Natural Resources
Endangered Resources Review Program
101 South Webster Street
P.O. Box 7921
Madison, WI 53707-792

Subject: **ER Log #14-634**

Dairyland Power Cooperative Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project; La Crosse County, Wisconsin

Dear Ms. Tumbleson:

The purpose of this letter is to solicit input from the Wisconsin Department of Natural Resources (WDNR) as to whether the enclosed Endangered Resource review document remains a current report for the geographic area under review? The construction timeframe for this project has been extended with new proposed start date of January 2016 thru June of 2016.

In addition, for your reference I have enclosed the Wetland Delineation, Stream Survey, and Natural Heritage Inventory Habitat Survey Report.

If you have any questions presented in this letter or any of the enclosures please contact Chuck Thompson at Dairyland Power Cooperative, 608-787-1432 or at cat@dairynet.com, or Joleen Trussoni at 608-787-1472 or jkt@dairynet.com. Thank you for your assistance regarding the Project.

Sincerely,

Chuck Thompson
Manager of Siting and Regulatory Affairs

Enclosures: ER Review #14-634
Wetland Delineation, Stream Survey, and Natural Heritage Inventory Habitat Survey Report

cc:
Stephanie Strength, RUS
Mark Rothfork, AECOM
Leslie Knapp, AECOM

State of Wisconsin
Governor Scott Walker

Department of Agriculture, Trade and Consumer Protection
Ben Brancel, Secretary

January 20, 2015

Chuck Thompson
Dairyland Power Coop
3200 East Avenue South, PO Box 817
La Crosse, Wi 54602-0817

Dear Chuck Thompson:

Re: Project Name Briggs Road to La Crosse (Q-1D South) 161 kV Rebuild
County: La Crosse

The Department of Agriculture, Trade, and Consumer Protection (DATCP) has reviewed the notification and any supplemental information you have provided concerning the potential need for an agricultural impact statement (AIS) for the above project. We have determined that an AIS will not be prepared for this project.

Please note that if the proposed project or project specifications are altered in any way which could be construed as increasing the potential adverse effects of the project on agriculture or on any farm operation, the DATCP should be renotified. Questions on the AIS program can be directed to me at the above address or by dialing 608/224-4646.

Sincerely,

Alice Halpin

Alice Halpin
Agricultural Impact Program

DATCP ID: #4033

DAIRYLAND POWER

Dairyland Power Cooperative Q1 South 161 kV Rebuild, Lacrosse Cty

Bill L. Quackenbush to cat@dairynet.com 07/21/2014 02:35 PM

History This message has been forwarded.

Good afternoon Chuck Thompson,

Thank you for contacting the Ho-Chunk Nation with your undertaking known to us as the "Dairyland Power Cooperative Q1 South 161 kV Rebuild, located in La Crosse County Wisconsin.
We at this time have no known questions or concerns regarding your proposed project, but do elect to request to remain as an interested party throughout the duration of your undertaking.
If any inadvertent discoveries occur that includes archeological or traditional cultural properties, please include us in your contact list for disclosure.

We do wish you well with your project.

Respectfully,

William Quackenbush
Tribal Historic Preservation Officer
Cultural Resources Division Manager
Ho-Chunk Nation

Cc File

WINNEBAGO TRIBE OF NEBRASKA

Tribal Historic Preservation Office * P.O. Box 687 Winnebago, NE 68071 smith_deleon77yahoo.com
402-878-2380 x 113

July 8, 2014

RE: LaCrosse County, WI

Dear Mr. Thompson,

Thank you for your recent letter to the Tribal Cultural Preservation Office of the Winnebago Tribe of Nebraska. The Preservation Office would like to inform you that the Winnebago Tribe of Nebraska has cultural properties in the area of your proposed construction. According to oral tradition, the tribe lived in the area in the prehistoric period. The tribe lived in the area in the early years of the historic period before the depopulation of the tribe.

You may proceed with your proposed construction, but if there are any burial sites or other cultural properties found we would like for your your office to notify us right away at 402-878-2380 x113 Thank you.

Sincerely

Emily Smith-DeLeon

Tribal Historic Preservation Office

Winnebago Tribe of Nebraska

smith_deleon77@yahoo.com

WISCONSIN HISTORICAL SOCIETY

August 6, 2015

Chuck Thompson
Dairyland Power Cooperative
3200 East Avenue South
La Crosse, WI 54602

IN REPLY, PLEASE REFER TO WHS CASE # 15-0177/LC

Re: Request to Conduct Ground-Disturbing Activity within the Boundaries of Uncatalogued Burial Sites LC-0019 (BLC-0001, Midway Village Site) and LC-0095 (BLC-0071, Tremaine Site)

Dear Mr. Thompson:

Based on the information you have provided in your submittal materials, including two archeological reports prepared by MVAC Archeologist Vicki Twinde-Javner, dated June 29, 2015 (received in our office July 13, 2015), regarding the above referenced project, we do hereby authorize the proposed ground disturbing activities within the boundaries of the uncatalogued burial sites referenced above, pursuant to the provisions of Wis. Stats. §§ 157.70 (4) and Wis. Admin. Code § HS 2.04 (4), and according to the provisions provided below.

Your Authorization to conduct this work shall be valid for a period of one year from the date of this letter.

This Authorization applies to the proposed work activity specifically described in your June 29, 2015 submittal. All ground-disturbing activities that occur within the boundaries of the uncatalogued burial sites shall be monitored by a qualified archeologist, as defined at Wis. Stats. § 157.70 (1) (i). Vicki Twinde-Javner is such a qualified archeologist. However, you may find a list of additional such qualified archeologists at the following web site: http://www.wisconsinhistory.org/hp/burialsites/about/bs_burialexcavation.pdf.

In the event that the proposed area of construction has been disturbed to a degree greater than that proposed to be disturbed to facilitate your project, or to a degree that would

eliminate any possibility of finding intact human burials, please provide corroborating written information describing this finding to justify termination of monitoring activities. Otherwise, again, all areas of ground-disturbing shall be monitored.

If during the proposed ground disturbing activity you encounter human remains, you must stop work at that location and contact our office immediately for further coordination, and, in the event that human remains must be excavated and analyzed, for negotiation and execution of an appropriate contract.

Any deviation from the plans described in your June 29, 2013 submittal materials that may occur within the boundaries of the uncatalogued burial sites that involves ground disturbing activity must be described in writing and said description forwarded to this office for further review and Authorization. Such modified work is not covered or authorized by this letter.

With questions, please contact me. We anticipate receipt of your monitoring report, when it becomes available. Thank you for your continued attention to this matter.

Sincerely,

Chip Harry L. Brown III, J.D.
Government Assistance and Training Specialist

608-264-6508 (voice)
608-264-6504 (fax)
chip.brown@wisconsinhistory.org

15-0177/LC

For SHPO Use Only. Case # _____

REQUEST FOR SHPO COMMENT AND CONSULTATION ON A FEDERAL UNDERTAKING

Submit one copy with each undertaking for which our comment is requested. Please print or type. Return to:
Wisconsin Historical Society, Division of Historic Preservation, Office of Preservation Planning, 816 State Street, Madison, WI 53706
Please Check All Boxes and Include All of the Following Information, as Applicable.

I. GENERAL INFORMATION

☒ **This is a new submittal.**
☐ **This is supplemental information relating to Case #:_____, and title:_____**
☐ **This project is being undertaken pursuant to the terms and conditions of a programmatic or other interagency agreement. The title of the agreement is _____**

a. Federal Agency Jurisdiction (Agency providing funds, assistance, license, permit): Rural Utilities Service

b. Federal Agency Contact Person: Laura Dean Phone: 202-720-9634

c. Project Contact Person: Chuck Thompson Phone: 608-787-1432

d. Return Address: Dairyland Power Cooperative, 3200 E Ave S, La Crosse WI Zip Code: 54602

e. Email Address: cat@dairynet.com

f. Project Name: La Cross Tap-North La Crosse 161kV Rebuild

RECEIVED
JUL 13 2015
BY:_____

g. Project Street Address:_____

h. County: LaCrosse City: _____ Zip Code: _____

i. Project Location: Township 16 North, Range 7 West, Sections 3, 4, 10, 14, 15, and 23
Township 17 North, Range 7 West, Sections 18, 19, 29, 30, 32, and 33
Township 17 North, Range 8 West, Sections 13

j. Project Narrative Description—Attach Information as Necessary.

k. Area of Potential Effect (APE). Attach Copy of U.S.G.S. 7.5 Minute Topographic Quadrangle showing APE.

II. IDENTIFICATION OF HISTORIC PROPERTIES

☒ Historic Properties are located within the project APE per 36 CFR 800.4. Attach supporting materials.
☐ Historic Properties are not located within the project APE per 36 CFR 800.4. Attach supporting materials.

III. FINDINGS

☐ No historic properties will be affected (i.e., none is present or there are historic properties present but the project will have no effect upon them). Attach necessary documentation, as described at 36 CFR 800.11.
☒ The proposed undertaking will have no adverse effect on one or more historic properties located within the project APE under 36 CFR 800.5. Attach necessary documentation, as described at 36 CFR 800.11.
☐ The proposed undertaking will result in an adverse effect to one or more historic properties and the applicant, or other federally authorized representative, will consult with the SHPO and other consulting parties to resolve the adverse effect per 36 CFR 800.6. Attach supporting documentation as described at 36 CFR 800.11 with a proposed plan to resolve adverse effect(s).

Authorized Signature: Chuck Thompson Date: 7/6/15

Type or print name: Chuck Thompson

IV. STATE HISTORIC PRESERVATION OFFICE COMMENTS

☒ Agree with the finding in section III above. with Burial Antiquities Act
☐ Object to the finding for reasons indicated in attached letter. above
☐ Cannot review until information is sent as follows: Select Monitoring req'd.

Authorized Signature: _____ Date: 8/6/15

HP-05-07 (8/15/03)

Appendix D:
Wetland, Stream, and Habitat Report

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AECOM

Prepared for:
Dairyland Power Cooperative
La Crosse, Wisconsin

Prepared by:
AECOM
Sheboygan, Wisconsin
60280210
October 2014

Wetland Delineation, Stream Survey, and Natural Heritage Inventory Habitat Survey Report

Dairyland Power Cooperative
Briggs Road Substation to La Crosse Tap (Q-1D South) 161 kV Rebuild Project
La Crosse County, Wisconsin

Contents

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1.0 Introduction and Purpose

The Dairyland Power Cooperative (DPC) Briggs Road Substation to La Crosse Tap 161 kilovolt (kV) Rebuild (Q-1D South) Project corridor extends from the Briggs Road Substation along Briggs Road to the La Crosse Tap along Keil Coulee Road in La Crosse County, Wisconsin. The surveyed Project corridor consists of existing transmission line right-of-way (ROW). The Project location is shown in **Figure 1**.

This report summarizes the results of the wetland delineation, stream survey, and Natural Heritage Inventory (NHI) habitat survey completed by AECOM in May 2013 for the Project corridor. The information enclosed in this report presents Project information including location, topography, hydrology, background sources, and the results of AECOM's wetland delineation, stream survey, and NHI habitat survey along the Project corridor. Wetlands were delineated and mapped based on the presence of the three mandatory technical criteria (hydrophytic vegetation, hydric soils, and wetland hydrology) outlined in the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0 August 2010).

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2.0 Site Background Information

2.1 Topography, Soil and Hydrology

The Project corridor is located in the Lower Black River watershed within the Black, Buffalo, Trempealeau Basin and the Lower La Crosse River watershed within the Bad Axe La Crosse Basin. Both watersheds are located within Wisconsin's unglaciated, driftless region, characterized deep valleys and flat-topped narrow ridges. Soils consist of silt loam and sandy loam over sandstone and highly eroded dolomite. Soils are moderately to poorly drained with low to moderate permeability. In valleys and along waterways, soils may contain heavy clay from glacial meltwater. Sandy, well drained soils are found in northern portions of the Project corridor.

2.2 Background Sources

Background information from agency documents and private sources, where available, was collected and reviewed as a part of this investigation. This material provided a first screening as to the known or possible existence of wetlands along the Project corridor. The documents reviewed included:

- U. S. Geologic Survey (USGS) 7.5-Minute Topographic Quadrangle Maps (USGS 2010)
- Web Soil Survey of La Crosse County, Wisconsin, http://websoilsurvey.nrcs.usda.gov (U. S. Department of Agriculture/Natural Resource Conservation Service (USDA/NRCS) 2013)
- Hydric Soils List for La Crosse County, Wisconsin (USDA/NRCS, 1995)

The USGS topographic map (**Figure 1**) shows that the Project corridor lies within both developed and undeveloped areas. Developed areas of the Project corridor are comprised of both residential and commercial land uses. Undeveloped areas of the Project corridor include the La Crosse River valley and isolated forested areas. Terrain throughout the Project corridor ranges from steep slopes near the northern and southern extents to relatively flat topography within the Onalaska city limits

According to the Soil Survey of La Crosse County, there are 32 soil units mapped along the Project corridor. These soil units are summarized in **Table 1**. One of the mapped soil units is classified as a hydric component and two of the mapped soil units are classified as having hydric soil inclusions. The hydric component soil is Ettrick silt loam (629A) and the mapped soils with hydric inclusions include Orion silt loam (628A) and Scotah loamy fine sand (656A). The Soil Survey map units are shown in **Figure 2** and the Hydric Soils List for La Crosse County is included in **Appendix A**.

Current Wisconsin Wetland Inventory (WWI) data is not available for La Crosse County; therefore it was not reviewed for this Project.

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3.0 Field Survey

3.1 Wetland Criteria

Jurisdictional wetland criteria are based upon the vegetation, soils, and hydrology criteria outlined in the USACE Wetland Delineation Manual (herein referred to as "the 1987 Manual") and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0, August 2010).

3.1.1 Hydrophytic Vegetation

Hydrophytic vegetation is defined as "The sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present" (1987 Manual). Hydrophytic species, due to structural, physiological, and/or reproductive adaptations have the ability to grow, effectively compete, reproduce, and/or persist in anaerobic soil conditions (1987 Manual).

The hydrophytic vegetation criterion for a wetland is met when more than 50 percent of the dominant plant species present at a given site are obligate, facultative wetland, or facultative species according to the regional plant list published by the USACE (Lichvar and Kartesc 2009)[1]. A semi-quantitative (routine determination) or quantitative (comprehensive determination) estimate is made of the dominant plant species in each vegetative stratum (herb, woody vine, shrub/sapling, and tree). A wetland boundary is determined based on the percentage of hydrophytic (wetland) species versus upland species identified during the on-site investigation. The indicator status of the vegetation, as listed in USACE National Wetland Plant List (NWPL 2012), is used to determine if the dominant species are hydrophytic or upland species.

3.1.2 Hydrophytic Soils

A hydric soil is defined as a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper portion of the soil (USDA 1987). Soil is considered to be hydric when criteria developed by the National Technical Committee for Hydric Soils are met. These criteria are based on soil type, soil drainage characteristics, water table levels, and frequency of flooding. Accepted field indicators (e.g., soil color, presence and color of mottles, etc.) are typically considered to determine if technical criteria are met.

---

[1] *Robert W. Lichvar and John T. Kartesz. 2009. North American Digital Flora: National Wetland Plant List, version 2.4.0 (https://wetland_plants.usace.army.mil). U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH, and BONAP, Chapel Hill, NC. (May 2012)*

3.1.3 Wetland Hydrology

Wetland hydrology is defined as permanent or periodic inundation or prolonged soil saturation sufficient to create anaerobic conditions in the soil (the 1987 Manual). Because this criterion is the least exact and most difficult to assess in the field, weather data, season of the year, and field observation of hydrologic indicators (e.g., water-stained leaves, high-water marks, saturated or ponded soils, etc.) are used to determine whether or not the wetland hydrology criterion is satisfied.

3.2 Field Reconnaissance Methodology

3.2.1 Wetland Delineation

On May 13-16th and 20-21st, 2013, two AECOM scientists conducted field surveys along the Project corridor. Wetland areas were delineated by evaluating whether the three mandatory criteria of hydrophytic vegetation, hydric soils, and wetland hydrology were present. The study area consists of a 100-foot-wide corridor.

The vegetation was assessed to determine the dominant species in the tree, shrub, and herbaceous vegetation strata. The percentage of areal cover was visually estimated for each species at the suspect location. Hydrophytic vegetation boundaries were identified to aid in locating the approximate upland/wetland boundary, which was based on the percentage of hydrophytic plant species versus upland plant species. Vegetation information was recorded on USACE Data Forms that are included in **Appendix B**.

The presence or absence of hydric soils was assessed by observing soil cores taken at each wetland/upland plot. Soil descriptions were completed at each plot location using Munsell soil color charts, and addressing USDA soil texture, moisture content, and special features. Soil plot locations were selected by examining local topographical characteristics, as well as the extent of dominant hydrophytic vegetation. Soil conditions and hydric soil indicators were recorded on USACE Data Forms for each wetland area identified.

Wetland hydrology was determined through observation of saturated soil conditions and evaluation of surficial hydrologic indicators. Typical surface hydrologic indicators may include standing water, water-stained leaves, drift lines, and high-water marks. Hydrology information was recorded on USACE Data Forms.

Wetland functional values were assessed by completing the Wisconsin Department of Natural Resources (WDNR) form entitled "Rapid Assessment Methodologies for Determining Wetland Functional Values." The forms (summary pages only) are included in **Appendix C**. Photographs of the wetland areas were taken at various locations and are included in **Appendix D**.

The approximate wetland/upland boundaries were surveyed using a Trimble GeoXH® Global Positioning System (GPS) which is listed as having sub-meter accuracy. The information collected with the GPS unit was downloaded into an ArcMap GIS map document, which was used to create the maps in this report.

3.2.2 Stream Survey

Waterway locations along the Project corridor were surveyed by recording approximate stream width, bank height, water depth, substrate type, and surrounding land use. Photographs of the streams were taken at various locations and are included in **Appendix D**.

3.2.3 Habitat Survey

During the site reconnaissance, a meandering survey method was used to investigate existing habitats throughout the Project corridor. Natural habitats were classified according to the WDNR Natural Heritage Inventory (NHI) Natural Community Classification (September 2002 Revision). Photographs of the habitat areas were taken at various locations and are included in **Appendix D**.

3.3 Results

3.3.1 Wetland Delineation

Six wetland areas were identified during the field reconnaissance. The six wetland areas were delineated according to the 1987 Manual. Wetland locations and soil core plot locations are shown in **Figure 2**. The following paragraphs describe the areas delineated as jurisdictional wetlands. **Table 2** presents a summary of additional data collected in the field.

Wetland W-1 is a wet meadow located north of the residential development along Eastbrook Drive and south of the Walsh Golf Center. Wetland W-1 is dominated by reed canary grass (*Phalaris arundinacea* - FACW) and American manna grass (*Glyceria grandis* – OBL). Wetland hydrology was evidenced by high water table, saturation, water-stained leaves, drainage patterns, and geomorphic position. Wetland criteria were met in this area due to the dominance of hydrophytic vegetation, positive wetland hydrology indicators, and the presence of hydric soils. Wetland W-1 was evaluated to have medium wetland functional values and is shown on **Figure 2, Sheet Map 11.**

Wetland W-2 is a large wet meadow and shallow marsh wetland complex associated with the La Crosse River. It is bounded on the south by a pedestrian path, parallel to and south of the Canadian Pacific Railway, and on the north by the Valley View Mall Shopping Center. W-2 is adjacent to the La Crosse River (S-4) and a tributary thereof (S-3). Along the Project corridor, the wetland is dominated by reed canary grass with small populations of sandbar willow (*Salix interior* – FACW), honeysuckle (*Lonicera tartarica* – FACU), river birch (*Betula nigra* – FACW), green ash (*Fraxinus pennsylvanica* – FACW), Eastern cottonwood (*Populus deltoides* – FAC), and box elder (*Acer negundo* – FAC). Wetland hydrology was evidenced by saturation, water-stained leaves, oxidized rhizospheres on living roots, drainage patterns, and geomorphic position. Wetland criteria were met in this area due to the dominance of hydrophytic vegetation, positive wetland hydrology indicators, and the presence of hydric soils. Wetland W-2 was evaluated to have medium wetland functional values and is shown on **Figure 2, Sheet Maps 10 and 11.**

Wetlands W-3, W-4, and W-5 are stormwater basins associated with residential communities and commercial development adjacent to the Project corridor. These areas were called out as wetland for the purpose of the land use survey, but are not jurisdictional. According to NR 103.05(4) (a), "Sedimentation and stormwater detention basins and associated conveyance features operated and maintained only for sediment detention and flood storage purposes" are exempt from regulation.

3.3.1.1 Isolated/Non-Isolated Jurisdictional Wetland Determination

AECOM evaluated the jurisdictional wetlands associated with this Project pursuant to the Supreme Court's January 9, 2001, decision in Solid Waste Agency of Northern Cook County vs. USACE (herein referred to as the "SWANCC decision") and the Supreme Court's June 19, 2006 decision in Rapanos vs. United States and Carabell vs. United States (herein referred to as "Rapanos"). The SWANCC decision states that Section 404 of the Clean Water Act (CWA §404) does not apply to isolated, non-

navigable, wholly intrastate waters, where the only connection between the water body (or wetland) and interstate commerce is the use of the water as habitat for migratory birds. The Rapanos decision states that the agencies will decide jurisdiction over non-navigable tributaries and their adjacent wetlands based on a fact-specific analysis to determine if there is a significant nexus with traditional navigable waters. A significant nexus analysis will assess all hydrological and ecological functions of the tributary and its adjacent wetlands to determine their effects on downstream traditional navigable waters.

The characteristics of the wetlands associated with this Project were evaluated based on the following factors: 1) a "navigable water" as defined by Federal law; 2) an interstate water; 3) a tributary system to 1 or 2; 4) a wetland adjacent to navigable water; and 5) an impoundment to any of the above.

AECOM has evaluated the characteristics of the jurisdictional wetlands associated with this Project and has concluded that both W-1 and W-2 (**Figure 2, Sheet Maps 10 and 11**) are likely to be non-isolated, and as a result jurisdictional, because of their proximity to the La Crosse River. These wetlands would be crossed by the Project within the exiting transmission ROW.

Based on this evaluation, AECOM recommends that a Section 404 Department of Army Permit is required to discharge dredged and/or fill material into the non-isolated wetlands. Water quality certification under Section 401 of the Clean Water Act is also required for these impacts in accordance with USACE regulations. In Wisconsin, discharge of fill into an isolated wetland required Water Quality Certification from the WDNR and Wisconsin Administrative Code (WAC) NR103.

The conclusions presented herein are the opinion of AECOM. The final authority over wetland jurisdiction is the responsibility of the appropriate State and Federal agencies.

3.3.2 Stream Survey

Twelve streams were identified during the field reconnaissance. Stream locations are shown on **Figure 2**. **Table 3** presents the data collected at the 9 stream locations within the Project corridor.

Stream S-1 is an unnamed tributary (UNT) to the La Crosse River. The land use adjacent to Waterway S-1 is primarily agricultural. The channel is approximately 10 feet wide with 5 foot, moderately eroded banks. This channel has a silt substrate and no water was flowing water at the time of the field survey. Waterway S-1 is classified as an intermittent stream on the WDNR Designated Waters map. S-1 is shown on **Figure 2, Sheet Map 12**.

Stream S-2 is also an UNT to the La Crosse River. The area adjacent to S-2 includes residential development to the south and adjacent wetland (W-1). The channel is approximately 6 feet wide with 3 foot banks. The channel has a silt substrate and no flowing water was observed at the time of the field survey. Stream S-2 is not classified on the WDNR Designated Waters map. S-2 is shown on **Figure 2, Sheet Map 11**.

Stream S-3 is also an UNT to the La Crosse River. The land use adjacent to Stream S-3 includes a golf course, pedestrian path, and railroad corridor on the south end and a large wetland complex to the north (W-2). The channel is approximately 6 feet wide with 3 foot banks. Stream S-3 has a silt substrate and 1 foot of flowing water was observed at the time of the field survey. Stream S-3 is classified as a perennial stream on the WDNR Designated Waters map. S-3 is shown on **Figure 2, Sheet Map 11.**

Stream S-4 is identified as the La Crosse River. Land use adjacent to the La Crosse River within the Project corridor consists of a large wetland complex (W-2). Wetlands within the complex include wet meadow and shallow marsh habitats. Stream S-4 is approximately 50 feet wide with 3 foot banks and a silt substrate. Approximately 8 feet of water was flowing at the time of the field survey. Stream S-4 is classified as an Area of Special Natural Resource Interest (ASNRI) for Endangered, Threatened, or Special Concern species on the WDNR Designated Waters map. S-4 is shown on **Figure 2**, **Sheet Map 10**.

Stream S-5 is another UNT to the La Crosse River and appears to have been excavated and/or dredged. The land use adjacent to Stream S-5 includes grassland, forested floodplain, and old field habitat. The channel is approximately 9 feet wide with a 4 foot bank height and a silt substrate. Two feet of flowing water was observed at the time of the field survey. Stream S-5 is not classified on the WDNR Designated Waters map. S-5 is shown on **Figure 2, Sheet Map 10.**

Stream S-6 is an unnamed waterway that is channelized along the north edge of the Interstate 90 ditch. The land use adjacent to Waterway S-6 includes old field, and commercial and residential development. The channel is approximately 15 feet wide with 2-3 foot, moderately eroded banks. This channel has a silt substrate and approximately 0.2 feet of water was flowing water at the time of the field survey. Stream S-6 is not classified on the WDNR Designated Waters map. S-6 is shown on **Figure 2, Sheet Map 9**.

Stream S-7 is identified as Halfway Creek. The land use adjacent to Stream S-7 includes old field habitat, roadway, and agricultural practice. The channel is approximately 12 feet wide with 4 foot banks. Stream S-7 has a silt substrate and 2 feet of flowing water was observed at the time of the field survey. Stream S-7 is classified as a perennial stream on the WDNR Designated Waters map. S-7 is shown on **Figure 2**, **Sheet Map 2**.

Stream S-8 is an open water feature associated with the Interstate 53 off ramp. Land use adjacent to S-8 includes old field in highway right-of-way and roadway. S-8 is not classified on the WDNR Designated Waters map. S-8 is shown on **Figure 2, Sheet Map 7**.

Stream S-9 is an unnamed stream located east of County Highway XX. The land use adjacent to Stream S-9 includes Southern Mesic Forest upland habitat. The channel is approximately 8 feet wide with a 4 foot bank height and a sand substrate. One foot of flowing water was observed at the time of the field survey. Stream S-9 is classified as an intermittent and ASNRI stream for Endangered, Threatened, or Special Concern species on the WDNR Designated Waters map. S-9 is shown on **Figure 2, Sheet Map 3**.

3.3.3 Habitat Survey

During the field reconnaissance, AECOM field biologists identified and classified upland and wetland habitats within the Project corridor. The majority of the Project corridor consists of residential, commercial, and industrial development near and within the Onalaska city limits. Large wetland complexes associated with the La Crosse River as well as smaller wetlands along the Project corridor were identified as potential NHI habitat. Fragments of forested and un-forested (grassland) upland habitat were also recorded as potential NHI habitat. A total of five wetland habitats, and 38 upland habitats were identified within the Project corridor. NHI habitats include the La Crosse River and associated wet prairie and emergent aquatic habitats, mesic prairie, sand prairie, dry prairie, southern dry-mesic forest, southern dry forest, and southern mesic forest. A habitat summary is provided in **Table 4**. Upland and wetland habitats are shown on the sheet maps in **Figure 2**.

AECOM recommends that the habitat data in this report be cross-referenced with an official WDNR NHI Endangered Resources review to assess the potential for protected species to exist within the Project corridor.

4.0 Summary

In summary, the Project corridor spans from the Briggs Road Substation to the La Crosse Tap in La Crosse County, Wisconsin. The Project corridor consists of existing transmission line right-of-way ROW and developed residential, commercial, and industrial areas as well as undeveloped natural habitat along the Project corridor.

Field surveys were completed along the Project corridor on May 13-16th and 20-21st, 2013. Five wetlands were delineated and 9 waterways were identified within the Project corridor. The wetland boundaries were delineated and mapped based on the three mandatory technical criteria outlined in the 1987 Manual and Midwest Regional Supplement. The wetlands are classified as having low to medium wetland functional values based on size, biological diversity, and landscape position. Two wetlands (W-1 and W-2) are likely to be non-isolated jurisdictional wetlands in accordance with the SWANCC decision. These wetlands are located within the Project corridor along the exiting transmission line ROW. Wetlands W-3, W-4, and W-5 are stormwater basins and not considered jurisdictional according to NR 103.05 (4) (a).

AECOM recommends that a Section 404 Department of Army Permit application be submitted for a permit to discharge dredged and/or fill material into wetlands W-1 and W-2 and for temporary impacts relating to the use of construction mats within the wetland areas. Water quality certification under Section 401 of the Clean Water Act is also required for these impacts in accordance with USACE and WDNR regulations.

Nine waterways were examined to evaluate stream width, bank height, water depth, substrate type, and surrounding land use. All nine of these waterways are located within the Project corridor along the existing transmission ROW (**Table 3**).

AECOM recommends coordination with WDNR Bureau of Energy, Transportation, and Environmental Analysis (BETEA) that is responsible for coordinating the review and permitting of energy and utility projects in the state. The installation of new utility facilities, or maintenance of existing utility facilities, in or adjacent to navigable waters or wetlands often require permits from the WDNR. The Utility General Permit (WDNR-GP3-2013) covers the placement of structures on the bed or bridges across navigable waters, and the placement of fill in wetlands for utility projects that meet all of the eligibility criteria and permit conditions.

Additionally, 38 upland habitats and 8 NHI community types were classified within the Project corridor. They include the La Crosse River and associated wet prairie and emergent aquatic habitats, mesic prairie, sand prairie, dry prairie, southern dry-mesic forest, southern dry forest, and southern mesic forest. AECOM recommends that the habitat data in this report be cross-referenced with an official WDNR NHI Endangered Resources review to assess the potential for protected species to exist within the Project corridor.

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Tables

Table 1 - Soil Summary

Mapping Unit Symbol	Soil Mapping Unit	Hydric Soil Rating
2013	Pits, gravel	Non-hydric
2020	Urban land, valley trains	Non-hydric
2030	Udorthents and Udipsamments, cut or fill	Non-hydric
2050	Landfill	Non-hydric
116E2	Churchtown silt loam, 20 to 30 percent slopes, moderately eroded	Non-hydric
254E2	Norden silt loam, 20 to 30 percent slopes, moderately eroded	Non-hydric
743E2	Council fine sandy loam, 20 to 30 percent slopes, moderately eroded	Non-hydric
110D3	Timula silt loam, 12 to 30 percent slopes, severly eroded	Non-hydric
1145F	Gaphill- Rockbluff complex, 30 to 60 percent slopes	Non-hydric
115C2	Seaton silt loam, 6 to 12 percent slopes, moderately eroded	Non-hydric
115D2	Seaton silt loam, 12 to 20 percent slopes, moderately eroded	Non-hydric
126B	Barremills silt loam, 1 to 6 percent slopes	Non-hydric
1743F	Council-Elevasil-Norden complex, 30 to 60 percent slopes	Non-hydric
253D2	Greenridge silt laom, 12 to 20 percent slopes, moderately eroded	Non-hydric
312B2	Festina silt loam, 2 to 6 percent slopes, moderately eroded	Non-hydric
336A	Toddville silt loam, 0 to 3 percent slopes	Non-hydric
403A	Dakota silt loam, 0 to 3 percent slopes	Non-hydric
424F	Merit silt laom, 20 to 45 percent slopes	Non-hydric
434B	Bilson sandy loam, 1 to 6 percent slopes	Non-hydric
446A	Merimod silt loam, 0 to 3 percent slopes	Non-hydric
501A	Finchford loamy sand, 0 to 3 percent slopes	Non-hydric
502B2	Chelsea fine sand, 2 to 6 percent slopes, moderately eroded	Non-hydric
502C2	Chelsea fine sand, 6 to 15 percent slopes, moderately eroded	Non-hydric
511F	Plainfield sand, 15 to 60 percent slopes	Non-hydric
561F	Tarr sand, 15 to 60 percent slopes	Non-hydric
606A	Huntsville silt loam, 0 to 3 percent slopes, occasionally flooded	Non-hydric
628A	Orion silt loam, 0 to 3 percent slopes, occasionally flooded	Hydric Inclusion
629A	Ettrick silt loam, 0 to 2 percent slopes, frequently flooded	Hydric Component
656A	Scotah loamy fine sand, 0 to 3 percent slopes, occasionally flooded	Hydric Inclusion
676A	Kickapoo fine sandy loam, 0 to 3 percent slopes, occasionally flooded	Non-hydric
743C2	Council fine sandy loam, 6 to 12 percent slopes, moderately eroded	Non-hydric
W	Water	NA

Table 2: Wetland Summary

Wetland Area	Location	Soil Map Symbol	Soil Survey Description	Hydric Soil (Y/N)	Wetland Functional Values	Isolated/ Non-Isolated**	Nearest Waterbody(s)
W-1	S14 T16N R7W	628A 629A	Orion silt loam, 0-3 % slopes Ettrick silt loam, 0-2 % slopes	Y	Medium	Non-Isolated	Unknown Tributary to the La Crosse River
W-2	S (10, 11, 14, 15) T16N R7W	629A	Ettrick silt loam, 0-2 % slopes	Y	Medium	Non-Isolated	La Crosse River & Unnamed Tributaries to the La Crosse River
W-3	S32 T17N R7W	501A	Finchford loamy sand, 0-3 % slopes	N	Low	NA	Unknown
W-4	S32 T17N R7W	501A	Finchford loamy sand, 0-3 % slopes	N	Low	NA	Unknown
W-5	S32 T17N R7W	502B2	Chelsea fine sand, 2-6 % slopes, moderately eroded	N	Low	NA	Unknown

** - The conclusions presented herein are the opinion of AECOM. The final authority over wetland jurisdiction will need to be verified by the COE Regulatory Project Manager.

Table 3: Stream Summary

Waterway	Location	Stream Name	Approx. Width (ft)	Approx. Water Depth (ft)	Substrate Composition	Bank Height (ft)	Associated Wetland
S-1	S23 T16N R7W	UNT to the La Crosse River	10	0.0	Silt	5	None
S-2	S14 T16N R7W	UNT to the La Crosse River	6	0.0	Silt	3	W-1
S-3	S14 T16N R7W	UNT to the La Crosse River	6	1.0	Silt	3	W-2
S-4	S14 T16N R7W	La Crosse River	50	8.0	Silt	3	W-2
S-5	S10 T16N R7W	UNT to the La Crosse River	9	2.0	Silt	4	None
S-6	S(10,11) T16N R7W	Unnamed, Channelized along I-90	15	0.2	Silt	2-3	None
S-7	S18 T17N R7W	Halfway Creek	12	2.0	Silt	4	None
S-8	S4 T16N R7W	Unnamed, Retention pond at I-53 ramp	0	0.0	Unknown	0	None
S-9	S12 T17N R7W	Unnamed	8	1.0	Sand	4	None

Table 4: Habitat Summary

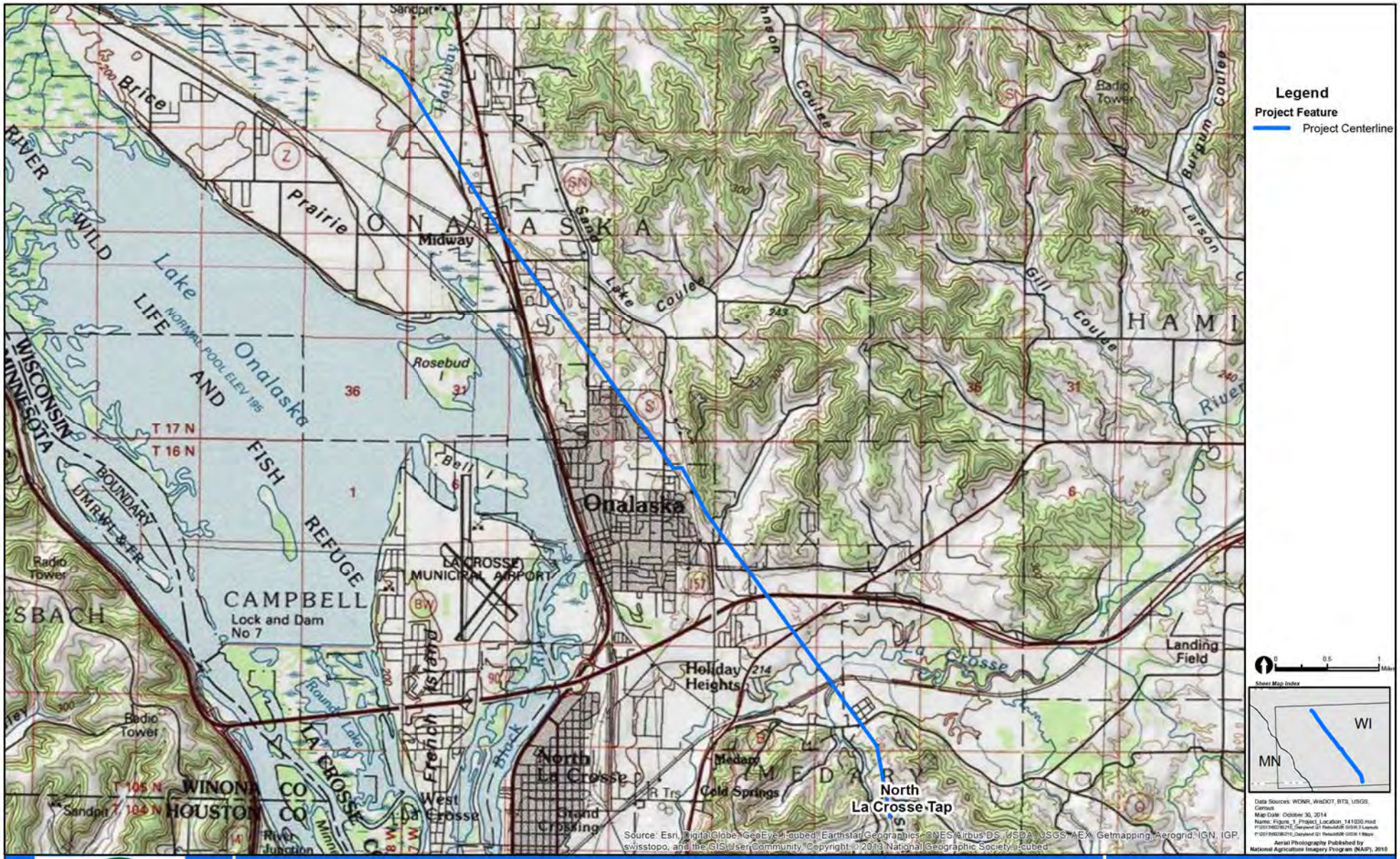
Habitat	WDNR NHI Classification (where applicable)	Alternative Habitat Description
W-1	Wet Prairie	Wet Meadow
W-2	Wet Prairie (RCG Dominated*) Emergent Aquatic	Wet Meadow Shallow Marsh
W-3	--	Stormwater Basin
W-4	--	Stormwater Basin
W-5	--	Stormwater Basin
G-1	Mesic Prairie	--
G-2	Sand Prairie	--
G-3	Dry Prairie	--
G-4	Dry Prairie	--
F-1	S. Dry-Mesic Forest	--
F-2	S. Dry-Mesic Forest	--
F-3	S. Dry-Mesic Forest	--
F-4	S. Dry Forest	--
F-5	S. Mesic Forest	--
O-1	--	Old Field
O-2	--	Old Field
O-3	--	Old Field
O-4	--	Old Field
O-5	--	Old Field
O-6	--	Old Field
O-7	--	Old Field
O-8	--	Old Field
O-9	--	Old Field
O-10	--	Old Field
O-11	--	Old Field
O-12	--	Old Field
0-13	--	Old Field
O-14	--	Old Field
O-15	--	Old Field
O-16	--	Old Field
O-17	--	Old Field
O-18	--	Old Field
O-19	--	Old Field
O-20	--	Old Field
O-21	--	Old Field
O-22	--	Old Field
O-23	--	Old Field
O-24	--	Old Field
O-25	--	Old Field
O-26	--	Old Field
O-27	--	Old Field
O-28	--	Old Field
O-29	--	Old Field

* RCG Dominated - Indicates habitat dominated by reed canary grass (Phalaris arundinacea)

Figures

Figure 1 Site Location Map (USGS Topographic Map)

Figure 2 Field Survey Detail Sheet Maps



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Marshland Substation to North La Crosse Tap Q-1 161 kV Rebuild Project

Dairyland Power Cooperative

Figure 1
Project Location Map (USGS Topo Map)
October 2014

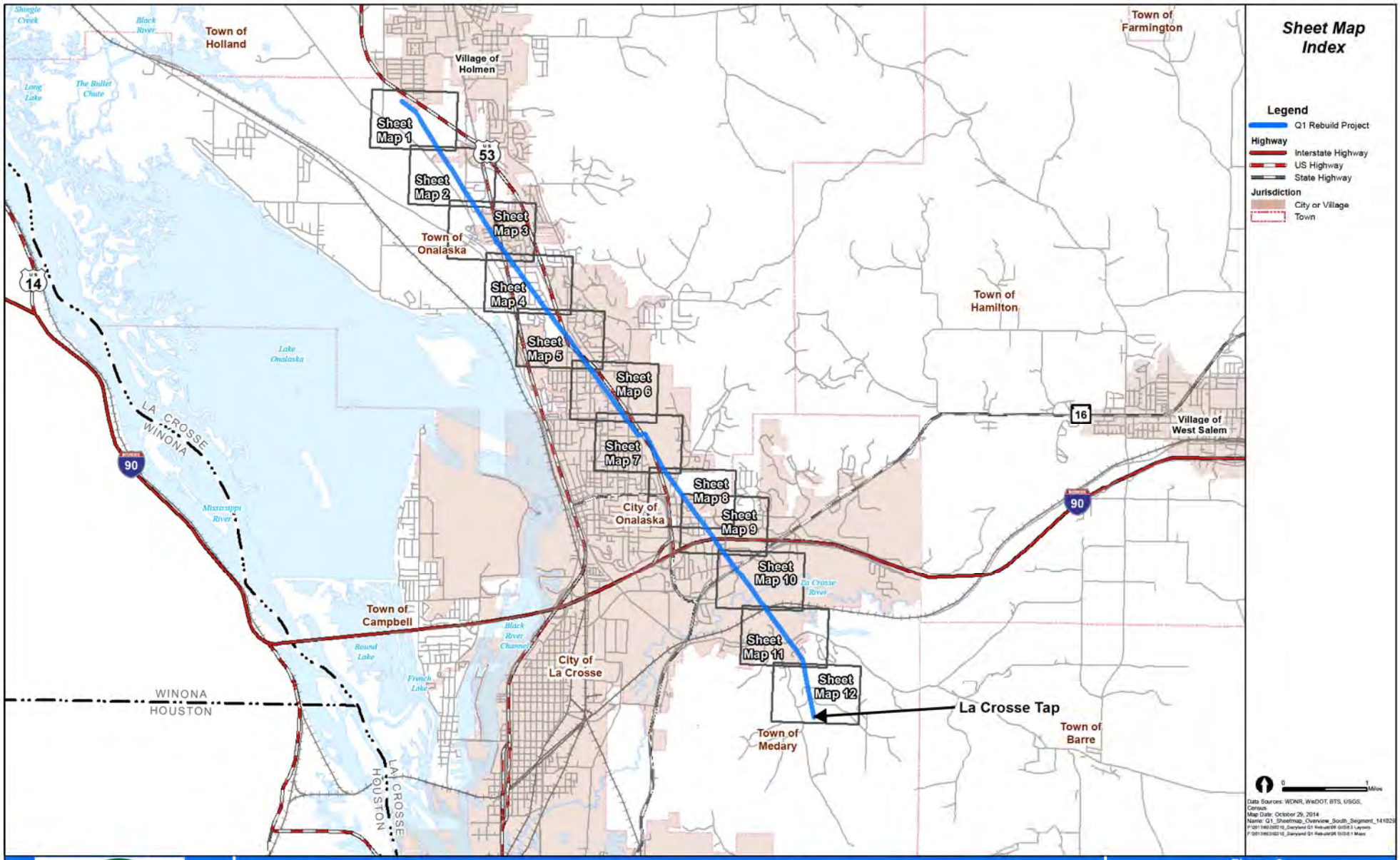

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Figure 2
Sheet Map Index
for Detailed Field Survey Maps
October 2014

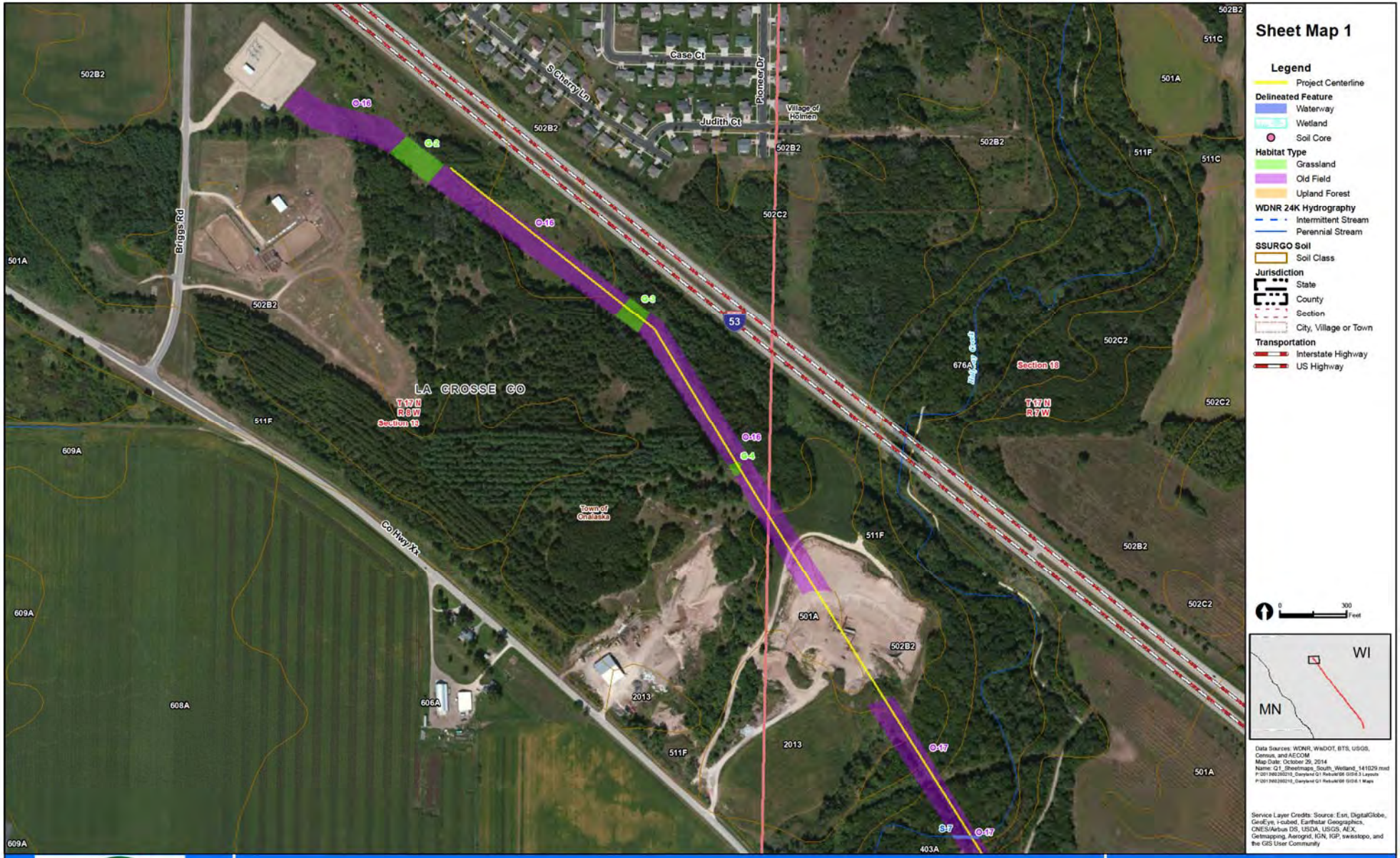

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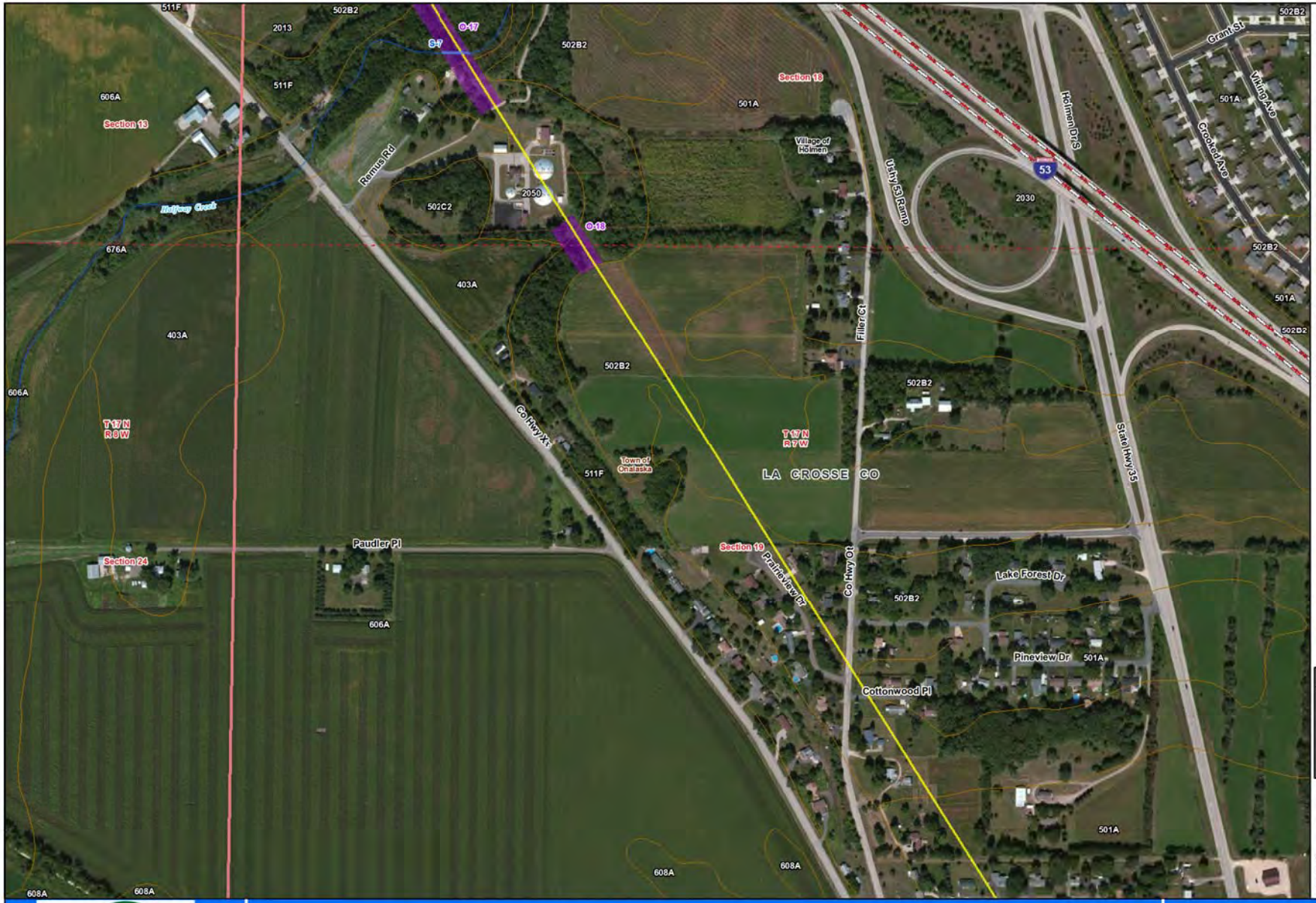
Figure 2
Field Survey Detail Sheet Map
October 2014



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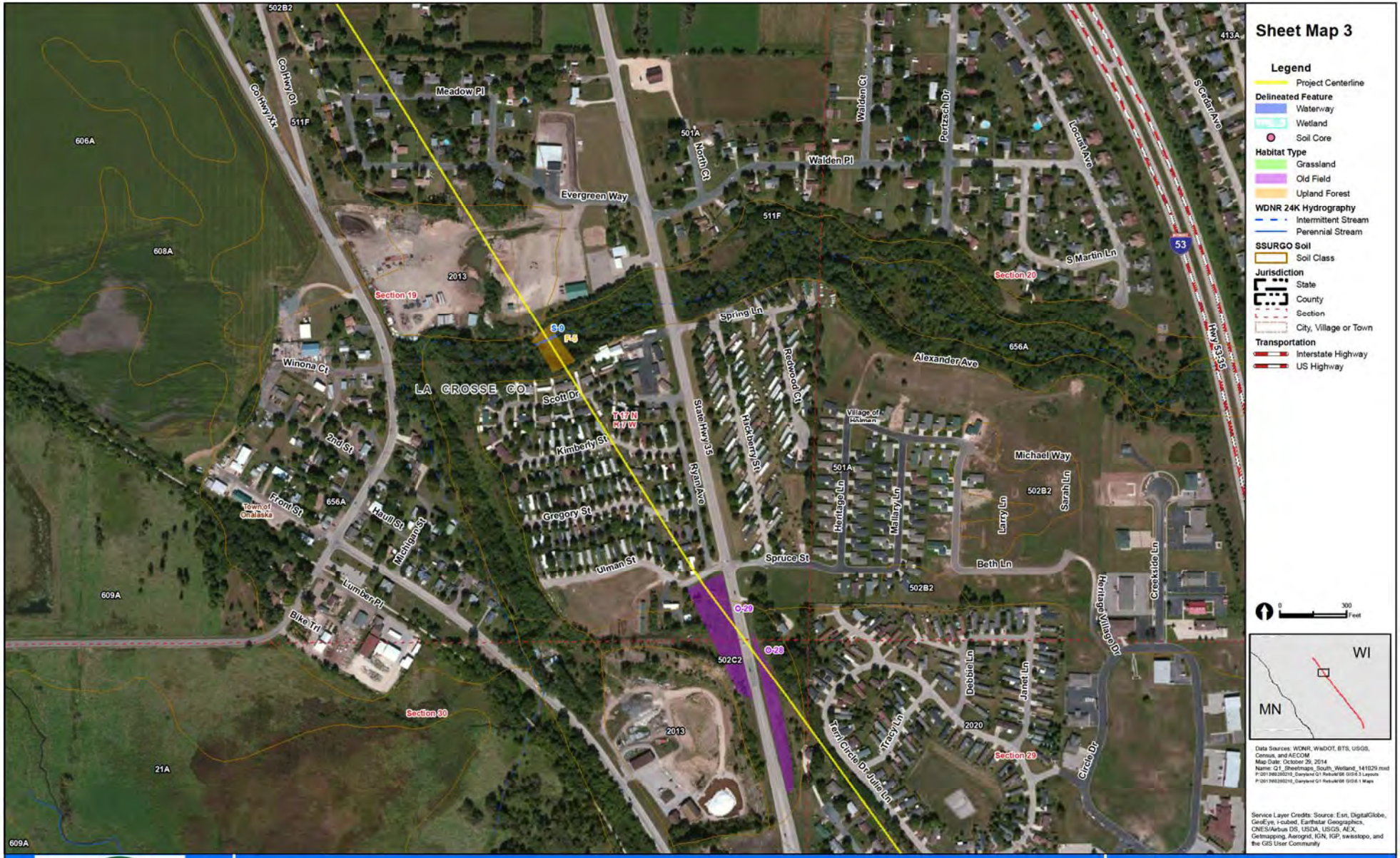

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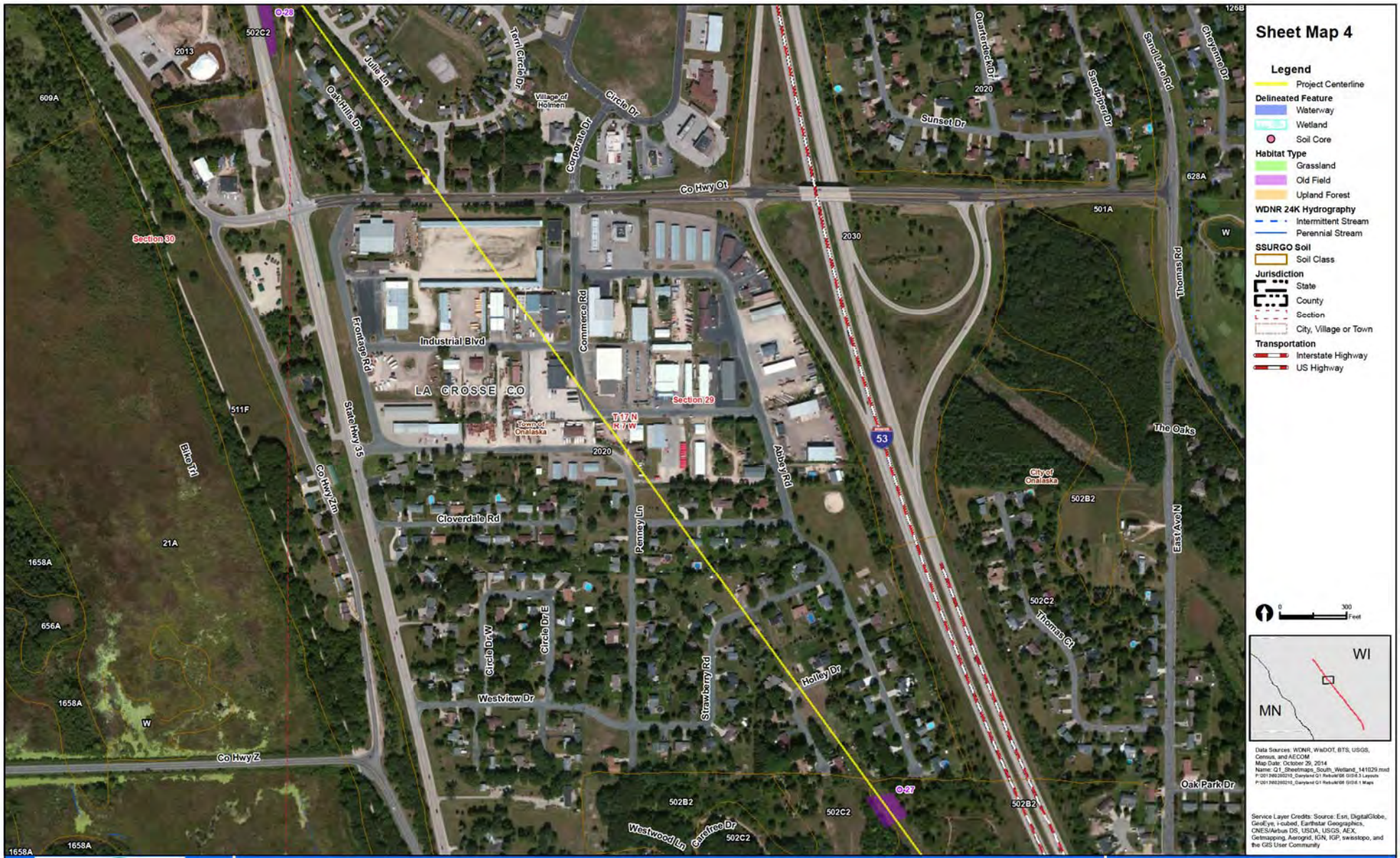

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Figure 2
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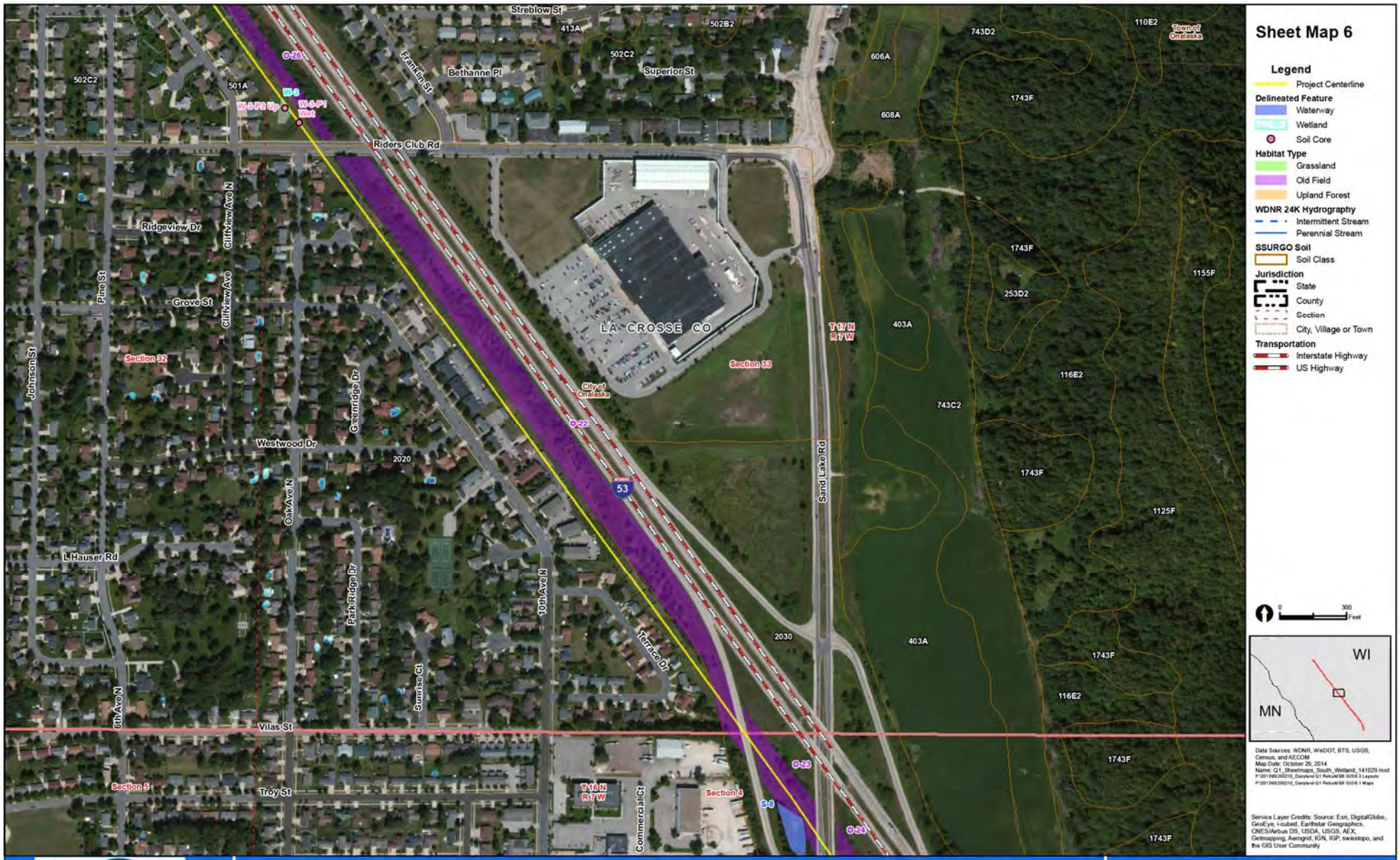

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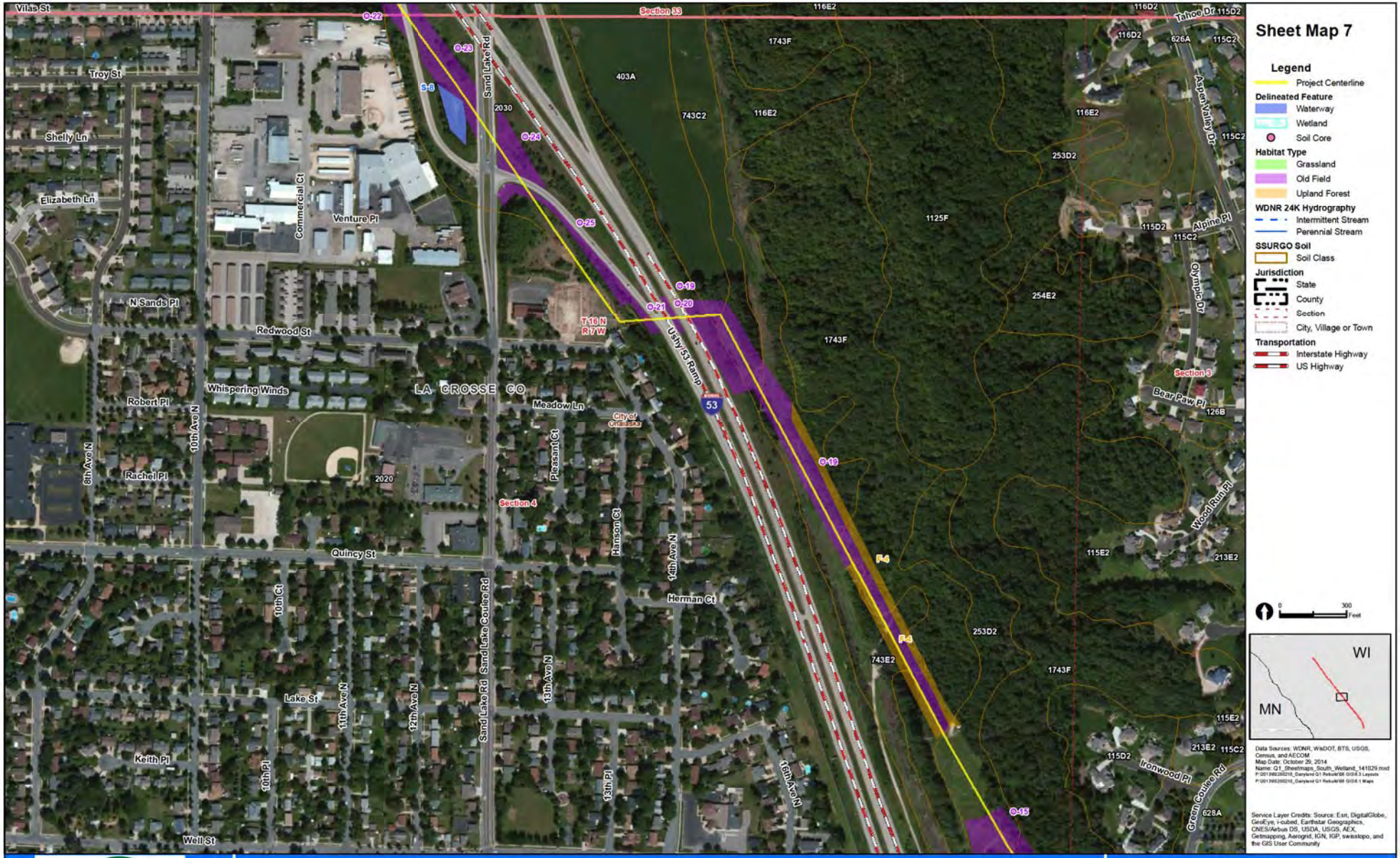

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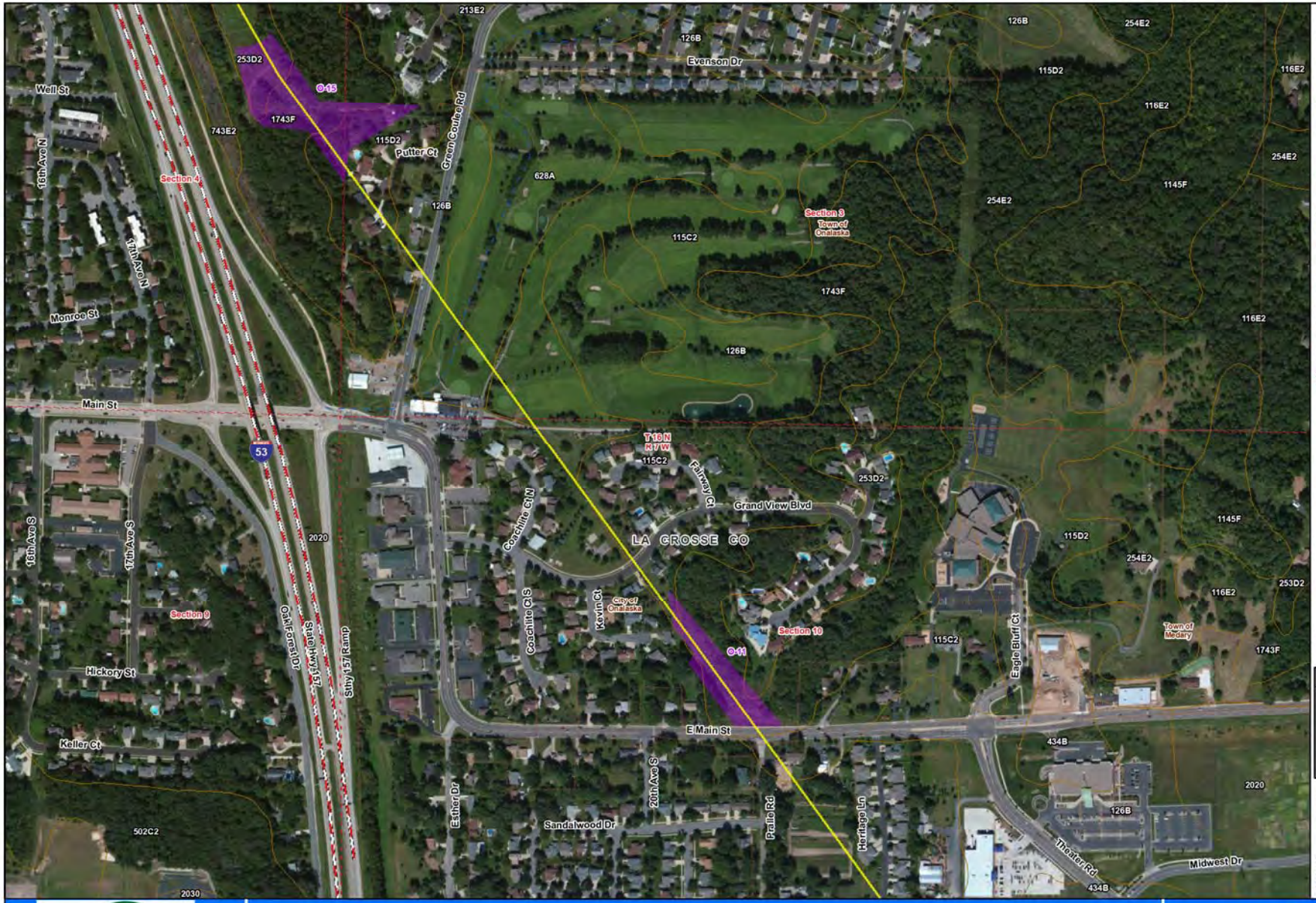

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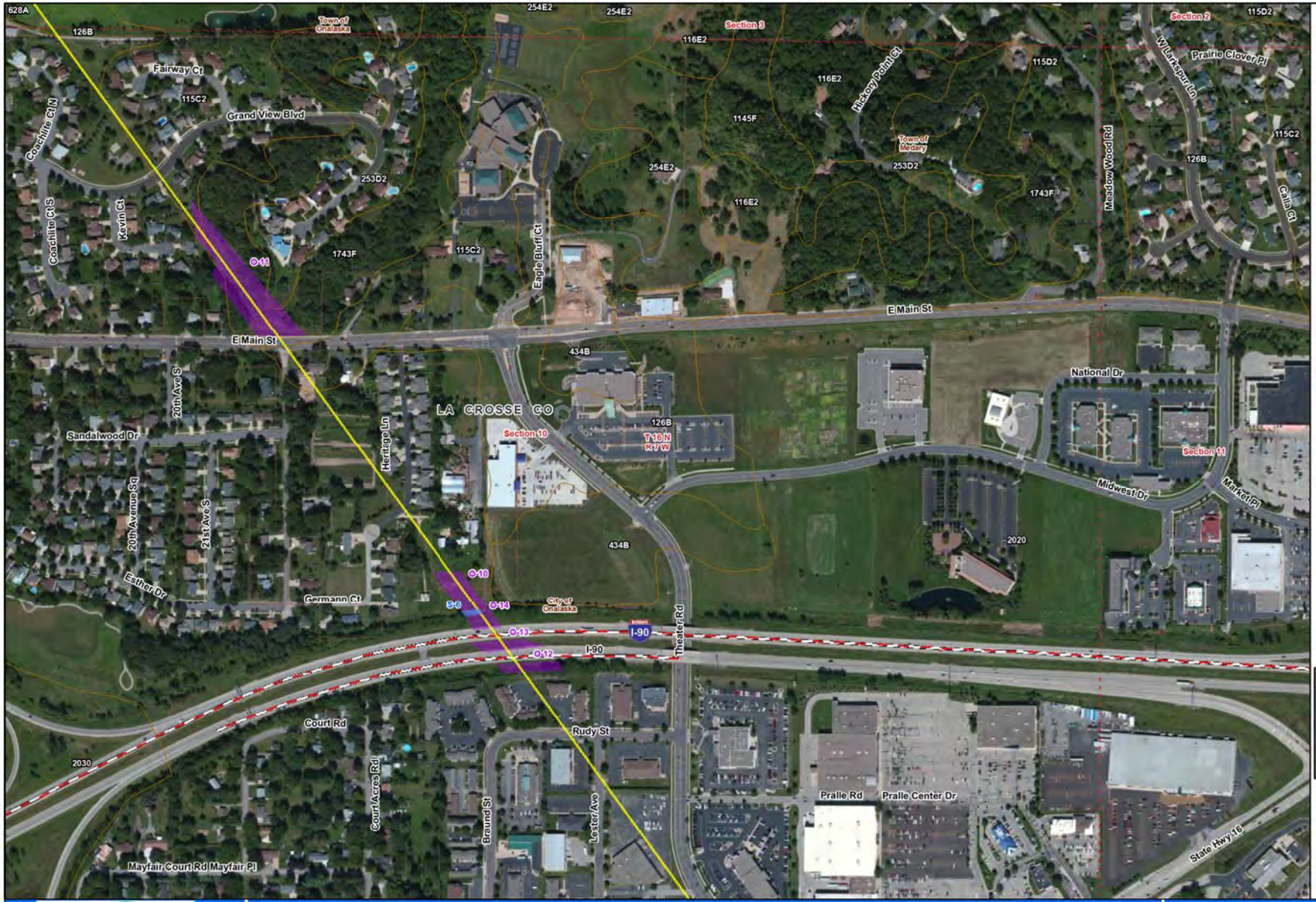

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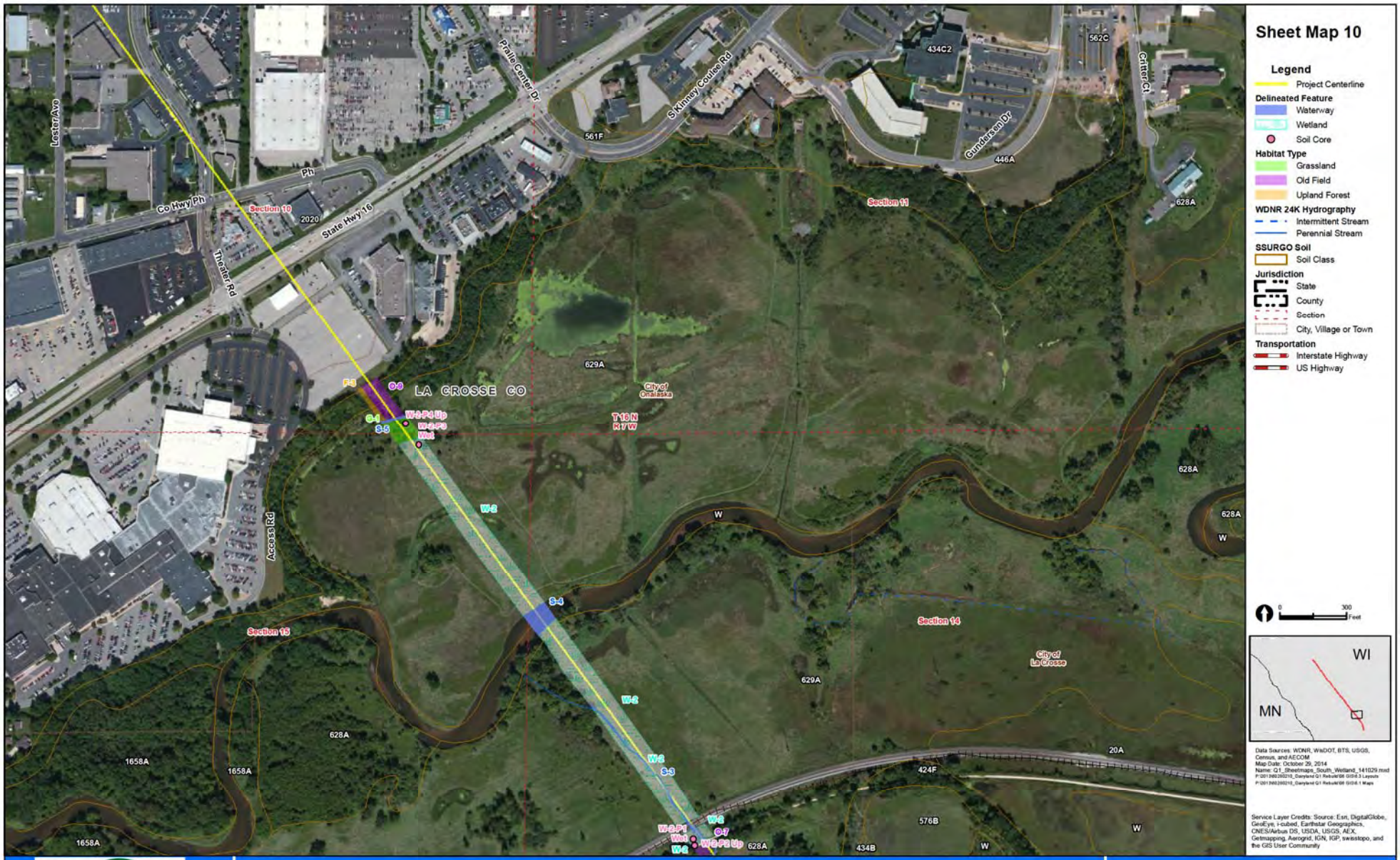
Field Survey Detail Sheet Map
October 2014

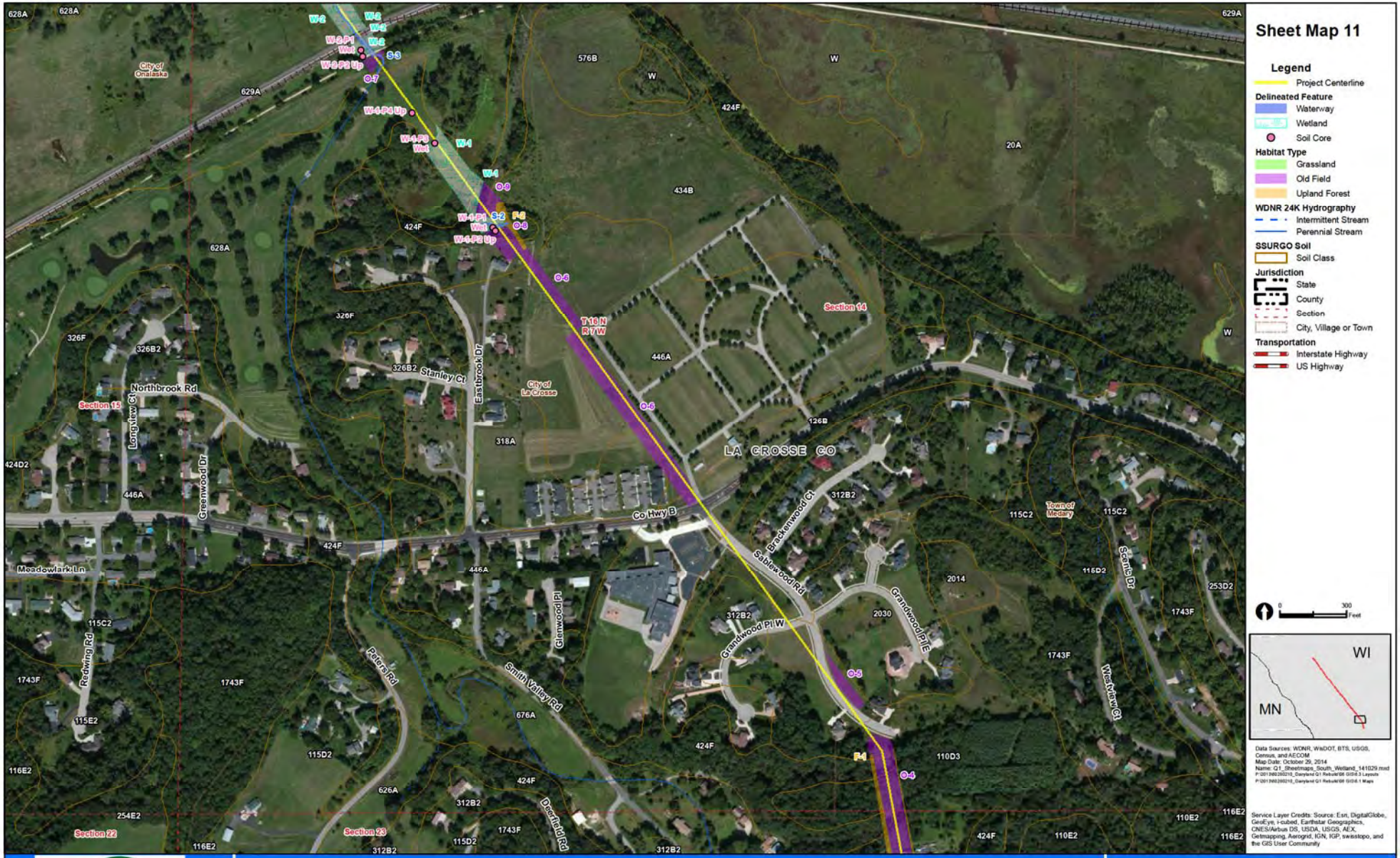


DAIRYLAND POWER COOPERATIVE
A Touchstone Energy Cooperative

La Crosse Tap to Briggs Road Substation Q-1 161 kV Rebuild Project

Dairyland Power Cooperative

Figure 2
Field Survey Detail Sheet Map
October 2014



DAIRYLAND POWER COOPERATIVE
A Touchstone Energy Cooperative

La Crosse Tap to Briggs Road Substation Q-1 161 kV Rebuild Project

Dairyland Power Cooperative

Figure 2
Field Survey Detail Sheet Map
October 2014

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy Cooperative

La Crosse Tap to Briggs Road Substation Q-1 161 kV Rebuild Project

Dairyland Power Cooperative

Figure 2
Field Survey Detail Sheet Map
October 2014

Appendix A

La Crosse County Hydric Soil List

Hydric Soils

This table lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
   A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
   B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

References:

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. September 18, 2002. Hydric soils of the United States.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

Report—Hydric Soils

Hydric Soils–La Crosse County, Wisconsin				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
20A—Palms and Houghton mucks, 0 to 1 percent slopes				
	Palms, ponded	45	Depressions on stream terraces	1, 3
	Houghton, ponded	44	Depressions on stream terraces	1, 3
	Ettrick	6	Flood plains	2
21A—Palms muck, 0 to 1 percent slopes, frequently flooded				
	Palms, frequently flooded	90	Backswamps on flood plains	1, 3, 4
	Ettrick	5	Flood plains	2
	Kalmarville	3	Overflow stream channels on flood plains, depressions on flood plains	2, 3, 4
318A—Bearpen silt loam, 0 to 3 percent slopes, rarely flooded				
	Ettrick	4	Flood plains	2
608A—Lawson silt loam, 0 to 3 percent slopes, occasionally flooded				
	Otter	3	Depressions on flood plains	2, 3
609A—Otter silt loam, 0 to 2 percent slopes, frequently flooded				
	Otter	93	Depressions on flood plains	2, 3
625A—Arenzville silt loam, channeled, 0 to 2 percent slopes, occasionally flooded				
	Ettrick	4	Drainageways on stream terraces	2
626A—Arenzville silt loam, 0 to 3 percent slopes, occasionally flooded				
	Ettrick	2	Flood plains	2
628A—Orion silt loam, 0 to 3 percent slopes, occasionally flooded				
	Ettrick	3	Flood plains	2
629A—Ettrick silt loam, 0 to 2 percent slopes, frequently flooded				
	Ettrick	92	Flood plains	2
	Palms, frequently flooded	4	Backswamps on flood plains	1, 3, 4

Hydric Soils–La Crosse County, Wisconsin				
Map symbol and map unit name	**Component**	**Percent of map unit**	**Landform**	**Hydric criteria**
656A—Scotah loamy fine sand, 0 to 3 percent slopes, occasionally flooded				
	Algansee	4	Flats on flood plains	4
	Kalmarville	3	Overflow stream channels on flood plains, depressions on flood plains	2, 3, 4
	Riverwash	1	Flood plains	4
1658A—Algansee-Kalmarville complex, 0 to 3 percent slopes, frequently flooded				
	Algansee	55	Flats on flood plains	4
	Kalmarville	30	Overflow stream channels on flood plains, depressions on flood plains	2, 3, 4
	Palms, frequently flooded	4	Backswamps on flood plains	1, 3, 4
	Northbend	2	Flats on flood plains	4
	Markey, frequently flooded	2	Backswamps on flood plains	1, 3, 4
	Riverwash	2	Flood plains	4

Data Source Information

Soil Survey Area: La Crosse County, Wisconsin
Survey Area Data: Version 12, Dec 24, 2013

Appendix B

USACE Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/14/2013

Applicant/Owner: DPC | State: WI | Sampling Point: W-1-S1-Wet

Investigator(s): Sarah Majerus & Julie Christiansen (AECOM) | Section, Township, Range: Sec 14 T16N R7W

Landform (hillslope, terrace, etc.): Drainage terrace | Local relief (concave, convex, none): Concave to flat

Slope (%): 0-2 | Lat: NA | Long: NA | Datum: NA

Soil Map Unit Name: 628A (Orion silt loam, 0-3% slopes, occasionally flooded) | NWI / WWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"

Are vegetation ____, soil X, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	Y		
Hydric soil present?	Y	**Is the sampled area within a wetland?**	Y
Indicators of wetland hydrology present?	Y	If yes, optional wetland site ID:	W-1

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

Soil core was observed at the base of a steep grade associated with a drainage feature.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30 ft. circle)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0	= Total Cover	
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1 *Acer negundo*	10	Y	FAC
2 *Lonicera tatarica*	5	Y	FACU
3			
4			
5			
	15	= Total Cover	
Herb stratum (Plot size: 5 ft. circle)			
1 *Phalaris arundinacea*	100	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	100	= Total Cover	
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 66.67% (A/B)

Prevalence Index Worksheet

Total % Cover of:				
OBL species	0	x 1 =	0	
FACW species	100	x 2 =	200	
FAC species	10	x 3 =	30	
FACU species	5	x 4 =	20	
UPL species	0	x 5 =	0	
Column totals	115	(A)	250	(B)

Prevalence Index = B/A = 2.17

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? Y

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

Dominated by reed canary grass and ash leaf maple.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013).

SOIL **Sampling Point:** W-1-S1-Wet

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-7	10YR 3/2	100					Sandy loam	
7-18	7.5YR 4/4	90	5YR 5/8	10	C	M	Sand	Moist

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- X Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils do not meet any of the NTCHS hydric soil indicators, however the soil core was observed within an active floodplain which is likely to be inundated for long periods of time. Due to the geomorphic position and presence of redox concentrations in the high-chroma subsoils, it is believed that this soil core should be classified as hydric but problematic (Soils with High-Chroma Subsoils).

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ___	No X	Depth (inches): ___		
Water table present?	Yes ___	No X	Depth (inches): ___		
Saturation present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___		

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/14/2013

Applicant/Owner: DPC | State: WI | Sampling Point: W-1-S2-Up

Investigator(s): Sarah Majerus & Julie Christiansen (AECOM) | Section, Township, Range: Sec 14 T16N R7W

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): None

Slope (%): 5-7% | Lat: NA | Long: NA | Datum: NA

Soil Map Unit Name: 628A (Orion silt loam, 0-3% slopes, occasionally flooded) | NWI / WWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	N		
Hydric soil present?	N	**Is the sampled area within a wetland?**	N
Indicators of wetland hydrology present?	N	f yes, optional wetland site ID:	

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

Soil core observed along steep grade abutting W-1 and adjacent to S-2.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30 ft. circle)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0	= Total Cover	
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1 *Lonicera tatarica*	20	Y	FACU
2			
3			
4			
5			
	20	= Total Cover	
Herb stratum (Plot size: 5 ft. circle)			
1 *Phalaris arundinacea*	100	Y	FACW
2			
3			
4			
5			
6			
7			
8			
9			
10			
	100	= Total Cover	
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0	
FACW species	100	x 2 =	200	
FAC species	0	x 3 =	0	
FACU species	20	x 4 =	80	
UPL species	0	x 5 =	0	
Column totals	120	(A)	280	(B)

Prevalence Index = B/A = 2.33

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ___ Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? Y

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

Dominated by reed canary grass and twinsisters honeysuckle.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013) .

SOIL

Sampling Point: W-1-S2-Up

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 2/2	100					Sandy loam	
4-20	10YR 4/4	90					Sandy clay loam	Moist

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ___	No	X	Depth (inches):	___
Water table present?	Yes ___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes ___	No	X	Depth (inches):	___

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/14/2013

Applicant/Owner: DPC | State: WI | Sampling Point: W-1-S3-Wet

Investigator(s): Sarah Majerus & Julie Christianser (AECOM) | Section, Township, Range: Sec 14 T16N R7W

Landform (hillslope, terrace, etc.): Depression | Local relief (concave, convex, none): Concave

Slope (%): 0-1 | Lat: NA | Long: NA | Datum: NA

Soil Map Unit Name: 629A (Ettrick silt loam 0-2% slopes, frequently flooded) | NWI / WWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	Y	f yes, optional wetland site ID:	W-1
Indicators of wetland hydrology present?	Y		

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

Soil core observed in a depression adjacent to a golf course.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30 ft. circle)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 = Total Cover		
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1			
2			
3			
4			
5			
	0 = Total Cover		
Herb stratum (Plot size: 5 ft. circle)			
1 *Glyceria grandis*	100	Y	OBL
2			
3			
4			
5			
6			
7			
8			
9			
10			
	100 = Total Cover		
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0 = Total Cover		

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	100	x 1 =	100	
FACW species	0	x 2 =	0	
FAC species	0	x 3 =	0	
FACU species	0	x 4 =	0	
UPL species	0	x 5 =	0	
Column totals	100	(A)	100	(B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? Y

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

Dominated by American manna grass.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013) .

SOIL

Sampling Point: W-1-S3-Wet

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 3/2	100					Silt loam	Wet
2-20	10YR 3/2	95	5YR 4/6	5	C	M	Silty clay loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):	
Water table present?	Yes	X	No		Depth (inches):	0
Saturation present? (includes capillary fringe)	Yes	X	No		Depth (inches):	0

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/14/2013

Applicant/Owner: DPC | State: WI | Sampling Point: W-1-S4-Up

Investigator(s): Sarah Majerus & Julie Christianser (AECOM) | Section, Township, Range: Sec 14 T16N R7W

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

Slope (%): 0-2 | Lat: NA | Long: NA | Datum: NA

Soil Map Unit Name: 629A (Ettrick silt loam 0-2% slopes, frequently flooded) | NWI / WWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	N		
Hydric soil present?	Y	**Is the sampled area within a wetland?**	N
Indicators of wetland hydrology present?	N	f yes, optional wetland site ID:	

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

Soil core observed on golf course, along the edge of a fairway.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Staus
Tree Stratum (Plot size: 30 ft. circle)			
1			
2			
3			
4			
5			
	0 = Total Cover		
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1			
2			
3			
4			
5			
	0 = Total Cover		
Herb stratum (Plot size: 5 ft. circle)			
1 *Poa sp.*	60	Y	unknown
2 *Festuca sp.*	20	Y	unknown
3 *Taraxacum officinale*	10	N	FACU
4 *Trifolium pratense*	10	N	FACU
5			
6			
7			
8			
9			
10			
	100 = Total Cover		
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0 = Total Cover		

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column totals	20 (A)		80 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation

___ Dominance test is >50%

___ Prevalence index is ≤3.0*

___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)

___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? N

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

Dominated by bluegrass and fescue.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013) .

SOIL

Sampling Point: W-1-S4-Up

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 3/2	100					Silty clay loam	
4-12	10YR 3/2	98	5YR 4/6	2	C	M	Clay loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	___	No	X	Depth (inches): ___
Water table present?	Yes	___	No	X	Depth (inches): ___
Saturation present? (includes capillary fringe)	Yes	___	No	X	Depth (inches): ___

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/14/2013

Applicant/Owner: DPC | State: WI | Sampling Point: W-2-S1-Wet

Investigator(s): Sarah Majerus & Julie Christiansen (AECOM) | Section, Township, Range: Sec 14 T16N R7W

Landform (hillslope, terrace, etc.): Drainage | Local relief (concave, convex, none): Concave

Slope (%): 0-2% | Lat: NA | Long: NA | Datum: NA

Soil Map Unit Name: 629A (Ettrick silt loam, 0-2% slopes, frequently flooded) | NWI / WWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"

Are vegetation ____, soil X, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	Y		
Hydric soil present?	Y	**Is the sampled area within a wetland?**	Y
Indicators of wetland hydrology present?	Y	f yes, optional wetland site ID:	W-2

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

Soil core observed along S-2 between active railroad and bike trail ballasts.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species	Indicator Staus
Tree Stratum (Plot size: 30 ft. circle)			
1 *Acer negundo*	10	Y	FAC
2			
3			
4			
5			
	10	= Total Cover	
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1 *Lonicera tatarica*	10	Y	FACU
2			
3			
4			
5			
	10	= Total Cover	
Herb stratum (Plot size: 5 ft. circle)			
1 *Phalaris arundinacea*	90	Y	FACW
2 *Urtica dioica*	10	Y	FACW
3			
4			
5			
6			
7			
8			
9			
10			
	100	= Total Cover	
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 75.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0	
FACW species	100	x 2 =	200	
FAC species	10	x 3 =	30	
FACU species	10	x 4 =	40	
UPL species	0	x 5 =	0	
Column totals	120	(A)	270	(B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? Y

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

Dominated by reed canary grass, twinsisters honeysuckle and ash leaf maple.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013) .

SOIL

Sampling Point: W-2-S1-Wet

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-4	10YR 2/1	100					Sandy loam	
4-10	10YR 4/4	100					Sand	
10-18	7.5YR 3/3	90	5YR 3/4	10	C	M	Loam	With seams of sand (4-10) &
								black organics (10YR 2/1)

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

Soils do not meet any of the NTCHS hydric soil indicators, however the soil core was observed within an active floodplain which is likely to be inundated for long periods of time. Due to the geomorphic position and presence of redox concentrations in the high-chroma subsoils, it is believed that this soil core should be classified as hydric but problematic (Soils with High-Chroma Subsoils). Railroad and bike trail construction may also provide disturbance.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	___	No	X	Depth (inches): ___
Water table present?	Yes	___	No	X	Depth (inches): ___
Saturation present? (includes capillary fringe)	Yes	___	No	X	Depth (inches): ___

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/14/2013

Applicant/Owner: DPC | State: WI | Sampling Point: W-2-S2-Up

Investigator(s): Sarah Majerus & Julie Christiansen (AECOM) | Section, Township, Range: Sec 14 T16N R7W

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): Convex

Slope (%): 3-5 % | Lat: NA | Long: NA | Datum: NA

Soil Map Unit Name: 629A (Ettrick silt loam, 0-2% slopes, frequently flooded) | NWI / WWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

Hydrophytic vegetation present?	N		
Hydric soil present?	N	**Is the sampled area within a wetland?**	N
Indicators of wetland hydrology present?	N	f yes, optional wetland site ID:	

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

Soil core observed between old railroad/trail ballast and active railroad near S-3 bridge crossings.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30 ft. circle)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0	= Total Cover	
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1 *Lonicera tatarica*	20	Y	FACU
2			
3			
4			
5			
	20	= Total Cover	
Herb stratum (Plot size: 5 ft. circle)			
1 *Festuca sp.*	30	Y	unknown
2 *Phalaris arundinacea*	30	Y	FACW
3 *Saponaria officinalis*	15	N	FACU
4 *Glechoma hederacea*	10	N	FACU
5 *Achillea millefolium*	10	N	FACU
6 *Verbascum thapsus*	5	N	UPL
7			
8			
9			
10			
	100	= Total Cover	
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 33.33% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0	
FACW species	30	x 2 =	60	
FAC species	0	x 3 =	0	
FACU species	55	x 4 =	220	
UPL species	5	x 5 =	25	
Column totals	90	(A)	305	(B)

Prevalence Index = B/A = 3.39

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ___ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? N

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

Dominated by reed canary grass, fescue, and twinflower honeysuckle.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013) .

SOIL

Sampling Point: W-2-S2-Up

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/1	100					Sandy loam	
2 +	Refusal at rock							

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 2"

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	___	No	X	Depth (inches): ___
Water table present?	Yes	___	No	X	Depth (inches): ___
Saturation present? (includes capillary fringe)	Yes	___	No	X	Depth (inches): ___

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/14/2013

Applicant/Owner: DPC | State: WI | Sampling Point: W-2-S3-Wet

Investigator(s): Sarah Majerus & Julie Christiansen (AECOM) | Section, Township, Range: Sec 14 T16N R7W

Landform (hillslope, terrace, etc.): Depression/floodplain | Local relief (concave, convex, none): Concave to flat

Slope (%): 0% | Lat: NA | Long: NA | Datum: NA

Soil Map Unit Name: 629A (Ettrick silt loam, 0-2% slopes, frequently flooded) | NWI / WWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? (If needed, explain any answers in remarks.)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Y	**Is the sampled area within a wetland?** Y
Hydric soil present? Y	f yes, optional wetland site ID: W-2
Indicators of wetland hydrology present? Y	

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

Soil core was observed in floodplain along the LaCrosse River.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30 ft. circle)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Betula nigra*	15	Y	FACW
2 *Fraxinus pennsylvanica*	5	Y	FACW
3			
4			
5			
	20	= Total Cover	
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1 *Lonicera tatarica*	5	Y	FACU
2			
3			
4			
5			
	5	= Total Cover	
Herb stratum (Plot size: 5 ft. circle)			
1 *Phalaris arundinacea*	85	Y	FACW
2 *Bromus inermis*	10	N	FACU
3 *Cirsium arvense*	5	N	FACU
4			
5			
6			
7			
8			
9			
10			
	100	= Total Cover	
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 75.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	105	x 2 =	210
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column totals	125 (A)		290 (B)

Prevalence Index = B/A = 2.32

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? Y

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

Dominated by reed canary grass, twinsisters honeysuckle, river birch and green ash.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013).

SOIL

Sampling Point: W-2-S3-Wet

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-12	10YR 2/1	100					Mucky sandy loam	Moist
12-20	10YR 4/2	100					Sand	Saturated

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- X Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Y

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes		No	X	Depth (inches):	
Water table present?	Yes	X	No		Depth (inches):	18"
Saturation present? (includes capillary fringe)	Yes	X	No		Depth (inches):	12"

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/14/2013

Applicant/Owner: DPC | State: WI | Sampling Point: W-2-S4-Up

Investigator(s): Sarah Majerus & Julie Christianser (AECOM) | Section, Township, Range: Sec 15 T16N R7W

Landform (hillslope, terrace, etc.): Stream terrace | Local relief (concave, convex, none): Convex

Slope (%): 0-1% | Lat: NA | Long: NA | Datum: NA

Soil Map Unit Name: 628A (Orion silt loam, 0-3% slopes, occasionally flooded) | NWI / WWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	N		
Hydric soil present?	N	**Is the sampled area within a wetland?**	N
Indicators of wetland hydrology present?	N	f yes, optional wetland site ID:	

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

Soil core observed in grassland adjacent to S-6/W-2.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30 ft. circle)	Absolute % Cover	Dominant Species	Indicator Staus
1 *Ulmus americana*	15	Y	FACW
2 *Quercus palustris/ellipsoides*	5	N	unknown
3 *Acer saccharinum*	5	N	FACW
4 *Juniperus virginiana*	5	N	FACU
5			
	30	= Total Cover	

Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1			
2			
3			
4			
5			
	0	= Total Cover	

Herb stratum (Plot size: 5 ft. circle)			
1 *Bromus inermis*	90	Y	FACU
2 *Phalaris arundinacea*	10	N	FACW
3			
4			
5			
6			
7			
8			
9			
10			
	100	= Total Cover	

Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0	
FACW species	30	x 2 =	60	
FAC species	0	x 3 =	0	
FACU species	95	x 4 =	380	
UPL species	0	x 5 =	0	
Column totals	125	(A)	440	(B)

Prevalence Index = B/A = 3.52

Hydrophytic Vegetation Indicators:

___ Rapid test for hydrophytic vegetation

___ Dominance test is >50%

___ Prevalence index is ≤3.0*

___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)

___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? N

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

Dominated by brome grass and American elm.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013) .

SOIL

Sampling Point: W-2-S4-Up

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-6	10YR 2/2	100					Sandy loam	
6-12	10YR 4/4	80	10YR 2/2	20			Sand	Surface layer mixed in
12-18	10YR 2/2	100					Sandy loam	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	___	No	X	Depth (inches): ___
Water table present?	Yes	___	No	X	Depth (inches): ___
Saturation present? (includes capillary fringe)	Yes	___	No	X	Depth (inches): ___

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/20/2013
Applicant/Owner: DPC | State: WI | Sampling Point: W-3-S1-Up
Investigator(s): Sarah Majerus & Julie Christiansen (AECOM) | Section, Township, Range: Sec 33 T17N R7W
Landform (hillslope, terrace, etc.): Hillslope/drainage | Local relief (concave, convex, none): Concave
Slope (%): 15% | Lat: NA | Long: NA | Datum: NA
Soil Map Unit Name: 502C2 (Chelsea fine sand, 2-6% slopes, moderately eroded) | NWI / WWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	N		
Hydric soil present?	N	**Is the sampled area within a wetland?**	N
Indicators of wetland hydrology present?	N	f yes, optional wetland site ID:	

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

VEGETATION -- Use scientific names of plants.

		Absolute % Cover	Dominant Species	Indicator Staus
Tree Stratum (Plot size: 30 ft. circle)				
1				
2				
3				
4				
5				
		0	= Total Cover	
Sapling/Shrub stratum (Plot size: 15 ft. circle)				
1	*Zanthoxylum americanum*	5	Y	FACU
2	*Ulmus pumila*	5	Y	UPL
3				
4				
5				
		10	= Total Cover	
Herb stratum (Plot size: 5 ft. circle)				
1	*Phalaris arundinacea*	40	Y	FACW
2	*Bromus inermis*	20	Y	FACU
3	*Poa pratensis*	15	N	FAC
4	*Potentilla sp.*	5	N	unknown
5	*Coronilla varia*	5	N	NI
6				
7				
8				
9				
10				
		85	= Total Cover	
Woody vine stratum (Plot size: 15 ft. circle)				
1				
2				
		0	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across all Strata: 4 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 25.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0	
FACW species	40	x 2 =	80	
FAC species	15	x 3 =	45	
FACU species	25	x 4 =	100	
UPL species	5	x 5 =	25	
Column totals	85	(A)	250	(B)

Prevalence Index = B/A = 2.94

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ___ Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? N

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

Dominated by reed canary grass and brome.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013).

SOIL **Sampling Point:** W-3-S1-Up

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-14	7.5YR 2.5/2	100					Sandy loam	
14-18	10YR 5/6	100					Sand	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ___	No	X	Depth (inches):	___
Water table present?	Yes ___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes ___	No	X	Depth (inches):	___

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/20/2013

Applicant/Owner: DPC | State: WI | Sampling Point: W-3-S2-Wet

Investigator(s): Sarah Majerus & Julie Christiansen (AECOM) | Section, Township, Range: Sec 33 T17N R7W

Landform (hillslope, terrace, etc.): Stormwater basin | Local relief (concave, convex, none): Concave

Slope (%): 0% | Lat: NA | Long: NA | Datum: NA

Soil Map Unit Name: 501A (Finchford loamy sand, 0-3% slopes) | NWI / WWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	Y	**Is the sampled area within a wetland?**	Y
Hydric soil present?	?	f yes, optional wetland site ID:	W-3
Indicators of wetland hydrology present?	Y		

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

No access to wetland off of Riders Club Rd. Fenced in at I-53 overpass.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30 ft. circle)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0	= Total Cover	
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb stratum (Plot size: 5 ft. circle)			
1 *Phalaris arundinacea*	50	Y	FACW
2 *Carex sp.*	50	Y	unknown
3			
4			
5			
6			
7			
8			
9			
10			
	100	= Total Cover	
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	50 (A)		100 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ___ Dominance test is >50%
- X Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? Y

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

Species observations from fenceline.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013) .

SOIL **Sampling Point:** W-3-S2-Wet

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? _____

Remarks:

No access for soil core observations.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	X	No	___	Depth (inches):	1"
Water table present?	Yes	___	No	___	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes	___	No	___	Depth (inches):	___

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology observations from fenceline.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/20/2013
Applicant/Owner: DPC | State: WI | Sampling Point: W-4-S1-Up
Investigator(s): Sarah Majerus & Julie Christianser (AECOM) | Section, Township, Range: Sec 32 T17N R7W
Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): None
Slope (%): 3-5% | Lat: NA | Long: NA | Datum: NA
Soil Map Unit Name: 501A (Finchford loamy sand, 0-3% slopes) | NWI / WWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	N		
Hydric soil present?	N	**Is the sampled area within a wetland?**	N
Indicators of wetland hydrology present?	N	f yes, optional wetland site ID:	W-4

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

Soil core observed along fenceline, behind housing on Cliffview Avenue N.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30 ft. circle)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0	= Total Cover	
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1 *Ulmus pumila*	5	Y	UPL
2			
3			
4			
5			
	5	= Total Cover	
Herb stratum (Plot size: 5 ft. circle)			
1 *Bromus inermis*	30	Y	FACU
2 *Festuca sp.*	30	Y	unknown
3 *Poa pratensis*	20	Y	FAC
4 *Coronilla varia*	10	N	NI
5 *Asclepias syriaca*	5	N	FACU
6 *Daucus carota*	5	N	UPL
7			
8			
9			
10			
	100	= Total Cover	
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across all Strata: 4 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 25.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0	
FACW species	0	x 2 =	0	
FAC species	20	x 3 =	60	
FACU species	35	x 4 =	140	
UPL species	10	x 5 =	50	
Column totals	65	(A)	250	(B)

Prevalence Index = B/A = 3.85

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ___ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? N

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

Dominated by brome grass, fescue, and Kentucky bluegrass.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013).

SOIL **Sampling Point:** W-4-S1-Up

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
1-6	10YR 3/3	100					Sandy loam	
6-18	10YR 4/6	100					Sand	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes ___	No	X	Depth (inches):	___
Water table present?	Yes ___	No	X	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes ___	No	X	Depth (inches):	___

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/20/2013
Applicant/Owner: DPC | State: WI | Sampling Point: W-4-S2-Wet
Investigator(s): Sarah Majerus & Julie Christiansen (AECOM) | Section, Township, Range: Sec 32 T17N R7W
Landform (hillslope, terrace, etc.): Stormwater basin | Local relief (concave, convex, none): Concave
Slope (%): 0% | Lat: NA | Long: NA | Datum: NA
Soil Map Unit Name: 501A (Finchford loamy sand, 0-3% slopes) | NWI / WWI Classification: NA
Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)
Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"
Are vegetation ____, soil ____, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present? Y
Hydric soil present? ____
Indicators of wetland hydrology present? Y

Is the sampled area within a wetland? Y
If yes, optional wetland site ID: W-4

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

No access to wetland due to fenceline.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30 ft. circle)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0 = Total Cover		
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1			
2			
3			
4			
5			
	0 = Total Cover		
Herb stratum (Plot size: 5 ft. circle)			
1 *Phalaris arundinacea*	80	Y	FACW
2 *Urtica dioica*	10	N	FACW
3 *Daucus carota*	10	N	UPL
4			
5			
6			
7			
8			
9			
10			
	100 = Total Cover		
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0 = Total Cover		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across all Strata: 1 (B)
Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column totals	100 (A)		230 (B)

Prevalence Index = B/A = 2.30

Hydrophytic Vegetation Indicators:

- ____ Rapid test for hydrophytic vegetation
- X Dominance test is >50%
- X Prevalence index is ≤3.0*
- ____ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ____ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? Y

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

Species observations from fenceline.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013).

SOIL

Sampling Point: W-4-S2-Wet

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? _____

Remarks:

No access for soil core observations.

HYDROLOGY

Wetland Hydrology Indicators:

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

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	X	No	___	Depth (inches):	1"
Water table present?	Yes	___	No	___	Depth (inches):	___
Saturation present? (includes capillary fringe)	Yes	___	No	___	Depth (inches):	___

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: DPC Q-1 Rebuild | City/County: La Crosse | Sampling Date: 5/21/2013

Applicant/Owner: DPC | State: WI | Sampling Point: W-5-S1-Wet

Investigator(s): Sarah Majeus & Julie Christianser (AECOM) | Section, Township, Range: Sec 32 T17N R7W

Landform (hillslope, terrace, etc.): Stormwater basin | Local relief (concave, convex, none): Concave

Slope (%): 0% | Lat: NA | Long: NA | Datum: NA

Soil Map Unit Name: 502B2 (Chelsea fine sand, 2-6% slopes, moderately eroded) | NWI / WWI Classification: NA

Are climatic/hydrologic conditions of the site typical for this time of the year? Y (If no, explain in remarks)

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances"

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? present? Yes

SUMMARY OF FINDINGS

(If needed, explain any answers in remarks.)

Hydrophytic vegetation present?	N		
Hydric soil present?	N	**Is the sampled area within a wetland?**	N
Indicators of wetland hydrology present?	Y	f yes, optional wetland site ID:	W-6

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

Stormwater basin associated with L.B. White Co. development.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30 ft. circle)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0	= Total Cover	
Sapling/Shrub stratum (Plot size: 15 ft. circle)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb stratum (Plot size: 5 ft. circle)			
1 *Ambrosia artemisiifolia*	30	Y	FACU
2 *Fragaria virginiana*	20	Y	FACU
3 *Trifolium sp.*	20	Y	uknown
4 *Alopecurus pratensis*	10	N	FACW
5 *Setaria viridis*	10	N	NI
6 *Solidago gigantea*	5	N	FACW
7 *Poa pratensis*	5	N	FAC
8			
9			
10			
	100	= Total Cover	
Woody vine stratum (Plot size: 15 ft. circle)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

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

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

Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0	
FACW species	15	x 2 =	30	
FAC species	5	x 3 =	15	
FACU species	50	x 4 =	200	
UPL species	0	x 5 =	0	
Column totals	70	(A)	245	(B)

Prevalence Index = B/A = 3.50

Hydrophytic Vegetation Indicators:

- ___ Rapid test for hydrophytic vegetation
- ___ Dominance test is >50%
- ___ Prevalence index is ≤3.0*
- ___ Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet)
- ___ Problematic hydrophytic vegetation* (explain)

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

Hydrophytic vegetation present? N

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

Dominated by common ragweed, wild strawberry, and clover. Newly developed stormwater basin. Hydric species have not had time to colonize.

Plant List Used: Lichvar, R.W. 2012. The National Wetland Plant List, Version 3.0. ERDC/CRREL TR-12-11. Hanover, NH: U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory. (https://wetland_plants.usace.army.mil), and BONAP, Chapel Hill, NC. (2013) .

SOIL

Sampling Point: W-5-S1-Wet

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type*	Loc**	Texture	Remarks
0-2	10YR 2/2	100					Sandy loam	
2-14	10YR 2/2	50	10YR 4/4	50			Sand	Mixed layer
14-18	10YR 4/6	100					Sand	

*Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

*Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

Newly constructed stormwater basin. Hydric soils have not had time to develop at the site.

HYDROLOGY

Wetland Hydrology Indicators:

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

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface water present?	Yes	___	No	X	Depth (inches): ___
Water table present?	Yes	___	No	X	Depth (inches): ___
Saturation present? (includes capillary fringe)	Yes	___	No	X	Depth (inches): ___

Indicators of wetland hydrology present? Y

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix C

Rapid Assessment Methodology for Determining Wetland Functional Value (Summary Page)

January, 2001

File or Docket Number

Wisconsin Department of Natural Resources

RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

GENERAL INFORMATION

Name of Wetland/Owner: W-1 / DPC
Location: County La Crosse ; SW¼,NW¼, Section 14 , Township 16N , Range 7W
Project Name: DPC Q-1 Wetland Delineation
Evaluator(s): Sarah Majerus & Julie Christiansen, AECOM
Date(s) of Site Visit(s): May 14, 2103

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration): Field work completed at the beginning of the growing season.

WETLAND DESCRIPTION

Wisconsin Wetlands Inventory classification: NA					
Wetland Type:	shallow open water	deep marsh	shallow marsh	seasonally flooded basin	bog
	floodplain forest	alder thicket	sedge meadow	coniferous swamp	fen
	wet meadow	shrub-carr	low prairie	hardwood swamp	scrub/shrub
Estimated size of wetland in acres: 1-5 acres					

SUMMARY OF FUNCTIONAL VALUES

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE				
	Low	Medium	High	Exceptional	N/A
Floral Diversity		X			
Wildlife Habitat		X			
Fishery Habitat					X
Flood/Stormwater Attenuation		X			
Water Quality Protection		X			
Shoreline Protection					X
Groundwater	X				
Aesthetics/Recreation/Education	X				

List any Special Features/"Red Flags":

January, 2001

File or Docket Number

Wisconsin Department of Natural Resources

RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

GENERAL INFORMATION

Name of Wetland/Owner: W-2 / DPC
Location: County La Crosse ; ¼, ¼, Section 14 , Township 16N , Range 7W
Project Name: DPC Q-1 Wetland Delineation
Evaluator(s): Sarah Majerus & Julie Christiansen, AECOM
Date(s) of Site Visit(s): May 14, 2103

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration): Field work completed at the beginning of the growing season.

WETLAND DESCRIPTION

Wisconsin Wetlands Inventory classification: NA					
Wetland Type:	shallow open water	deep marsh	shallow marsh	seasonally flooded basin	bog
	floodplain forest	alder thicket	sedge meadow	coniferous swamp	fen
	wet meadow	shrub-carr	low prairie	hardwood swamp	scrub/shrub
Estimated size of wetland in acres: 40+ acres					

SUMMARY OF FUNCTIONAL VALUES

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE				
	Low	Medium	High	Exceptional	N/A
Floral Diversity		X			
Wildlife Habitat			X		
Fishery Habitat		X			
Flood/Stormwater Attenuation			X		
Water Quality Protection		X			
Shoreline Protection		X			
Groundwater	X				
Aesthetics/Recreation/Education		X			

List any Special Features/"Red Flags":

January, 2001

File or Docket Number

Wisconsin Department of Natural Resources

RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

GENERAL INFORMATION

Name of Wetland/Owner: W-3 / DPC
Location: County La Crosse ; SW¼,NW¼, Section 33 , Township 17N , Range 7W
Project Name: DPC Q-1 Wetland Delineation
Evaluator(s): Sarah Majerus & Julie Christiansen, AECOM
Date(s) of Site Visit(s): May 20, 2103

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration): Field work completed at the beginning of the growing season.

WETLAND DESCRIPTION

Wisconsin Wetlands Inventory classification: NA					
Wetland Type:	shallow open water	deep marsh	shallow marsh	seasonally flooded basin	bog
	floodplain forest	alder thicket	sedge meadow	coniferous swamp	fen
	wet meadow	shrub-carr	low prairie	hardwood swamp	scrub/shrub
Estimated size of wetland in acres: <1 acre					

SUMMARY OF FUNCTIONAL VALUES

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE				
	Low	Medium	High	Exceptional	N/A
Floral Diversity	X				
Wildlife Habitat	X				
Fishery Habitat					X
Flood/Stormwater Attenuation		X			
Water Quality Protection	X				
Shoreline Protection					X
Groundwater	X				
Aesthetics/Recreation/Education	X				

List any Special Features/"Red Flags":

January, 2001

File or Docket Number

Wisconsin Department of Natural Resources

RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

GENERAL INFORMATION

Name of Wetland/Owner: W-3 / DPC
Location: County La Crosse ; SW¼,NW¼, Section 33 , Township 17N , Range 7W
Project Name: DPC Q-1 Wetland Delineation
Evaluator(s): Sarah Majerus & Julie Christiansen, AECOM
Date(s) of Site Visit(s): May 20, 2103

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration): Field work completed at the beginning of the growing season.

WETLAND DESCRIPTION

Wisconsin Wetlands Inventory classification: NA					
Wetland Type:	shallow open water	deep marsh	shallow marsh	seasonally flooded basin	bog
	floodplain forest	alder thicket	sedge meadow	coniferous swamp	fen
	wet meadow	shrub-carr	low prairie	hardwood swamp	scrub/shrub
Estimated size of wetland in acres: <1 acre					

SUMMARY OF FUNCTIONAL VALUES

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE				
	Low	Medium	High	Exceptional	N/A
Floral Diversity	X				
Wildlife Habitat	X				
Fishery Habitat					X
Flood/Stormwater Attenuation		X			
Water Quality Protection	X				
Shoreline Protection					X
Groundwater	X				
Aesthetics/Recreation/Education	X				

List any Special Features/"Red Flags":

January, 2001

File or Docket Number

Wisconsin Department of Natural Resources

RAPID ASSESSMENT METHODOLOGY FOR EVALUATING WETLAND FUNCTIONAL VALUES

GENERAL INFORMATION

Name of Wetland/Owner: W-4 / DPC
Location: County La Crosse ; NE ¼, NE ¼, Section 32 , Township 17N , Range 7W
Project Name: DPC Q-1 Wetland Delineation
Evaluator(s): Sarah Majerus & Julie Christiansen, AECOM
Date(s) of Site Visit(s): May 20, 2103

Description of seasonality limitations of this inspection due to time of year of the evaluation and/or current hydrologic and climatologic conditions (e.g. after heavy rains, snow or ice cover, during drought year, during spring flood, during bird migration): Field work completed at the beginning of the growing season.

WETLAND DESCRIPTION

Wisconsin Wetlands Inventory classification: NA					
Wetland Type:	shallow open water	deep marsh	shallow marsh	seasonally flooded basin	bog
	floodplain forest	alder thicket	sedge meadow	coniferous swamp	fen
	wet meadow	shrub-carr	low prairie	hardwood swamp	scrub/shrub
Estimated size of wetland in acres: <1 acre					

SUMMARY OF FUNCTIONAL VALUES

Based on the results of the attached functional assessment, rate the significance of each of the functional values for the subject wetland and check the appropriate box. Complete the table as a summary.

FUNCTION	SIGNIFICANCE				
	Low	Medium	High	Exceptional	N/A
Floral Diversity	X				
Wildlife Habitat	X				
Fishery Habitat					X
Flood/Stormwater Attenuation		X			
Water Quality Protection	X				
Shoreline Protection					X
Groundwater	X				
Aesthetics/Recreation/Education	X				

List any Special Features/"Red Flags":

Appendix D

Photograph Log

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 1: O-1 - North

Photo 2: O-2 - East

Photo 3: O-3 - North

Photo 4: O-4 - North

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 5: F-1 - South

Photo 6: O-4 - South

Photo 7: F-1 - South

Photo 8: O-5 - South

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 9: O-4 - South

Photo 10: O-4 - South

Photo 11: S-1 - West

Photo 12: O-4 - North

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 13: O-4 - North

Photo 14: O-6 - South

Photo 15: W-1 - South of Structure 353

Photo 16: S-2 - West

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 17: W-1 - North of Structure 353

Photo 18: F-2 - South

Photo 19: W-1 - Southeast from Golf Course

Photo 20: S-3 - Northeast

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 21: O-7 - East

Photo 22: W-2 - Northwest

Photo 23: S-3 - Northwest

Photo 24: S-4 - Northwest (La Crosse River)

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 25: S-4 - Northwest (La Crosse River)

Photo 26: O-8 - Southeast

Photo 27: W-2 - Northwest

Photo 28: S-5 - Southeast

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 29: O-9 - Northwest

Photo 30: F-3 - Northwest

Photo 31: W-2 - Southeast

Photo 32: G-1 - Northwest

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 33: W-2 - Southeast

Photo 34: S-6 - West

Photo 35: O-10 - Northwest

Photo 36: O-11 - North

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 35: O-12 - East

Photo 36: O-13 - East

Photo 37: O-14 - West

Photo 38: O-12 - East

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 39: O-13 - East

Photo 40: O-14 - West

Photo 41: S-6 - West

Photo 42: O-15 West

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 43: O-15 - Northwest

Photo 44: O-15 (wells in ROW) - Northwest

Photo 45: O-15 - Northwest

Photo 46: O-15 - Northwest

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 47: F-4 - Northwest

Photo 48: F-4 - North

Photo 49: O-15 (wells in ROW) - Southeast

Photo 50: O-16 - Southeast

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 51: G-2 - Southeast

Photo 52: O-16 - Southeast

Photo 53: G-3 - Southeast

Photo 54: G-4 - Southeast

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 55: O-16 - North

Photo 56: O-17 - Northwest

Photo 57: O-17 - Northwest

Photo 58: S-7 - Northwest

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 59: O-18 – Southeast (former treatment facility)

Photo 60: S-7 - Northeast

Photo 61: O-19 - Southeast

Photo 62: O-20 - Northwest

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 63: O-21 - Southeast

Photo 64: O-22 - Southeast

Photo 65: O-23 - Southeast

Photo 66: S-8 Open Water - South

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 67: O-24 - Southeast

Photo 68: O-25 - Southeast

Photo 69: O-15 - East

Photo 70: O-15 - Southeast

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 71: W-3 - Northwest

Photo 72: W-4 - Southeast

Photo 73: O-26 - Southeast

Photo 74: W-5 - Northwest

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 75: 0-27 - Southeast

Photo 76: O-28 - Southeast

Photo 77: O-29 - Northwest

Photo 78: F-5 - East

AECOM

Photo Log – DPC Q-1D South Rebuild

Photo 79: F-5 - Northwest

Photo 80: F-5 - North

Photo 81: S-9 - East

Photo 82: O-26 - Southeast

Appendix E:
Cultural Report

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Phase I Archaeological Survey of Proposed Changes to Approximately Nine Miles of the Dairyland Power Cooperative Q-1 Transmission Line, Briggs Road Substation to North La Crosse Tap, La Crosse County, Wisconsin

WHS Burial Permit #15-0177/LC

Report Prepared for:
Dairyland Power Cooperative
3200 East Ave South
La Crosse, WI 54602

Principal Investigator and Report Prepared by:
Vicki L. Twinde-Javner

Mississippi Valley Archaeology Center
University of Wisconsin-La Crosse

Reports of Investigations No. 1046

June 2015

ABSTRACT

In April, May, and June 2015, the Mississippi Valley Archaeology Center performed a Phase I archaeological survey of approximately nine miles of a portion of the Dairyland Power Cooperative Q-1 transmission line rebuild, located south of the Briggs Road Substation to the North La Crosse Tap in La Crosse County, Wisconsin. Since the pole locations were staked prior to the survey, pole locations only were surveyed along with any new access roads where ground disturbance is proposed. The project passes through previously recorded sites: BLC142, Woodlawn North Cemetery; 47LC19/BLC1, called the Midway Village Complex; 47LC26, Gensch; 47LC27, A. Pralle; 47LC54, Gates of Heaven; 47LC95/BLC71, Tremaine; 47LC169, B. Pralle II; and one new prehistoric site found by the University of Wisconsin – La Crosse in 2013 that has not yet been recorded. All of these sites are prehistoric sites with the exception of BLC142, Woodlawn North Cemetery, which is an uncatalogued burial site. This is recorded as a historic Euro-American cemetery/burial, however this area is an open field with no grave markers, and according to the landowner, this cemetery has been plotted as a cemetery for tax exempt purposes and no human remains have been interred in this location to date. Based on this, no further work is recommended for this site area. However, MVAC will field check the conditions of this area prior to construction and re-confirm with the landowner that this "cemetery" still has no human remains. If at that time the cemetery has been used to inter remains, then monitoring during construction of the two poles in the site area is recommended along with the placement of mats for heavy equipment to drive on during non-frozen ground conditions (during frozen ground conditions, matting would not be necessary). If prior to construction it is confirmed that no human remains have been interred in this site area, then no monitoring is recommended.

The Midway Village Complex (47LC19/BLC1) and Tremaine site (47LC95/BLC71) are both on the National Register of Historic Places (NRHP). The Midway site is an uncatalogued burial site, and the portion of the Tremaine site that the current project crosses is located in the uncatalogued portion of the site. Four pole locations are located within the Tremaine site. MVAC shovel tested at these pole locations and since the shovel tests essentially mitigated the pole locations, the placement of these poles should not have an adverse effect on the site. An original plan for a cut access road and cut pad around one of the poles has been altered due to positive shovel tests in the pad location. Matting will be used for the access road and pad, therefore there will be no adverse effect to the site. One pole location is located in the Midway site and since the shovel test placed at the pole location essentially mitigated the pole location, the placement of this pole should not have an adverse effect on the site. Construction is planned to take place during frozen ground conditions so access to the poles in the Tremaine and Midway sites should not have an adverse effect on the sites. However, if construction plans change and the poles in these NRHP sites need to accessed during non-frozen conditions, matting will placed on the ground surface for heavy equipment to drive on. Since the Midway and Tremaine site are burial sites, due to state statute 157.70, it is recommended that monitoring of the pole placements take place, and use of matting for access roads if construction takes place in non-frozen ground conditions can then be confirmed. A disturbed portion of the Midway site will be used as a base of operations and laydown area for the project. Although no planned ground disturbance will

take place in this area, if inadvertent ground disturbance takes place it will not have an adverse effect on the site, as this area has been completely disturbed and there is no chance that cultural deposits or human remains are present in this area.

Most of the other sites that the project crosses through have been impacted by urban and industrial expansion and road construction. No new sites were identified during the Phase I survey no evidence of the other previously recorded sites in the project area were found except within a pad area near one pole in Tremaine, which will now be avoided. Monitoring of project actions is recommended within the site boundaries of Tremaine (47LC95/BLC71) and Midway (47LC19/BLC1), however, no further work is recommended for the remainder of the project unless human remains have been interred at BLC142 by the time construction takes place.

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INTRODUCTION

In April, May, and June 2015, the Mississippi Valley Archaeology Center (MVAC) performed a Phase I archaeological survey for proposed changes to approximately nine miles of the Dairyland Power Cooperative (DPC) Q-1 transmission line located in La Crosse County, Wisconsin (Figure 1). The portion of the Q-1 transmission line surveyed in 2015 is under an existing transmission line starting approximately a quarter to a half mile south of the Briggs Road Substation to the North La Crosse Tap. The current plan for the project is winter construction and in culturally sensitive areas and burial sites, heavy equipment will be driven in the area in frozen ground conditions only. However, if construction plans change, matting will be used in culturally sensitive areas and burial sites. Ground disturbing activities are planned for a few new access roads and surveyed these. DPC staked the pole locations prior to the archaeological survey, and aside from the new cut access roads, the placement of the poles would be the only ground disturbance, therefore MVAC surveyed at the pole placements only. Monitoring of soil borings within the burial sites along the project was undertaken in January 2015 (Twinde-Javner 2015) (Appendix 1), and no cultural material or human remains were discovered.

ENVIRONMENTAL SETTING

The proposed project is located in: Section 13 of Township 17 North, Range 8 West; Sections 18, 19, 29, 30, 32, and 33 of Township 17 North, Range 7 West; and, Sections 3, 4, 10, 14, 15, and 23 of Township 16 North, Range 7 West (Figures 2, 3, and 4). At the northern end, the project begins between a quarter mile to a half mile south of Briggs Road, (south of the Briggs Road Substation) and heads southeast towards STH 35. It crosses STH 35 and continues southeast towards USH 53 where it parallels USH 53 on the road's west side until it crosses to the east side of USH 53 just south of the USH 53/CTH S intersection. The project then continues southeast crossing CTH OS/Main Street, Interstate 90, STH 16, the La Crosse River State Trail, and CTH B. It terminates at the North La Crosse Tap located south of Keil Coulee Road. The project is mostly on private land, but does cross through some publicly owned lands, and public land permits were obtained for these locations (Appendix 2).

La Crosse County is situated within the Driftless Area of Wisconsin. This region was not covered by glaciation as other parts of the state and the upper Midwest. In the 1960's, it was proposed that glaciation did occur in the Driftless Area (Black 1960), however, Mickelson et al. (1982) determined that the area was not glaciated. The Driftless Area in Wisconsin is unique in relation to other parts of the United States that are driftless because it is surrounded by glaciated territory (Martin 1965).

The project area lies in the Western Uplands Geographic Province. The Western Uplands is a thoroughly-dissected upland and is considered rough, highland region (Martin 1965). This regions' strongest topographic features are the great trenches or gorges of the Mississippi and Wisconsin rivers and numerous tributaries. The topography consists of deeply dissected plateaus with narrow, deeply incised, dendritic drainages.

Figure 1. Location of project area in Wisconsin.

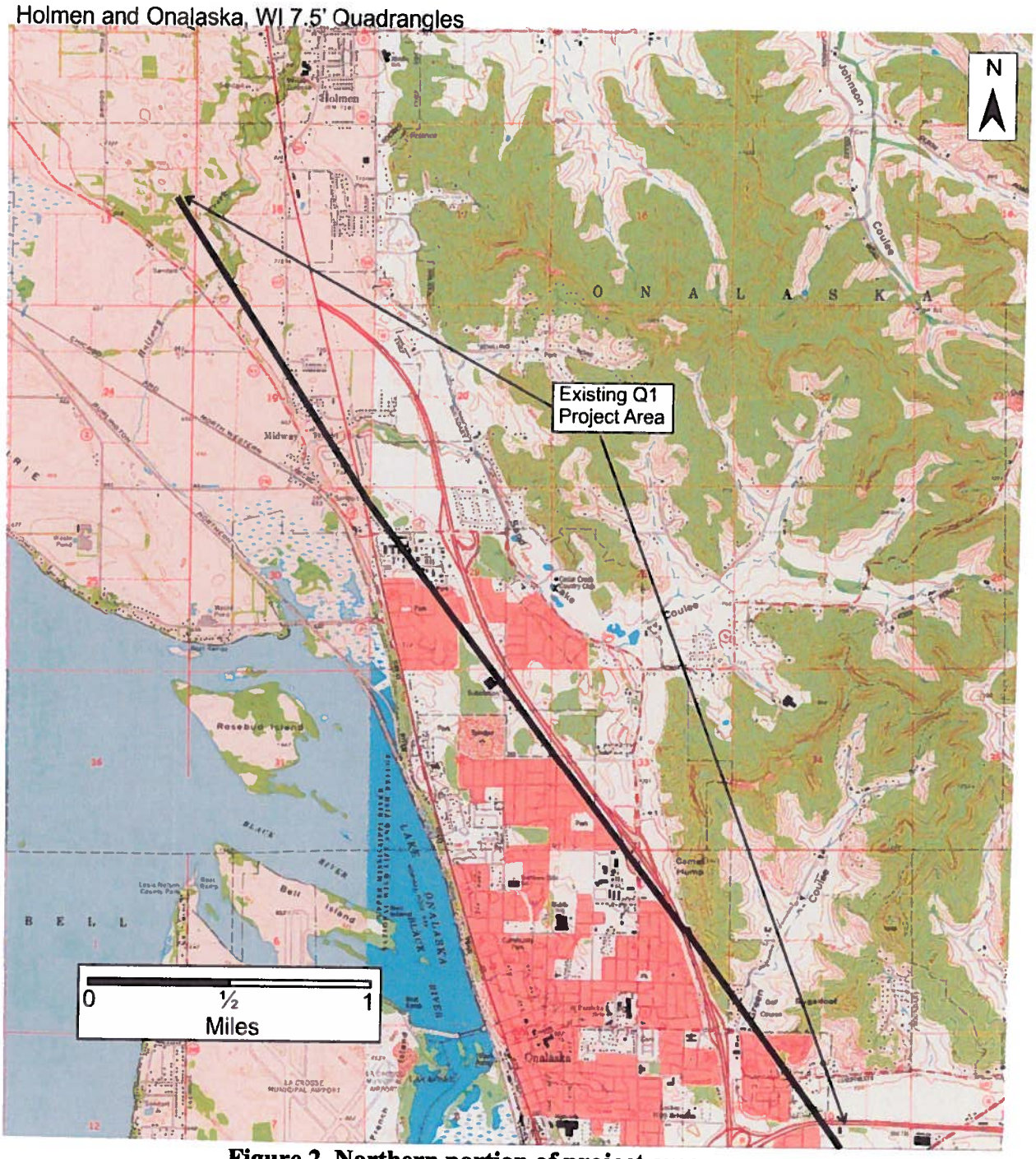

Figure 2. Northern portion of project area.

Onalaska, WI 7.5' Quadrangle

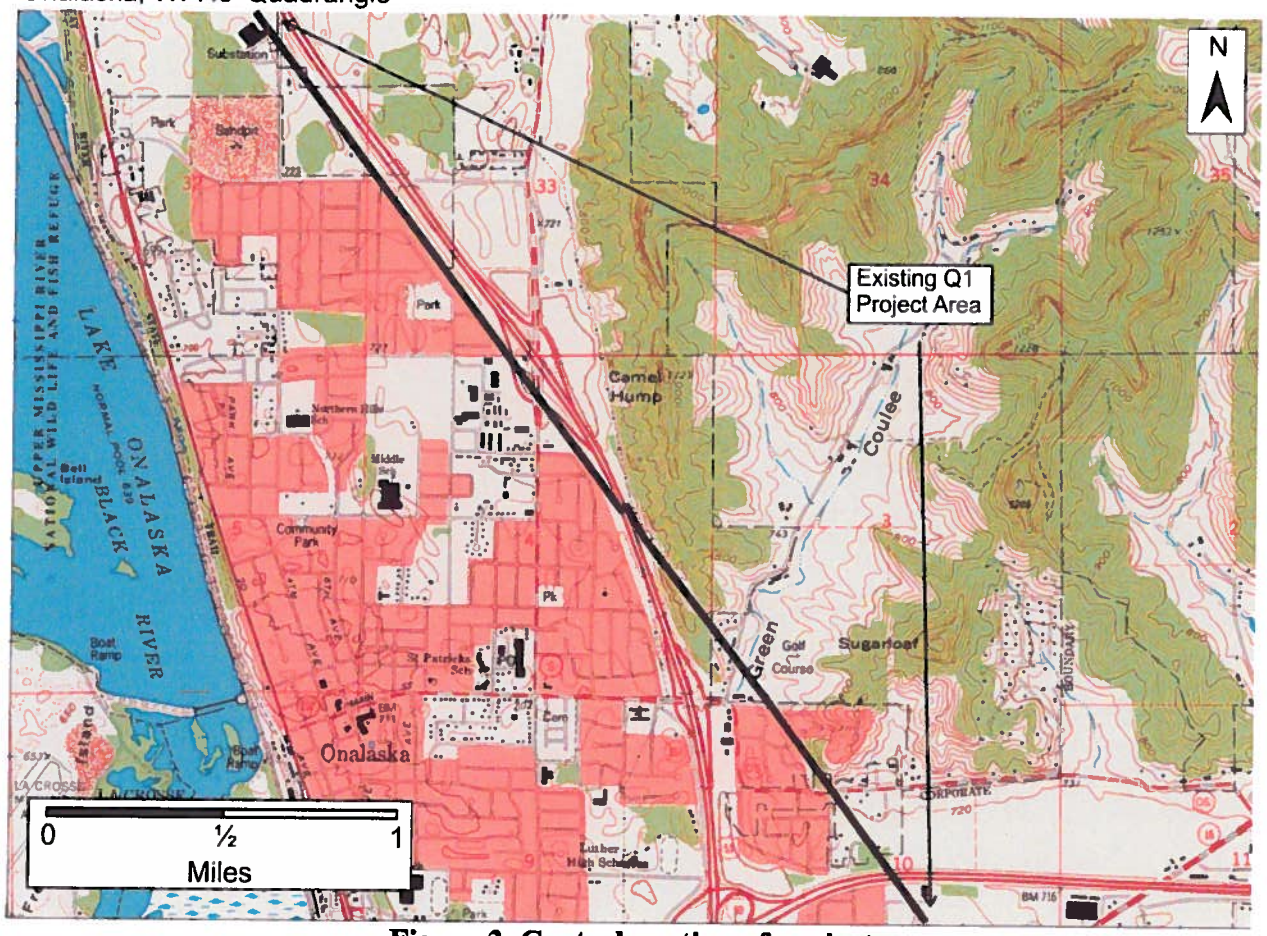

Figure 3. Central portion of project area.

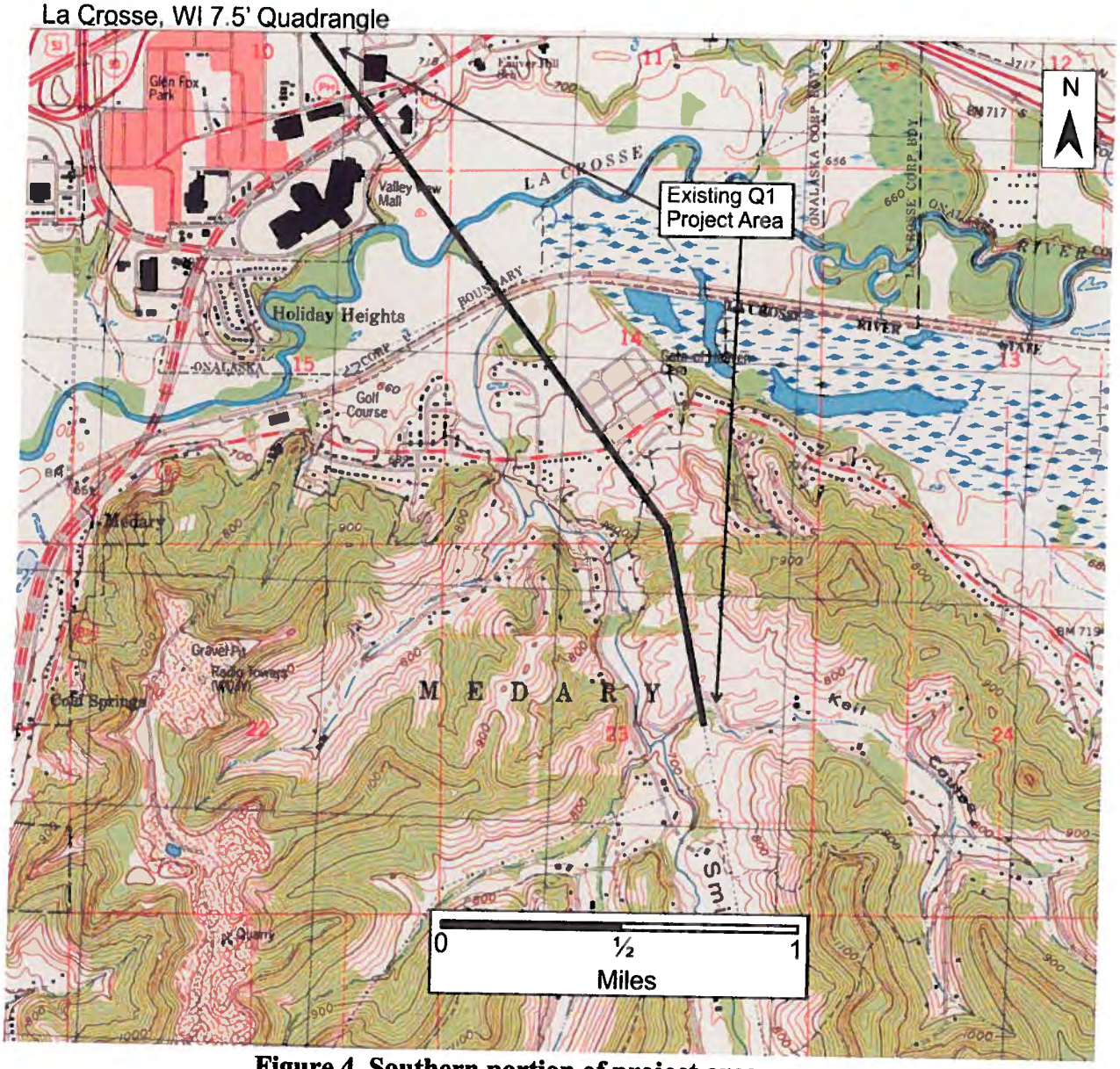

Figure 4. Southern portion of project area.

The bedrock geology of the project area is part of the Cambrian system. The bedrock of the Cambrian system which the project crosses consists of sandstone with some dolomite and shale including Trempealeau, Tunnel City and Elk Mound Groups. These are Phanerozoic rocks which were formed approximately 450 to 500 million years ago. The depth to bedrock is approximately 0 to 15 meters on the ridge tops. This depth allows for generally good to excellent outcrops, particularly on hillsides, road cuts, and in river valleys (Mudrey et al. 1982). As a result of the distance of the project, it crosses through several soil types (Natural Resource Conservation Service 2015), which are presented in Table 1.

Table 1. Soils within the project area.

Barremills silt loam, 1 to 6 percent slopes
Bilson sandy loam, 1 to 6 percent slopes
Chelsea fine sand, 2 to 6 percent slopes, moderately eroded
Chelsea fine sand, 6 to 15 percent slopes, moderately eroded
Council fine sandy loam, 20 to 30 percent slopes, moderately eroded
Council-Elevasil-Norden complex, 30 to 60 percent slopes
Dakota silt loam, 0 to 3 percent slopes
Ettrick silt loam, 0 to 2 percent slopes, frequently flooded
Festina silt loam, 2 to 6 percent slopes, moderately eroded
Finchford loamy sand, 0 to 3 percent slopes
Greenridge silt loam, 12 to 20 percent slopes, moderately eroded
Kickapoo fine sandy loam, 0 to 3 percent slopes, occasionally flooded
Landfill
Merimod silt loam, 0 to 3 percent slopes
Pits, gravel
Plainfield sand, 15 to 60 percent slopes
Seaton silt loam, 6 to 12 percent slopes, moderately eroded
Timula silt loam, 12 to 20 percent slopes, severely eroded
Udorthents and Udipsamments, cut or fill
Urban land, valley trains

The original mid-19th century vegetation cover of the project area was mainly deciduous forest, consisting of oak and oak openings with bur, white, and black oak and grassland and brush consisting of prairie (Finley 1976). As a result of the lack of glacial effect on southwestern Wisconsin, the regon was a mix of prairie grasslands and patches of forest. At the end of the Pleistocene, a variety of megafauna including mastodon, mammoth, caribou, horses, and the giant beaver lived on the margins of glacial ice (West and Dallman 1980, Ojankangas and Matsch 1982).

CULTURAL CONTEXT

PALEOINDIAN

With the retreat of the last glaciers at the end of the Pleistocene came the first Native American occupation of the Mississippi River Valley. These migratory bands of hunters and gatherers, or Paleoindians, were present in this area from approximately 11,500 to 9500 years before present (B.P.). This Native American population represents the earliest verified human presence in the Americas. Paleoindians moved in small mobile hunting bands that followed the Pleistocene megafauna, including mastodon, mammoth, and extinct forms of giant bison (Mason 1997; Theler and Boszhardt 2003).

Early Paleoindian fluted point varieties in the Upper Mississippi River Valley include Folsom, Clovis, and Gainey. These fluted points are often found as isolated surface finds, but are sometimes associated with a limited set of tools used for skinning and butchering animal carcasses. Although many times these point types are associated with megafauna procurement, the Early Paleoindians probably hunted small animals as well, and would have also consumed berries and other wild plants as opportunity presented itself (Mason 1997; Theler and Boszhardt 2003).

Late Paleoindians in southwestern Wisconsin used unfluted spear tips of the Plano and Cody Complexes to adapt to the extinction of most megafauna species by 10,000 years ago. The Late Paleoindian stage may have corresponded with the introduction of the first ground stone woodworking implements (adzes) in the Midwest. These Native Americans were apparently attracted to a forest and river margin habitat because of the greater ecological richness of these zones (Mason 1997; Theler and Boszhardt 2003).

ARCHAIC

The longest prehistoric Native American Tradition is the Archaic (9500-2500 B.P.) The extinction of megafauna by 10,000 B.P. (probably caused by a combination of climatic change and possible overexploitation by Paleoindians) forced Archaic people to seek a new type of subsistence. Archaic subsistence still relied on hunting and gathering, but was probably more balanced than the Paleoindian diet in the sense that plants and aquatic resources became more important, particularly toward the end of the tradition. In order to adapt to the diversity of procurement resources available in the changing environment, Archaic peoples developed an increasingly varied technology. For example, Archaic components are recognized by a variety of stemmed and notched point types emphasizing the use of local cherts and using heat treating when poor quality stone was available. Bone artifacts, ground stone adzes, axes, grinding stones, grinding slabs, and copper artifacts are some tools utilized by the Archaic people. In some areas they manufactured specialized fishing gear such as hooks and harpoons, and used milling stones for the bulk processing of nuts and other plants (Stoltman 1997; Theler and Boszhardt 2003).

The Early Archaic stage (9500-7500 B.P.) is considered to be a transitional period between cultures adapting to a foraging type of subsistence from those relying on big game. Large and small mammals (primarily deer and elk), fish, waterfowl, and a variety of wild plants would have made up a large portion of their diet. Evidence for the earliest occupation in

Wisconsin is sparse, but it is believed that these people lived in small, widely scattered family or extended-family groups (Stoltman 1997; Theler and Boszhardt 2003).

During the Middle Archaic stage (7500-4500 B.P.), there is evidence for the recurrent use of cemeteries and the first substantial use of rockshelters for occupation. Technological innovations such as grooved axes and bannerstones, specialized fishing gear, ground stone plant-processing tools, and copper tool manufacture are found in Wisconsin's Middle Archaic context. There is also evidence of shellfish exploitation, long-distance trade of exotic materials, and the domestication of dogs during this period (Stoltman 1997; Theler and Boszhardt 2003).

By the Late Archaic stage (4500-2500 B.P.), gathering and foraging in the forest became the principle subsistence procurement strategy. Nuts especially were focused on during gathering and foraging. During this period, the human population in the Midwest began to grow substantially. There was increased territoriality, development of intergroup trading networks, local differentiation in artifact styles, and the use of communal cemeteries. There was a decline in the use of copper to make utilitarian implements, and the appearance of new small stemmed and corner-notched point styles. By the end of the Late Archaic stage, populations were using uplands for both temporary and seasonal habitations. Some small scale cultivation was initiated during this period (Stoltman 1997; Theler and Boszhardt 2003).

WOODLAND

The Woodland Tradition (2500-1000 B.P.) represents a more sedentary lifestyle including the regular practice of horticulture, the construction of earthen burial mounds, and the introduction of grit or sand tempered ceramic containers. Some Woodland people relied heavily on fish and mussels in major river valleys, but continued to exploit deer and elk. An increase in cultivated plant use was evident throughout the tradition. These people were semi-nomadic, moving to different locations during the year, drawn by seasonally food resources available (Stevenson et al. 1997; Theler and Boszhardt 2003).

Early Woodland (2500-1900 B.P.) lifestyles were similar to that of Archaic people, but with the innovation of ceramics. The introduction of ceramic vessels is one indication that these people began to settle in areas longer than the Archaic people before them (Stevenson et al. 1997). The earliest ceramics are thick-walled, flat-bottomed vessels that are rarely decorated. These are distinctive of the Indian Isle Phase in southwestern Wisconsin (Stoltman 1990). Later, thinned cone-shaped pots, which are often sand tempered and decorated with incised lines and fingernail impressions, appear and mark the Prairie Phase in Southwestern Wisconsin (Stoltman 1986, 1990; Theler and Boszhardt 2003).

Early Woodland people in southwestern Wisconsin probably lived in small bands, exploiting food resources in both the upland and river valleys. Wild plants used as a significant source of subsistence included a variety of nuts, predominately walnut and hickory and some hazel and acorn, and also berries such as grape, raspberry, sumac, blackberry, hawthorn, and black nightshade (Stevenson et al. 1997; Theler and Boszhardt 2003).

The Middle Woodland stage (1900 -1600 B.P.) is most notable for the Hopewell Interaction Sphere. This stage is distinguished by refined artwork, complex mortuary programs, and extensive trade networks. In southwestern Wisconsin, many Middle Woodland sites include large mound complexes and campsites predominately located along the Mississippi River (Stevenson et al. 1997; Theler and Boszhardt 2003).

The Late Woodland (1600-950 B.P.) stage is distinguished by distinctive regional styles and a rapid population growth. Diverse hunting and continued crop cultivation were utilized for subsistence, and animal-shaped burial mounds were common during this time period. This period saw the introduction of the bow and arrow and an increasing emphasis on growing corn. There is evidence in southwestern Wisconsin of Late Woodland sites on variable types of settings from major river valleys to small spring-fed streams (Stevenson et al. 1997; Theler and Boszhardt 2003).

ONEOTA

By 900 B.P., the Oneota culture (900-350 B.P.) spread across much of the Midwest. This was the last group of prehistoric Native Americans to inhabit this area prior to the arrival of the Euro-Americans in the mid-1700's. The Oneota utilized a mixed hunting, foraging, and an increased agricultural economy, and often used crushed clam shells as tempering for their ceramics. They are believed to have had a tribal level society, and lived in large villages that were permanent or semi-permanent (Benn 1989; Theler and Boszhardt 2003).

The La Crosse locality was first occupied by Oneota people around A.D. 1300. The Oneota occupation at La Crosse persisted for approximately three centuries, before ending rather abruptly just prior to the introduction of European artifacts into this region. Thus, the Oneota did not cross the threshold from prehistory to the historic era at La Crosse, although the abandonment of this locality was likely spurred in part by European influences (Theler and Boszhardt 2003).

During the three centuries of Oneota settlement at La Crosse, changes in artifacts and settlement patterns occurred, and the chronology of these shifts is documented by over 100 radiocarbon dates from local Oneota sites. This information provided the foundation for defining three sequential phases: Brice Prairie, Pammel Creek, and Valley View.

Brice Prairie Phase

This is the earliest of the La Crosse Oneota phases, named after a several-hundred acre site complex at the southeast end of an outlier terrace called Brice Prairie. Brice Prairie phase chipped stone artifacts include the ubiquitous Oneota unnotched triangular points, end scrapers, and straight drills, but they are distinguished by a preference for good quality orthoquartzite (apparently Hixton silicified sandstone) and Grand Meadow chert (originating from southeastern Minnesota). Brice Prairie phase ceramic vessels are all shell-tempered globular jars and tend to be of medium size. Most distinctive are rims decorated by notching on the inner edge of the lip, a trait that does not occur in the subsequent phases. Handles tend to be undecorated loops or narrow straps, their upper ends affixed directly to the lip top (Theler and Boszhardt 2003).

Pammel Creek Phase

By circa A.D. 1400, the major settlements at Trempealeau and on Brice Prairie ended, with the La Crosse Oneota populations congregating on the Onalaska and La Crosse terraces. At

the same time a subtle settlement shift was initiated away from the Mississippi floodplain margins and toward the bluffs. Coinciding with this shift were changes in lithic raw material preferences and ceramic styles. Pammel Creek phase lithic assemblages still include ubiquitous Oneota tool forms but no longer are dominated by orthoquartzite. Grand Meadow chert is very rare. Instead, local Prairie du Chien chert becomes the main material, despite being of generally poorer flaking quality. Pammel Creek phase ceramics are dominated by vessels with "bold" impressions on the top or, occasionally, the exterior edge of the lip. While finger ("bold") notching is also common on vessels of the Brice Prairie phase, it is distinguished from Pammel Creek phase notching by its placement on the interior edge of the lip rather than the top or exterior edge (Theler and Boszhardt 2003).

Valley View Phase

By about A.D. 1500, bold lip treatment was replaced by "finer" lip top (tool) notching, a shift that marks the transition from the Pammel Creek phase to the Valley View phase. The major ceramic types of this latter phase are Midway Incised, Allamakee Trailed, and Koshkonong Bold. Handles on the fine lip-notched varieties are usually wide straps, nearly always attached noticeably below the lip. Average rim height increases from preceding phases, and tool trails, like lip notches, are finer. Valley View lithic materials continue to emphasize local Prairie du Chien chert, with little change in the tool kits. However, Valley View phase assemblages also contain several protohistoric artifacts such as copper coils and rib rasps (Theler and Boszhardt 2003).

HISTORIC

By 1680 French explorers had mapped the Black River and the area that would come to be known as Prairie La Crosse. The French and British held claim to this region before and following the Revolutionary War when it was ceded to the United States. A band of Winnebago (Ho-Chunk) resettled from Green Bay and Baraboo to the La Crosse area, at least seasonally, from the late 1700s to the early part of the twentieth-century, and had documented camps at La Crosse in the early 1800s (Boszhardt 1989).

After the 1832 Black Hawk War, the United States pressured the La Crosse Winnebago to cede their lands north of the Wisconsin River in an 1837 treaty. Immediately thereafter, traders and speculators began establishing claims in advance of public survey and land sale (Boszhardt 1989). In the 1850s, La Crosse developed as an important Euro-American river town, becoming a major steamboat and railroad stop and the center of the areas burgeoning lumber trade (Hill and Conell 1992).

PREVIOUS INVESTIGATIONS

The Wisconsin Office of the State Archaeologist (OSA) maintains a database of all the known archaeological sites and surveyed areas reported in the state. The Wisconsin Historic Preservation Database (WHPD) is an internet-based interface which allows approved

archaeologists to access data on each site in the state. Utilizing the WHPD, a literature review of the project area was performed for DPC in 2013 for planning purposes – (Twinde-Javner 2013a). Previously recorded sites and surveys within one mile of the project area and two alternatives were compiled. Prior to the 2015 survey, the WHPD was again reviewed to see if any new sites or surveys were recorded within or near the project area. The following information regarding previous investigations/surveys and previously recorded sites is an excerpt from Twinde-Javner (2013a) with pertinent information updated as necessary.

Previous Surveys

There are a large number of sites reported in La Crosse County which is the result of several factors. The Great River Road survey conducted by the Museum Archaeology Program (MAP) at the Wisconsin Historical Society (WHS) in the early 1980's was conducted through a portion of La Crosse County, thus many sites were initially reported in the early 1980's through this survey. The Mississippi Valley Archaeology Center (MVAC) was founded in 1982, and the Regional Archaeology program established through the Wisconsin Historical Society began in 1984. Contract and research projects over the last three decades conducted by MVAC have recorded many sites in the region. As a regional center, MVAC archaeologists were contacted by and still maintain a large network of avocational archaeologists who report sites to the center. Also, several other contract and research firms have conducted projects in the county over the past few decades.

Since the La Crosse area has been surveyed extensively in the past, there are several previous surveys within one mile of the project (Table 2). Table 2 represents a list previous surveys, the year they were conducted, and the level of archaeological research. Information for some of the surveys is unknown, as information is not provided in the WHPD. Figures 5, 6, 7, and 8 show several of the previous survey areas highlighted in green on the maps. Portions of the Q-1 transmission line to the north and south of the current portion of the line were previously surveyed by MVAC in the past four years (Twinde-Javner and Straskowski 2011 and Twinde-Javner 2013b).

Table 2. Previous archaeological surveys within one mile of the project area.

SHSW#	Year	Investigation Type and Purpose
AA-0134	?	Unknown
AA-0325	?	Unknown
AA-0326	?	Unknown
LL-0306	?	Unknown
78-0162	1978, 1981	Phase I survey of Holmen Wastewater Treatment Facility and sewer lines
79-1271	1980	Phase I survey of a portion of Sand Lake Creek stream bank
79-6621	1979	La Crosse Area Archaeological Survey
80-6621	1980-82	La Crosse Area Archaeological Survey
81-0014	1981	Phase I survey along portions of CTH OS
82-0697	1983-85	Phase I and II investigations along CTH SN
83-0720	1983	Phase I survey of proposed road improvements in Onalaska Township
83-0802	?	Unknown
84-0238	1984-85	Phase I survey of the Krause Substation and Sand Lake transmission route
85-0126	1987-95	Phase I, II, and III investigations at the OT site and Tremaine Complex

85-0999	1985	Phase I survey of a proposed bridge replacement site in Medary Township
85-1071	?	Unknown
85-1108	1986	Phase I survey for the K-22 Transmission line and Mt. La Crosse Substation
86-1199	1987	Phase I survey of proposed I-90 connection in Medary Township
87-1071	?	Unknown
87-6603	1988	Phase I survey for of shorelines of Mississippi River Navigation Pools 6, 7, and 8
87-6604	?	Unknown
88-1299	1988	Phase I survey for proposed reconstruction of a portion of USH 53
88-5563	1988	Phase I survey of a proposed borrow pit for a project on Gillette Street
89-1046	1989, 1992	Phase I survey of the proposed Midvale Interceptor Sewer and Phase II excavations at the Tremaine site
89-1458	1989	Phase I survey of a proposed motor vehicle building
90-0816	1989	Phase I survey of three parcels in the Town of Holmen (the old post office, the new post office, and a proposed elderly housing unit)
90-1030	1990	Phase I survey of proposed Keil Coulee bridge reconstruction and relocation project
91-0223	1991	Phase I survey of a proposed city park in Onalaska
91-0361	1990, 1992	Phase I survey along STH 16 in La Crosse County, and Phase II investigations at 3 sites along STH 16
91-4401	1990-91	Summary of the 1990-91 Region 6 Archaeology Program
91-5506	?	Unknown
91-7704	1992	Phase II investigation at the Holley Street Site
95-0899	1994	Phase I and II investigations along Theatre Road, Onalaska
95-1569	1996, 1998	Phase I, II, and III investigations at the Elmwood Site
95-1605	1996	Phase I survey of the proposed Halfway Creek Marsh Enhancement project
95-5526	?	Unknown
96-0248	?	Unknown
97-0988	1997	Phase I survey for reconstruction of the CTH OT/STH 35 intersection
98-0507	1998	Phase I survey for reconstruction of portions of CTH B-STH 16 to Greenwood Road
98-0284	1997	Phase I survey of a portion of CTH S
98-1234	?	Unknown
99-1057	1999	Phase I survey of portions of CTH OT
00-1470	2000	Phase I survey of a proposed cell tower location in Onalaska Township
01-0243	2002	Phase I survey of 4 scrape areas in the La Crosse River floodplain for a wetland restoration program
01-0220	2000	Phase I survey of reconstruction of CTH SN – Main St to Sand Lake Road
01-1703	2001	Phase I survey of reconstruction of CTH PH – STH 157 to Braund Street
02-0401	2001	Phase I survey of North Kinney Coulee Road
02-0846	2002	Phase I survey of the proposed Merchants Bank in La Crosse County
02-1108	2002	Phase I survey of reconstruction of CTH SN/Sand Lake Road – Alpine Lane to Gaardner Road
05-0876	2005	Phase I survey for a proposed rip rapping project along the banks of the La Crosse River
06-0107	2011	Phase I survey for approximately 23 miles of the Q-1 transmission line
06-0230	2006	Phase I survey of a proposed cell tower in the City of Onalaska
06-0249	2005	Phase I survey along portions of STH 35, from Poplar Street to USH 53
06-7729	2006	Phase I survey for improvements at CTH XX and Briggs Road intersection
10-0707	2010	Phase I survey of proposed natural gas route (Tomah Branchline Anomaly project) in La Crosse County
12-0112	2011	Phase I survey along STH 157 at interchange bridges over I-90

14-1157	2015	Monitoring of soil borings within previously recorded burial sites 47LC19, 47LC95, and BLC141 and BLC142 for the Dairyland Power Cooperative Q1 Transmission Line Rebuild

Previously Recorded Sites

Many of the sites within and surrounding the project area have been impacted by urban development, industrialization, infrastructure (roads and utilies), farming, and general construction. The pertinent sites that overlap the project area are discussed in detail. According to the WHPD, there are seven previously recorded sites overlapping the project area, including three sites that are cemetery/burial sites. One additional site found by the University of Wisconsin - La Crosse field school in 2013 also overlaps the project area, but has not been recorded yet. Also, there is one cemetery/burial sites across a road from the project. Figures 5, 6, 7, and 8 show the locations of sites overlapping the project area.

Previously Recorded Sites Overlapping Project Area

BLC142, called Woodlawn North Cemetery, is located in Section 14 of Township 16 North, Range 7 West. This site is recorded as a Euro-American cemetery/burial and is located north of CTH B, just west of the existing Q-1 transmission line, and east of Eastbrook Drive. Gate of Heaven Cemetery is located immediately to the east (see Figure 8). BLC142 is considered an uncatalogued burial/cemetery.

47LC19/BLC1, called the Midway Village Complex, is located in Section 13 of Township 17 North, Range 8 West, and Section 18 of Township 17 North, Range 7 West. It is located west of USH 53, east of CTH XX, and north of Remus Road (Figure 5). This site is listed as an uncatalogued cemetery/burial, campsite/village, and mound(s) – other unk site affiliated with the Middle and Late Woodland and Oneota. Excavations at this site were undertaken in the 1920's, the 1960's and MVAC performed major excavations at this site in the 1980's. MVAC also performed some salvage excavations in 1994 and some additional survey work in the early 2000's (records on file, MVAC Archaeology Laboratory). Over the past thirty years, major excavations at portions of the site have discovered several burials and numerous cultural features. 47LC19 is currently listed on the National Register of Historic Places (NRHP).

47LC26, called Gensch, is located in Section 10 of Township 16 North, Range 7 West. 47LC26 is located north of CTH PH and east of Lester Avenue (see Figure 7). This prehistoric campsite/village was recorded in 1963 and overlaps the site boundaries of 47LC171. According to the WHPD, excavations performed in 1964 encountered features below the plow zone at 47LC26.

47LC27, called A. Pralle, is located in Section 10 in Township 16 North, Range 7 West. It is currently located in the Interstate 90 right of way (see Figure 7). This Oneota campsite/village was found during surface survey in 1963. According to WHPD, the site was located on top of a sandy knoll, within the Interstate 90 right of way and adjacent to the right of way of CTH OS. When discovered, the site consisted of a scatter of Oneota and Woodland habitation debris.

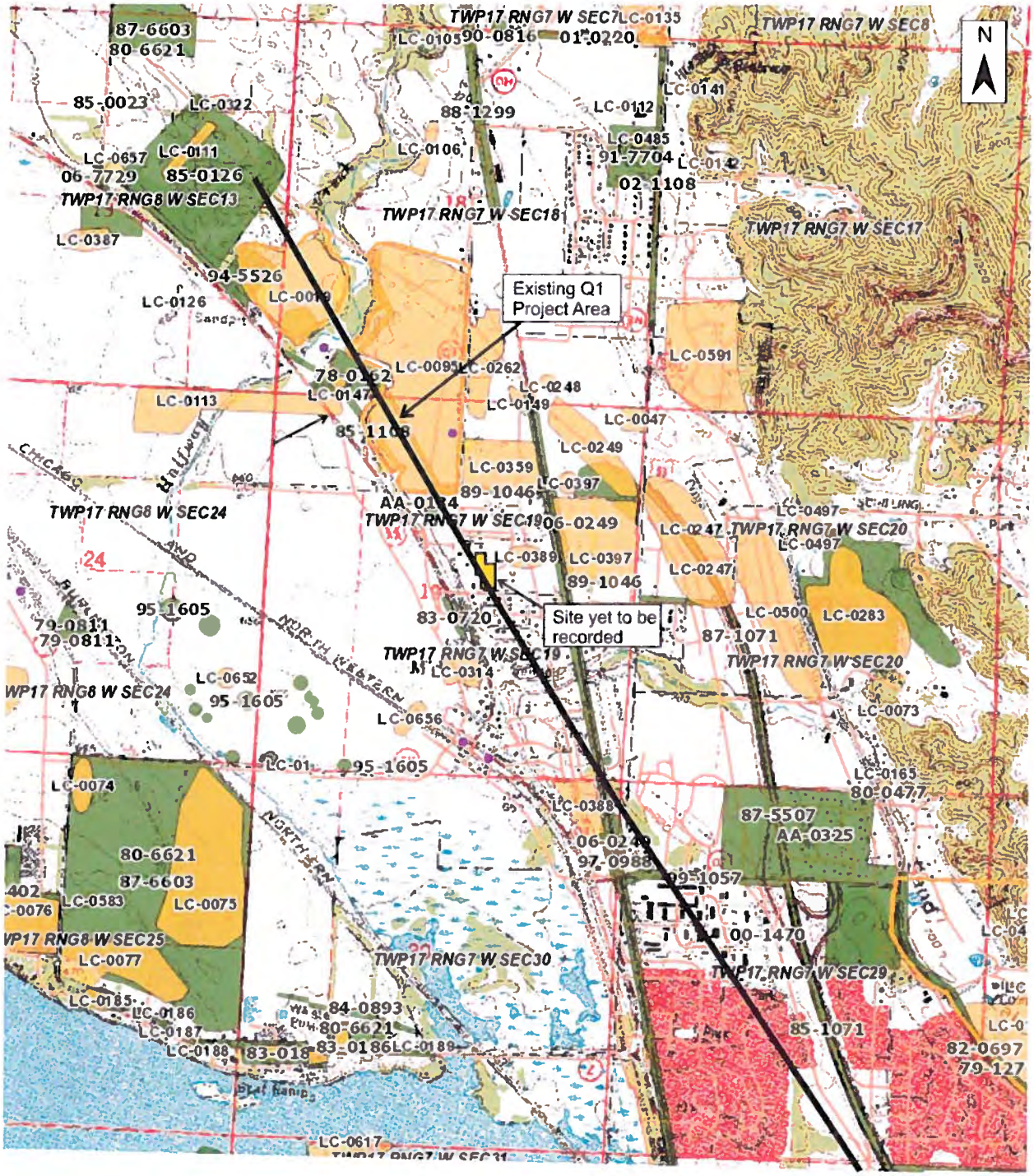

Figure 5. WHPD screenshot of northern portion of project area showing previously recorded sites and previous surveys in relationship to project area.

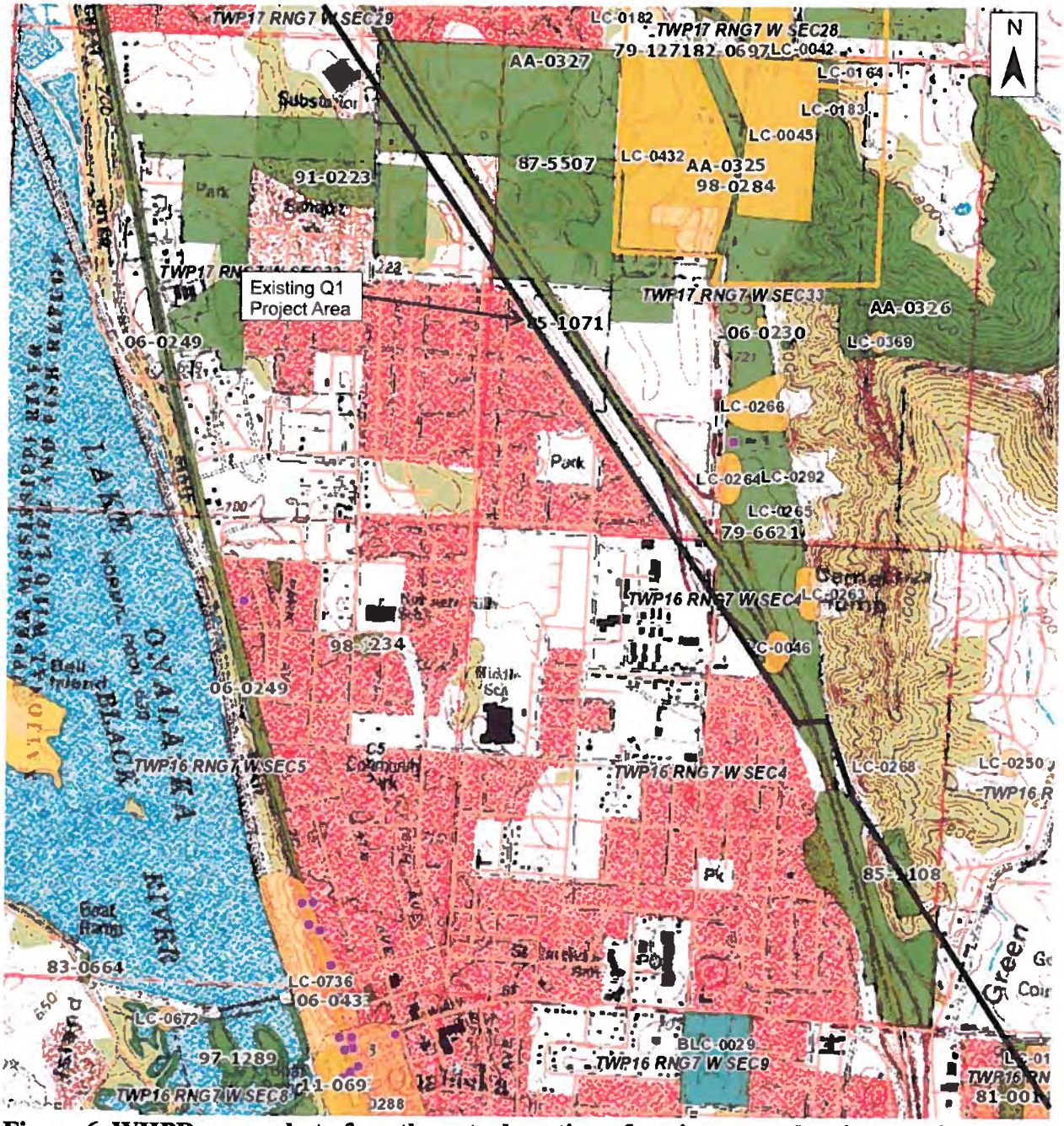

Figure 6. WHPD screenshot of north central portion of project area showing previously recorded sites and previous surveys in relationship to project area.

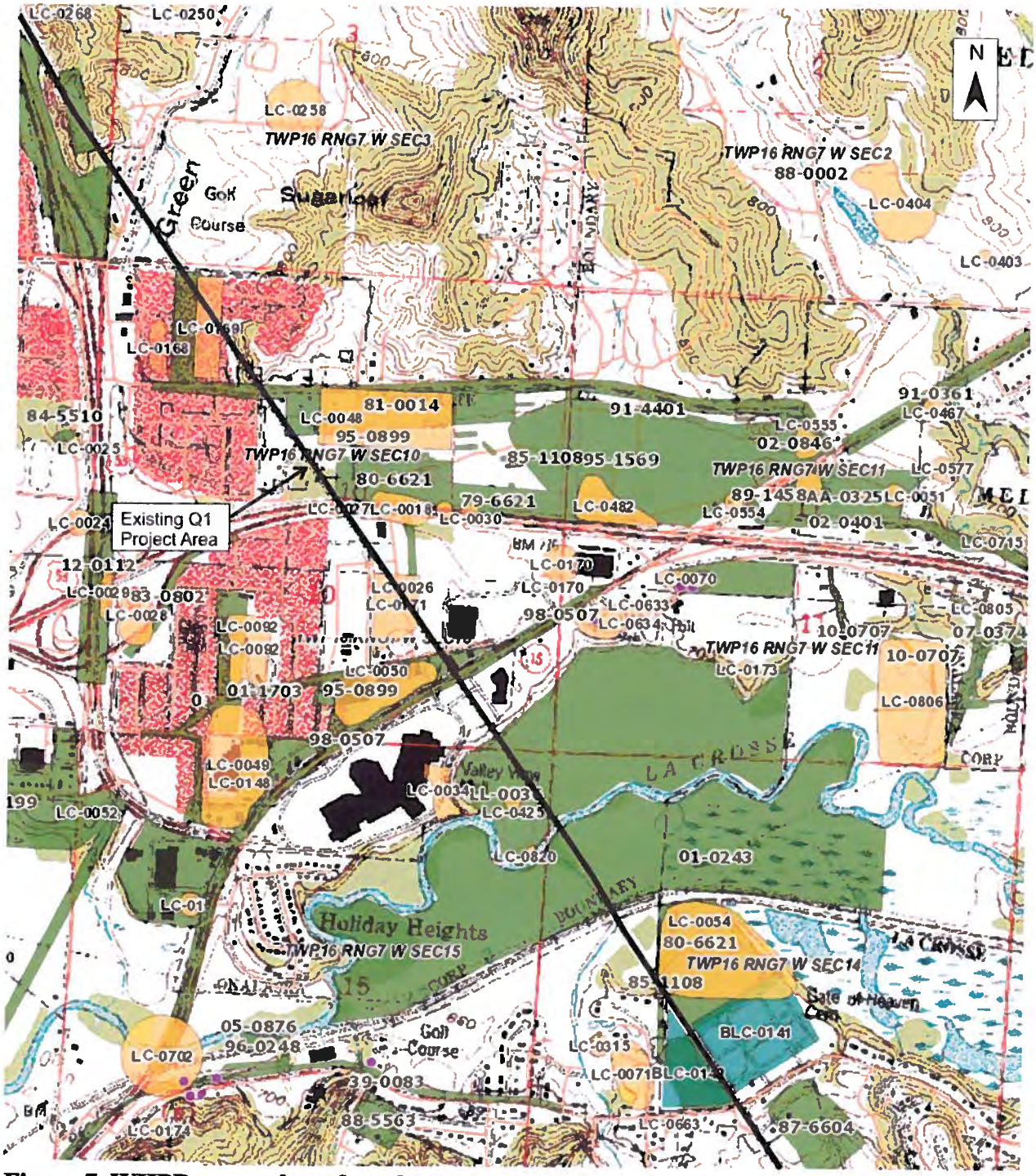

Figure 7. WHPD screenshot of south central portion of project area showing previously recorded sites and previous surveys in relationship to project area.

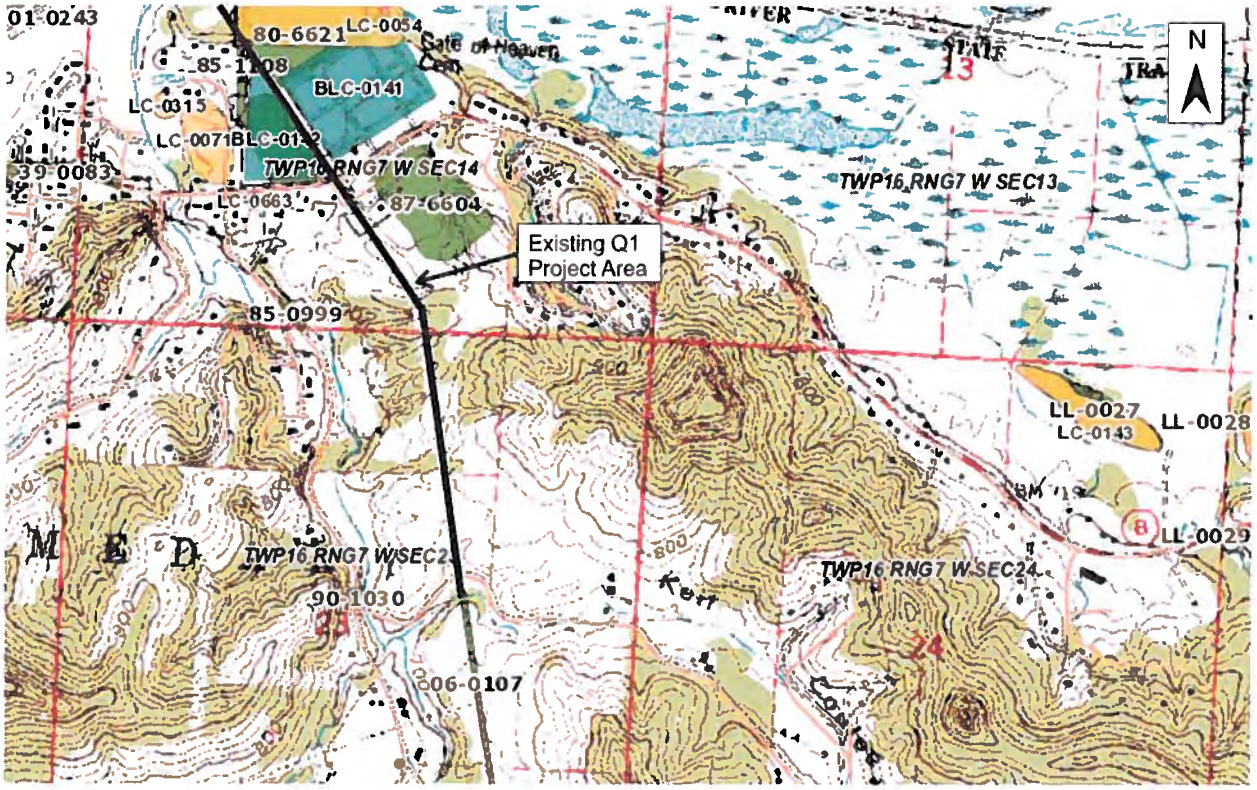

Figure 8. WHPD screenshot of southern portion of project area showing previously recorded sites and previous surveys in relationship to project area.

47LC54, called Gates of Heaven, is located in Section 14 of Township 16 North, Range 7 West (see Figure 7). This site is located north of CTH B in a field between two historic Euro-American cemeteries and railroad tracks. This site is recorded as a Middle and Late Woodland and Oneota campsite/village and was discovered in 1979/1980.

47LC95/BLC71, called Tremaine, is located in Sections 18 and 19 of Township 17 North, Range 7 West. It is located east of CTH XX, west of CTH OT/Filler Court, and both north and south of USH 53 (see Figure 5). This site is listed as a cemetery/burial and campsite/village definitely affiliated with the Middle and Late Woodland time periods and Oneota time period and probably the Late Paleoindian, Early Archaic, and Early Woodland time periods. This site was first recorded in 1981. Over the past three decades, major excavations have been performed at the site and have discovered several burials and hundreds of cultural features. Although some of the site was destroyed during the construction of USH 53, much remains intact both north and south of the road. A very small portion of this cemetery/burial is considered catalogued and the remaining portion is considered an uncatalogued burial/cemetery. 47LC95 is currently listed on the NRHP.

47LC169, called B. Pralle II, is located in Section 10 of Township 16 North, Range 7 West. 47LC169 is located east of USH 53 and north of County Road OS near the mouth of Green's Coulee (see Figure 7). This Oneota campsite/village was recorded in 1983. According to the WHPD, cultural material was recovered on each of several rises within the site area.

One additional site found in 2013 is located in Section 19 of Township 17 North, Range 7 West (see Figure 5). This site is located north of Meadow Court and east of Filler Court. This site was discovered by the University of Wisconsin – La Crosse archaeology field school in 2013 during shovel testing of a formerly plowed field, and has not yet been recorded with the Wisconsin Historical Society. This site is likely an Oneota campsite/village (Dr. David Anderson, personal communication 2013).

Sites Within One Mile of Project Area

Aside from the eight sites previously mentioned, there are an additional 157 previously recorded sites within one mile of the project (Table 3). These include historic Euro-American, historic Native American, and prehistoric cemeteries/burials, prehistoric earthworks and garden beds, prehistoric mounds, several Woodland and/or Oneota campsite/villages, prehistoric lithic scatters, historic Native American cache/pit/hearth and dance rings, and historic Euro-American quarries, historic material concentrations, cabins/homesteads, and dam/historic earthwork. Figures 5, 6, 7, and 8 show the locations of several of these sites in relationship to the project area.

Table 3. Previously recorded sites within one mile of the project area.

Site No.	Site Name	Site Type	Cultural Period/Affiliation	Township, Range, Section
BLC9	Hauser Private Cemetery	Cemetery/Burial	Historic Euro-American	16-7W-16
BLC29	Onalaska Cemetery	Cemetery/Burial	Historic Euro-American	16-7W-9
BLC141	Gate of Heaven Cemetery	Cemetery/Burial	Historic Euro-American	16-7W-14
LC18	Kramer	Campsite/Village	Late Woodland, Oneota	16-7W-10
LC24	Pertzsch	Campsite/Village	Oneota	16-7W-9
LC25	MVE Lutheran Church	Campsite/Village	Unknown Prehistoric	16-7W-9
LC26	Gensch	Campsite/Village		16-7W-10
LC27	A. Pralle	Campsite/Village	Oneota	16-7W-10
LC28	Gilster 1	Campsite/Village	Oneota	16-7W-10
LC29	Gilster 2	Campsite/Village	Unknown Prehistoric	16-7W-10
LC30	H. Pralle	Campsite/Village		16-7W-10
LC31	Hauser	Campsite/Village		16-7W-16
LC32	Collins	Campsite/Village	Unknown Prehistoric	16-7W-16
LC33	Urley	Campsite/Village	Unknown Prehistoric	16-7W-16
LC34/BLC73	Valley View	Campsite/Village, Enclosure/Earthworks, Corn Hills/Garden Beds	Archaic, Early/Middle/Late Woodland, Oneota, Historic Indian	16-7W-10, 15, 16
LC35	Jorstad	Campsite/Village	Woodland, Oneota	16-7W-10
LC41/BLC 65	Krause Site	Cemetery/Burial, Campsite/Village	Woodland, Oneota	17-7W-28
LC42	Iva	Campsite/Village	Late Woodland, Middle Mississippian	17-7W-28

LC43	Herbert	Campsite/Village		17-7W-28
LC44	Sand Lake	Campsite/Village, Corn hills/Garden beds	Oneota	17-7W-28
LC45	Lower Sand Lake	Campsite/Village	Early, Middle, and Late Woodland, Oneota, Middle Mississippian	17-7W-33
LC46	Hauser	Campsite/Village		16-7W-4
LC47	Cliff View	Campsite/Village	Oneota	17-7W-18
LC48	Dayton	Campsite/Village	Oneota	16-7W-10
LC49	Leon	Campsite/Village	Oneota	16-7W-15
LC50	Fireside	Campsite/Village		16-7W-10
LC51	Wimpy		Unknown Prehistoric	16-7W-11
LC52	Medary	Campsite/Village	Late Archaic, Woodland, Oneota	16-7W-15
LC53	Staubly	Campsite/Village	Middle and Late Woodland, Oneota	16-7W-16
LC69	Blue Heather	Lithic Scatter	Middle and Late Archaic	16-7W-11
LC70	Russel Pertzsch	Foundation/Depression, Campsite/Village	Unknown Prehistoric, Oneota, Historic Euro-American	16-7W-11
LC71	Gates of Heaven II	Lithic Scatter	Unknown Prehistoric	16-7W-14
LC73/BLC100	Pertzsch Mound	Mound(s)-Conical	Oneota	17-7W-20
LC88	Society	Campsite/Village	Unknown Prehistoric	17-7W-30
LC90	Dale	Campsite/Village		17-7W-30
LC92	Braund	Campsite/Village	Oneota	16-7W-10
LC105	Roger	Campsite/Village	Woodland	17-7W-18
LC106	David	Campsite/Village	Archaic, Middle Woodland	17-7W-18
LC111	Holmen Honey Wagon	Campsite/Village	Woodland, Oneota	17-8W-13
LC112	Suburbia	Campsite/Village		17-7W-18
LC113	Groovy Ol' Man	Campsite/Village	Unknown Prehistoric	17-7W-24
LC114	Trashed Penthouse	Campsite/Village	Unknown Prehistoric	17-8W-12
LC115		Campsite/Village	Unknown Prehistoric	17-7W-7
LC119	Stremcha	Campsite/Village	Oneota	17-8W-13
LC120	Dummer	Campsite/Village	Oneota	17-8W-11
LC126	Bob Marley	Campsite/Village	Woodland	17-8W-13
LC135/BLC139	Tenant's Rights	Campsite/Village, Cemetery/Burial	Late Woodland, Oneota	17-7W-7
LC137	No Holiday	Campsite/Village	Woodland, Oneota	16-7W-15
LC141	McCabe	Campsite/Village	Oneota	17-7W-7
LC142	Younger	Isolated Finds	Oneota	17-7W-7
LC143	La Fleur			16-7W-24
LC146	Palace	Campsite/Village	Unknown	16-7W-16
LC147	North Texas	Campsite/Village	Late Woodland, Oneota	17-7W-19
LC148	Dahl	Campsite/Village	Late Woodland	16-7W-15
LC149/BLC117	Filler Site	Cemetery/Burial, Campsite/Village	Oneota	17-7W-18, 19
LC156	Stanley Fantastic	Campsite/Village	Late Woodland	17-7W-33
LC158	Bird Bluff	Campsite/Village	Late Woodland	17-7W-28
LC159	Wald	Campsite/Village	Middle Woodland	16-7W-16
LC164	Northern Engraving	Campsite/Village	Oneota	17-7W-33

LC165	Thunderbird Hills	Campsite/Village		17-7W-20
LC166	Dunn	Campsite/Village	Late Woodland, Oneota	17-7W-28
LC167	Schaller	Campsite/Village	Oneota	17-7W-28
LC168	B. Pralle I	Campsite/Village	Woodland, Oneota	16-7W-10
LC170	B. Pralle III	Campsite/Village	Oneota	16-7W-10
LC171	B. Pralle IV	Campsite/Village	Oneota	16-7W-10
LC172	B. Pralle V	Campsite/Village	Oneota	16-7W-13
LC173	R. Pertzch	Campsite/Village	Oneota	16-7W-11
LC174	Buteo Rockshelter	Cave/Rockshelter	Oneota	16-7W-15
LC175/BLC101	Sand Lake Mounds	Mound(s) – Conical, Mound(s) – Other/Unk	Woodland	17-7W-28
LC177	Halfway Creek Delta	Corn Hills/Garden Beds, Isolated Finds	Oneota	17-7W-9
LC178	Rosebud II	Campsite/Village	Oneota, Woodland	17-7W-31
LC179	Rosebud I	Campsite/Village	Woodland	17-7W-31, 17-8W-36
LC182	Jackie Smith	Campsite/Village	Oneota	17-7W-28
LC183/BLC102	Northern Engraving Mounds	Mound(s) – Conical	Woodland	17-7W-33
LC189	Van Aelstyn	Campsite/Village	Oneota	17-7W-30
LC192	Krause Substation	Campsite/Village	Oneota	17-7W-28
LC193	Sand Lake Sandstone Lodge	Cabin/Homestead, Campsite/Village	Historic Euro-American, Oneota	17-7W-28
LC198	Krause Ridges	Corn Hills/Garden Beds	Oneota, Woodland	17-7W-28
LC247	The Gamroth Site	Campsite/Village	Archaic, Late Archaic, Early Woodland	17-7W-20
LC248		Campsite/Village		17-7W-18
LC249	You Kids	Campsite/Village	Oneota	17-7W-19
LC250	Schoenburger	Campsite/Village	Oneota	16-7W-3
LC258	Senn Site	Campsite/Village	Oneota	16-7W-3
LC262/BLC66	OT	Cemetery/Burial, Campsite/Village	Oneota	17-7W-18
LC263	Hauser VI	Campsite/Village	Late Woodland, Oneota	16-7W-4
LC264	Hauser V	Campsite/Village	Unknown Prehistoric	17-7W-33
LC265	Hauser IV	Campsite/Village	Unknown Prehistoric	17-7W-33
LC266	Hauser I	Campsite/Village	Oneota	17-7W-33
LC267	Hauser II	Campsite/Village	Unknown Prehistoric	17-7W-33
LC268/BLC103	Senn Mounds	Mound(s)-Other/Unk, Mound(s) - Conical	Woodland	16-7W-4
LC283/BLC99	Don Pertzsch	Cemetery/Burial, Campsite/Village	Middle Woodland, Oneota	17-7W-20
LC288/BLC104	Onalaska Village and Cemetery	Campsite/Village, Cemetery/Burial	Oneota	16-7W-8, 9
LC292	Hauser II	Campsite/Village	Unknown Prehistoric	17-7W-33
LC297	Bell Island	Campsite/Village	Woodland	16-7W-5,6
LC314	Town of Medary	Campsite/Village	Woodland, Oneota	17-7W-19
LC315	C. Viner	Campsite/Village	Early and Late Paleoindian	16-7W-14
LC318	McHugh Road	Campsite/Village	Middle Woodland, Late Archaic	17-8W-11
LC322	Unitrust	Campsite/Village	Unknown Prehistoric	17-8W-13

LC331	Blumentritt	Campsite/Village	Late Woodland	17-7W-31
LC359	Firesign	Campsite/Village	Oneota	17-7W-19
LC360/BLC62	Area G	Cemetery/Burial	Oneota, Unknown Prehistoric	17-7W-28
LC363	Sand Lake Hills C	Campsite/Village, Workshop Site	Oneota	17-7W-28
LC364	Sand Lake Hills B	Workshop Site, Campsite/Village	Oneota	17-7W-28
LC365	Sand Lake Hills A	Campsite/Village	Oneota	17-7W-28
LC369	William Hauser Quarry	Quarry	Historic Euro-American	17-7W-33
LC387	Halfway Creek Delta II	Campsite/Village	Unknown Prehistoric	17-8W-13
LC388	Wheel Rust	Campsite/Village	Oneota	17-7W-30
LC389	Surplus South	Campsite/Village	Unknown Prehistoric	17-7W-19
LC392	Korschgen II	Campsite/Village	Oneota	17-7W-28
LC397	Kloppenburg	Campsite/Village	Oneota	17-7W-19
LC398	Oak Forest	Campsite/Village	Unknown Prehistoric	16-7W-9
LC415	Rosebud North Farm	Cabin/Homestead, Farmstead	Historic Euro-American	17-7W-31
LC416	Rosebud Center Farm	Cabin/Homestead	Historic Euro-American	17-7W-31
LC419		HCM Concentration	Historic Euro-American	16-7W-16
LC420		Cabin/Homestead	Historic Euro-American	16-7W-16
LC421	Isolated Find	Isolated Finds	Unknown Prehistoric	16-7W-16
LC425/BLC77	Valley View Tombs	Cemetery/Burial	Historic Indian	16-7W-15
LC428	Holmen Industrial	Campsite/Village	Unknown Prehistoric	17-7W-7
LC432	New Road-Meier Farm Site	Campsite/village	Late Woodland, Oneota	17-7W-33
LC436	Grokowsky Site	Campsite/Village	Oneota	17-7W-7
LC437	Prairie Heights	Campsite/Village	Unknown Prehistoric	17-7W-18
LC440	Onalaska Library	Campsite/Village	Woodland	16-7W-9
LC444	Substation Site	Campsite/Village	Unknown Prehistoric	17-8W-12
LC445	FWS-21	HCM Concentration	Historic Euro-American	17-8W-12
LC467	Site #1	Campsite//village	Unknown Prehistoric	16-7W-11
LC473	Sand Lake Hills D	Campsite/Village	Oneota	17-7W-28
LC474	Sand Lake Hills E	Campsite/Village	Unknown Prehistoric	17-7W-28
LC475	Sand Lake Hills F	Campsite/Village	Unknown Prehistoric	17-7W-28
LC476	Duplicate of LC360			
LC482	Elmwood III	Campsite/Village	Oneota	16-7W-11
LC497	New Church Site	Isolated Finds	Unknown Prehistoric	17-7W-20
LC485	Holley Street	Campsite/Village	Oneota	17-7W-18
LC500	Weinkauf Site	Campsite/Village	Oneota	17-7W-20
LC532	Dust Devil	Campsite/Village	Woodland, Oneota	17-7W-7
LC533	Hang Tight	Workshop Site	Unknown Prehistoric	17-7W-7
LC553	Duplicate of LC262			
LC554	Motel Madness	Campsite/Village	Unknown Prehistoric	16-7W-11
LC555	Thistlerium	Campsite/Village	Unknown Prehistoric	16-7W-11
LC577	Moyer Site	Campsite/Village		16-7W-11
LC586	Sand Lake Hills Area H	Campsite/Village	Unknown Prehistoric	17-7W-28
LC617	Lively	Campsite/Village	Early and Middle Woodland, Late Archaic	17-7W-30

LC633	Sutter's Lawn and Garden	Lithic Scatter	Late Woodland, Unknown Prehistoric	16-7W-11
LC634	Fauver School Yard Fill	Redeposited Artifacts	Unknown Prehistoric	16-7W-11
LC652	Unnamed Isolated Find	Isolated Finds	Unknown Prehistoric	17-8W-24
LC656	Halfway Creek Delta III	Campsite/Village	Unknown Prehistoric	17-7W-19
LC657	Rider's Club	Campsite/Village	Middle Woodland, Woodland	17-8W-13
LC663	North Woods Isolated Find	Isolated Finds	Unknown Prehistoric	16-7W-14
LC702	Medary Ho-Chunk Village	Cache/pit/hearth	Historic Indian	16-7W-15
LC704	Aspen Valley	Campsite/Village	Late Prehistoric	16-7W-3
LC707	Humfeld Development	Campsite/Village	Late Woodland, Oneota	16-7W-3
LC715	North Kinney Coulee	Lithic Scatter	Unknown Prehistoric	16-7W-11
LC737	Kyo Site	Lithic Scatter	Unknown Prehistoric	17-7W-7
LC742	Sarazin Site	Campsite/Village	Unknown Prehistoric	17-8W-24
LC781	Brady Farm	Campsite/Village	Unknown Prehistoric	17-8W-13
LC801/BLC138	North La Crosse Dance Circle	Dance Ring, Enclosure/Earthwork, Mound(s)- Conical	Woodland, Oneota, Historic Indian	16-7W-16
LC805	Kinney Coulee Road Site	Lithic Scatter	Unknown Prehistoric	16-7W-11
LC806	Kinney Coulee Race Track	Dam/Historic Earthwork	Historic Euro-American	16-7W-11
LC820	Valley View East	Campsite/Village	Oneota, Unknown Historic	16-7W-15

METHDOLOGY

The field methods used during the project conform to those outlined by the *Guidelines for Public Archaeology in Wisconsin, as revised* (WAS 2012). One pole and one access road were located in plowed fields or garden areas with surface visibility greater than twenty-five percent, and these were pedestrian surveyed. The rest of the pole locations were located in residential lawns, grassy areas, wooded areas, or industrial areas. A few new access roads are proposed to be cut. Shovel tests for access roads to be cut were performed in 15 meter intervals with the exception of proposed access roads that overlapped previously recorded sites, in which the shovel tests were performed in 10 meter intervals. DPC had staked the pole locations prior to the archaeological survey, and aside from the few new access roads, the placing of the poles would be the only ground disturbance, therefore the pole locations only were shovel tested (Figures 9, 10, 11, and 12). All shovel tests were excavated into sterile subsoil, and all soil was screened through 1/4 inch mesh. If a positive shovel test was encountered, the shovel test was bracketed in 5 meter intervals in the four cardinal directions. Pole locations that were on steep slope, in wetland, or areas obviously disturbed by development or road construction were not surveyed. All field notes, artifacts, and other documentation will be stored at MVAC.

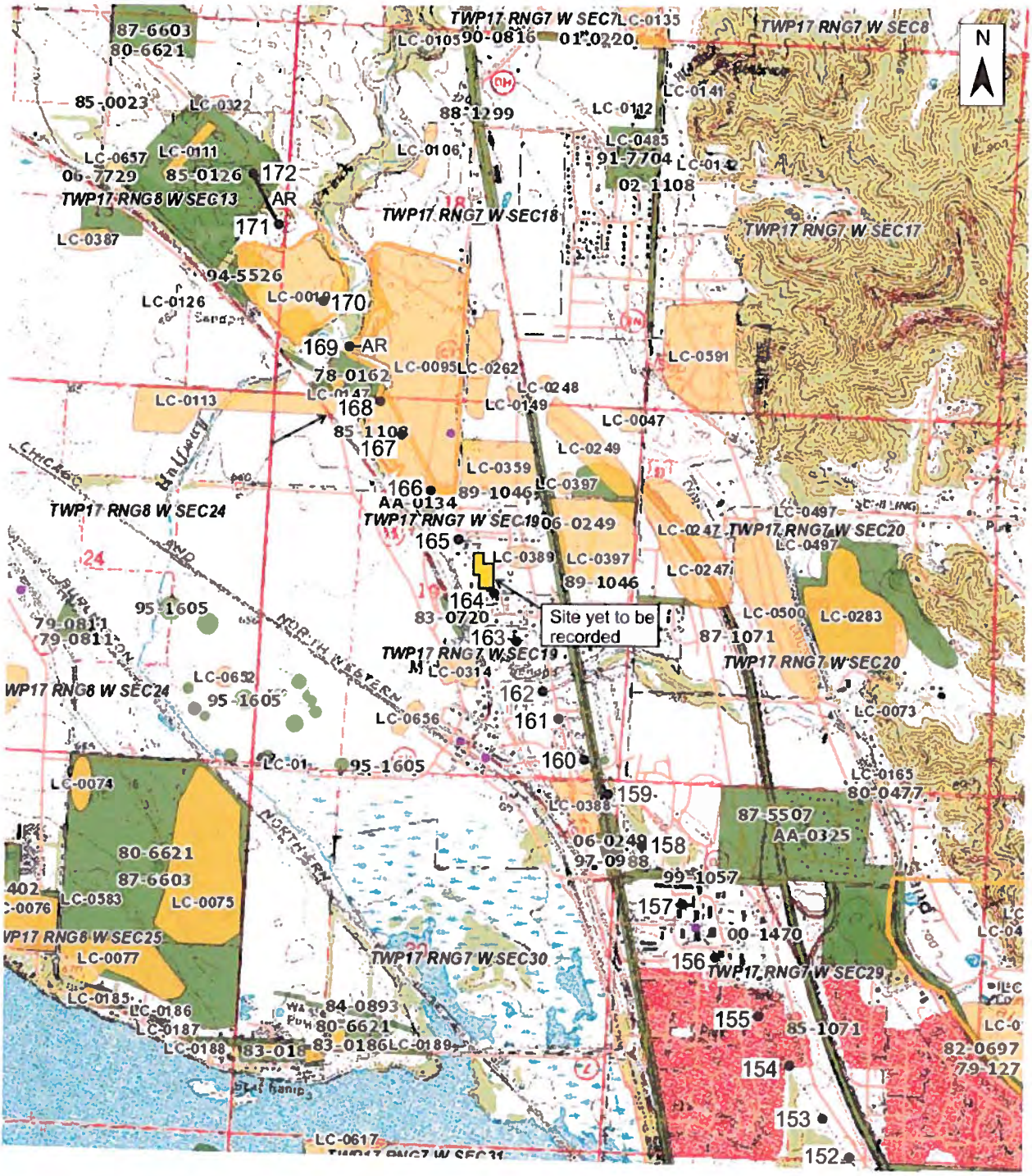

Figure 9. Surveyed pole locations in northern portion of project area represented by circles with pole structure number adjacent to it. Access roads surveyed represented by solid line with "AR" next to it.

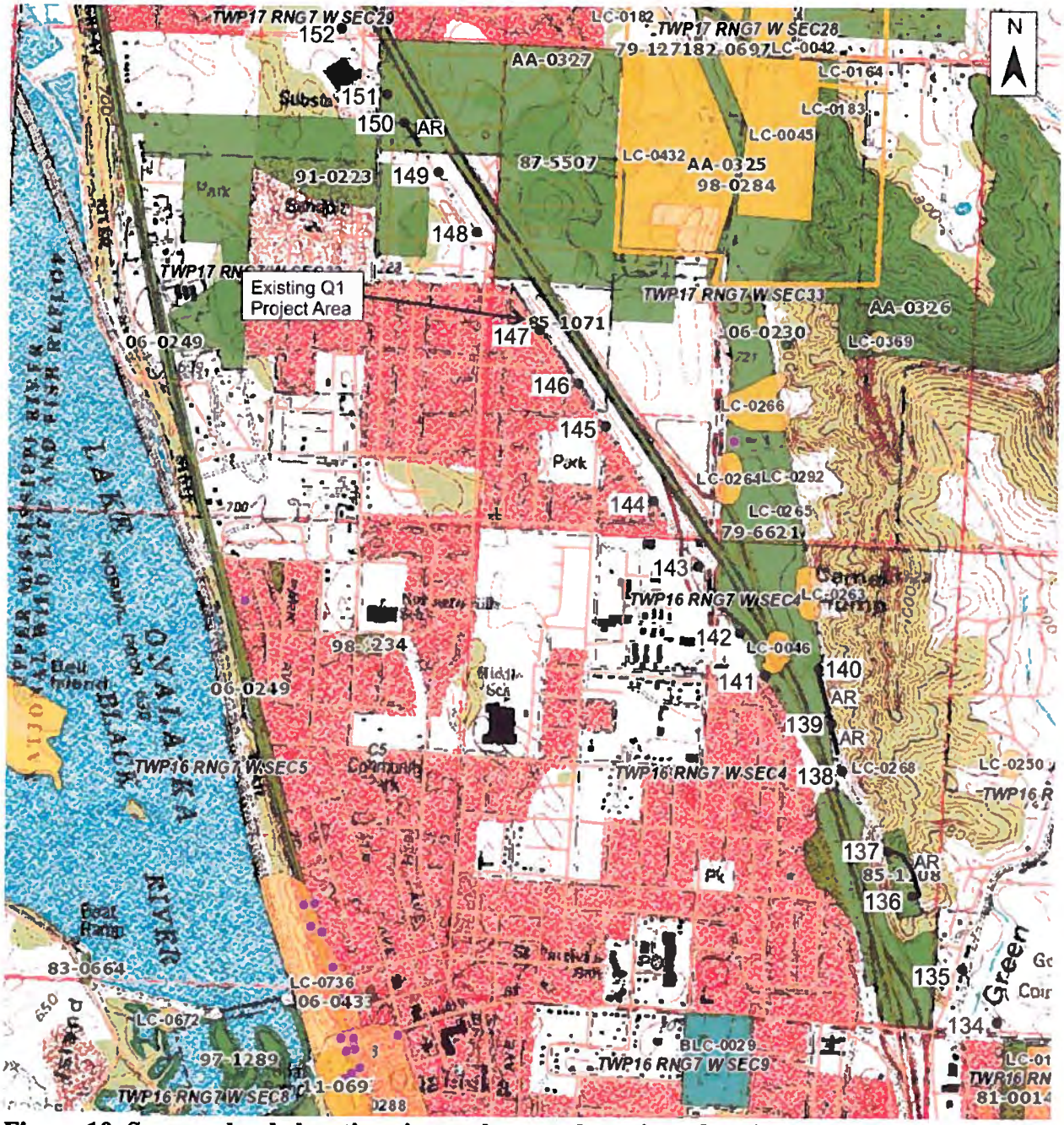

Figure 10. Surveyed pole locations in north central portion of project area represented by circles with pole structure number adjacent to it. Access roads surveyed represented by solid line with "AR" next to it.

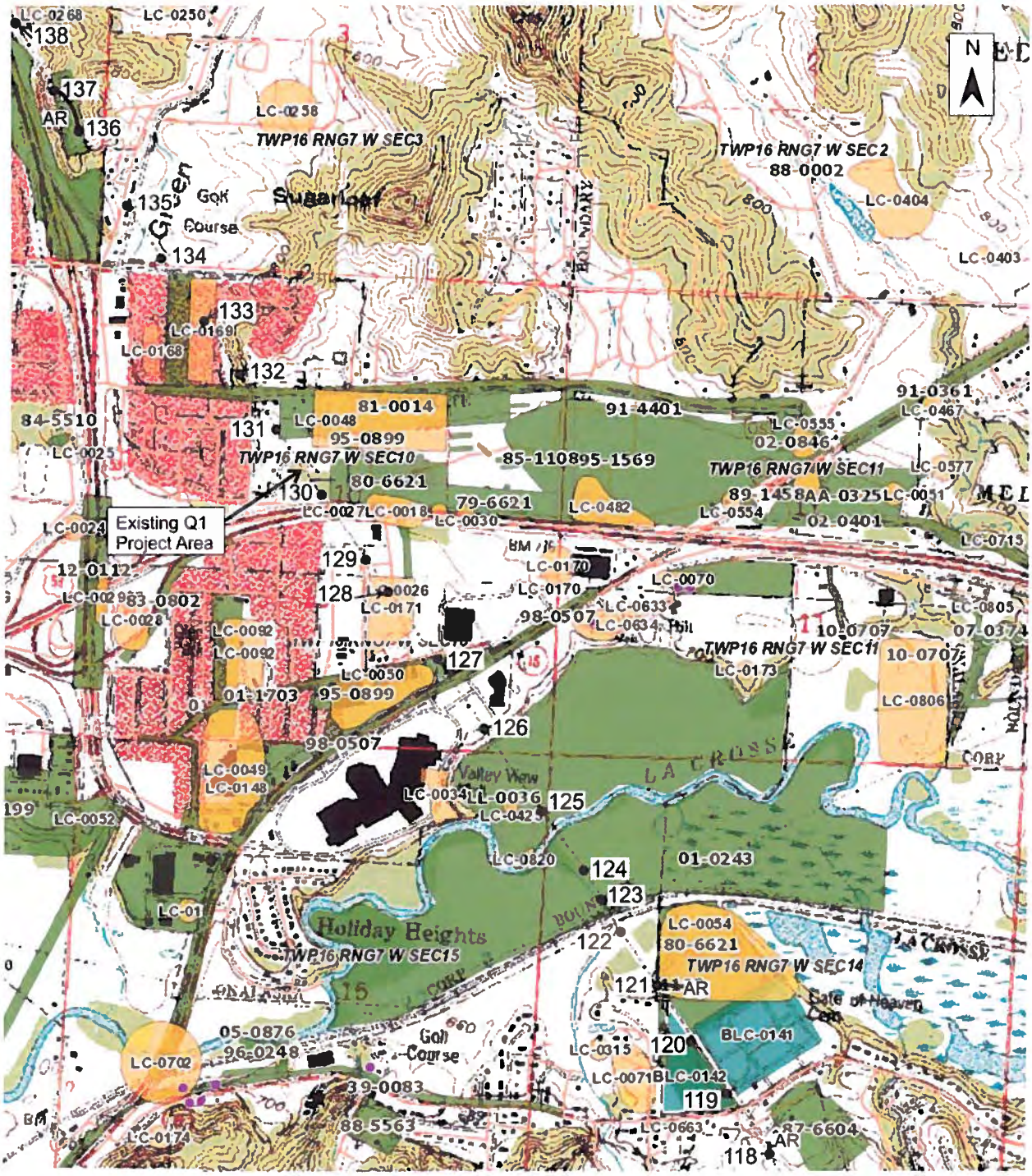

Figure 11. Surveyed pole locations in south central portion of project area represented by circles with pole structure number adjacent to it. Access roads surveyed represented by solid line with "AR" next to it.

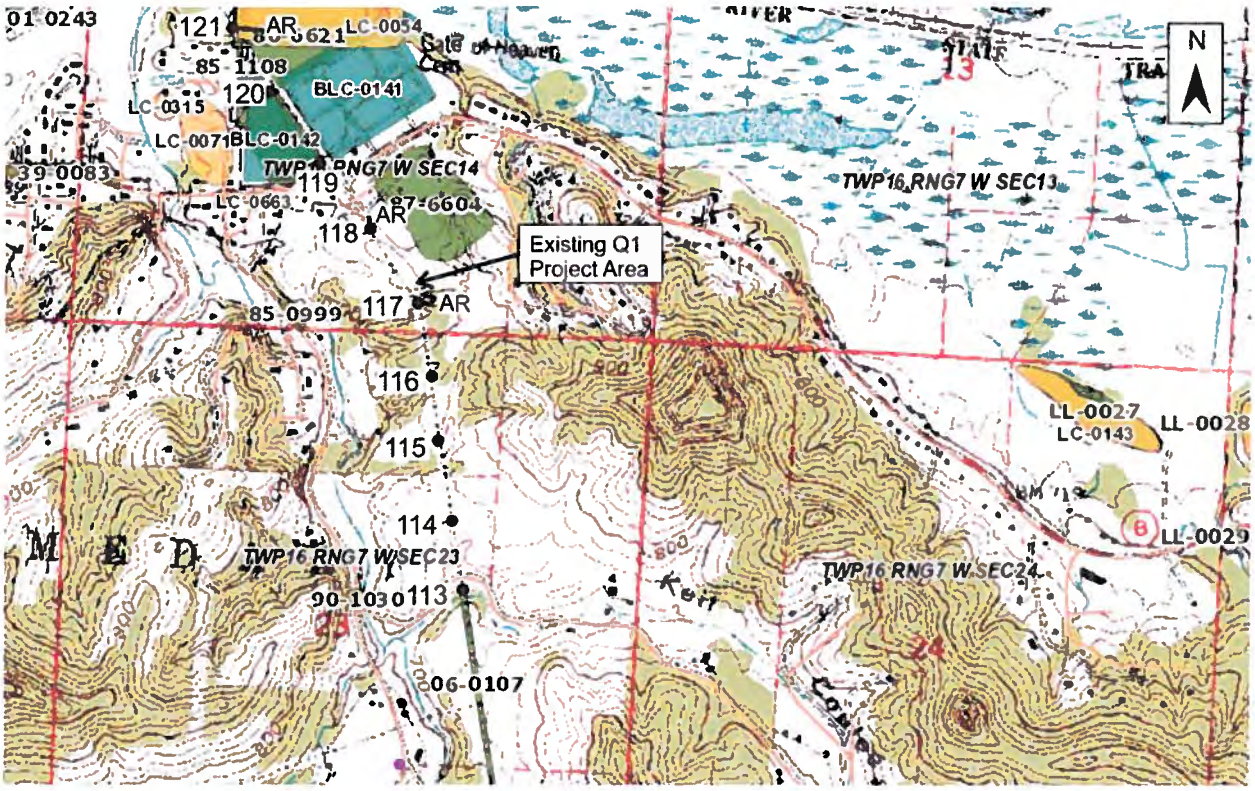

Figure 12. Surveyed pole locations in southern portion of project area represented by circles with pole structure number adjacent to it. Access roads surveyed represented by solid line with "AR" next to it.

RESULTS

The Phase I archaeological survey included the shovel testing at new proposed pole locations and for access roads and pads that may be cut for the placement of the poles. No new sites were discovered, but the following describes proposed project actions within the previously recorded sites that overlap the project area.

BLC142 – Woodlawn North Cemetery

BLC142, called Woodlawn North Cemetery, is considered an uncatalogued burial/cemetery. This site is located north of CTH B, and east of Eastbrook Drive (see Figure 12). An existing cemetery, BLC141, Gate of Heaven Cemetery is located just to the east of this site but across a road and outside the project area. The location of BLC142 is an open lot that has been plotted as a cemetery, but there are no headstones in this area (Figures 13 and 14) and it appears that no bodies have been interred up to this date in this site area. MVAC discussed this with the Catholic Diocese of La Crosse who owns this property, and confirmed that there have been no burials in this site area to this date and it is currently recorded as a cemetery for tax exempt purposes. However, at some point it will be used as a cemetery in the future, but the

Catholic Diocese was unsure when. Two poles locations overlap the site boundaries of BLC142 (pole structures 18 and 19). Pole structure 119 is actually immediately adjacent to a subdivision yard near the northern limits of the WHPD boundary limits of the site (Figure 13), while pole structure 120 is located near the southern end of the WHPD boundary limits of the site (Figure 14). Shovel testing at these pole locations showed typical soil development of topsoil between 20 and 28 centimeters over sterile subsoil. No cultural material or human remains were found.

Figure 13. View of pole 119 (stake in center of photo) in Woodlawn North Cemetery (BLC142) site boundaries (view facing northwest). Site boundaries of BLC142 is in vacant lot to left of transmission line in photo.

Figure 14. View of pole 120 (stake in center of photo) in Woodlawn North Cemetery (BLC142) site boundaries (view facing southeast). Site boundaries of BLC142 are in vacant lot to right of transmission line in photo.

47LC19/BLC1 – Midway Village Complex

47LC19/BLC1 is an uncatalogued burial and Late Woodland and Oneota campsite/village that has been listed on the NRHP since 1978. The site is located east of CTH XX and west of USH 53 and most of it is in a current sand mine that has been active for over 40 years. One Q-1 transmission line pole is located in the WHPD site boundaries of 47LC19/BLC1, pole structure 170 (see Figure 9). The pole is located next to an existing pole in the northeastern portion of the site near the edge of the existing sand quarry (Figure 15). An existing quarry access road will be used by DPC to access this pole location (Figures 16 and 17).

Photos and notes from salvage excavations of a portion of the Midway site undertaken by MVAC in late 1980's show that excavations were undertaken almost up to the existing pole location (Figure 18). From MVAC records of salvage excavations at the site in the 1980's, human remains were not found near the pole location, but farther to the south and southwest in the site area.

A portion of the existing access road that will be utilized to access the pole location by DPC is in a highly disturbed portion of the site area that comes in from CTH XX and heads east up a hill that has been cut (Figure 19). The access road then crosses the high terrace near the site area. Part of the existing access road is not within the WHPD limits of the site, while the remaining portion is within the site boundaries. MVAC excavations of a portion of this

Figure 15. View of proposed new pole structure location near existing transmission line structure (stake with orange flag to left of existing pole in photo). View facing west.

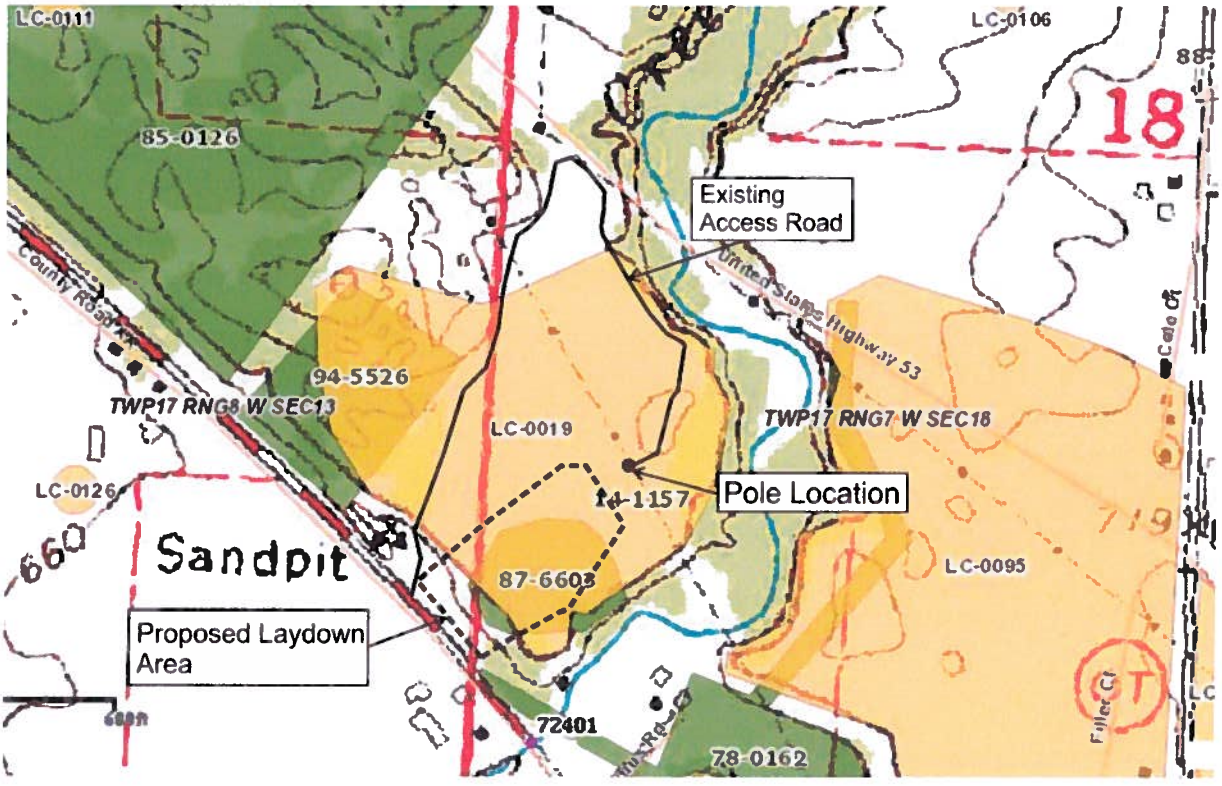

Figure 16. Proposed project actions shown on WHPD screenshot of LC19/BLC1.

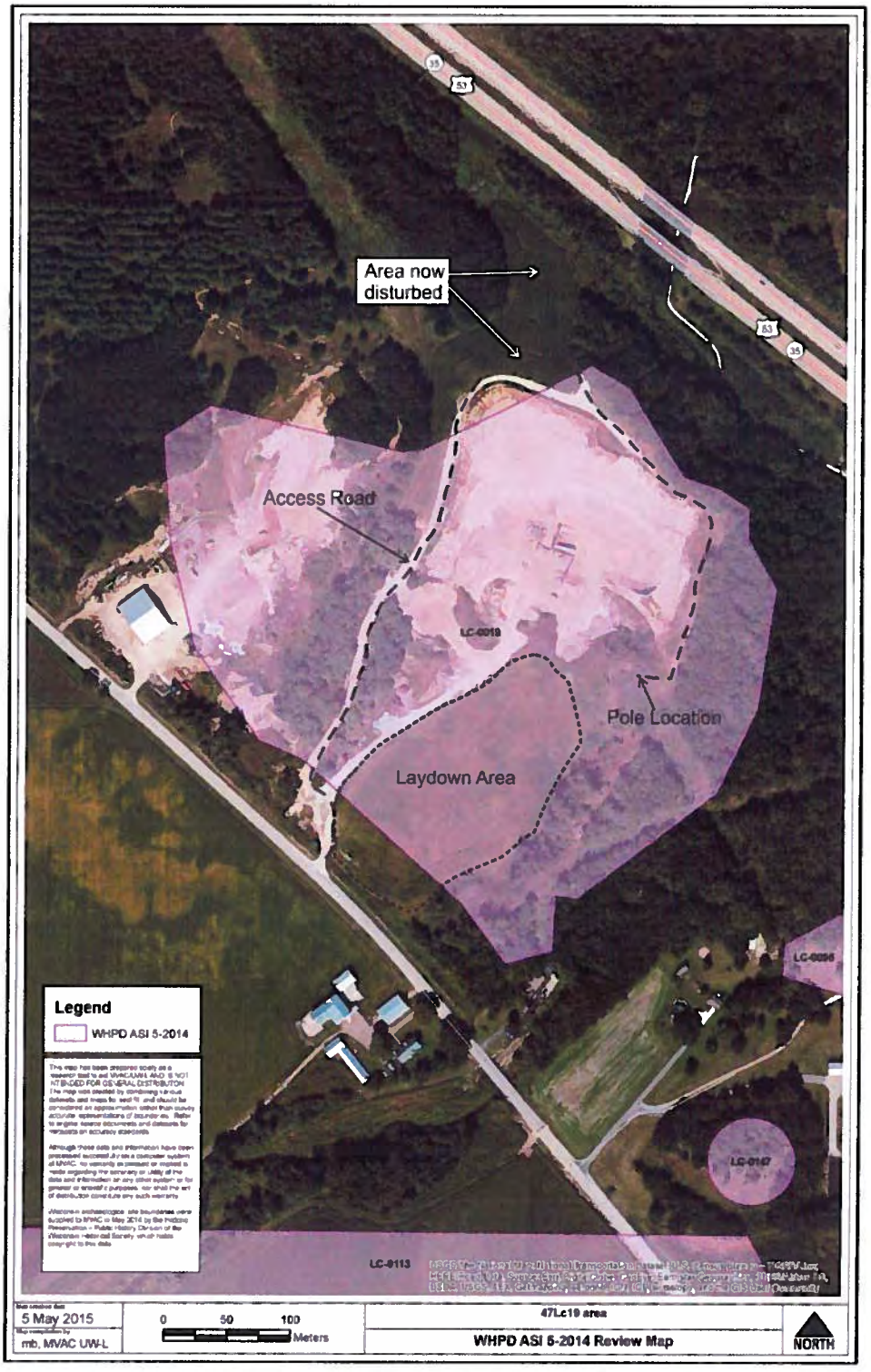

Figure 17. Aerial view of WHPD shape file (2015) of 47LC19 overlain on 2011 Google Earth aerial imagery.

Figure 18. Salvage operations at 47LC19 in 1988 showing existing Q-1 transmission line pole in far left corner of photo. Photo on file at MVAC Archaeology Lab.

Figure 19. Disturbed portion of access road heading up slope from CTH XX (view facing northeast). Note trees to right in photo are on a sloped and disturbed area and are recent growth.

higher terrace in the early to mid-2000's indicate that only a sparse amount of features were found on this higher terrace. These features had little cultural material and none contained human remains (Dr. Constance Arzigian, personal communication 2015). MVAC personnel walked the existing access road that DPC will use within the site limits since there was some surface exposure (approximately 30 to 50 percent), and no cultural material was seen on the surface (Figure 20). No ground disturbance for the existing access road will be necessary. The current plan is to construct when the ground is frozen, so utilizing this portion of the access road on the higher terrace will not have an adverse effect on the site. If construction plans change and access to this pole is needed when the ground is not frozen, DPC will place protective matting on the surface of the higher terrace within the site boundary. No matting would be needed in the completely disturbed portion of the access road closer. Given these precautions, use of this access road should not have an adverse effect on the site. Since this is a burial site, a qualified archaeologist will be monitoring placement of the pole, use of matting if the ground is not frozen will be confirmed. MVAC has already shovel tested at the pole location (essentially mitigating that location) and no cultural material or human remains were found. Therefore the placing of the pole in this same hole should not have an adverse effect on the site.

DPC is also proposing to use a portion of the site closest to CTH XX as a base of operations for the project and a laydown area to store materials (see Figures 16 and 17). This is near the entrance to the mining area in a semi-flat currently plowed field (Figure 21). The plowed field is just southeast of the entrance to the sand mine, and active mining operations are occurring to the north and east. A hill south of the field has obviously been cut, as has another hill to the east. To the north of the field are access roads and cut areas for the mining operation. Another hill behind the portion of the mine east of the plowed field was once a larger area that has been cut into, as confirmed by a 1973 topographic map that shows the elevation of the site area east of CTH XX as 700 feet above sea level (ASL), as opposed to 660 feet ASL on the opposite side of the road.

Aerial photos from the 1930s show the area as wooded, but the topography cannot be ascertained. However, aerial photos taken during MVAC's excavations at the site during the late 1980s clearly show most of the plowed field area as disturbed (Figures 22 and 23), and any remaining area close to CTH XX had some slope that is no longer there. Google Earth aerial photos from 1992 and 2011 also show that the plowed field was mostly disturbed in 1992 (Figure 24), with the plowed field established after that time. MVAC field notes indicate that during the mid-1990s, MVAC personnel visited what appears to have been the last intact location where the plowed field is now, and identified and excavated features before that area was mined out (records on file, MVAC Archaeology Laboratory).

MVAC performed pedestrian survey of this plowed field in April 2015 and noted a few flakes and small pieces of pottery on the surface, but it was obvious at that time that the area had been cut out by mining operations. To confirm this, MVAC personnel looked at MVAC excavation photos from the 1980s and historic and recent aerial photos, and also talked to the current landowner, the construction company doing the mining operations, and several other people who have knowledge of that area. Conversations with the owner of the mining company, a truck driver for the mining company, and the current landowner of the field and mine land indicated that until around the late 1960s and 1970s, the area of the current plowed field was as high as the surrounding land, and was cut for the mining operation. Information from current and

Figure 20. View of portion of access road on higher terrace of site – view facing northeast.

Figure 21. View of plowed field near CTH XX to be used as laydown area and base of operations – view facing east.

Figure 22. Aerial view of sand pit disturbance at the Midway site circa 1988 showing disturbance near CTH XX and "hump" of soil still close to CTH XX - view looking northwest. Photo on file at MVAC.

Figure 23. Aerial view of sand pit disturbance at the Midway site circa 1988 showing disturbance near CTH XX - view looking east. Photo on file at MVAC.

Figure 24. WHPD shape file (2015) of 47LC19/BLC1 overlain on Google Earth 1992 aerial photo showing disturbance in field area.

former MVAC staff (Katherine Stevenson and Robert "Ernie" Boszhardt, personal communication 2015) who worked at the site in the 1980s and 1990s also confirmed that the area of the current plowed field has been totally disturbed and removed. Based on all the documentation and photos it is clear that the entire area proposed for the laydown area has been disturbed. The few artifacts noted during the April 2015 survey were not in context and were likely dragged into that area over the years of mining. This laydown area will be used mostly over the winter in frozen ground conditions, but may be used in the early spring. However if construction plans change and this is used during non-frozen conditions, there should be no impact to intact cultural resources as that area has been completely disturbed in the past. Therefore, the use of this plowed field within the site area will not have an adverse effect on the site, because this portion of the site has been completely disturbed, as confirmed by MVAC records and aerial photographs. MVAC submitted documentation regarding this past disturbance to WHS to amend the existing burial permit to work within the site area, and the WHS concurred that this area has been completely disturbed (memo from Chip Brown regarding WHS #15-0177/LC) (Appendix 3).

47LC26 Gensch and 47LC171 B. Pralle II

47LC26 and 47LC171 are two overlapping prehistoric sites located north of CTH P along Theatre Road (see Figure 7). These sites are located in what now is a highly developed area of Onalaska. One pole location overlaps these two site boundaries. This pole location is located in a grassy lawn area to the west of Theatre Road and south of a gated parking lot. In this commercial area, there are several restaurants, stores, car lots, and other commercial businesses. There are multiple utilities surrounding this pole location (Figure 25). One shovel test was placed at this pole location and the soil showed obvious disturbance over sterile subsoil.

47LC27 – A. Pralle

47LC27 is a prehistoric campsite/village found during surface survey in 1993. It is currently located in the Interstate 90 right of way (see Figure 7). There is one pole location that will be replaced approximately 50 to 60 feet outside the site boundaries, but not within the site itself (Figure 26). No cultural material was found at the pole location near the site area. Based on the current condition of the site MVAC personnel observed during the current survey, this site was destroyed during construction of Interstate 90.

47LC46 – Hauser

47LC46 is a prehistoric/campsite village recorded as on a high sandy knoll (Gallagher 1980: 16). This site currently overlaps USH 53 (see Figure 6) and the WHPD indicates that subsequent surface surveys since the site was first recorded in 1980 indicate the site has been destroyed. One pole location barely overlaps the site boundaries at the site's southwestern side in a highly disturbed area behind a church parking lot (Figure 27). One shovel test was excavated at the pole location and no topsoil was evident.

Figure 25. Pole location (orange ribbon on wooden stake in center of photo) within 47LC26, Gensch, and 47LC171, B. Pralle II. View facing northwest.

Figure 26. Pole location (orange ribbon on wooden stake in foreground of photo) located south but outside of 47LC27, A. Pralle – view facing northwest. The site is located near the disturbed portion of I-90 where rubble is stacked in photo from recent construction.

Figure 27. Pole location (near two large grey poles in center of photo) located near edge of 47LC46, Hauser (view facing southeast).

47LC54 – Gates of Heaven

The Gates of Heaven site is located north of CTH B and north of the Gates of Heaven cemetery (see Figure 7). This prehistoric campsite/village was discovered during the La Crosse Area Archaeological Survey by the University of Wisconsin – La Crosse during the 1979 field season, but was not collected at that time but in 1980, a total of 149 artifacts were collected from the site (Gallagher et al. 1982: 114). One pole and a proposed access road to be cut measuring approximately 30 meters long overlap the very western edge of this site (see Figures 21 and 28). Shovel testing at the pole location and in 10 meter intervals within the access road and pad that will be cut to place the pole did not recover any artifacts. Shovel tests showed topsoil measuring between 25 and 35 centimeters. No evidence of 47LC54 was found. The other action that will be taking place within the site is a portion of the site will be used to store poles on the ground surface until they are utilized for construction in the immediate area. There is no planned ground disturbance for this pole storage, therefore, this should not have an effect on the site.

47LC95/BLC71 – Tremaine

47LC95/BLC71 is a burial site and predominately Oneota campsite/village located east of CTH XX, west of CTH OT/Filler Court, and both north and south of USH 53 (see Figure 5). It is located on a sandy outwash terrace above the Onalaska trough (Gallagher et al. 1992). Most the site is considered an uncatalogued burial site, however, a small portion of the site is considered catalogued. The human remains that are catalogued are located between a quarter to a

Figure 28. View of Q-1 pole (pole on right in photo) located in 47LC54, Gates of Heaven site. Grassy area in foreground of photo is where access road was shovel tested up to pole. View facing west.

half mile away from the current project area on the eastern side of USH 53 (Figure 29). The Q-1 transmission line project area is entirely located in the uncatalogued portion of the site. A total of four pole locations overlap the WHPD Tremaine site boundary. Three poles are at the edges or within of currently plowed fields, and one pole is located on a separate terrace from the plowed fields, just to the northwest of the Village of Holmen wastewater treatment plant.

The Tremaine site was first recorded in 1906 by Charles E. Brown, but it was not until the 1981 Great River Road Archaeological Survey (Penman 1984) that it was officially registered in the Wisconsin Archaeological Codification Files. This site was listed on the National Register of Historic Places in 1986 as part of the Midway Archaeological District. Major excavations have been carried out at this site area including mitigation of a portion of the site for the construction of USH 53 by the Museum Archaeology Program (MAP) at the Wisconsin Historical Society. Between 1987 to 1991, a total of 963 features were excavated including 92 burials and 7 longhouses (O'Gorman 1995: 3). Since 2011, the University of Wisconsin-La Crosse's Archaeological Studies program has been running a yearly field school in a formerly plowed field west of USH 53 and over 200 features including at least six human burials have been discovered (personal communication, Dr. David Anderson 2014 and 2015). More pertinent to the existing project area are the previous excavations performed for the Midvale Interceptor project for a sewer line for the Village of Holmen performed by MVAC in 1990. This interceptor corridor was approximately 100 feet wide by 1500 feet long. Within this area, 341 features were identified and 63 of the features were either wholly or partially excavated. Excavation priorities were given to those oblong or oval features suggestive of

Figure 29. Q-1 pole locations and proposed access road in uncatalogued portion of Tremaine (47LC95/BLC71) in relationship to catalogued portion of Tremaine.

possible human burial pits, but none were recovered (Gallagher et al. 1992: 7 and 10). Gallagher noted that the lack of human remains in the features that were tested was surprising, especially since several were found during MAPs' excavations of a portion of the site happening at the same time in the USH 53 corridor (Gallagher et al. 1992: 10).

Structures 166, 167, and 168 are located in two immediately adjacent plowed fields north of a current subdivision and west of Fuller Court near the former Midvale Interceptor excavations (see Figure 29). Monitoring of soil borings at these soil borings in January 2015 did not find any cultural material or human remains (Twinde-Javner 2015) (Appendix 1). In 2015, MVAC personnel discussed the exact location of the interceptor line in relationship to the DPC powerline with Village of Holmen wastewater manager, and he indicated that it was 50 feet east of the existing DPC Q1 powerline in the plowed fields. Pole structures 166 and 168 are located at the very southern and northern end of the fields respectively (Figures 30 and 31). The existing and new proposed structures are located in grassy areas immediately adjacent to the plowed field. Shovel tests at these pole locations exhibited a topsoil ranging from 19 to 28 centimeters. No cultural material or human remains were found. A 1938 historic aerial photo showed that subdivision south of structure 166 was a plowed field at that time. Pole structure 167 is located near the center of the fields where there is a thin line of weeds barely separating the two fields. Shovel testing at this structure location exhibited a topsoil measuring approximately 23 centimeters. No cultural material or human remains were found in the shovel test. To access these poles, the heavy equipment will drive under the existing line in the plowed field between the poles. MVAC personnel walked over this access route in April 2015. The southern half of the fields had approximately 30 percent surface visibility and the northern half had approximately 90 percent surface visibility. In the northern half of the fields, a few pieces of lithic waste material and few small pieces of pottery were noted on the surface of the plowed field, near where the heavy equipment will drive. However, the current plan is that these poles will be accessed during frozen ground conditions which should have not impact to the site, but if construction schedules change and the poles need to be accessed during non-frozen ground conditions, DPC will place mats on the ground surface of the portions of the field where heavy equipment will drive on. Also, mats will be used to build pads for heavy equipment to park and balance during pole placement if it is during non-frozen ground conditions. Since MVAC has already shovel tested at the pole locations (essentially mitigating them) and found nothing and steps are in place to not impact the access areas, there should be no adverse effect to the site. Since a qualified archaeologist will be monitoring placement of these three poles since the site is a burial site, use of matting if the ground is not frozen will be confirmed.

Structure 169 is located in a wooded area northwest of the existing Village of Holmen wastewater treatment facility on a separate terrace from the other three poles in the site location (see Figure 29). This structure is located on a slope and monitoring of a soil boring near this structure in January of 2015 showed no topsoil was present near the structure (Twinde-Javner 2015) (Appendix 1). To access this pole, originally the plan was that an existing gravel trail will be used for most of the way, and then an access road approximately 5 meters wide by approximately 55 meters long would be cut towards the pole location. Since the pole is currently on slope, to have a safe area to park the heavy equipment to avoid injury to workers, a "pad" area surrounding the pole was also planned to be cut and filled to make a flat surface for the heavy equipment. An area 25 meters east to west by approximately 5 to 7 meters north to south was proposed to be cut on the north side the pole location. This topsoil was then going to be used to

Figure 30. View of pole structure number 167 (foreground of photo) and pole structure number 166 (background of photo at edge of alfalfa field). View facing southeast. New structures will be placed immediately adjacent to existing structures.

Figure 31. View of pole structure number 168 at plowed field and terrace edge. View facing northwest. New pole structure will be immediately adjacent to existing structure.

"fill" in some of the area below the pole location on the downward slope to make a level surface to place the heavy equipment.

The immediate areas surrounding the structure exhibited some previous disturbance, and a shovel test at the structure location in May 2015 exhibited no remaining topsoil. The proposed access road to be cut was shovel tested in 10 meters intervals (Figure 32) and no cultural material was discovered. In the area immediately north of the structure (approximately 5 meters north of the structure) where the soil was proposed to be cut to make a pad, a positive shovel test was encountered at the edge of the terrace before the terrain drops down into a ravine to the north (Figure 33). This positive shovel test was bracketed in 5 meter intervals and in total 6 positive shovel tests (measuring 30 meters) (Figure 34) were encountered at the edge of the terrace and one positive shovel test was encountered on the slope where the pad may be cut. Lithic debitage and shell tempered pottery were discovered in these shovel tests (Table 4), but no obvious feature fill or human remains were encountered. The location of these positive shovel tests is interesting, as there is only about a 5 foot wide area of actual semi-flat terrain, and it slopes to either side. It is unknown if this would have been the original terrain during the time of prehistoric occupation.

Table 4. Artifacts recovered at 47LC95/BLC71 in proposed pad area in pole 169.

Provenience	Artifact Category	Material Type	Amount	Comments
STP 1	Tertiary Flake	Silicified Sandstone	5	3 < 1/4"
	Tertiary Flake	Prairie du Chien Chert	1	
STP 1 + 10m West	Tertiary Flake	Silicified Sandstone	2	
	Tertiary Flake	Prairie du Chien Chert	2	
STP 1 + 5m West	Tertiary Flake	Prairie du Chien Chert	2	
STP 1 + 5m East	Modified Flake	Prairie du Chien Chert	1	Retouched
	Tertiary Flake	Silicified Sandstone	3	
	Chunk / Shatter	Chert	1	
STP 1 + 10m East	Secondary Flake	Silicified Sandstone	1	
	Tertiary Flake	Silicified Sandstone	8	
	Tertiary Flake	Prairie du Chien Chert	1	
	Tertiary Flake	Chert	1	
	Chunk / Shatter	Silicified Sandstone	1	Rounded edges
	Burned Rock		88.2g	
	Undecorated Body Sherds	Shell Tempered	30	
STP 1 + 15m East	Tertiary Flake	Silicified Sandstone	1	
STP 1 + 10m East & 5m South	Modified Flake	Prairie du Chien Chert	1	Retouched
	Secondary Flake	Silicified Sandstone	1	
	Tertiary Flake	Silicified Sandstone	1	
	Burned Rock		1.6g	

MVAC discussed options with the DPC regarding this location to see if the area where the positive shovel tests were encountered could be avoided. MVAC personnel met the DPC at this structure location in June 2015 and two different alternatives were explored for a new pole

Figure 32. Shovel testing in proposed cut access road in Tremaine (47LC95/BLC71) (view facing north west).

Figure 33. View of pole location (orange painted stake) near existing pole location and flat area at top of terrace where positive shovel tests were encountered at Tremaine (47LC95/BLC71).

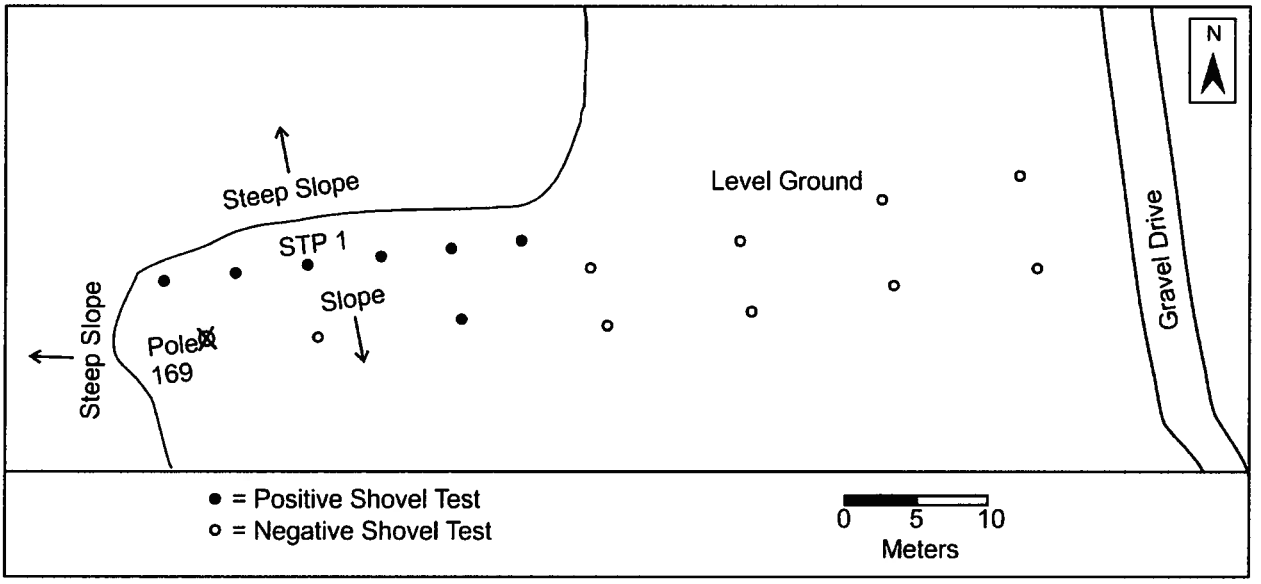

Figure 34. Sketch map of positive shovel tests near pole 169 in Tremaine site. Pole 169 is one meter northwest of the existing pole structure.

location, measuring 20 and 30 feet downslope from the original proposed pole location. These locations were shovel tested along with two shovel tests for a potentially changed location of the access road. All of this was on slope, but still within the site location. One lithic was found within each alternative pole location, but they may have eroded into that area. Two very small pieces of shell tempered pottery were found in one shovel test for the alternate access road. Options were discussed to avoid impact to the area, and consequently DPC has changed their construction plans. The original pole location where there was no topsoil will be used. Since MVAC has already placed a shovel test in the exact pole location and found no cultural material and no topsoil, the placement of the transmission pole in that same hole should not have an adverse effect on the site. The access road will not be cut, but will be matted instead. Trees along the access road will be hand cut down to the ground, and the roots will remain intact and then matting placed on the ground surface. The pad surrounding the pole will be built with mats, and possibly some timber on the mats, to create a safe place for the heavy equipment to park. DPC has indicated that this matting would be used in either frozen or non-frozen ground conditions. Since a qualified archaeologist will be monitoring placement of this pole since the site is a burial site, use of matting if the ground is not frozen will be confirmed.

47LC169 – B. Pralle II

This Oneota campsite was first recorded in 1983. It was described as being on colluvial soils at the base of the bluffs forming the eastern boundary of the mouth of Green Coulee (Boszhardt and Sasso 1983: 10) (see Figure 7). Currently, this location is in a highly developed area of Onalaska. One pole location is located within this site boundary, in a residential lawn of a subdivision near the edge of a park (Figure 35). One shovel test placed at the pole location exhibited fill over disturbed soil into sterile subsoil.

Figure 35. View of new pole location (stake with orange flag to left of house in photo) in 47LC169, B. Pralle II. View facing northwest.

Unrecorded Site

One pole location is located immediately adjacent to the southern end of an unrecorded Oneota site found by the UW-La Crosse field school in 2013, located north of Meadow Court and east of Filler Court (see Figure 5). The pole location was located at the edge of a fallow field immediately adjacent to an existing access road and some underground utilities. (Figure 36). One shovel test placed at this pole location exhibited fill over sterile subsoil, and no cultural material was discovered.

Figure 36. View of new pole location (stake with orange flagging in foreground of photo) within unrecorded site located north of Meadow Court and east of Filler Court. View facing northwest).

SUMMARY AND RECOMMENDATIONS

In April, May, and June 2015, the Mississippi Valley Archaeology Center performed a Phase I archaeological survey of approximately nine miles of a portion of the Dairyland Power Cooperative Q-1 transmission line rebuild. Since the pole locations were staked prior to the survey, pole locations only were surveyed along with any new access roads where ground disturbance is proposed. The project passes through several previously recorded sites including two sites that are uncatalogued burial sites and are also currently on the National Register of Historic Places, the Tremaine site (47LC95/BLC71) and the Midway Village Complex (47LC19/BLC1).

At the Tremaine site (47LC95/BLC71), four new poles will be placed in the uncatalogued burial portion of the site. Originally a proposed access road and pad around one pole were proposed to be cut near one pole near the Village of Holmen wastewater treatment plant. However, since artifacts were discovered within the pad location, construction plans have been altered and ground disturbance for the proposed access road and pad have been eliminated to avoid an adverse effect to the site. Matting will be used to access the pole location and to build a pad around this pole during non-frozen and frozen ground conditions. The other three poles within the Tremaine site boundary are located in two adjacent plowed fields. The current plan is to construct during frozen ground conditions, so driving heavy equipment over these plowed fields should not have an adverse effect to the site. However, if construction plans change and the poles will be placed during non-frozen ground conditions, mats will be placed on the fields'

ground surface for heavy equipment to drive one. Since this site is a burial site, due to state statute 157.70, it is recommended that monitoring of the pole placements in this site take place during construction, and therefore this matting can be confirmed if the construction takes place in non-frozen ground conditions. MVAC has already mitigated the pole locations at the Tremaine site through shovel testing, therefore placing the poles in the same holes should not have an adverse effect to the site.

At the Midway Village Complex, one new pole will be placed within the site boundaries. Shovel testing did not find any cultural material or human remains at this pole location. An existing access road that is partially disturbed will be used to access the pole. Since the current plan is to place this pole during frozen ground conditions, heavy equipment driving over the undisturbed portion of the access road that overlaps the site boundaries should not have an adverse effect on the site. If construction plans change and the pole needs to be accessed during non-frozen ground conditions, DPC will place matting on the ground surface within the site area in the undisturbed portion of the access road to drive heavy equipment on. Since this site is a burial site, due to state statute 157.70, it is recommended that monitoring of the pole placement in this site take place during construction, and therefore this matting can be confirmed if the construction takes place in non-frozen ground conditions. MVAC has already mitigated the pole location at the Midway site, therefore placing the pole in the same hole should not have an adverse effect to the site. A disturbed portion of the site will be used for the base of operations for the project and laydown yard to poles and heavy equipment. However, since this area has been confirmed to be completely disturbed and there is no potential for intact cultural deposits or burials, this should not have an adverse effect on the site.

Two pole locations are located within uncatalogued burial site BLC142, called Woodlawn North Cemetery. The location of BLC142 is an open lot that has been recorded as a cemetery, however it is currently an open field and no headstones or other grave markers are apparent. MVAC confirmed with the Catholic Diocese of La Crosse who owns this property that there have been no burials in this site area to date and it is currently recorded as a cemetery for tax exempt purposes, but at some point in the future it will be used as a cemetery (there is an existing cemetery immediately adjacent to it). Based on this information, no monitoring of pole placements or matting under heavy equipment would be recommended within the BLC142 site boundary since no human remains have been interred. However, prior to construction, MVAC will field check the conditions of this area to make sure that the "cemetery" has not be utilized for interment and will confirm this with the landowner. If at that time the "cemetery" location has been used for burials, then monitoring during construction is recommended and as is matting under heavy equipment during non-frozen ground conditions (in frozen ground conditions no matting would be necessary). However, if no burials have been placed in the "cemetery" location, then no further work is recommended.

The project crosses through other prehistoric sites, however, many of them have been impacted by urban expansion and road construction. No new sites were discovered, and no artifacts were found in the previously recorded sites with the exception of those in the Tremaine site previously described. Monitoring of pole placements is recommended within the uncatalogued and NRHP listed sites, Tremaine (47LC95/BLC71) and Midway Village Complex (47LC19/BLC1). No other work is recommended for other portions of the project.

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Appendix 1: Report of Soil Borings within BLC142, 47LC19/BLC1, and 47LC95/BLC71.

January 28, 2015

To: Chip Brown
Wisconsin Historical Society
816 State Street
Madison, WI 53706

Chuck Thompson
Dairyland Power Cooperative
3200 East Ave South
La Crosse, WI 54602

MVAC Short Report Series 2015-06

Re: WHS# 14-1157/LC
Archaeological monitoring of soil borings associated with the Q-1 transmission line rebuild within burial sites:
47LC19/BLC1, Midway Village Complex
47LC95/BLC71, Tremaine
BLC141, Gate of Heaven Cemetery
BLC142, Woodlawn North Cemetery

Dear Mr. Brown and Mr. Thompson:

This letter is a summary report regarding the results of monitoring of 2 to 6 inch diameter soil borings within the limits of the above mentioned sites located in La Crosse County, Wisconsin. In December 2014, representatives from Dairyland Power Cooperative (DPC) and Mississippi Valley Archaeology Center (MVAC) visited various portions of the existing Q1 transmission line to determine which existing structures were located within previously recorded burial sites. MVAC personnel brought a hand held GPS unit loaded with GIS shape files purchased from the Wisconsin Historical Society (WHS) showing the Wisconsin Historic Preservation Database (WHPD) locations of the previously recorded sites and previous surveys near the project area. DPC was planning on performing soil borings in early 2015 at the proposed new structure locations. Seven of the proposed soil boring locations were located within or immediately adjacent to four previously recorded burial sites.

After DPC received permission from WHS to perform the soil borings (see attached), and since they were performed in frozen ground conditions, a 6 inch diameter auger drilled through the first foot or two of soil to loosen the soil. A soil sample was collected in a 2 inch round metal tube that was subsequently split open to remove the sample. Then the soil was augered for another 2 to 2 1/2 feet, and another soil sample was taken. This methodology was continued until the soil cores reached about 30 feet below the current ground surface. The information below is a summary of the soil samples taken within the burial sites. The soil borings are given numbers related to their associated transmission pole structure numbers.

BLC141, Gate of Heaven Cemetery; BLC142, Woodlawn North Cemetery

Two soil borings were located within or immediately adjacent to the site limits of BLC141, Gate of Heaven Cemetery, and BLC142, Woodlawn North Cemetery (both uncatalogued burials) located north of CTH B and east of an existing subdivision (Figure

1). The soil boring associated with Structure 119 was located west of the driveway into the cemetery area, near a yard of the adjacent subdivision (Figures 2 and 3). This structure was within the boundaries of BLC142. This soil sample showed typical soil development of 10YR3/1 very dark grey clayey silt (0 to 28 cm) over sterile subsoil (10YR5/8 yellowish brown silty sand). The soil boring associated with Structure 120 was located near the northern edge of BLC142, approximately 10 feet west of where a new pole will be placed. This soil sample exhibited topsoil 10YR3/1 very dark grey clayey silt (0 to 16 cmbgs) over what appeared to be some disturbed soil (10YR6/8 brownish yellow sand mottled with 10YR8/1 white sand – 17 to 35 cmbgs) over sterile subsoil (10YR5/8 yellowish brown silty sand). No evidence of human remains or cultural material was discovered in these soil borings.

47LC95/BLC71, Tremaine Site

Four soil borings, near poles 166, 167, 168, and 169 were located within the WHPD boundaries of the Tremaine site, 47LC95/BLC71, east of CTH XX and west of USH 53. A small portion of the Tremaine site is recorded as a catalogued burial site, and the rest of the site is listed as an uncatalogued burial site. The four soil borings monitored in 2015 are in the uncatalogued portion of the site, on the opposite side of USH 53 and approximately a quarter-mile west of the catalogued portion of the site (Figures 4 and 5). Figure 6 represents a map of the catalogued burial location provided by the WHS.

One soil boring near pole 169 (Figures 7 and 8) was located north of the existing Holmen wastewater plant, at the end of a terrace where the area begins to slope down. This soil boring exhibited no topsoil and immediately showed a sterile subsoil of 10YR4/6 dark yellowish brown sand. The remaining three soil borings locations, near structures 167, 168, and 169, were located in plowed fields immediately north of an existing subdivision and west of CTH OT (Figures 9 and 10). These soil borings exhibited a topsoil/plowzone ranging between 19 and 23 cmbgs (10YR3/1 very dark grey silty sand) over sterile subsoil (10YR4/4 and 10YR4/6 dark yellowish brown sand). The topsoil brought up by the auger at these three boring locations was screened through a 1/4 inch mesh. No evidence of human remains or cultural material was discovered in any of the soil borings within the site limits of 47LC95/BLC71.

47LC19/BLC1, Midway Village Site

One soil boring, near pole 170 (Figures 11 and 12) was located within the WHPD boundaries of the Midway Village site, 47LC19/BLC1, an uncatalogued burial east of CTH XX, north of the existing Holmen wastewater treatment plant, and west of USH 53 (see Figure 4). The soil boring was in a grassy area south of an existing sand pit. Large portions of the Midway site have been destroyed by the sand pit. The soil boring exhibited a typical soil profile of 10YR3/1 very dark grey silty sand (0 to 18 cmbgs) over sterile subsoil (10YR4/6 dark yellowish brown sand). The topsoil brought up by the auger was screened through a 1/4 inch mesh. No evidence of human remains or cultural material was discovered in this soil boring.

Although the amount of ground disturbance for the soil borings was very minimal, no evidence of human remains or cultural deposits was discovered. Please let me know if you have any questions or need any further information.

Sincerely,

Vicki L. Twinde-Javner

Vicki L. Twinde-Javner
Mississippi Valley Archaeology Center
Senior Research Archaeologist

Voice: 608-785-6475
Fax: 608-785-6474
E-mail: vtwinde-javner @uwlax.edu

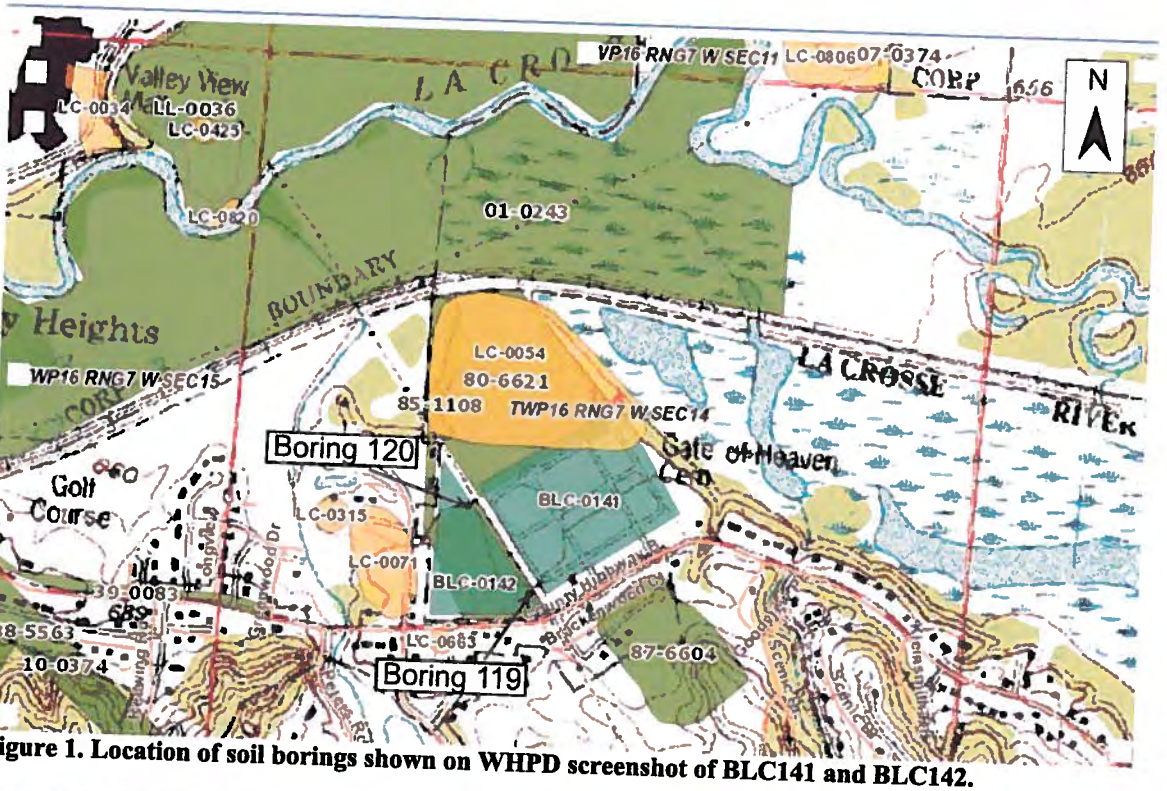


Figure 1. Location of soil borings shown on WHPD screenshot of BLC141 and BLC142.

Figure 2. View of Structure 119 taken in December 2014 before the soil borings were performed – view to southeast.

Figure 3. Soil boring at Structure 119 – view to northwest.

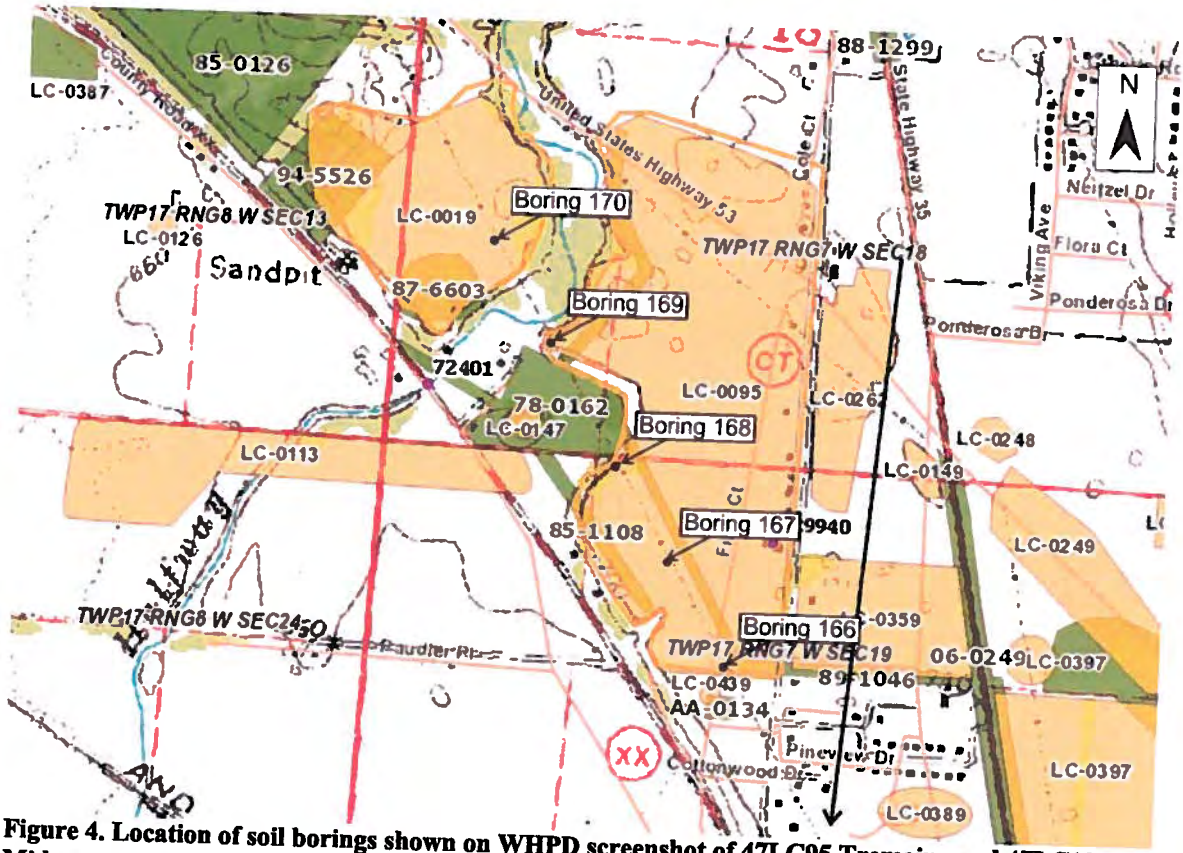


Figure 4. Location of soil borings shown on WHPD screenshot of 47LC95 Tremaine and 47LC19 Midway.

Figure 5. Location of soil borings at 47LC19 and 47LC95 in relationship to catalogued portion of 47LC95 (see Figure 4 for site boundaries and boring locations within sites and Figure 6 for catalogued burial map provided by WHS).

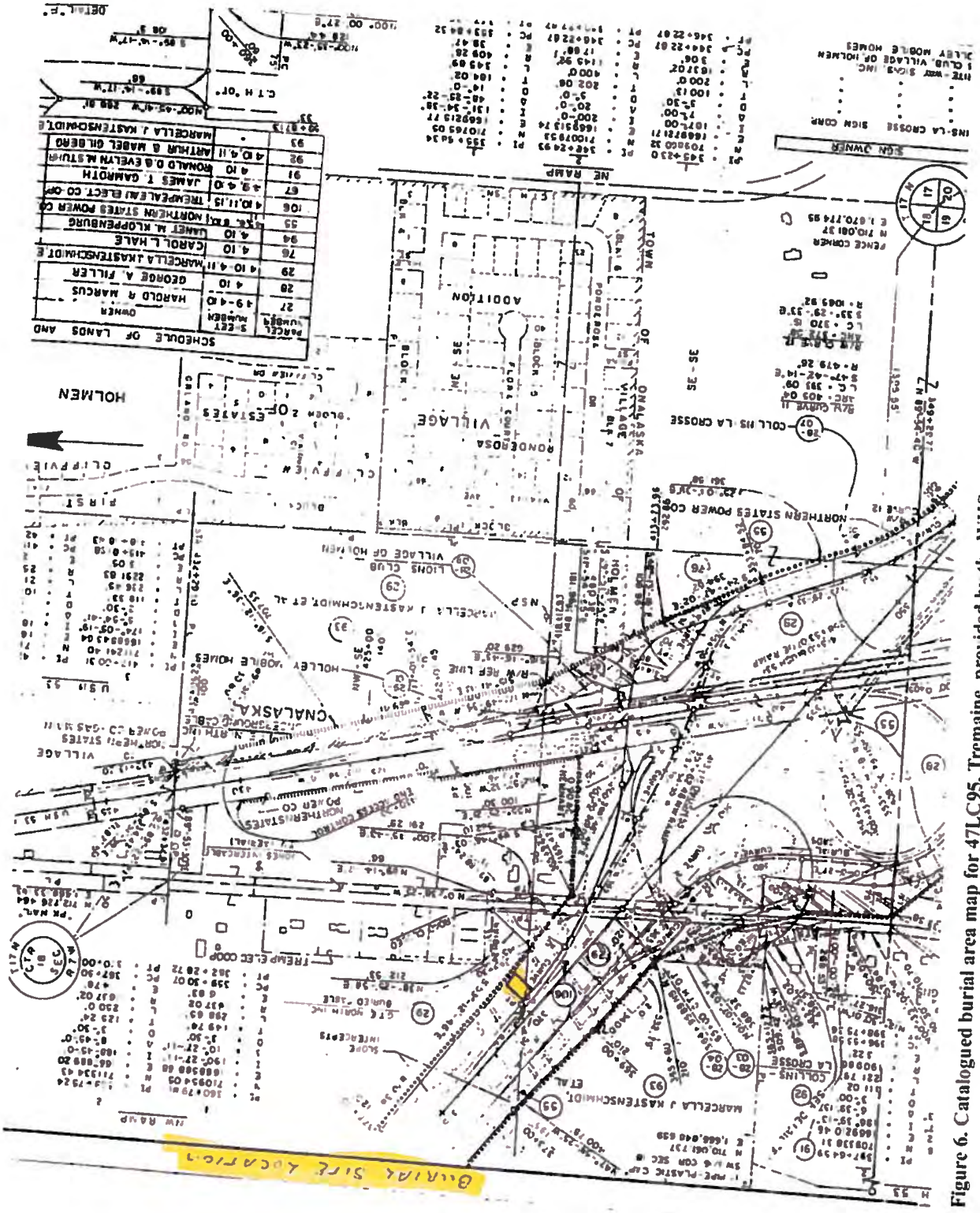


Figure 6. Catalogued burial area map for 47LC95, Tremaine, provided by the WHS.

Figure 7. View of Structure 169 in 47LC95, Tremaine, taken in December before the soil borings, showing sloped area (view facing west).

Figure 8. Soil boring at structure 169 (view facing west) at 47LC95, Tremaine.

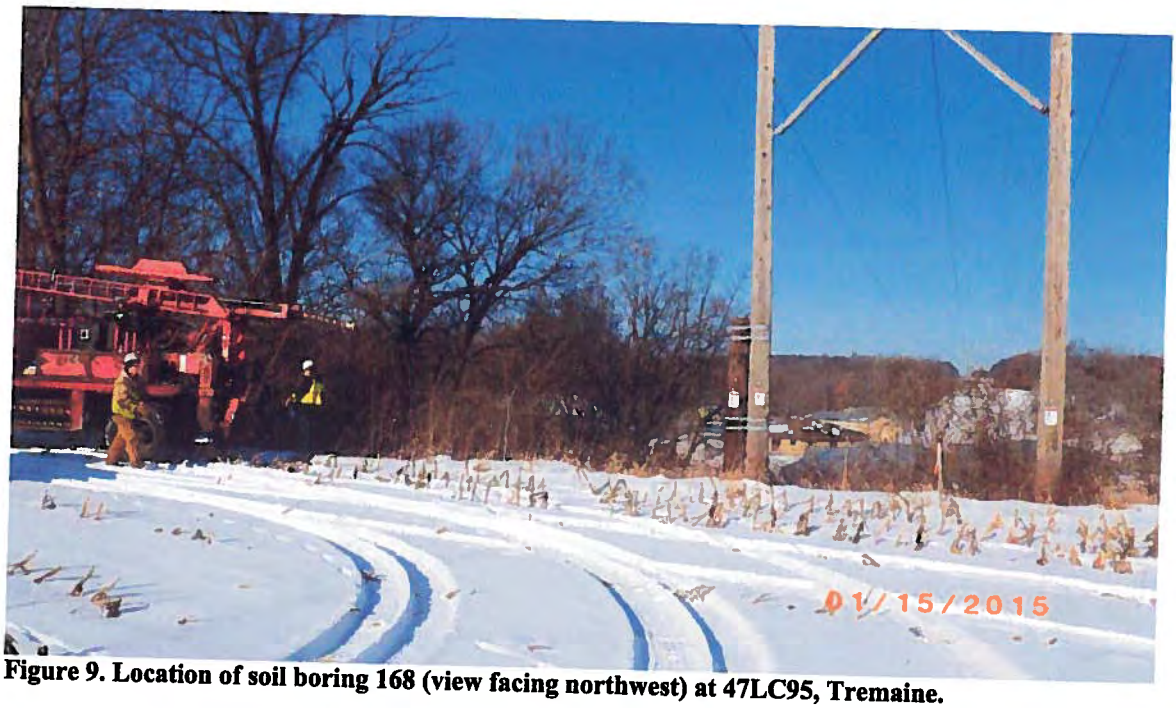


Figure 9. Location of soil boring 168 (view facing northwest) at 47LC95, Tremaine.

Figure 10. View of topsoil and sterile subsoil at soil boring 167 at 47LC95, Tremaine.

Figure 11. Location of Structure 170 (at 47LC19 Midway) shown in relationship to sand pit.

Figure 12. Soil boring at Structure 170, in 47LC19, Midway.

WISCONSIN HISTORICAL SOCIETY

December 11, 2014

Mr. Chuck Thompson
Dairyland Power Cooperative
3200 East Avenue South
La Crosse, WI 54602

IN REPLY, PLEASE REFER TO WHS CASE # 14-1157/LC

Re: Request to Conduct Ground-Disturbing Activity within the Boundaries of Uncatalogued Burial Sites LC-0019, BLC-0141, BLC-0142, and Partially Catalogued and Uncatalogued Site LC-0095

Dear Mr. Thompson:

Based on the information you have provided in your submittal materials dated November 5, 2014 (received in our office on November 11, 2014) regarding the above referenced project, we do hereby authorize the proposed ground disturbing activities within the boundaries of the 3 uncatalogued burial sites, and within the uncatalogued boundaries of LC-0095. From the information you submitted, it is not possible to determine whether your plan literally may include working within the boundary of the catalogued portion of LC-0095. With this Authorization letter, I have included the catalogued location description with a map showing its location. The catalogued location is quite small. I request that you confirm the need to work within that catalogued location.

Otherwise, pursuant to the provisions of Wis. Stats. §§ 157.70 (4) and Wis. Admin. Code § HS 2.04 (4), and according to the provisions provided below, I do authorize all ground-disturbing work within the boundaries of the 3 uncatalogued burial sites (LC-0019, BLC-0141, BLC-0142) and within the uncatalogued boundary of site LC-0095.

Your Authorization to conduct this work shall be valid for a period of one year from the date of this letter.

This Authorization applies to the proposed work activity specifically described in your submittal. All ground-disturbing activities that occur within the boundaries of the 3 uncatalogued burial sites (LC-0019, BLC-0141, BLC-0142) and within the uncatalogued boundary of site LC-0095 shall be monitored by a qualified archeologist, as defined at Wis. Stats. § 157.70 (1) (i). You may find a list of such qualified archeologists at the following web site: http://www.wisconsinhistory.org/hp/burialsites/about/bs_burialexcavation.pdf.

In the event that the proposed area of ground-disturbance has been disturbed to a degree greater than that proposed to be disturbed to facilitate your project, or to a degree that would eliminate any possibility of finding intact human burials, please provide corroborating written information describing this finding to justify termination of monitoring activities. Otherwise, again, all areas of ground-disturbing shall be monitored.

If during the proposed ground disturbing activity you encounter human remains, you must stop work at that location and contact our office immediately for further coordination, and, in the event that human remains must be excavated and analyzed, for negotiation and execution of an appropriate contract.

Any deviation from the plans described in your submittal materials that may occur within the boundaries of the uncatalogued burial site areas that involves ground disturbing activity must be described in writing and said description forwarded to this office for further review and Authorization. Such modified work is not covered or authorized by this letter. And, this letter is not a permit to undertake ground-disturbing activity within the catalogued boundary of the site LC-0095.

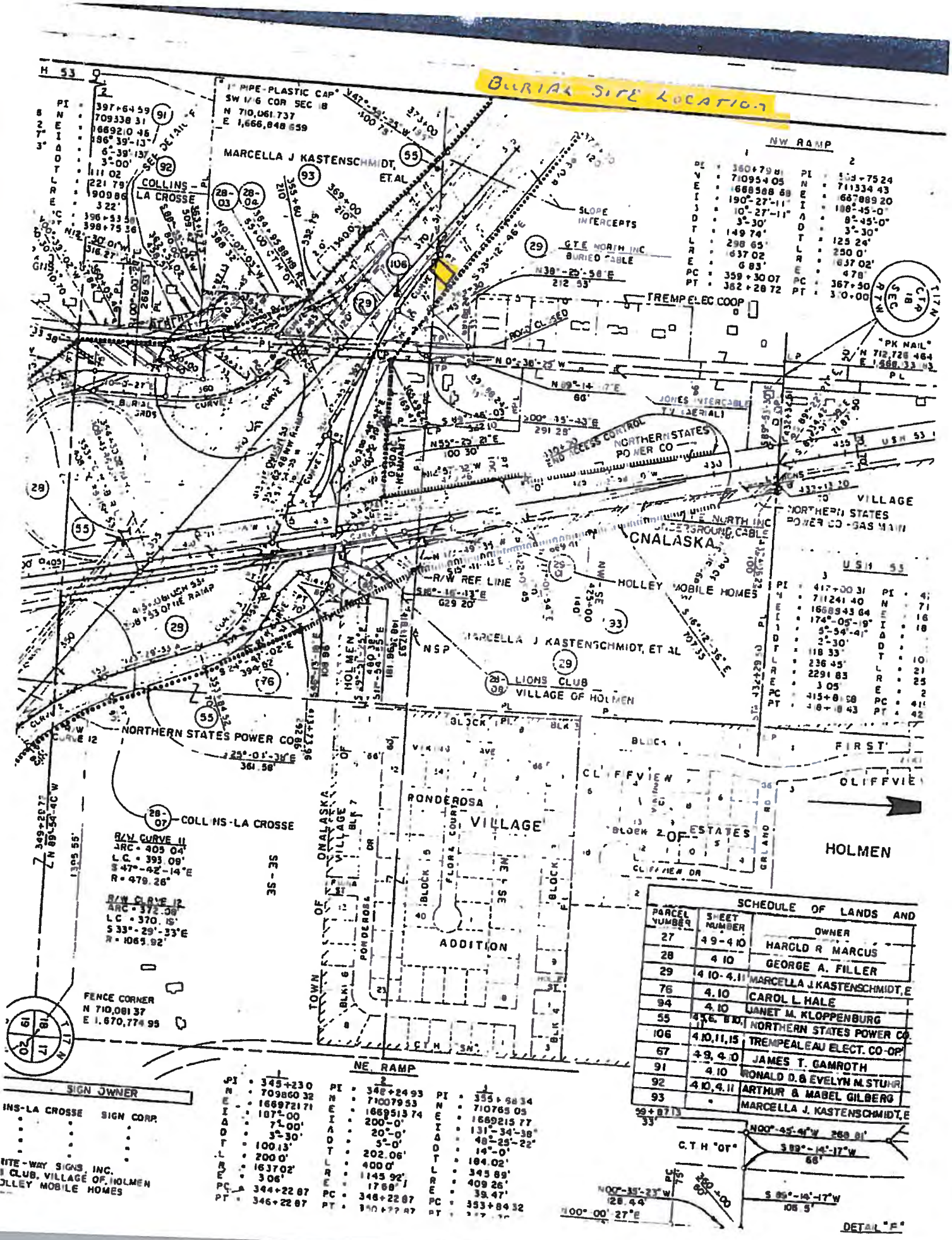
If ground-disturbing work may occur literally within the catalogued boundaries of site LC-0095, please provide me with detailed maps (and photos of the site area) demonstrating this aspect of your project. If no catalogued burial disturbance work is necessary, I do not need further confirming information; this letter of Authorization is sufficient to carry out the entirety of you proposed ground-disturbing activity within the uncatalogued boundaries of the 4 identified human burial sites.

With questions, please contact me. We anticipate receipt of your monitoring report, when it becomes available. Thank you for your continued attention to this matter.

Sincerely,

Chip Harry L. Brown III, J.D.
Government Assistance and Training Specialist

608-264-6508 (voice)
608-264-6504 (fax)
chip.brown@wisconsinhistory.org


BURIAL SITE LOCATION
MARCELLA J KASTENSCHMIDT, ET AL
COLLINS - LA CROSSE
TREMPEALEAU ELEC COOP
NORTHERN STATES POWER CO
JONES INTERCABLE TV (AERIAL)
HOLLEY MOBILE HOMES
ONALASKA
VILLAGE OF HOLMEN
LIONS CLUB
RONDEROSA VILLAGE ADDITION
CLIFFVIEW ESTATES
HOLMEN
NW RAMP
NE RAMP
SCHEDULE OF LANDS AND
PARCEL NUMBER
SHEET NUMBER
OWNER
27 4 9-4 10 HAROLD R MARCUS
28 4 10 GEORGE A. FILLER
29 4 10-4.11 MARCELLA J KASTENSCHMIDT,E
76 4.10 CAROL L. HALE
94 4.10 JANET M. KLOPPENBURG
55 4.10 NORTHERN STATES POWER CO
106 4.10,11,15 TREMPEALEAU ELECT. CO-OP
67 4.9, 4.10 JAMES T. GAMROTH
91 4.10 RONALD D.& EVELYN M.STUHR
92 4.10,4.11 ARTHUR & MABEL GILBERG
93 MARCELLA J. KASTENSCHMIDT,E
SIGN OWNER
INS-LA CROSSE SIGN CORP.
ITE-WAY SIGNS, INC.
I CLUB, VILLAGE OF HOLMEN
OLLEY MOBILE HOMES
DETAIL "F"

CATALOG # 99
BURIAL # BLC0071
OWNER NAME Wisconsin Department of Transportation
ADDRESS 4802 Sheboygan Avenue
Madison, Wisconsin 53707

SEP 17 1991
MARY C. HOLINKA
REGISTER OF DEEDS
La Crosse County, WI

NOTICE OF LOCATION OF CATALOGED BURIAL SITE

WHEREAS, the legislature intends by 1985 Wisconsin Act 316 to assure that all human burials be accorded equal treatment and respect for human dignity without reference to ethnic origins, cultural backgrounds or religious affiliations; and
WHEREAS, s. 157.70(2)(a), Wis. Stats. provides that the director of the State Historical Society of Wisconsin shall identify and record in a catalog, burial sites in this state, together with sufficient contiguous land necessary to protect the burial site from disturbance; and
WHEREAS, s. 7011(13), Wis. Stats. provides a property tax exemption for land containing a burial site which is entered in the state catalog of burial sites and that this makes the property tax treatment of burial sites consistent with the property tax treatment of cemeteries; and
WHEREAS, s. 157.70(5)(b), Wis. Stats. provides that no person may intentionally cause or permit the disturbance of a cataloged burial site without a permit from the director of the State Historical Society of Wisconsin.
Now therefore be it known that the following described lands contain a cataloged burial site and are subject to the protection and provisions of 1985 Wisconsin Act 316.

Long House #7

All that part of the NE-1/4 of the SW-1/4 and the SE-1/4 of the SW-1/4, Section 18, Township 17 North, Range 7 West Town of Onalaska, La Crosse County contained within the following described traverse:

Commencing at the south one-quarter corner of said Section 18; thence North 12° 57' 03" West, 1357.59 feet to the point of beginning; thence North 60° 48' 00" West, 29.41 feet; thence North 08° 51' 26" East, 50.76 feet; thence South 66° 19' 29" East, 24.24 feet; thence South 04° 32' 21" West, 54.94 feet to the point of beginning.

dated this 17th day of JUNE, 1991.

THIS INSTRUMENT DRAFTED BY:
Diane Y. Holliday
*Diane Y. Holliday

RETURN TO:
Burial Sites Preservation
Historic Preservation Division
The State Historical Society
of Wisconsin
816 State Street
Madison, Wisconsin 53706

Signature of [signature]
Director , State Historical Society of Wisconsin
*H. Nicholas Muller III

ACKNOWLEDGEMENT
STATE OF WISCONSIN Dane COUNTY
Personally came before me this 17th day of JUNE, 1991
the above named INDIVIDUAL
to me known to be the person(s) who executed the foregoing instrument and acknowledge the same.
[signature]
*Robert B. Thomasgard, Jr.
Notary Public Dane County, Wisconsin.
My Commission is permanent. (If not, state expiration date: , 19____

STATE OF WISCONSIN
ROBERT
THOMASGARD
JR.
NOTARY PUBLIC

*Names of persons signing in any capacity should be typed or printed below their signatures.

Appendix 2: Public Lands Permits for Project Area.

WISCONSIN PUBLIC LANDS FIELD ARCHAEOLOGICAL PERMIT, 2015

REQUIRED TO CONDUCT ARCHAEOLOGY ON ALL NON-FEDERAL PUBLIC LAND UNDER WIS. STAT. § 44.47

Wisconsin Historical Society

Name/Organization/Contact: Vicki Twinde-Javner/MVAC Telephone#: 608-785-6475

Address: 1725 State St City: La Crosse State: WI Zip Code: 54601

E-mail Address: vtwinde-javner@uwlax.edu FAX#: 608-785-6474

Institutional Affiliation: Mississippi Valley Archaeology Center, UW-La Crosse

---

Location: County: La Crosse Civil Town: Onalaska

Town: 16N Range: 7W Section: 4 Quarter Sections:

Hwy/Rd ☐ Hwy/Rd: Other Type of Project ☑

Project Description: Phase I survey of Q-1 transmission line replacement pole locations and access routes

Type of fieldwork: Phase I/Survey ☑ Phase II/Testing ☐ Phase III/Excavation ☐ Monitoring ☐

Purpose of the fieldwork: Federal Compliance ☑ State Compliance ☑ Education ☐ Other ☐

Site #: Burial Site#: Burial Permit Secured? Y ☐ N ☐

Dates of field work: Begin date: 3/26/2015 End date: 12/31/2015

What institution will curate recovered artifacts, notes, and records? MVAC

(*Curation agreement must be on file with WHS; all materials must be curated in an appropriate, staffed facility.*)

Print name: Vicki L.Twinde-Javner ☐ see attachments

Signature of Archaeologist: Vicki L. Twinde-Javner Date: 3/26/2015

Maps and/or Letters of explanation can accompany this application

---

Landowner or custodian name (print): C. JARROD HOLTER Phone: (608) 781-9537

Affiliation: City of Onalaska CITY ENGINEER

Signature of Landowner: Date: 3-30-15

DO NOT WRITE BELOW THIS LINE

Permit Approved Date: 30 March 2015

PLP # 15-025

John H. Broihahn
State Archaeologist
Wisconsin Historical Society
816 State Street Madison, WI 53706
FAX: 608-264-6504 / PH 608-264-6496
Email: john.broihahn@wisconsinhistory.org

WISCONSIN HISTORICAL SOCIETY

Two copies of the final report must be submitted to the Division of Historic Preservation – Public History.

Additional authorization or permitting is necessary to conduct work within the boundaries of uncataloged and cataloged human burial sites under Wis. Stat. § 157.70. For additional information please see: http://wihist.org/10WqFCf

WISCONSIN PUBLIC LANDS FIELD ARCHAEOLOGICAL PERMIT, 2015

REQUIRED TO CONDUCT ARCHAEOLOGY ON ALL NON-FEDERAL PUBLIC LAND UNDER WIS. STAT. § 44.47

Wisconsin Historical Society

Name/Organization/Contact Vicki Twinde-Javner/MVAC Telephone# 608-785-6475

Address 1725 State St City La Crosse State WI Zip Code 54601

E-mail Address vlwinde-javner@uwlax.edu FAX# 608-785-6474

Institutional Affiliation Mississippi Valley Archaeology Center, UW-La Crosse

---

Location: County La Crosse Civil Town Onalaska

Town 17N Range 7W Section 18 Quarter Sections

Hwy/Rd ☐ Hwy/Rd: Other Type of Project ☑

Project Description: Phase I survey of Q-1 Transmission Line Poles

Type of fieldwork: Phase I/Survey ☑ Phase II/Testing ☐ Phase III/Excavation ☐ Monitoring ☐

Purpose of the fieldwork: Federal Compliance ☑ State Compliance ☑ Education ☐ Other ☐

Site # LC95 Burial Site# BLC71 Burial Permit Secured? Y ☑ N ☐

Dates of field work: Begin date 3/27/2015 End date: 12/31/2015

What institution will curate recovered artifacts, notes, and records? MVAC

(*Curation agreement must be on file with WHS; all materials must be curated in an appropriate, staffed facility.*)

Print name Vicki L. Twinde-Javner ☐ see attachments

Signature of Archaeologist Vicki L. Twinde-Javner Date 3/27/2015

Maps and/or Letters of explanation can accompany this application

---

Landowner or custodian name (print) DEAN K. OLSON Phone 526-3513

Affiliation: Village of Holmen

Signature of Landowner REPRESENTATIVE Date 4/6/2015

DO NOT WRITE BELOW THIS LINE

Permit Approved Date 6 April 2015

PLP # 15-031

John H. Broihahn
State Archaeologist
Wisconsin Historical Society
816 State Street Madison, WI 53706
FAX: 608-264-6504 / PH 608-264-6496
Email: john.broihahn@wisconsinhistory.org

WISCONSIN HISTORICAL SOCIETY

Two copies of the final report must be submitted to the Division of Historic Preservation – Public History.

Additional authorization or permitting is necessary to conduct work within the boundaries of uncataloged and cataloged human burial sites under Wis. Stat. § 157.70. For additional information please see: http://wihist.org/10WqFCf

WISCONSIN PUBLIC LANDS FIELD ARCHAEOLOGICAL PERMIT, 2015

REQUIRED TO CONDUCT ARCHAEOLOGY ON ALL NON-FEDERAL PUBLIC LAND UNDER WIS. STAT. § 44.47

Wisconsin Historical Society

Name/Organization/Contact Vicki Twinde-Javner/MVAC Telephone# 608-785-6475

Address 1725 State St City La Crosse State WI Zip Code 54601

E-mail Address vtwinde-javner@uwlax.edu FAX# 608-785-6474

Institutional Affiliation Mississippi Valley Archaeology Center, UW-La Crosse

Location: County La Crosse Civil Town Medary

Town 16N Range 7W Section 14 Quarter Sections

Hwy/Rd ☐ Hwy/Rd: Other Type of Project ☑

Project Description: Phase I survey of Q-1 Transmission Line Poles

Type of fieldwork: Phase I/Survey ☑ Phase II/Testing ☐ Phase III/Excavation ☐ Monitoring ☐

Purpose of the fieldwork: Federal Compliance ☑ State Compliance ☑ Education ☐ Other ☐

Site # Burial Site# Burial Permit Secured? Y ☐ N ☐

Dates of field work: Begin date 3/27/2015 End date: 12/31/2015

What institution will curate recovered artifacts, notes, and records? MVAC
(Curation agreement must be on file with WHS; all materials must be curated in an appropriate, staffed facility.)

Print name Vicki L Twinde-Javner ☐ see attachments

Signature of Archaeologist Vicki L. Twinde-Javner Date 3/26/2015

Maps and/or Letters of explanation can accompany this application

Landowner or custodian name (print) DALE J. HEXOM Phone 608-789-7571

Affiliation: City of La Crosse

Signature of Landowner Date 4-14-15

DO NOT WRITE BELOW THIS LINE

Permit Approved Date 14 April '15

PLP # 15-040

John H. Broihahn
State Archaeologist
Wisconsin Historical Society
816 State Street Madison, WI 53706
FAX: 608-264-6504 / PH 608-264-6496
Email: john.broihahn@wisconsinhistory.org

WISCONSIN HISTORICAL SOCIETY

Two copies of the final report must be submitted to the Division of Historic Preservation – Public History.

Additional authorization or permitting is necessary to conduct work within the boundaries of uncataloged and cataloged human burial sites under Wis. Stat. § 157.70. For additional information please see: http://wihist.org/10WqPCf

WISCONSIN PUBLIC LANDS FIELD ARCHAEOLOGICAL PERMIT, 2015

REQUIRED TO CONDUCT ARCHAEOLOGY ON ALL NON-FEDERAL PUBLIC LAND UNDER WIS. STAT. § 44.47

Wisconsin Historical Society

Name/Organization/Contact Qualified staff from MVAC Telephone# 608-785-6475

Address 1725 State St City La Crosse State WI Zip Code 54601

E-mail Address vlwinde-javner@uwlax.edu FAX# 608-785-6474

Institutional Affiliation Mississippi Valley Archaeology Center - UW-La Crosse

---

Location: County Various Civil Town

Town Range Section Quarter Sections

Hwy/Rd ☐ Hwy/Rd: WisDOT owned lands throughout Wisconsin Other Type of Project ☐

Project Description:

Type of fieldwork: Phase I/Survey ☑ Phase II/Testing ☐ Phase III/Excavation ☐ Monitoring ☐

Purpose of the fieldwork: Federal Compliance ☑ State Compliance ☑ Education ☐ Other ☐

Site # Burial Site# Burial Permit Secured? Y ☐ N ☐

Dates of field work: Begin date 3/17/2015 End date: 12/31/2015

What institution will curate recovered artifacts, notes, and records? MVAC
(*Curation agreement must be on file with WHS; all materials must be curated in an appropriate, staffed facility.*)

Print name Vicki L. Twinde-Javner ☐ see attachments

Signature of Archaeologist Vicki L. Twinde-Javner Date 3/17/2015

Maps and/or Letters of explanation can accompany this application

---

Landowner or custodian name (**print**) JAMES J. BECKER III Phone 608-261-0137

Affiliation: Wisconsin Department of Transportation

Signature of Landowner James J. Becker III Date 3-17-15

DO NOT WRITE BELOW THIS LINE

Permit Approved Date 17 March 2015

PLP # 15- 014

John H. Broihahn
State Archaeologist
Wisconsin Historical Society
816 State Street Madison, WI 53706
FAX: 608-264-6504 / PH 608-264-6496
Email: john.broihahn@wisconsinhistory.org

WISCONSIN HISTORICAL SOCIETY

Two copies of the final report must be submitted to the Division of Historic Preservation – Public History.

Additional authorization or permitting is necessary to conduct work within the boundaries of uncataloged and cataloged human burial sites under Wis. Stat. § 157.70. For additional information please see: http://wihist.org/10WqFCf

Appendix 3: Burial permit for work within BLC142, 47LC19/BLC1, and 47LC95/BLC71.

WISCONSIN HISTORICAL SOCIETY

March 20, 2015

Ms. Vicki L. Twinde-Javner
Mississippi Valley Archaeology Center
1725 State St.
La Crosse, WI 54601-3788

IN REPLY, PLEASE REFER TO WHS CASE # 15-0177/LC

Re: Request to Conduct Ground-Disturbing Activity within the Boundaries of 3 Uncatalogued Burial Sites: BLC-0001 (Midway Village Complex), BLC-0071 Tremaine Site) and BLC-0142 (Woodlawn North Cemetery)

Dear Ms. Twinde-Javner:

I approve your request to undertake "limited appropriate subsurface exploration" within the boundaries of the uncatalogued human burial sites BLC-0001 (Midway Village Complex), BLC-0071 Tremaine Site) and BLC-0142 (Woodlawn North Cemetery), as described in your submittal dated February 26, 2015 (received in our office March 2, 2015).

Please note: limited appropriate subsurface exploration will not obviate the need for monitoring any additional ground-disturbing activities undertaken through the burial sites, unless such testing reveals that the entire proposed ground-disturbing location has been disturbed previously to a degree greater than the degree of disturbance proposed for this undertaking. Please provide corroborating written information describing this finding to justify a finding that no additional monitoring of ground-disturbing activity is necessary. In the event that the area is not disturbed, as just described, monitoring of the additional ground-disturbing activity is required for this project.

If during the proposed testing activity you encounter human remains, you must stop work at that location and contact our office immediately for further coordination, and, in the event that human remains must be excavated and analyzed, for negotiation and execution of an appropriate contract.

WISCONSIN HISTORICAL SOCIETY

MEMO

Date: June 8, 2015

To: Vicki L. Twinde-Javner

From: Chip Brown

Re: Request to Disturb Three Human Burial Sites: BLC-0071, BLC-0001, and BLC-0142
WHS Case # 15-0177/LC

We have received and reviewed your proposed amendment of May 11, 2015 to the proposal you provided us February 26, 2015 and for which we issued an Authorization on March 20, 2015. At this time, I agree that your proposed amendment is appropriate and may be covered by the existing and currently valid Authorization for ground-disturbing activity within the uncatalogued boundaries of LC-0019, the Midway Village site.

First, we understand that there now will be no access road construction within the LC-0019 site.

Second, we agree that no installation of protective matting or monitoring of staging area preparation or use is necessary, the area having been extensively disturbed in the past. There is no likelihood for disturbing any intact human remains at that location.

Based on your amendment submittal, we have updated our file accordingly. Please forward any additional proposed project modifications for review and authorization, as any additional such modifications are not covered by this amended Authorization.

This amended Authorization remains the same in all particulars but those described above, and shall remain in effect for one year from the date of this amendment Authorization.

With questions, please contact me by email at chip.brown@wisconsinhistory.org or by telephone at (608-264-6508). Thank you very much for your continued attention to this matter.

Any deviation from the plans described in your submittal materials that may occur within the boundaries of the uncatalogued burial sites that involves ground disturbing activity must be described in writing and said description forwarded to this office for further review and Authorization. Such modified work is not covered or authorized by this letter.

With questions, please contact me. We anticipate receipt of your testing report, when it becomes available. Thank you for your continued attention to this matter.

Sincerely,

Chip Harry L. Brown III, J.D.
Government Assistance and Training Specialist
Burial Evaluation Committee Chairperson

(608) 264-6508 (Office)
(608) 264-6504 (FAX)

chip.brown@wisconsinhistory.org

ARCHAEOLOGICAL REPORTS INVENTORY FORM

WHS PROJECT # COUNTY La Crosse

AUTHORS: Vicki L. Twinde-Javner

REPORT TITLE: Phase I Archaeological Survey of Proposed Changes to Approximately Nine Miles of the Dairyland Power Cooperative Q-1 Transmission Line, Briggs Road Substation to North La Crosse Tap, La Crosse County, WI

DATE OF REPORT (MONTH AND YEAR): June 2015

SERIES/NUMBER: ROI 1046

PLACE OF PUBLICATION: Mississippi Valley Archaeology Center at UW-La Crosse

LOCATIONAL INFORMATION [LEGAL DESCRIPTION OF SURVEY AREA (T-R-S)]
T.16N, R.7W, S. 3, 4, 10, 14, 15, & 23; T.17N, R.7W, S. 18,19, 29, 30, 32, & 33; T.17N, R.8W, S.13

U.S.G.S. QUAD MAP(S): Holmen, Onalaska, and La Crosse, Wisconsin 7.5' Quads

SITE(S) INVESTIGATED: BLC142;LC19/BLC1;LC26;LC27;LC46;LC54;LC95/BLC71;LC169;LC171

ACRES INVESTIGATED: ~10 AGENCY #

INVESTIGATION TECHNIQUES COMPLETED (Check all that apply.)

☐ Avocational Survey	☐ Chance Encounter	☐ Historical Research
☐ Faunal Analysis	☐ Floral Analysis	☐ Interview/Informant
☐ Literature Background Research	☐ Major Excavation/Phase III	☐ Mechanical Stripping
☐ Monitoring	☐ Osteological Analysis	☐ Geomorphology
☐ Records/Background	■ Surface Survey	☐ Soil Core
☐ Remote Sensing	■ Shovel Testing/Probing	
☐ Test Excavation/Phase II	☐ Traditional Knowledge	
☐ Underwater	☐ Walk Over/Visual Inspection	

ABSTRACT: ☐ Included in report ■ Written in space below

In May-June 2015, MVAC performed a Phase I archaeological survey for approximately 9 miles of a portion the Q-1 transmission line in La Crosse County, WI. Pole locations were surveyed, along with some access roads proposed to be cut. The project passed through several previously recorded sites, many of which have been affected by urban and industrial expansion and roadwork. No new sites were discovered. Four poles will be located in the Tremaine site (47LC95) and one pole in the Midway site (47LC19), both sites on the NRHP. The Midway site has been heavily impacted by current sand mine operations. No new sites were found. No artifacts were found at the pole in the Midway site and no artifacts were found at the poles in the Tremaine site.

Office of the State Archaeologist ARI # _____

Appendix F:
Newspaper Advertisement

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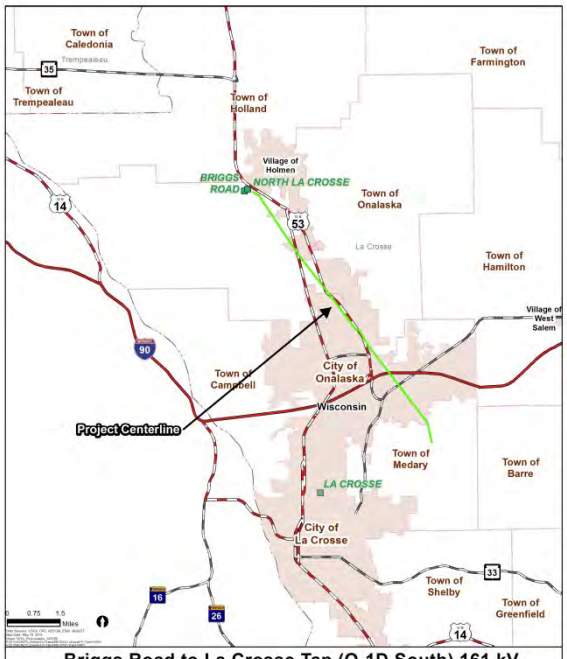
NOTICE OF AVAILABILITY

Proposed Briggs Road-La Crosse Tap (Q-1D South) 161 kV Rebuild Project ENVIRONMENTAL ASSESSMENT

The U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) announces the availability of an Environmental Assessment (EA), which was prepared to meet RUS responsibilities under the National Environmental Policy Act (NEPA) and 7 CFR 1970 related to providing financial assistance to Dairyland Power Cooperative (DPC) for the proposed Briggs Road to the La Crosse Tap (Q-1D South) 161 kilovolt (kV) Rebuild Project (Project). The EA addresses potential impacts associated with the construction and operation of the proposed action and the no action alternative.

The proposed Project consists of replacing structures and upgrading conductor along approximately 9 miles of DPC's existing 70-mile 161 kV single-circuit transmission line (referred to as Q-1) in La Crosse County, WI. The proposed Project crosses the La Crosse River floodplain, which includes floodplain forest, streams, and emergent wetlands. The proposed Project would be constructed within the existing 80 foot right-of-way (ROW).

The proposed Project is needed so that DPC can continue to provide reliable electric service to the area. Originally constructed in 1950, the transmission line is reaching the end of its service life with increased outages, increased maintenance costs, and low reliability during contingencies. The proposed Project is located in Section 13 of Township 17 North and Range 8 West; Sections 18, 19, 29, 30, 32, and 33 of Township 18 North and Range 9 West; and Sections 3, 4, 10, 14, 15, 23 of Township 16 North and Range 7 West . Construction of the proposed Project is scheduled to take place from September 2016 through June 2017, which is the earliest timeframe that would avoid impacts on sensitive resources, including protected species, surface waters and wetlands.



Briggs Road to La Crosse Tap (Q-1D South) 161 kV Transmission Line Rebuild Project (RUS #1060)

In upland areas, the new structures that will be used to replace the existing 161 kV transmission line will be single-pole steel transmission structures that would be 95 to 115 feet tall with an approximate 775 to 800 foot span between structures and three H-frame steel dead-end structures that would be 50 feet tall with an average 375 foot span between structures. Access to the structures would be temporary overland access crossing existing easements using entrances from local roads, field roads, and private driveways (where permitted by the landowner).

In crossing the La Crosse floodplain, the new structures that will be used to replace the existing structures will be Y-frame steel structures used to minimize potential impacts related to birds, vegetation, wetlands, and floodplains. These structures will be an average of 65 feet to remain at or below the average tree height and an average span of 730 feet between structures). Within the La Crosse River floodplain, DPC would use vibratory caissons along with Y-frame steel structures and one H-frame steel deadend structure to limit transmission line height to an average of 65 feet to reduce the potential for bird strikes, eliminate the need for concrete foundations, avoid the need for dewatering, and eliminate the generation of waste soil material. Permanent effects associated with construction would be limited to the footprint of the transmission structures, which are anticipated to total approximately 50.4 square feet.

The transmission line, as proposed, will be located within wetlands and 100-year floodplains. Construction of the proposed transmission line will result in up to 63 square feet of permanent disturbance within 100-year floodplains and 50.4 square feet of permanent disturbances within wetlands. DPC has considered a variety of alternatives for the Project, including taking no action, alternative routes, alternative design and construction methods, and alternative structure types. DPC believes that there is no practicable alternative that will avoid locating transmission structures in wetlands and 100-year floodplains.

AVAILABILITY: The EA can be reviewed at, or obtained from, DPC, 3200 East Avenue South, La Crosse, WI 54602; Holmen Area Library, 103 State Street, Holmen, WI 54636; Onalaska Public Library, 741 Oak Avenue South, Onalaska, WI 54650; or from the RUS Engineering and Environmental Staff, 1400 Independence Avenue, SW, Stop 1571 Room 2242, Washington, D.C. 20250. The EA will be available electronically for review at: www.rurdev.usda.gov/UWP-ea.htm, http://www.dairynet.com/environment/.

COMMENT PERIOD: RUS is requesting substantive comments on the proposed action. Comments on the EA should be submitted in writing within 30 days of the publication date of this notice to ensure that RUS. The deadline for submitting comments to the RUS regarding the EA is June 29, 2016 at the address provided in this notice.

At the end of the comment period, RUS will issue a decision for the proposed action. A notice announcing the decision will be published in local newspapers. Any final action by RUS related to the proposed action will be subject to, and contingent upon, compliance with all relevant federal, state, and local environmental laws and regulations, and completion of the environmental review requirements as prescribed in the RUS Environmental Policies and Procedures (7 CFR Part 1970).

PLEASE SUBMIT COMMENTS TO: Mr. Dennis Rankin, Environmental Protection Specialist, USDA Rural Development, Rural Utilities Service, 1400 Independence Avenue, SW, Mail Stop 1571, Room 2242, Washington, D.C. 20250. Comments can also be submitted via email to: dennis.rankin@wdc.usda.gov. For Project-specific questions, please contact: Mr. Chuck Thompson (DPC), 608-787-1432, or send questions to chuck.thompson@dairylandpower.com.

UNITED STATES DEPARTMENT OF AGRICULTURE

Rural Utilities Service

AGENCY: USDA, Rural Utilities Service

ACTION: Notice of Availability of an Environmental Assessment

The U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) announces the availability of an Environmental Assessment (EA), which was prepared to meet RUS responsibilities under the National Environmental Policy Act (NEPA) and 7 CFR 1970 related to providing financial assistance to Dairyland Power Cooperative (DPC) for the proposed Briggs Road to the La Crosse Tap (Q-1D South) 161 kilovolt (kV) Rebuild Project (Project). The EA addresses potential impacts associated with the construction and operation of the proposed action and the no action alternative.

The proposed Project consists of replacing structures and upgrading conductor along approximately 9 miles of DPC's existing 70-mile 161 kV single-circuit transmission line (referred to as Q-1) in La Crosse County, WI. The proposed Project crosses the La Crosse River floodplain, which includes floodplain forest, streams, and emergent wetlands. The proposed Project would be constructed within the existing 80 foot right-of-way (ROW).

The proposed Project is needed so that DPC can continue to provide reliable electric service to the area. Originally constructed in 1950, the transmission line is reaching the end of its service life with increased outages, increased maintenance costs, and low reliability during contingencies. The proposed Project is located in Section 13 of Township 17 North and Range 8 West; Sections 18, 19, 29, 30, 32, and 33 of Township 18 North and Range 9 West; and Sections 3, 4, 10, 14, 15, 23 of Township 16 North and Range 7 West. Construction of the proposed Project is scheduled to take place from September 2016 through June 2017, which is the earliest timeframe that would avoid impacts on sensitive resources, including protected species, surface waters and wetlands.

In upland areas, the new structures that will be used to replace the existing 161 kV transmission line will be single-pole steel transmission structures that would be 95 to 115 feet tall with an approximate 775 to 800 foot span between structures and three H-frame steel dead-end structures that would be 50 feet tall with an average 375 foot span between structures. Access to the structures would be temporary overland access crossing existing easements using entrances from local roads, field roads, and private driveways (where permitted by the landowner).

In crossing the La Crosse floodplain, the new structures that will be used to replace the existing structures will be Y-frame steel structures used to minimize potential impacts related to birds, vegetation, wetlands, and floodplains. These structures will be an average of 65 feet to remain at or below the average tree height and an average span of 730 feet between structures). Within the La Crosse River floodplain, DPC would use vibratory caissons along with Y-frame steel structures and one H-frame steel deadend structure to limit transmission line height to an average of 65 feet to reduce the potential for bird strikes, eliminate the need for concrete foundations, avoid the need for dewatering, and eliminate the generation of waste soil material. Permanent effects associated with construction would be limited to the footprint of the transmission structures, which are anticipated to total approximately 50.4 square feet.

The transmission line, as proposed, will be located within wetlands and 100-year floodplains. Construction of the proposed transmission line will result in up to 63 square feet of permanent disturbance within 100-year floodplains and 50.4 square feet of permanent disturbances within wetlands. DPC has considered a variety of alternatives for the Project, including taking no action, alternative routes, alternative design and construction methods, and alternative structure types. DPC believes that there is no practicable alternative that will avoid locating transmission structures in wetlands and 100-year floodplains.

AVAILABILITY: The EA can be reviewed at, or obtained from, DPC, 3200 East Avenue South, La Crosse, WI 54602; Holmen Area Library, 103 State Street, Holmen, WI 54636; Onalaska Public Library, 741 Oak Avenue South, Onalaska, WI 54650; or from the RUS Engineering and Environmental Staff, 1400 Independence Avenue, SW, Stop 1571 Room 2242, Washington, D.C. 20250. The EA will be available electronically for review at: www.rurdev.usda.gov/UWP-ea.htm, or http://www.dairynet.com/environment/.

COMMENT PERIOD: RUS is requesting substantive comments on the proposed action. Comments on the EA should be submitted in writing within 30 days of the publication date of this notice to ensure that RUS. The deadline for submitting comments to the RUS regarding the EA is June 29, 2016 at the address provided in this notice.

At the end of the comment period, RUS will issue a decision for the proposed action. A notice announcing the decision will be published in local newspapers. Any final action by RUS related to the proposed action will be subject to, and contingent upon, compliance with all relevant federal, state, and local environmental laws and regulations, and completion of the environmental review requirements as prescribed in the RUS Environmental Policies and Procedures (7 CFR Part 1970).

PLEASE SUBMIT COMMENTS TO: Mr. Dennis Rankin, Environmental Protection Specialist, USDA Rural Development, Rural Utilities Service, 1400 Independence Avenue, SW, Mail Stop 1571, Room 2242, Washington, D.C. 20250. Comments can also be submitted via email to: dennis.rankin@wdc.usda.gov. For Project-specific questions, please contact: Mr. Chuck Thompson (DPC), 608-787-1432, or send questions to chuck.thompson@dairylandpower.com.

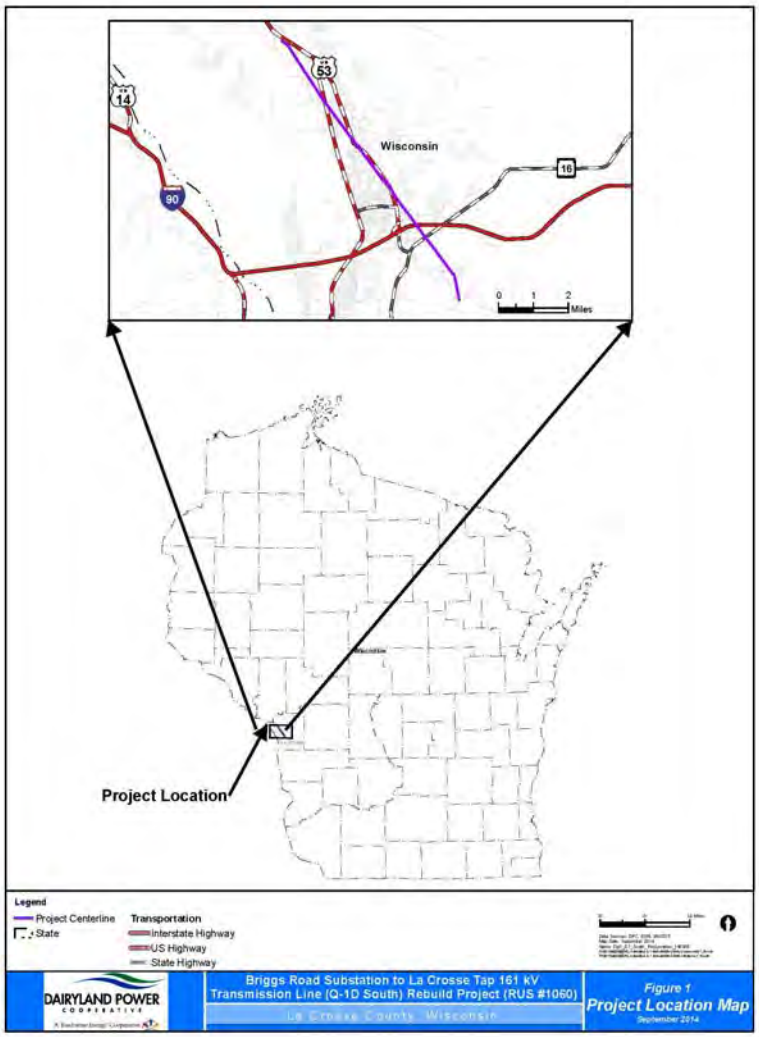
DAIRYLAND POWER COOPERATIVE

A Touchstone Energy® Cooperative

Dairyland Power Cooperative, 3200 East Avenue South, La Crosse, WI 54602-0817, is planning to rebuild approximately nine miles of 161 kilovolt transmission line in La Crosse County (Q-1D South Project). The Q-1D South Project begins just south of the Briggs Road Substation near the Village of Holmen and ends at the La Crosse Tap south of the La Crosse River. It has been determined that the Project, as proposed, will be located in a prime farmlands, 100-year floodplain, and wetlands. The Project will occupy 126 square feet of prime farmland, 12.6 square feet of farmland of statewide importance, 63 square feet of 100-year floodplain, and 50.4 square feet of wetlands.

Dairyland Power Cooperative has considered a variety of alternatives, including no action, and believes that there is no practicable alternative that will avoid locating the Project in prime farmlands, farmland of statewide importance, 100-year floodplains, and wetlands. Additional information on the project can be obtained from Chuck Thompson at the address provided in this notice or by telephoning (608) 787-1432.

Comments on the environmental aspects of the project should be submitted in writing to Dairyland Power Cooperative within 30 days of the publication of this notice. Copies of all comments received will be forwarded to the Rural Utilities Service for consideration prior to approval of financing assistance or taking other Federal action related to the Project.



Affidavit of Publication

115.73

STATE OF WISCONSIN
La Crosse County } ss.

Holly Rowland, being duly sworn, says that she is the principal clerk of the **LA CROSSE TRIBUNE**, a public daily newspaper ...eneral circulation, published in the City of La Crosse, in the ...nty and state aforesaid, and that the notice of which the ...exed is printed copy taken from the paper in which the same ... published, was inserted and published in the said newspaper ...he

...1 day of August 2015

thereafter on the following dates, to wit:

...g at least once in each week for 1 ...essive week(s).

Holly Rowland

...y Rowland

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

28th day of August 2015

Chris D Moon

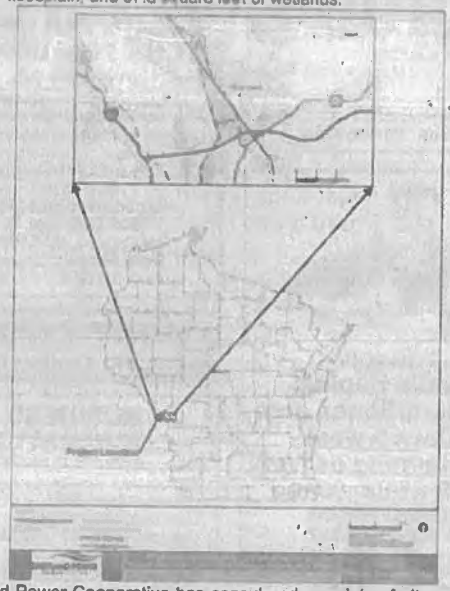
Notary Public, La Crosse County, Wisconsin

My Commission as Notary Public will expire on the

14th day of August 2016

PUBLIC NOTICE

Dairyland Power Cooperative, 3200 East Avenue South, La Crosse, WI 54602-0817, is planning to rebuild approximately nine miles of 161 kilovolt transmission line in La Crosse County, the Q-1D South Project, near the Village of Holmen. It has been determined that the Project, as proposed, will be located in a prime farmlands, 100-year floodplain, and wetlands. The Project will occupy 100.8 square feet of prime farmland, 0.09 acres of 100-year floodplain, and 37.8 square feet of wetlands.



Dairyland Power Cooperative has considered a variety of alternatives, including no action, and believes that there is no practicable alternative that will avoid locating the Project in prime farmlands, 100-year floodplains, and wetlands. Additional info... Chuck Thompson at the add... (608) 787-1432.

Comments on the environme... ted in writing to Dairyland P... cation of this noti... the Rural Utilities Service ... assistance or taking other F...

8/28 30394422 WNAXLP

CHRIS D. MOON NOTARY PUBLIC STATE OF WISCONSIN

River Valley Newspaper Group

La Crosse Tribune, Winona Daily News, Westby Times, Vernon County Broadcaster, West Salem Coulee News, Tomah Journal/Monitor Herald, Melrose Chronicle, Onalaska Community Life, Holmen Courier, Tri-County Foxxy Publications

Appendix G:
EMF Calculations

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Town of Holland

Village of Holmen

Town of Farmington

Long Lake

The Bullet Chute

Briggs Road Substation

US 53

Town of Onalaska

A1

Town of Hamilton

B2

LA CROSSE

WINONA

Lake Onalaska

City of Onalaska

16

Village of West Salem

A1

90

Town of Campbell

C3

La Crosse River

French Lake

Black River

Black River Channel

Round Lake

City of La Crosse

A1

Town of Medary

La Crosse Tap

Town of Barre

Mississippi River

Proposed Configuration

Typical Callout

B4

EMF Segment

Figure

Legend

Project Feature

- Project
- EMF Segment

Highway

- Interstate Highway
- US Highway
- State Highway

Jurisdiction

- City or Village
- Town

0 1 Miles

Data Sources: WDNR, WisDOT, BTS, USGS, and Census
Map Date: December 2015
Name: Q1_South_EMF_Proposed_Overview_151221
MXD: P:\2013\60280210_Dairyland Q1 Rebuild\06 GIS\6.1 Layout\Q1_South\
Map: P:\2013\60280210_Dairyland Q1 Rebuild\06 GIS\6.1 Maps\Q1_South\

DAIRYLAND POWER COOPERATIVE

A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Q-1D South Rebuild Project

Proposed EMF Segment Map

December 2015

Town of Holland

Long Lake

The Bullet Chute

Briggs Road Substation

Village of Holmen

US 53

Town of Onalaska

Town of Farmington

Town of Hamilton

N8

City of Onalaska

16

Village of West Salem

LA CROSSE

WINONA

Lake Onalaska

90

Town of Campbell

French Lake

Black River

Black River Channel

Round Lake

City of La Crosse

La Crosse River

Town of Medary

La Crosse Tap

Town of Barre

Mississippi River

Existing Configuration

Typical Callout

B4

EMF Segment

Figure

Legend

Project Feature

- Project
- EMF Segment

Highway

- Interstate Highway
- US Highway
- State Highway

Jurisdiction

- City or Village
- Town

0 1 Miles

Data Sources: WDNR, WisDOT, BTS, USGS, and Census
Map Date: December 2015
Name: Q1_South_EMF_Existing_Overview_151221
MXD: P:\2013\60280210_Dairyland Q1 Rebuild\06-GIS\6.1 Layout\Q1_South\
Map: P:\2013\60280210_Dairyland Q1 Rebuild\06-GIS\6.1 Maps\Q1_South\

DAIRYLAND POWER COOPERATIVE

A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Q-1D South Rebuild Project

Existing EMF Segment Map

December 2015

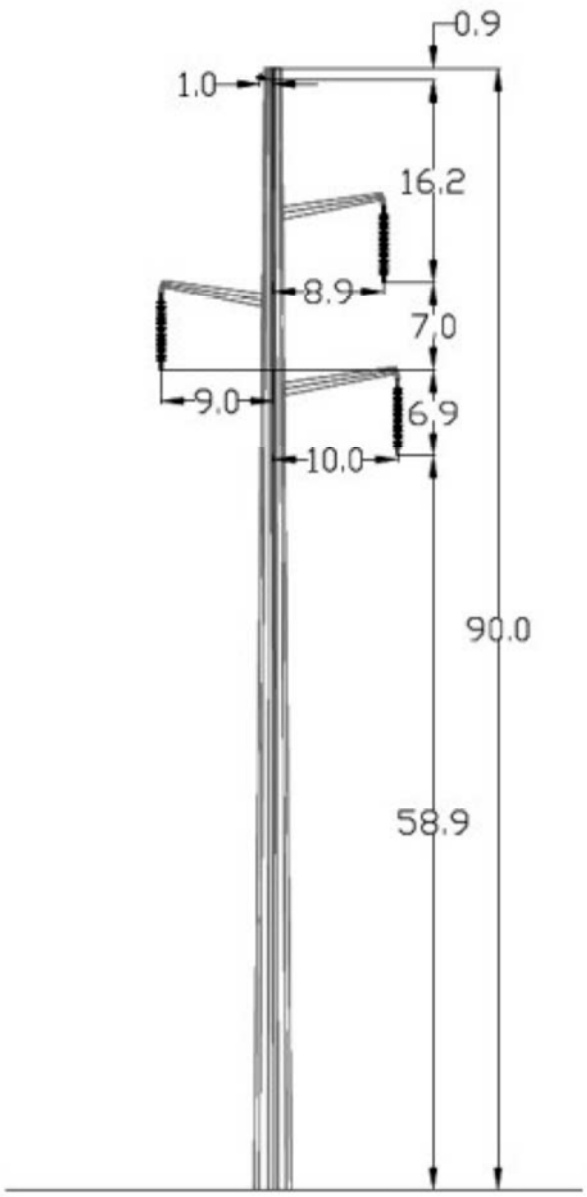


Figure 1

PROPOSED Segment: A
161 kV

Calculated Electric Fields Table	
Circuit Name: Q1 La Crosse Tap to Briggs Road Substation	
Facility Description: Proposed Davit Arm Single Circuit 161 kV	
Distance from Centerline (feet)	Electric Field (kV/m)
Centerline	1.258
25	1.393
50	0.542
100	0.123
150	0.047
200	0.024
300	0.010

Assumptions:
Typical Midspan Height = 26 feet
5% Overvoltage Condition (169.05 kV)
Conductor = 795 DRAKE ACSS (1.107")
Shield Wire = OPGW (0.571")
ROW Width = 80 Feet
Field is Assymetrical so Highest Values Shown per Distance

Calculated Magnetic Fields Table			
Circuit Name: Q1 La Crosse Tap to Briggs Road Substation			
Facility Description: Proposed Davit Arm Single Circuit 161 kV			
Normal Load		Contingency Load	
Distance from Centerline (feet)	Magnetic Field (mG)	Distance from Centerline (feet)	Magnetic Field (mG)
Centerline	15.5	Centerline	79.1
25	10.6	25	54.1
50	4.6	50	23.5
100	1.4	100	7.1
150	0.6	150	3.3
200	0.4	200	1.9
300	0.2	300	0.9

Assumptions:
Typical Midspan Height = 26 feet
Normal Load = 27 MVA (96.8A)
Contingency Load = 138 MVA (494.9A)
Conductor = 795 DRAKE ACSS (1.107")
Shield Wire = OPGW (0.571")
ROW Width = 80 Feet
Field is Assymetrical so Highest Values Shown per Distance

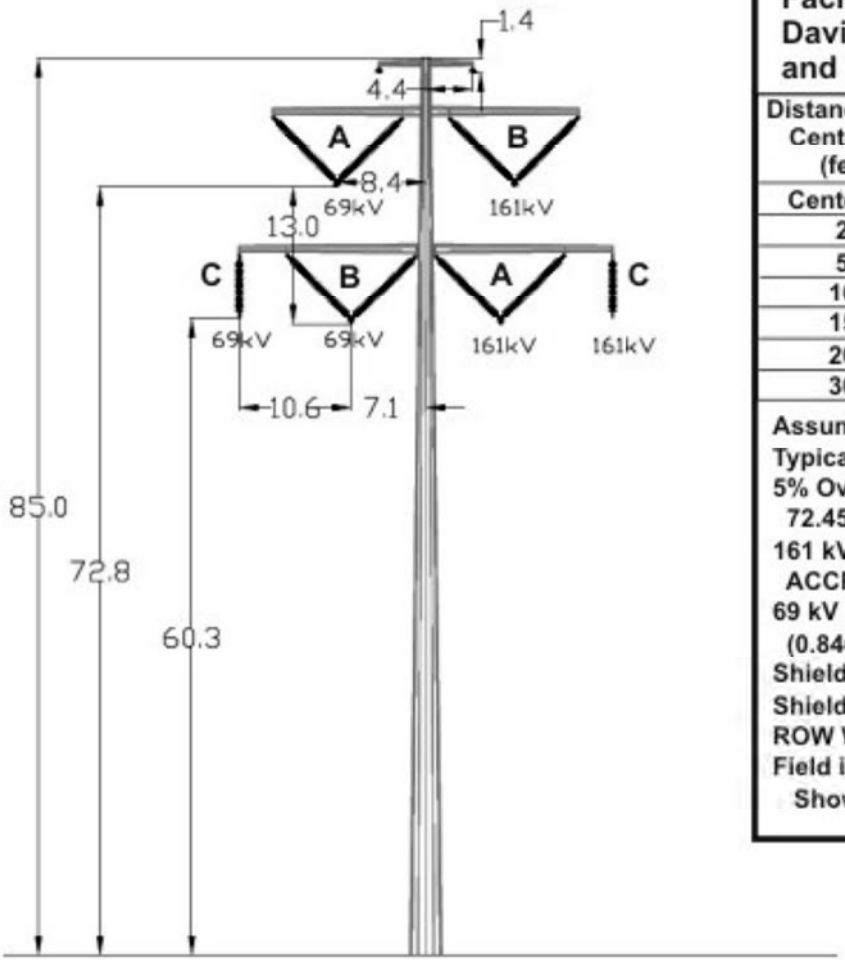


Figure 2

Calculated Electric Fields Table	
Circuit Name: Q1 La Crosse Tap to Briggs Road Substation	
Facility Description: Proposed Davit Arm Double Circuit 161 kV and 69 kV	
Distance from Centerline (feet)	Electric Field (kV/m)
Centerline	0.776
25	1.555
50	0.547
100	0.080
150	0.028
200	0.014
300	0.006

Assumptions:
Typical Midspan Height = 26 feet
5% Overvoltage Condition (169.05 kV and 72.45 kV)
161 kV Conductor = 3M 636 GROSBEAK ACCR (1.004")
69 kV Conductor = 477 FLICKER ACSR (0.846")
Shield Wire = OPGW (0.571")
Shield Wire = 7/16" EHS (0.4375")
ROW Width = 80 Feet
Field is Assymetrical so Highest Values Shown per Distance

Calculated Magnetic Fields Table			
Circuit Name: Q1 La Crosse Tap to Briggs Road Substation			
Facility Description: Proposed Davit Arm Double Circuit 161 kV and 69 kV			
Normal Load		Contingency Load	
Distance from Centerline (feet)	Magnetic Field (mG)	Distance from Centerline (feet)	Magnetic Field (mG)
Centerline	10.7	Centerline	52.3
25	10.7	25	52.7
50	4.3	50	21.4
100	1.1	100	5.4
150	0.5	150	2.3
200	0.3	200	1.3
300	0.1	300	0.6

Assumptions:
Typical Midspan Height = 26 feet
161 kV Normal Load = 27 MVA (96.8A)
69 kV Normal Load = 2.4 MVA (20.1A)
161 kV Contingency Load = 138 MVA (494.9A)
69 kV Contingency Load = 17 MVA (142.2A)
Load Flow in Same Direction for Both Circuits
161 kV Conductor = 3M 636 GROSBEAK ACCR (1.004")
69 kV Conductor = 477 FLICKER ACSR (0.846")
Shield Wire = OPGW (0.571")
Shield Wire = 7/16" EHS (0.4375")
ROW Width = 80 Feet
Field is Assymetrical so Highest Values Shown per Distance

PROPOSED Segment: B

161 kV and 69 kV - BEST PHASING ARRANGEMENT

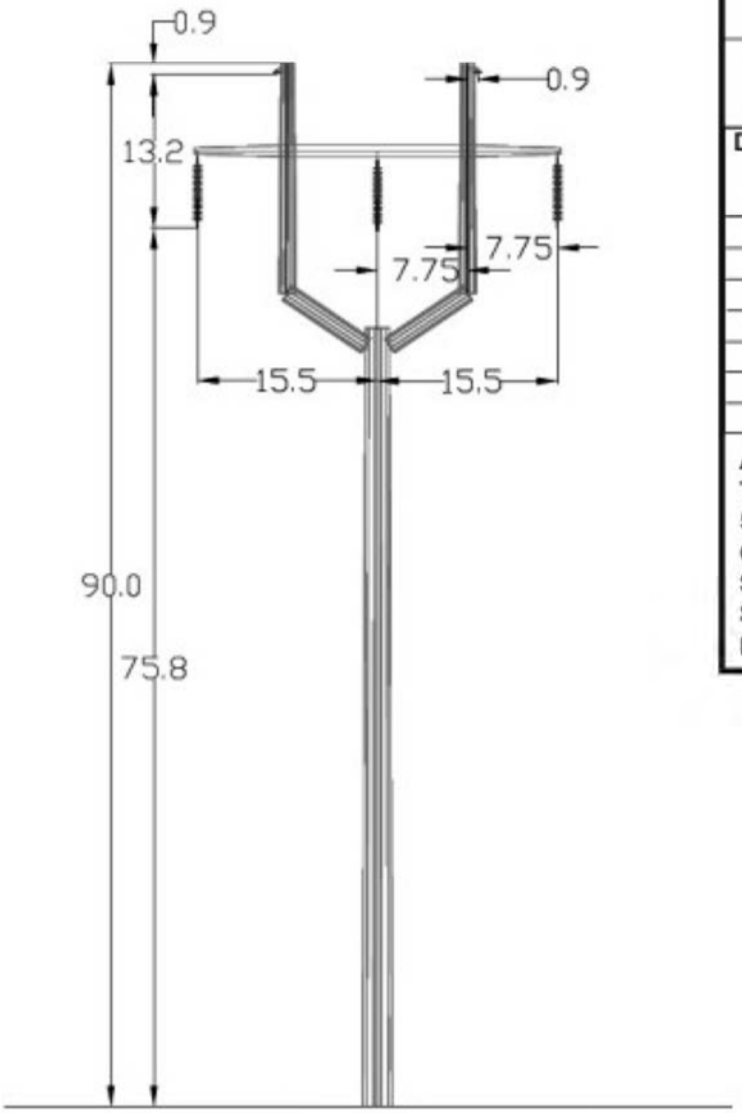


Figure 3

PROPOSED
161 kV

Segment: C

Calculated Electric Fields Table	
Circuit Name: Q1 La Crosse Tap to Briggs Road Substation	
Facility Description: Proposed Y-Frame Single Circuit 161 kV	
Distance from Centerline (feet)	Electric Field (kV/m)
Centerline	1.103
25	2.047
50	0.776
100	0.130
150	0.041
200	0.018
300	0.006

Assumptions:
Typical Midspan Height = 26 feet
5% Overvoltage Condition (169.05 kV)
Conductor = 795 DRAKE ACSS (1.107")
Shield Wire = OPGW (0.571")
Shield Wire = 7/16" EHS (0.4375")
ROW Width = 80 Feet

Calculated Magnetic Fields Table			
Circuit Name: Q1 La Crosse Tap to Briggs Road Substation			
Facility Description: Proposed Y-Frame Single Circuit 161 kV			
Normal Load		Contingency Load	
Distance from Centerline (feet)	Magnetic Field (mG)	Distance from Centerline (feet)	Magnetic Field (mG)
Centerline	24.2	Centerline	123.7
25	15.5	25	79.3
50	6.1	50	31.2
100	1.7	100	8.7
150	0.8	150	4.0
200	0.5	200	2.3
300	0.2	300	1.1

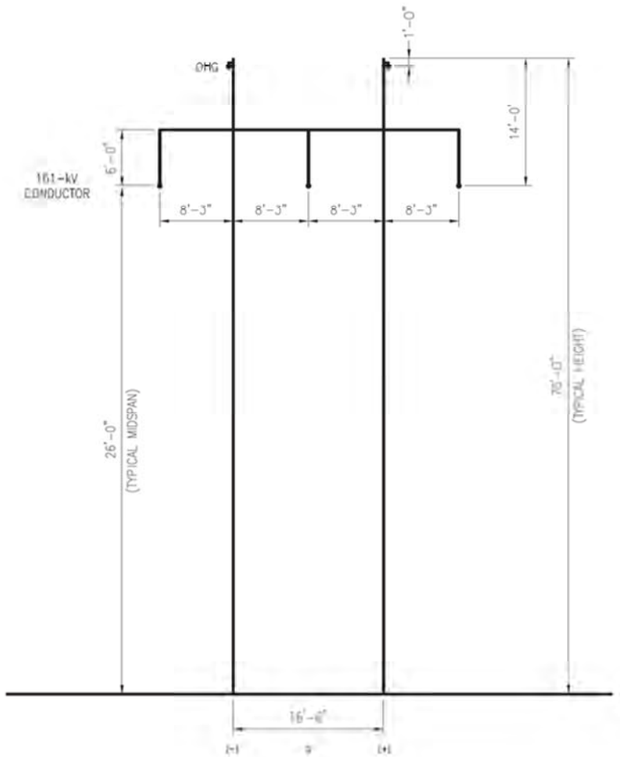
Assumptions:
Typical Midspan Height = 26 feet
Normal Load = 27 MVA (96.8A)
Contingency Load = 138 MVA (494.9A)
Conductor = 795 DRAKE ACSS (1.107")
Shield Wire = OPGW (0.571")
Shield Wire = 7/16" EHS (0.4375")
ROW Width = 80 Feet

Table 19 - Calculated Electric Fields Table	
Calculated Electric Field Data[3]	
Transmission Line Segments: N8	
Facility Description:[4] Existing Single Pole, H-Frame Single Circuit 161kV	
Applies to all existing 161 kV H-	
Distance from Centerline (feet)	**Electric Field (kV/m)**
Centerline:	0.68
25	1.72
50	0.82
100	0.15
150	0.05
200	0.02
300	0.01

Assumptions:
Typical Midspan Sag = 26 to 30 feet
Amperage = 427 A
[3]Provide a measured diagram of structures showing the height of conductors from the ground at the structure.
[4]Describe facility - Structure type, configuration, location
[5]Figure 8

Table 22a - Calculated Magnetic Fields Table			
Calculated Magnetic Field Data[3]			
Transmission Line Segments: N8			
Facility Description:[4] Existing H-Frame[5] Single Circuit 161kV			
Circuit 1: Alma - Marshland 161 kV or Alma – Tremval 161 kV[6]			
***Existing* Normal Load**		***Existing* Normal Peak**	
Distance from Centerline (feet)	**Magnetic Field (mG)**	**Distance from Centerline (feet)**	**Magnetic Field (mG)**
Centerline	68.74	Centerline	86.07
25	48	25	60.11
50	21.39	50	26.78
100	6.3	100	7.89
150	2.91	150	3.64
200	1.67	200	2.09
300	0.77	300	0.96

Assumptions:
Typical Midspan Sag = 26 to 30 feet
Amperage = 427 A
161 kV Circuit Phase Angle: A phase = 240 Deg, B Phase = 120 Deg, C phase = 0 Deg
[3]Provide a measured diagram of structures showing the height of conductors from the ground at the structure.
[4]Describe facility - Structure type, configuration, location
[5]Figure 8
[6]Flows on Alma - Marshland and Alma - Tremval are essentially identical



LOOKING TOWARDS NORTH La CROSSE

FIGURE 8

EXISTING
SEGMENTS: N

		DSGN	PEI	9/27/10	EMF FIGURES GENERAL DRAWING
		DRN	PEI	9/27/10	JOB NUMBER / REV: B
		CKD	PEI	9/27/10	161-kV H-FRAME
		SCALE: NTS (FOR 11x17 DWG ONLY)			DRAWING NUMBER: 8
	REFERENCE DRAWINGS				

Appendix H:
Public Comments and Responses

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Dairyland Power Cooperative

Briggs Road to La Crosse Tap (Q-1D South) 161 kV Transmission Line Rebuild Project

RESPONSES TO COMMENTS

A public notice regarding impacts to prime farmlands, 100-year floodplain, and wetlands related to the Dairyland Power Cooperative (DPC) Briggs Road to La Crosse Tap 161 kilovolt (kV) Transmission Line Rebuild Project (Q-1D South Project or Project) was published in the La Crosse Tribune on August 31, 2015. The public notice asked that the public to submit comments within 30-days. In response to public comments received during the initial 30-day comment period, DPC published a second public notice in La Crosse Tribune on October 3, 2015 extending the comment period by 10 days. A total of 45 written comments were received. **Table 1** provides list of comments with the commenter identified. A compact disk (CD) containing an electronic version of all comments is **Attachment A**. These comments are also available on the DPC's website at http://www.dairynet.com/power_delivery/project_updates.php and for public examination locally, at DPC's office, 3200 East Avenue South, La Crosse, Wisconsin 54602.

The responses to comments have been organized by topic following the order that the topics are discussed in the Environmental Report (ER) prepared for the Project that will be submitted to the U.S. Department of Resources, Rural Utilities Service (RUS) to facilitate review, with summaries of representative comments provided under each topic. The numbers in parenthesis refer to the specific comments as listed in **Table 1**.

Response to Project Description/Provide Additional Information/Public Notice and Comment/Extend Comment Period Comments

The initial 30-day public notice, as required, outlined the proposed Project's impacts to prime farmlands, 100-year floodplain, and wetlands but did not provide a detailed Project description. A total of 23 comments (**Table 1**) were received requesting a project description, additional Project information, and to extend the public comment period. Based on these comments, DPC provided sheet maps showing the Project location and a fact sheet containing a Project description, discussion of why the Project is needed, a proposed schedule, next steps in the process, and diagrams of proposed structure types.

DPC published second public notice extending the comment period by 10 days. The notice identified a path to the sheet maps and fact sheet posted on DPC's website at: http://www.dairynet.com/power_delivery/project_updates.php.

Section 1.0 of the ER provides a detailed Project description including: Project history, schedule, location, and design and construction (access routes, staging areas, and transmission structures).

Table 1 Summary of Comments Received by General Area of Concern

Public Commenter	General Area of Concern																										
	Project Description/ Provide Additional Information/Public Notice and Comment, Extend Comment Period	Purpose and Need for Project	Alternatives to the Project	General Land Use	Important Farmland, Prime Forestland, Prime Rangeland	Formally Classified Land	Vegetation	Wetlands	Threatened and Endangered Species	Fish and Wildlife Resources	Floodplains	Water Quality	Coastal Areas	Air Quality	Cultural Resources	Aesthetics	Socioeconomics and Community Resources (Property Value)	Environmental Justice	Transportation (Roads, Airports, and Railroads)	Human Health and Safety	Electrical Characteristics (Electric and Magnetic Fields)	Corona, Audible Noise, Radio and Television Interference	Agencies Consulted and Permitting Requirements	Additional Environmental Review	Project Segmentation
1. Irv Balto e-mail received September 22, 2015.	x	x																								
2. Dr. Luis Contreras e-mail received September 24, 2015.	x																									
3. Dr. Luis Contreras e-mail received October 2, 2015.			x																							
4. Nancy Dull letter dated September 18, 2015.																					x					
5 Vernon and Carolyn Hesselberg letter dated September 15, 2015.			x														x				x					
6. Forest Jahnke email received September 24, 2015.	x																									
7. Christopher Kathan letter dated September 25, 2015.	x		x													x					x					
8. Robert and Lois Kathan letter dated September 25, 2015.	x	x	x	x			x			x					x		x			x	x		x			
9. Ann Kathan and Michael Finn letter dated September 25, 2015.	x	x	x	x			x			x					x		x			x	x		x			
10. Marlene McCabe letter dated September 20, 2015.				x																	x					
11. John McCabe letter dated September 20, 2015.																x	x									
12. Judith Scheidegger letter dated September 20, 2015.				x												x					x					
13. Wayne and Diane Wheeler letter dated September 20, 2015.				x												x					x					
14. Carol Overland letter dated September 14, 2015.	x																									
15. Melinda Peterson letter dated September 17, 2015.	x				x			x		x	x						x				x					
16. Peter Tabor e-mail received September 15, 2015.	x																									
17. Sarah Ludington e-mail received October 13, 2015.	x		x																							
18. Gayle Edlin e-mail received October 13, 2015.																x					x					
19. Dr. Luis Contreras e-mail received October 13, 2015.	x															x				x	x	x		x	x	
20. Dr. Luis Contreras e-mail received October 14, 2015.	x															x				x	x	x		x	x	
21. Carol Overland letter dated October 12, 2015.	x	x	x																		x			x	x	
22. Carol Olson e-mail received on October 12, 2015.																x	x									
23. Jennifer Schilling letter dated October 8, 2015.	x																									
24. Bev Modahl letter dated October 1, 2015.		x		x												x	x		x	x	x				x	
25. Mary McKeeth letter dated October 1, 2015.		x		x												x	x		x	x	x				x	
26. Jane Johnson letter dated October 1, 2015.		x		x												x	x		x	x	x				x	
27. Jane M. Barstow letter dated October 1, 2015.		x		x	x			x								x			x	x	x					
28. C. Joseph Barstow letter dated October 4, 2015.		x		x	x			x								x			x	x	x					
29. Emily Vance letter dated October 3, 2015.		x		x												x	x		x	x	x		x			
30. Carolyn Briggs letter dated October 1, 2015.		x		x												x			x	x	x					
31. Sharon Campbell letter dated October 3, 2015.		x		x												x	x			x	x					
32. Chad and Cindy Wortman letter dated October 3, 2015.		x		x					x							x	x		x	x	x					
33. Bridget Olson letter dated October 4, 2015.		x		x	x			x	x	x						x			x	x	x					
34. Nancy Tolvstad letter dated October 5, 2015.		x		x												x			x		x				x	
35. Deborah Nerud letter dated October 9, 2015.	x	x														x		x			x					

Public Commenter	General Area of Concern																										
	Project Description/ Provide Additional Information/Public Notice and Comment Extend Comment Period	Purpose and Need for Project	Alternatives to the Project	General Land Use	Important Farmland, Prime Forestland, Prime Rangeland	Formally Classified Land	Vegetation	Wetlands	Threatened and Endangered Species	Fish and Wildlife Resources	Floodplains	Water Quality	Coastal Areas	Air Quality	Cultural Resources	Aesthetics	Socioeconomics and Community Resources (Property Value)	Environmental Justice	Transportation (Roads, Airports, and Railroads)	Human Health and Safety	Electrical Characteristics (Electric and Magnetic Fields)	Corona, Audible Noise, Radio and Television Interference	Agencies Consulted and Permitting Requirements	Additional Environmental Review	Project Segmentation
36. Peter and Marie Tabor, Mark and Lori Schroeder, Dan Leffelman, Heather Kammerde, John and Amy Zimmerman, James and Angela Page, Christine Gruendeman, Dennis and Easther Eastman, Robin Ainsworth, Penny Morton, Robert and Kelly Geary, John and Mary Larson, and Susan Haber letter dated September 20, 2015.			x	x													x			x	x				
37. Michael and Shirley Yeager letter dated September 21, 2015.	x		x														x				x		x		
38. Jeremy and Kim Durfee letter dated September 21, 2015.	x		x														x				x				
39. Roy Munderloh letter dated September 23, 2015.	x		x													x	x								
40. Judy Holley letter dated September 22, 2015.	x		x													x	x				x				
41. George Nygaard e-mail received September 10, 2015.	x																								
42. Chris Hubbuch e-mail received September 17, 2015.	x																								
43. Edie Ehlert e-mail received September 25, 2015.	x																								
44. Kathleen Lockington e-mail received September 25, 2015.	x																								
45. Wayne and Joan Wojciechowski e-mail received September 27, 2015.			x		x			x			x						x				x				
Totals	**23**	**16**	**13**	**17**	**5**	**0**	**2**	**5**	**2**	**4**	**2**	**0**	**0**	**0**	**2**	**22**	**18**	**1**	**10**	**15**	**30**	**2**	**4**	**3**	**7**

Response to Purpose and Need Comments

A total of 16 comments (**Table 1**) were received requesting purpose and need information about the Project. Section 2.0 of the ER addresses Project purpose and need.

Response to Alternatives to the Project Comments

A total of 13 comments (**Table 1**) were received regarding alternatives to the Project. Section 3.0 of the ER provides information on alternatives.

DPC considered two alternatives to rebuilding the Project along its existing alignment (**Figure 1**):

- Alternative 1 – Rebuilt along DPC 69 kV Route near Wisconsin State Highway 35
- Alternative 2 – Rebuilt along DPC 69 kV Route with minor re-routes along County Road XX
- Proposed Project – Rebuilt within existing DPC Q-1D South 161 kV Route

These alternatives were evaluated in terms of technical feasibility, environmental issues, and cost-effectiveness. Also, as directed by the policy of the state of Wisconsin (Wis. Stat. §1.12 (6)), the sharing of existing utility corridors, highway and railroad corridors, and recreational trails, in that order, were considered. Alternatives 1 and 2 would create new impacts to residences, apartments, businesses; would increase the length of the line; would require additional ROW; had greater environmental impact; and was substantially more costly than rebuilding the Project along its existing alignment (**Table 2**). The existing alignment and Alternative 1 provide 100% sharing of existing utility corridor, higher than Alternative 2. DPC proposes to reconstruct the Project in the existing ROW, which would be the least impacting alternative and avoids conversion of approximately 26 acres of land to use by a transmission facility. Utilizing Alternative 2 would have also moved parts of the line closer to the airport which would have caused several design and ROW impacts due to height restriction.

Reliability was also considered. Placing the Project close to another line that provides redundancy to the Q-1D South line creates additional reliability risk and increases the chance of customer outages if a major weather event causes simultaneous outages of the two lines. The most reliable alternative for the Q-1D South Project is to maximize the distance between the Project and the Xcel Energy Tremval 161 kV line, which would be accomplished by rebuilding the Project on its existing alignment.

Table 2: Alternative Comparison Summary

Resource Category	Existing Q-1D Route (Project)	Alternative 1	Alternative 2
Length (miles)	8.8	10.7	10.7
Existing ROW (feet)	80	60	60
Proposed ROW (feet)	80	80	80
New transmission line ROW required (acres)	0	25.9	25.9
General Characteristics			
Length utilizing existing transmission corridor (miles)	8.8	10.7	8.0
% of route utilizing existing transmission corridor	100%	100%	75%
Length utilizing existing transportation corridor (miles)	0.0	0.0	2.1
% of route utilizing existing transportation corridor	0%	0%	20%
Length utilizing existing transmission corridor and/or transportation corridor (miles)	8.8	10.7	10.7
% of route utilizing existing transmission corridor and/or transportation corridor	100%	100%	100%
Length not utilizing linear features (miles)	0.0	0.0	0.5
% of route not following linear infrastructure	0%	0%	5%
Natural Resources			
Length crossing wetlands (miles)	0.6	0.6	0.6
Length crossing floodplains (miles)	0.6	0.9	0.6
Waterway crossings	8	8	8
Residences			
Existing residences 0-30 feet	13	1	2
Existing residences 31-40 feet	11	1	2
Existing apartments 0-30 feet	0	1*	1*
Existing apartments 31-40 feet	0	6*	6*
Existing businesses 0-30 feet	2	9	5
Existing businesses 31-40 feet	0	4	2
Total existing residences, apartments, and businesses 0-40 feet	26	24	18

Resource Category	Existing Q-1D Route (Project)	Alternative 1	Alternative 2
NEWLY impacted residences 0-30 feet	0	0	0
NEWLY impacted residences 31-40 feet	0	1	2
NEWLY impacted apartments 0-30 feet	0	0	0
NEWLY impacted apartments 31-40 feet	0	6*	6*
NEWLY impacted businesses 0-30 feet	0	0	0
NEWLY impacted businesses 31-40 feet	0	4	2
Total NEWLY impacted residences, apartments, and businesses 0-40 feet	0	11	10
State and Federal Lands			
State lands crossed (miles)	0.02	0.02	0.02
Federal lands crossed (miles)	0	0	0

Response to General Land Use Comments

A total of 17 comments (**Table 1**) were received regarding general land use and the Project. Section 4.1.1 of the ER provides additional details on the La Crosse County, Town of Onalaska, Village of Holmen, Town of Medary, City of Onalaska, and the City of La Crosse Comprehensive Plans and Section 5.1.1 for proposed Project effects, monitoring, and mitigation.

Response to Important Farmland, Prime Forest Land, and Prime Rangeland Comments

A total of five comments (**Table 1**) were received regarding important farmland, prime forest land, and prime rangeland. Sections 4.1.2 and 5.1.2 of the ER provide additional details.

The Project ROW and access routes cross prime farmland and farmland of statewide importance. The Project ROW crosses approximately 0.7 miles (6.7 acres) of prime farmland. Proposed access routes would cross approximately 1.0 miles (2.0 acres) of prime farmland. Farmland of statewide importance is designated along approximately 0.4 miles (3.0 acres) of the Project ROW. The proposed access routes would cross approximately 0.1 miles (0.2 acres) of farmland of statewide importance. The Project and access routes would not cross any potential prime farmland, if drained (USDA, NRCS 2014).

DPC would not acquire any new easements for ROW and temporary staging areas, if required, would be leased and revert back to agricultural use. As a result, the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) will not require the preparation of an Agricultural Impact Statement (AIS).

No prime forest land or prime rangeland was identified within the Project ROW or along access routes.

Response to Vegetation Comments

Two comments (**Table 1**) were received regarding Project impacts to vegetation. Section 4.2 of the ER provides details on the vegetation types found along the Project and Section 5.2 provides information on proposed Project effects, monitoring, and mitigation.

The Project ROW would utilize an existing transmission corridor and is located within a portion of La Crosse County that includes cities, towns, and villages, along with agriculture and recreation uses. As confirmed with site visits and wetland delineations in May 2013, vegetation observed included species associated with disturbed areas along roadways, residential yards, field edges, recreational land, and riparian wetlands (associated with the La Crosse River). The Project ROW largely consists of herbaceous vegetation because woody vegetation within the ROW has been mowed or removed to meet federal regulatory guidelines and facilitate maintenance access. Due to this mowing and maintenance that has occurred since the Project was constructed, woody vegetation has been almost entirely eliminated from within the existing ROW.

Response to Wetland Comments

A total of five comments (**Table 1**) were received regarding wetlands. Section 4.3 of the ER provides details on the wetlands found along the Project and Section 5.3 provides information on proposed Project effects, monitoring, and mitigation.

The area of wetland that will be permanently impacted by the 2 Y-frame steel transmission structures is approximately 12.6 square feet (ft^2) and by the one H-frame steel deadend transmission structure is approximately 25.2 ft^2. Total permanent wetland impacts resulting from the Project are estimated to be approximately 63 ft^2

Depending on temperatures at the time of construction some of the existing access routes within the La Crosse River floodplain may require temporary matting. Total temporary impacts to wetlands from access route matting, work pad matting, and TCSBs are approximately 1.46 acres. Worst case Project impacts are summarized in **Table 3**.

The Project is expected to fall under WDNR General Permit for Utilities to Place Structures on the Bed or to Place Temporary Bridges across Waterways, or to Place Fill in Wetlands (WDNR-GP3-2013) and USACE Regional General Permit GP-002 WI. Two temporary clear span bridges (TCSBs) would be needed for equipment, vehicles, and personnel to cross a waterway and a deep ditch.

Table 3: Construction Related Impacts

Item	Number	Impact Area	Total Permanent Impacts	Total Temporary Impacts
Y-frame Structures	2	12.6 ft^2	25.2 ft^2	0
H-Frame Steel Deadend	1	25.2 ft^2	25.2 ft^2	0
Temporary Matting Around Structures	3	625 ft^2	0	1,875 ft^2 (0.04 acres).
Worst Case Temporary Matting for Access Routes	0.7 miles	16 ft. wide	0	59,136 ft^2 (1.4 acres)
TCSBs	2	26 ft. long 16 ft. wide	0	832 ft^2 (0.02 acres)
Total			50.4 ft^2	1.46 acres

Response to Threatened and Endangered Species Comments

Two comments (**Table 1**) were received regarding threatened and endangered species (T&E species). Sections 4.4 and 5.4 of the ER provide details on T&E species.

Construction will overlap with the nesting period for Bell's vireo. DPC proposes to avoid of habitat during the nesting period or conduct bird surveys to determine presence. There are no known Bald eagle nests in the area; however DPC will patrol the construction areas for nests and avoid construction during the breeding and nesting period if any nests are identified. The potential for impacts to Northern cricket frogs is negligible, however if any are observed in the area during the course of the Project, DPC will contact the Endangered Resources Review Program. The potential for impacts to Gophersnakes and Timber rattlesnakes is low. When possible, mammal burrows and rock crevices will be avoided from the beginning of Project construction through late April. No work in waterways will be conducted and erosions and runoff prevention measures will be implemented to avoid impacts to the eight listed fish species. Impacts to vegetation will be minimized by following an existing ROW within an already disturbed corridor.

Response to Fish and Wildlife Resource Comments

Two comments (**Table 1**) were received regarding fish and wildlife resources. Sections 4.5 and 5.5 of the ER provide details on fish and wildlife resources.

The Project would be built within the existing ROW within predominantly disturbed habitats. However, some species, including small mammals, such as voles, shrews, mice, squirrels, and rabbits; larger mammals, such as coyote, raccoon, fox, white tailed deer; and birds, including migratory waterfowl and songbirds, will continue to use the developed areas and cultivated croplands found along the Project ROW.

There is minimal potential for long-term displacement of wildlife and loss of habitat from the Project because it would be rebuilt along an existing transmission ROW. Wildlife could be temporarily displaced within the immediate area of construction activity.

Response to Floodplain Comments

Two comments (**Table 1**) were received regarding floodplains. Sections 4.6 and 5.6 of the ER provide additional floodplain information.

The Project would result in up to four transmission structures being placed in 100-year floodplains. Disturbance in floodplains would be limited to the area needed for the new structures and would result in up to 63 total ft^2 of permanent disturbance in the floodplain associated with the La Crosse River (approximately 12.6 ft^2 at each of the three Y-frame structure locations and approximately 25.2 ft^2 at the one H-frame deadend structure location). During construction, ground cover and soils would be temporarily disturbed. Effects resulting from the removal of groundcover and soils in floodplains would be temporary in nature and the area not occupied by the transmission structures would be reclaimed and re-vegetated to pre-construction conditions. Potential floodwater displacement could occur where structures are placed in floodplains. Based on the low volume of potential floodwater displacement, impacts on flooding are not anticipated.

Upon completion of construction, the existing transmission structures within the La Crosse River floodplain would be cut off at ground level and removed from their current location within the floodplain. The disturbed area associated with the removal of the existing structures would be re-vegetated and graded to pre-construction conditions so that water flow is not impeded during flooding events.

Response to Cultural Resource Comments

Two comments (**Table 1**) were received regarding cultural resources. Section 4.10 of the ER provides details on the cultural resources found along the Project and Section 5.10 for proposed Project effects, monitoring, and mitigation.

Structures would be placed in the boundaries of uncatalogued portion of the Tremaine burial site. The originally proposed access route and pad around one structure were altered to avoid adverse impacts. Construction during frozen conditions or matting will be used to avoid impacts. DPC's cultural consultant, MVAC has tested the structure locations and placing the structures in the same locations would not have an adverse effect on the site. As required by Wisc. Stat. 157.70, work conducted within the boundaries of the site will be monitored by a qualified archaeologist during construction.

One new structure would be place within the boundaries of the Midway Village Complex. Shovel testing did not locate any cultural material or human remains at the structure location. Construction during frozen conditions or matting will be used to avoid impacts. As required by Wisc. Stat. 157.70, work conducted within the boundaries of the site will be monitored by a qualified archaeologist during construction. A disturbed portion of the site would be used for a laydown area. Since this area has been confirmed to be completely disturbed, there is no potential for intact cultural deposits or burials.

Two structures would be located within uncatalogued burial area called the Woodlawn North Cemetery. There have not been any burials at the site. Prior to construction, DPC will confirm that no burials have occurred since in the interim.

Response to Aesthetic Comments

A total of 22 comments (**Table 1**) were received regarding aesthetics. Sections 4.11 and 5.11 of the ER provide additional aesthetics information.

The Project would be located within DPC's existing ROW through a variety of land uses. These uses include agricultural land and residential development that is mostly concentrated starting at the Village of Holmen and running southeast along the Mississippi though the Cities of Onalaska and La Crosse. Developed areas include commercial/industrial uses such as sand and gravel operations and the Valley View Mall. The Project ROW also crosses the La Crosse River floodplain and recreational land such as golf courses, the La Crosse River Trail, and a neighborhood Coachlite Greens Park.

Riparian vegetation is also present in the Project area and is associated with the La Crosse River, Halfway Creek, and seven unnamed streams that traverse the landscape.

Man-made modifications that have locally modified the Project area include dispersed rural residences associated with agricultural lands and associated ancillary structures (e.g., barns, maintenance sheds, fences, etc.) and residential development in the Village of Holmen and Cities of Onalaska and La Crosse. Local infrastructure modifications within the area include I-90, U.S. Highway 53 (USH 53), State Trunk Highway 35 (STH 35), STH 16, county roads, and local paved and unpaved roads; one communication tower; one railroad corridor; substations; and electrical distribution lines and the existing transmission lines.

Reconstruction of the existing transmission line would create direct short-term effects to visual resources by introducing vehicles, equipment, materials, and a workforce during the construction period. Viewers would see transmission line structure assembly and erection and conductor stringing activities. Visual effects from construction activities would not be significant because of the short-term duration of the construction timeframe, anticipated to be an intermittent 4 to 5 days at each structure.

The Project would change visual resources in the long-term because the new single-pole transmission structures would be taller and made of different materials than the existing wood H-frame structures to be replaced. The new Y-frame steel structures would be approximately five to 10 feet taller than the existing wood H-frame structures that would be replaced in the La Crosse River floodplain. The ROW would remain at 80 feet (40 feet on either side). The ROW would continue to be cleared on a regular basis, so changes to the casual observer would be less than significant due to the clearing that has occurred previously on a regular basis in the existing ROW. In addition, the Project would not be out of character with the aesthetic character of the existing landscape because man-made features (e.g., high-voltage transmission lines, substations, and communication towers) are common within the area. Given the presence of existing man-made features including the existing transmission line, the landscape has a higher visual absorption capacity for the new elements compared with landscapes that are less modified by man-made structures, because similar vertical elements had previously been introduced into the landscape setting. The high degree of existing modification to the landscape, and the visual variability in the landscape (including a mosaic of agricultural lands, forested areas, farms, transmission lines,

residences, buildings, and other man-made structures) would allow the rebuilt transmission line to blend with the existing landscape.

Local community plans specified that environmentally sensitive areas and visual resources should be protected when extending and constructing new utilities and community facilities. Rebuilding the transmission line within the existing ROW in the La Crosse River floodplain is consistent with these goals.

Sensitive viewsheds include the views from local residences. Residences within or adjacent to the Project ROW have views that range from unobstructed to partially or intermittently screened by vegetation located between the residential building and the existing ROW. The Project would not have a significant effect on these sensitive viewers because it would be rebuilt within the existing ROW. Although the new transmission structures would be taller than the existing structures (five to 10 feet in the La Crosse River floodplain and 40 to 55 feet taller in the remainder of the Project), the number of poles would be reduced by replacing the existing two-pole H frame wood structures with single-pole steel structures. Residences located farther away would have a less prominent view of the Project and modifications would not be discernible to the casual observer. Sensitive viewers would also include recreational users of and visitors to the La Crosse River floodplain and recreational land such as golf courses, the La Crosse River Trail, and the neighborhood Coachlite Greens Park. Views of the Project by recreational users associated with these areas would be screened by existing vegetation and/or by the rolling topography, with the exception of river, creek, and trail users who would pass beneath the power lines and could view the lines and some structures. The rebuilt transmission line would not have a significant impact on viewers because the structures would be placed within the existing disturbed ROW. Viewers positioned directly adjacent to or within the Project ROW would have unobstructed views of the rebuilt transmission line; however, even though the transmission structures would be taller than the existing structures there would be fewer poles. The rebuilt line would be visible where it parallels and crosses roadways. Again, the rebuilt transmission line would not have a significant impact on viewers because the structures would be placed within the existing disturbed ROW and although the new structures would be taller than the existing structures, there would be fewer poles.

Overall, effects to the aesthetic environment are anticipated to be less than significant because vertical elements similar to the rebuilt 161 kV transmission line already exist in the landscape, so the Project would not be out of character with the existing landscape. Furthermore, many sensitive views would be partially to completely screened by existing vegetation and/or topography.

After construction, the Project will not be out-of-character with the aesthetic character of the existing landscape. The transmission line is already present in the landscape.

Response to Socioeconomic and Community Resource (Property Value) Comments

A total of 18 comments (**Table 1**) were received regarding socioeconomics, community resources, and property value. Sections 4.12 and 5.12 of the ER provide additional information on socioeconomics, community resources, and property value.

Any impacts to social and economic resources would generally be of a short-term nature. DPC anticipates that one crew of 15 to 20 construction workers will be needed for construction of the Project. Revenue, therefore, will likely increase for some local businesses, such as restaurants, gas stations, grocery stores and hotels because of an increase in the number of workers in the area. Other local

businesses, such as gravel suppliers, hardware stores, welding and machine shops and heavy equipment repair and maintenance service providers may also benefit from construction of the Project.

Since the Project has existed in its current location for approximately 62 years and it would be rebuilt within its existing ROW, its impact on property values are expected to less than discernable.

Response to Environmental Justice Comments

One comment (**Table 1**) was received regarding environmental justice. Sections 4.13 and 5.13 of the ER provide additional information on environmental justice.

The percentages of minority populations in the census tracts that cross the Project range from 2.9 to 8.4. Two of the census tracts crossed by the Project have lower minority populations than La Crosse County and three of the census tracts crossed by the Project have higher minority populations that La Crosse County. La Crosse County and all of the census tracts crossed by the Project have lower minority populations than the state of Wisconsin. Although low income populations would be crossed, the Project is a rebuild of the existing Q-1D transmission line, so it is anticipated that the Project would have no disproportionate environmental effects to minority and low-income populations within La Crosse County. Further, no new easements would be required for the Project.

Response to Transportation (Roads, Airports, and Railroads) Comments

A total of ten comments (**Table 1**) were received regarding transportation (roads, airports, and railroads). Sections 4.14 and 5.14 of the ER provide additional information on transportation.

Airports

The closest public airport to the Project is the La Crosse Regional Airport located immediately west of the Project on the northwestern quadrant of I-90 and STH 35, which is approximately 4.3 mile south of the Briggs Road Substation. The Project falls within the La Crosse Regional Airport Overlay Zoning District (AOZD). The closest heliport to the Project is a hospital heliport located 4.3 miles southwest of the Project in La Crosse. The closest private airport to the Project is the Parkway Farm Strip Airport, located approximately 3.9 miles north of the Project in the Town of Holland

FAA's Federal Aviation Regulation (FAR) Part 77 establishes imaginary surfaces to protect specific airspace areas. FAR Part 77 is codified under Subchapter C, Aircraft, of Title 14 of the Code of Federal Regulations (CFR) and establishes standards for determining and defining which structures pose potential obstructions to air navigation. Any object or structure that penetrates these surfaces is considered to be an obstruction to air navigation. FAR Part 77 forms the basis of height restrictions identified in a Height Limitation Zoning Ordinance (HLZO).

DPC has notified the Administrator of the FAA of the proposed construction as required by CFR Title 14 Part 77.9 that requires a sponsor proposing any type of construction or alteration of a structure that may affect the National Airspace System to notify the FAA by completing the Notice of Proposed Construction or Alteration form (FAA Form 7460-1). FAA obstruction marking and lighting requirements are described in Advisory Circular 70/746-1K (2/1/2007). In general, any temporary or permanent structure, including all appurtenances, that exceeds an overall height of 200 feet (61m) above ground level (AGL) or exceeds any obstruction standard contained in 14 CFR part 77, would normally be marked and/or lighted, unless

an FAA aeronautical study reveals that the absence of marking and/or lighting will not impair aviation safety. Conversely, an object may present such an extraordinary hazard potential the higher standard may be recommended for increased conspicuity to ensure safety to air navigation.

Wisc. Admin. Code Ch. 56, Erection of Tall Structures, prescribes procedures for the permitting of tall structures or other objects affecting airspace in Wisconsin. A permit is required from the Secretary for any structure that exceeds the limitations in §114.135 (7) Wis. Stats.

The City of La Crosse Airport Overlay Zoning District (AOZD) Ordinance of the La Crosse Municipal Airport imposes land use controls, in addition to underlying zoning classifications, to maintain a compatible relationship between airport operations and existing and future land uses within the three mile jurisdictional boundary as define in Section (A) (6) (a). The boundaries of each district are shown on the "*La Crosse Municipal Airport Overlay Zoning District Map, La Crosse, Wisconsin*" dated December 9, 2010 or as amended, and the height restrictions are established on the *"Height Limitations Zoning Map, La Crosse Municipal Airport, La Crosse, Wisconsin." The elevation numbers shown on the height limitations map are the maximum permissible height above mean sea level (msl) that buildings, structures, objects, or vegetation in that cell shall not exceed.* Figure 4 in the ER identifies this area in relation to the Project**.** The ordinance references marking and lighting requirements as established in Advisory Circular 70/746-1K (2/1/2007)

DPC will continue to coordinate with local governmental units with jurisdiction over airports in the vicinity of the Project to determine permitting, approval, and marking and lighting requirements related to the La Crosse Regional Airport.

Railroads

The Project would cross the Chicago Milwaukee St Paul and Pacific Railroad which is located east of STH 16 and south of the La Crosse River. DPC will coordinate with the railroad regarding this crossing.

Response to Human Health and Safety Comments

A total of 15 comments (**Table 1**) were received regarding health and safety. Sections 4.15 and 5.15 of the ER provide additional information on health and safety.

The Project consists of rebuilding approximately nine miles of an existing transmission line within the existing ROW. The potential for injuries or mortality from a variety of accidental causes involving transmission lines is a valid consideration with any high voltage facility. DPC's transmission line design is in accordance with the National Electric Safety Code (NESC) and Wisconsin State Electric Code-Part 2 and designed to minimize the possibility of injury from either inadvertent causes or ill-advised tampering by the public. There exists a possibility of human hazards despite all attempts to educate the public and design tamper-proof facilities. However, this hazard would be no greater for the Project than presently exists from existing similar facilities in the area.

Response to Electrical Characteristic (Electric and Magnetic Fields) Comments

A total of 30 comments (**Table 1**) were received regarding electric and magnetic fields. Sections 4.15.1 and 5.15.1 of the ER provide additional information on electric and magnetic fields.

The term EMF refers to electric and magnetic fields that are associated with all electrical devices. For the lower frequencies associated with power lines, EMF should be separated into electric fields and magnetic fields.

Electric and magnetic fields arise from the flow of electricity, are dependent on the voltage and current carried by a transmission line, and are measured in kilovolts per meter (kV/m) and milliGauss (mG), respectively. The intensity of the electric field (EF) is proportional to the voltage of the line, and the intensity of the magnetic field (MF) is proportional to the flow of current through the conductors.

Transmission lines operate at a power frequency of 60 hertz (cycles per second). Current passing through any conductor produces an MF in the area surrounding the wire. The MF associated with a high voltage transmission line (HVTL) surrounds the conductor and decreases rapidly with increasing distance from the conductor. The MF associated with a transmission line is expressed in units of magnetic flux density, or mG.

There is no federal or Wisconsin state standard for transmission line EFs. Considerable research has been conducted throughout the past three decades to determine whether exposure to power-frequency (60 Hertz) MFs cause biological responses and health effects.

Epidemiological and toxicological studies have shown no statistically significant association or weak associations between EMF exposure and health risks.

The possible impact of exposure to EMFs upon human health has been investigated by public health professionals for the past several decades. While the general consensus is that EFs pose no risk to humans, the question of whether exposure to MFs can cause biological responses or health effects continues to be debated.

The most recent reviews of research regarding health effects from power-frequency MFs conclude that the evidence of health risk is weak. The National Institute of Environmental Health Sciences (NIEHS) issued its final report on June 15, 1999, following six years of investigation. NIEHS concluded that there is little scientific evidence linking extra low frequency MF exposures with health risk.

In 2007, the World Health Organization (WHO) concluded a review of the health implications of EMFs. In this report, the WHO stated:

> *Uncertainties in the hazard assessment [of epidemiological studies] include the role that control selection bias and exposure misclassification might have on the observed relationship between magnetic fields and childhood leukemia. In addition, virtually all of the laboratory evidence and the mechanistic evidence fail to support a relationship between low-level ELF magnetic fields and changes in biological function or disease status. Thus, on balance, the evidence is not strong enough to be considered causal, but sufficiently strong to remain a concern. (Environmental Health Criteria Volume N°238 on Extremely Low Frequency Fields at p.12, WHO [2007]).*

Also, regarding disease outcomes, aside from childhood leukemia, the WHO stated that:

> *A number of other diseases have been investigated for possible association with ELF magnetic field exposure. These include cancers in both children and adults, depression, suicide, reproductive dysfunction, developmental disorders, immunological modifications and neurological disease. The scientific evidence supporting a linkage between ELF magnetic fields and any of these diseases is much weaker than for childhood leukemia and in some cases (for example, for cardiovascular disease or breast cancer) the evidence is sufficient to give confidence that magnetic fields do not cause the disease.*
>
> *(Id. at p.12.)*

Furthermore, in their "Summary and Recommendations for Further Study," WHO emphasized that:

> *the limit values in [EMF] exposure guidelines [not] be reduced to some arbitrary level in the name of precaution. Such practice undermines the scientific foundation on which the limits are based and is likely to be an expensive and not necessarily effective way of providing protection.*
>
> *(Id. at p. 12).*

WHO concluded that:

> *given both the weakness of the evidence for a link between exposure to ELF magnetic fields and childhood leukemia, and the limited impact on public health if there is a link, the benefits of exposure reduction on health are unclear. Thus, the costs of precautionary measures should be very low.*
>
> *(Id. at p.13).*

Wisconsin, Minnesota and California have all conducted literature reviews or research to examine this issue. Since 1989, PSCW has periodically reviewed the science on EMF, and has held hearings to consider the topic of EMF and human health effects. The most recent hearings on EMF were held in July 1998. In January 2008, the PSCW published a fact sheet (https://psc.wi.gov/thelibrary/publications/electric/Electric12.pdf) regarding EMF. In it, PSCW noted that:

> *Many scientists believe the potential for health risks for exposure to EMF is very small. This is supported, in part, by weak epidemiological evidence and the lack of a plausible biological mechanism that explains how exposure to EMF could cause disease. The magnetic fields produced by electricity are weak and do not have enough energy to break chemical bonds or to cause mutations in DNA. Without a mechanism, scientists have no idea what kind of exposure, if any, might be harmful. I in addition, whole animal studies investigating long-term exposure to power-frequency EMF have shown no connection between exposure and cancer of any kind.*

In a March 2013 Certificate of Public Convenience and Necessity (CPCN) Order, the Commission affirmed the conclusions in the fact sheet, noting that "A 'perception of harm' from EMF emanating from overhead transmission lines is not rationally founded and cannot be the basis of a Commission decision that must be based upon fact." Western Milwaukee County Electric Reliability Project, Final Decision at 32, PSCW Docket No. 5-CE-139 (March 20, 2013; as modified March 27, 2013).

DPC recognizes its responsibility to provide wholesale electric service at the lowest possible cost in a manner that is safe, reliable and environmentally sound. This responsibility includes carefully designing and locating our facilities in strict accordance with the National Electric Safety Code and all applicable federal, state and local regulations. Despite the lack of clear evidence from reliable studies of any adverse effect EMF may have on human health, DPC will continue to construct and operate our facilities in a manner that minimizes, to the extent prudent and practical, the amount of EMF that is created.

Since there are still unanswered questions and opposing theories, DPC agrees that limited research should continue in a credible and objective manner even though the federal government has ceased funding all such research studies. Accordingly, DPC will continue to be a sponsor of the EMF research program of the Electric Power Research Institute (EPRI), of which we are a member. DPC will continue to closely monitor the results of these and other scientific studies as they are completed.

Response to Corona, Audible Noise, Radio, and Television Interference Comments

A total of 2 comments (**Table 1**) were received regarding noise. Sections 4.16 and 5.16 of the ER provide additional information on noise.

Corona from transmission lines can create buzzing, humming, or crackling. Measures such as carefully handling the conductor during construction to avoid nicking or scraping or otherwise damaging the surface and using hardware with no sharp edges or points are typically adequate to control corona. Corona effects are expected to be low enough that no objectionable audible noise would result outside the Project ROW. Corona-related ozone and nitrogen oxide emissions are the primary air quality concerns related to transmission line operation. The concentration of ozone caused by corona is a few parts per million near the conductor and is not measurable at any distance from the conductor.

The construction of the Project would result in audible noise (AN) from the transmission line and temporary short-term noise increases in areas where construction and staging are taking place. The A-weighted decibel (dBA) scale corresponds to the sensitivity range for human hearing. Noise levels capable of being heard by humans are measured in A-weighted dBA. Indirect effects from post construction activities, which would include the AN effects from the transmission line and inspection and maintenance activities, would be insignificant because of their short duration and infrequency. The AN generated during construction would be caused by foundation construction, assembly and erection of the transmission line structures, and noise generated by construction equipment such as auguring machines, cranes, heavy machinery, and trucks.

Typical equipment associated with transmission line construction and the associated noise levels at full power are shown in **Table 4**. Shaded areas indicate reference noise levels.

Table 4: Construction Equipment Noise Levels

Equipment	Typical Noise Levels 50 feet from Source (dBA)[1]
Rural area during daytime[1]	40
Residential area during daytime	50
Normal conversation at 6 feet	55–65
Trucks	75
Air compressor	81
City traffic	80
Backhoe	80
Concrete mixer	85
Mobile crane	83
Bulldozer	85
Grader	85
Rotary drilling rig[2]	87
Peak combined equipment[3]	89
Lawn mower	90

Note: Shaded areas indicate reference noise levels.

1 Source: DOT (2006) except as noted.

2 Yantak (2007)

3 DOE (2002)

Under peak conditions during construction, with the noisiest construction equipment operating simultaneously, the highest average expected noise level is estimated to be 89 dBA-equivalent sound level (referred to as Leq) at a reference distance of 50 feet (DOE 2002). This noise level is approximately equivalent to noise experienced on a sidewalk next to a busy urban street. Noise decreases with distance at a rate of approximately six dBA per doubling of distance from the noise source. Based on this attenuation rate, at distances above 0.25 mile, peak construction noise would be approximately 61 dBA, or equivalent to normal conversation at 6 feet.

Noise from heavy machinery during construction of the Project may create a short-term nuisance to nearby residents. DPC would mitigate the nuisance by ensuring that construction vehicles and equipment are maintained in proper operating condition and equipped with manufacturer's standard noise control devices or better (e.g., mufflers or engine enclosures).

Landowners in proximity to electric transmission lines are often concerned that new transmission lines would affect their radio or television reception. This is a legitimate concern, not only related to transmission lines, but for distribution and communications lines as well. It is DPC's general experience that when the radio or television receiver is located outside the ROW, very few problems with radio or television reception are encountered.

Corona associated with the Project is expected to be low enough so that no radio or television interference is anticipated outside of the ROW, consistent with the operation of the existing transmission line. However, DPC is committed to taking all reasonable steps to assure area landowners that the Project would not interfere with radio or television reception. In cases where there is a demonstrable effect from the transmission line on reception, very often simple corrective steps, such as checking line hardware for loose or defective hardware and repairing or replacing defective items is sufficient to solve the problems. In a very limited number of cases, it has been necessary to take more extensive corrective steps such as relocating individual television or radio antenna systems or installing systems where none previously existed. In most cases, however, it is possible to entirely avoid radio and television interference by appropriate routing steps and by post-construction adjustments of line hardware.

Response to Agencies Consulted and Permitting Requirement Comments

A total of four comments (**Table 1**) were received regarding agency consultation and Project related permitting requirements. Section 6.0 of the ER provides additional information on agencies consulted and permitting requirements.

DPC consulted with agencies to solicit comments regarding potential impacts associated with the Project. DPC sent consultation letters to the following resource management agencies:

- USFWS concerning federally listed threatened or endangered species and wetlands
- WDNR concerning state-listed threatened and endangered species
- DATCP concerning an AIS
- SHPO concerning cultural and historic resources
- Tribal Consultation
- Natural Resource Conservation Service (NRCS) concerning prime farmland

At the time this ER was submitted to RUS, response from the DATCP had been received. No concerns were raised by the DATCP and no AIS will be required for the Project. DPC submitted a form requesting SHPO Comment and Consultation on a Federal Undertaking in July 2015. DPC indicated that no historic properties would be affected by the Project.

DPC also sent a Notification of Undertaking Subject to Section 106 of the National Historic Preservation Act to nine Indian Tribes to inform them of the Project and to request review of potential impacts to cultural and historic properties. DPC has received responses from two of the Indian Tribes consulted. Both asked to be notified if any burial, sites, archaeological, or traditional properties were found.

In addition to those consultations listed above, DPC will also be consulting with the following resource management agencies or state and local jurisdictions when the following permits are applied for:

- WDNR General Permit for Wetland Discharges
- Notification to U.S. Army Corps of Engineers (USACE) that a Permit for Wetland Discharges will be filed with WDNR
- WDNR General Permit to Discharge Under the Wisconsin Pollutant Discharge Elimination System
- Permits to cross county and state roads/highways
- Permits to perform work in county and state roads/highways
- Permits potentially required by La Crosse County

- Special Exception Permit – Airport Height Restrictions
- County Stormwater Permit

DPC anticipates applying for all necessary federal, state, and county permits for the Project in 2016 and would provide RUS with acquired permits as they are received.

Response to Additional Environmental Review Comments

A total of three comments (**Table 1**) were received requesting additional environmental review.

DPC intends to seek financial assistance for the Project from the RUS, which makes the Project a federal action subject to review under the National Environmental Policy Act of 1969 (NEPA) and all applicable federal environmental law and regulations. RUS has determined that the Project would require the preparation of an ER to analyze potential impacts to the natural and human environments.

RUS will use the ER as one of the primary support documents for DPC's application for financial assistance or other approval from RUS, and to determine if there are any extraordinary circumstances that would require additional review.

As part of this process, RUS is responsible for determining the adequacy of the ER and the proposed Project's environmental acceptability. Copies of all comments received will be forwarded to RUS for consideration prior to RUS approving financing assistance or taking other Federal action related to a proposed project.

Response to Project Segmentation Comments

A total of 7 comments (**Table 1**) were received requesting additional information on why the Project was segmented.

The Project reviewed under this ER is a nine mile section of DPC's approximately 70 mile long Q-1 161 kV transmission line. The Q-1 line was constructed in the 1950s and consists of four segments in Wisconsin as described in **Table 5**.

Table 5: DPC Wisconsin Q-1 161 kV Line Segments and Status

Segment Name	Mileage	Status of Environmental Review
Alma – Marshland	27	Reviewed under the federal and State of Wisconsin in the CapX2020 Hampton – Rochester – La Crosse 345 kV Transmission Improvement Project (CapX project) EISs and selected as the route. Q-1 line was co-located with as a double circuit with the CapX project. RUS issued Record of Decision (ROD) in January 2013. Public Service Commission of Wisconsin issued the Final Decision in May 2012 determining that this portion of the Q-1 line had independent need and did not require or trigger rebuild of the other parts of the system.
Marshland – North La Crosse Substation (Briggs Road Substation) Q-1D North	13	Reviewed under a separate Environmental Assessment (EA) dated March 16, 2015. The Q-1D North line needed to be rebuilt as soon as possible to avoid interruptions in service and ongoing maintenance issues. Due to the need for the Q-1 D North line to remain in service during construction of the CapX project in Wisconsin construction, the Project was constructed in the late summer and fall of 2015.
North La Crosse Substation (Briggs Road Substation) – La Crosse Tap Q-1D South	9	This segment is the subject of this ER. The rebuild could be affected by the route selected for the Badger – Coulee project planned for construction in 2016 or 2017. Thus DPC did not proceed with this project until the Badger – Coulee Final Decision was made and plans to begin construction on the Q-1D South in January 2016.
La Crosse – Genoa Tap	21	Reviewed under a separate ER approved by RUS in September 2012. The project has independent utility from the CapX project and proposed Badger – Coulee 345 kV line and was therefore reviewed on its own. Construction was recently completed.

ATTACHMENT A

Rothfork, Mark

From: Chuck A Thompson <cat@dairynet.com>
Sent: Tuesday, September 22, 2015 5:58 PM
To: Joleen K Trussoni; Knapp, Leslie; Rothfork, Mark
Subject: Fw: Q1 line upgrade

FYi
----- Forwarded by Chuck A Thompson/Dairynet on 09/22/2015 05:56 PM -----

From: bibalto@mwt.net
To: cat@dairynet.com
Date: 09/22/2015 10:05 AM
Subject: Q1 line upgrade

I'm writing to ask for extension of comment period for upgrade of Q1 line. Also, to my knowledge upgrade is not needed given approval of Cap x 2020 and Badger Coulee line.

Irv Balto

E2451 Lietke Lane
Chaseburg Wi. 54621

Rothfork, Mark

From: Joleen K Trussoni <jkt@dairynet.com>
Sent: Friday, September 25, 2015 8:17 AM
To: Rothfork, Mark; Knapp, Leslie
Subject: Fw: < Dairyland's "Q-1D South" upgrade: 30-day extension request >

----- Forwarded by Chuck A Thompson/Dairynet on 09/24/2015 07:26 PM -----

From: Luis Contreras <doccontreras@gmail.com>
To: "Chuck Thompson" <cat@dairynet.com>
Date: 09/24/2015 04:37 PM
Subject: < Dairyland's "Q-1D South" upgrade: 30-day extension request >

Chuck Thompson, Manager

Siting & Regulatory Affairs

Dairyland Power Cooperative

3200 East Avenue South

La Crosse, WI 54602-0617

608) 787-1432

Dear Mr. Thompson

Please provide a 30-day extension for public comments.

I just found out the deadline for comments, on the plans for Dairyland's "Q-1D South" upgrade. is Sunday.

Where is the information posted? What are the details? Is this a stealth project?

Respectfully,

Dr. Luis Contreras

Rothfork, Mark

From: Chuck A Thompson <cat@dairynet.com>
Sent: Wednesday, October 07, 2015 11:55 AM
To: Knapp, Leslie; Rothfork, Mark
Cc: Joleen K Trussoni
Subject: Fw: < Dairyland Power Q1D South: Don't rebuild it, take it down! >

----- Forwarded by Chuck A Thompson/Dairynet on 10/07/2015 11:54 AM -----

From: Luis Contreras <doccontreras@gmail.com>
To: Chuck A Thompson <cat@dairynet.com>
Date: 10/02/2015 12:18 PM
Subject: < Dairyland Power Q1D South: Don't rebuild it, take it down! >

Dear Mr. Thompson,

Thank you very much for the opportunity to send comments.

As a cooperative, how can you honestly say, there are **no** alternatives to the destruction of prime farmland? The question is not **where** to site transmission lines, but **why**. ***Don't rebuild it, take it down!***

There are better ways to provide safe, reliable, affordable electric power *without* transmission lines. *Local and community solar systems are superior to remote bulk power generation and transmission.* Wind Farms may be better than coal power generation, but the transmission issues are the same.

When you have superior solutions, there is no justification to use low-tech technology and eminent domain to take private property by force. We need food, provided by farmers, and power provided by the Sun. We can have it all.

The only reason to build lines is to **profit** from unnecessary projects. Churches and non-profit corporations love profits for new buildings, high salaries, and employe benefits, without paying taxes. I wish I had the same advantage!

The entire US Grid is **not resilient.** It is not designed for severe storms and floods, the new climate on our planet, the result of 100-years of unlimited carbon dioxide pollution from coal-powered plants.

Here are comments on Clean Line on transmission lines, submitted herein for this docket:

http://www.icc.illinois.gov/docket/PublicComments.aspx?no=10-0579

Respectfully,

Dr. Luis Contreras

On Fri, Oct 2, 2015 at 9:25 AM, Chuck A Thompson <cat@dairynet.com> wrote:
Dairyland Power Cooperative (DPC) thanks you for your comments and interest in the Q1D South transmission rebuild (Project) from the Briggs Road Substation to the LaX Tap. Per the request of the commenters, we would like to inform you that the below Legal Notice will be published in the La Crosse Tribune to extend the comment period.

Dairyland Power Cooperative is hereby extending the 30-day comment period related to prime farmlands, farmland of statewide importance, 100-year floodplains, wetlands, and other comments for the Q-1D South 161 kV rebuild. Under this expanded period, comments should be submitted in writing to Dairyland Power Cooperative within 10 days of the publication of this notice.

Dairyland Power Cooperative, 3200 East Avenue South, La Crosse, WI 54602-0817, is planning to rebuild approximately nine miles of 161 kilovolt transmission line in La Crosse County (Q-1D South Project). The Q-1D South Project begins just south of the Briggs Road Substation near the Village of Holmen and ends at the La Crosse Tap south of the La Crosse River near Keil Coulee Road. Constructed in the 1950s, the line is now in poor condition and reaching the end of its service life. The rebuild will occur along the existing 161 kV alignment within the existing right-of-way. It has been determined that the Project, as proposed, will be located in a prime farmlands, 100-year floodplain, and wetlands. The Project will occupy 126 square feet of prime farmland, 12.6 square feet of farmland of statewide importance, 63 square feet of 100-year floodplain, and 50.4 square feet of wetlands.

Dairyland Power Cooperative believes that there is no practicable alternative that will avoid locating the Project in prime farmlands, farmland of statewide importance, 100-year floodplains, and wetlands. Additional information on the project can be found at: http://www.dairynet.com/power_delivery/project_updates.php for sheet maps and a fact sheet.

Copies of all comments received will be forwarded to the U.S. Department of Agriculture Rural Utilities Service for consideration prior to approval of financing assistance or taking other Federal action related to the Project.

Send your comments to: Chuck Thompson, Dairyland Power Cooperative, 3200 East Ave South,
La Crosse WI 54602 or email your comments to cat@dairynet.com.

This email may contain confidential or proprietary information. If you believe you have received this message in error, please notify the sender by reply and delete the message.

Dairyland Power Cooperative is an equal opportunity provider and employer.

September 18, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

I am submitting this letter in response to the Public Notice published by Dairyland Power Cooperative in the LaCrosse Tribune on August 28, 2015. The Public Notice sets forth a thirty-day response period.

I live in the Town of Onalaska on Prairie View Drive. My house is very close to Dairyland's Q-1 transmission line. The front of my house directly faces the line. Along the back of my property runs a 69 kilovolt transmission line owned by Dairyland. My house, and my entire neighborhood, are completely engulfed by Dairyland's transmission lines.

I oppose Dairyland's proposed upgrade of the Q-1 line. First and foremost, the Q-1 line endangers the health and safety of everyone in my neighborhood. Both the Q-1 line and the 69 kilovolt line emit electric and magnetic fields ("EMF") which constantly bombard me and my neighbors, including many young children. The emissions from these lines are significantly high.

The Public Service Commission recognizes that exposure to high EMF emissions is not safe and requires power companies to document and disclose EMF emissions. Dairyland has made no disclosures to us whatsoever regarding the EMF emissions from the Q-1 line.

Dairyland intends to push more power through the Q-1 line. The Q-1 line will also have greater sag which will bring it closer to our homes. The upgrade will subject me and my neighbors to even greater EMF emissions.

Dairyland's standard response to any opposition is that it owns a "right of way" for the Q-1 line. It is important to understand that the "right of way" that crosses through my neighborhood was created by Dairyland obtaining easements in the early 1950s when this area was mostly farmland. This area has changed dramatically and is now a densely populated residential area. Furthermore, no property owners along the Q-1 consented to be bombarded with EMF emissions from Dairyland's power lines. Dairyland has no right to subject any of us with EMF emissions.

A utility company should not be allowed to endanger the safety, health, and welfare of a community simply because it has a "right of way." Dairyland's intention to upgrade the line and leave it where it is shows a reckless disregard for the health, safety and welfare of our community. It is time for Dairyland to move the Q-1 line and it has the opportunity to do so.

Respectfully Submitted,

Nancy J. Dull

cc: Mr. Dennis Rankin, USDA Rural Utilities Service

Vernell S and Carolyn A Hesselberg
N5998 County Road Ot
Onalaska WI 54650-9537

September 15, 2015

Dear Sir:

We oppose for several reasons the Significant Construction on the Q-1 South power line that runs through our neighborhood. The line is harmful to our physical health and environment. It gives off an electromagnetic field.

There are two alternative routes for the line. It makes no sence to use anything but the alternative lines.

Property values will be reduced by the presence of the transmission line.

Carolyn Hesselberg
Vernell Hesselberg

Rothfork, Mark

From: Joleen K Trussoni <jkt@dairynet.com>
Sent: Friday, September 25, 2015 8:17 AM
To: Rothfork, Mark; Knapp, Leslie
Subject: Fw: More time and responsiveness please

----- Forwarded by Joleen K Trussoni/Dairynet on 09/25/2015 08:16 AM -----

From: Chuck A Thompson/Dairynet
To: Joleen K Trussoni/Dairynet@DAIRYNET
Date: 09/24/2015 07:25 PM
Subject: Fw: More time and responsiveness please

----- Forwarded by Chuck A Thompson/Dairynet on 09/24/2015 07:24 PM -----

From: Forest Jahnke <forestjahnke@gmail.com>
To: cat@dairynet.com
Date: 09/24/2015 03:01 PM
Subject: More time and responsiveness please

Please extend the public comment period and respond to the requests for information that have been submitted to you. A meaningful public participation is important to the success of any major project like this.
Thank you for considering my comments,
Forest

--
Forest Jahnke
Crawford Stewardship Project Coordinator www.crawfordstewardshipproject.org
forestjahnke@gmail.com
(608) 632-2183
43188 Guthrie Dr, Rolling Ground, Wisconsin

September 25, 2015

VIA HAND-DELIVERY
Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

I am submitting this letter in response to the Public Notice published by Dairyland Power Cooperative ("Dairyland") in the LaCrosse Tribune on August 28, 2015. The Public Notice sets forth a thirty-day response period that began running on the date of publication.

Requests have been made to Chuck Thompson at Dairyland for more information than is made available in the Public Notice and no response has been received as of the date of this letter. The USDA Rural Utilities Service ("RUS") is undertaking some level of environmental review of this project, and is doing so as a part of its financing decision, yet no RUS project or contact information was provided in the Public Notice. Instead, the Public Notice sets forth we are to provide comments to Chuck Thompson at Dairyland who will then forward comments to the RUS.

I hereby timely respond to the Public Notice within that thirty-day period with insufficient information to make more detailed comments at this time. We are sending this comment directly to Chuck Thompson and forwarding a copy to the RUS. I request that Dairyland extend the response period by at least forty-five (45) days to allow concerned residents a reasonable amount of time to submit responses. I reserve the right to supplement and amend this letter as more information becomes available. I fully adopt and incorporate herein the comments and objections contained in the letters submitted by Ann Kathan, Michael Finn, Robert Kathan, Lois Kathan, and Midway on the Hill, LLC.

I am the son of Robert Kathan and Lois Kathan. I grew up at their homestead located at N5912 on County Road OT in the Town of Onalaska. My grandparents and great aunts lived next door at the adjoining properties at N5924 and N5928 County Road OT. We lived and helped each other as an extended family. The property gave us wide open green space, almost ten acres, for us to explore, play in, bike ride, and enjoy. Our great aunt Minnie Carlson was an amateur biologist and botanist and taught us much about the rich flora and fauna. My entire family and I have deep ties to this unique and beautiful property.

These experiences at our family property were formative. They propelled me to study environmental science and geology. I have been employed as a staff scientist with an environmental firm. As an adult, I still enjoy the property and investigating all of its habitats. The Q-1 line is a visual and physical blight on the property. Its negative visual and physical impacts will increase with the proposed upgrade.

Most important, the magnetic and electric field emissions from this line are significant and it appears those emissions will increase with the proposed upgrade. We have just begun to be aware of and understand these emissions. The emissions for this line adversely affect the health, safety, and welfare of all persons who live and spend time near the line. I am deeply concerned about my family's exposure to these emissions and how those emissions have and will affect us. My father spent significant amounts of time in the garage closest to the line. He suffers from significant health issues. It is reasonable to question to what extent his health issues are related to the line's emissions.

There are three viable options for relocating a portion of the line to remove it from not only our family's property but from the Prairieview, Cottonwood, Evergreen Estates, Parklawn Estates, and Oak Hills neighborhoods. By relocating a portion of the line, Dairyland will help to protect the safety, health, and welfare of hundreds of people.

Respectfully submitted,

Christopher R. Kathan

cc: USDA Rural Utilities Service, Attn: Dennis Rankin

To: Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

COMMENTS FROM ROBERT KATHAN, LOIS KATHAN, AND MIDWAY ON THE HILL, LLC REGARDING PUBLIC NOTICE 8/28/2015 30394422 WNAXLP

September 25, 2015

VIA HAND-DELIVERY
Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

This letter is jointly submitted by Robert Kathan and Lois Kathan, individually and as the sole members of Midway on the Hill, LLC, in response to the Public Notice published by Dairyland Power Cooperative ("Dairyland") in the LaCrosse Tribune on August 28, 2015. The Public Notice sets forth a thirty-day response period that began running on the date of publication. An enlarged copy of the Public Notice is attached hereto as Attachment A.

Requests have been made to Chuck Thompson at Dairyland for more information than is made available in the Public Notice and no response has been received as of the date of this letter. The USDA Rural Utilities Service ("RUS") is undertaking some level of environmental review of this project, and is doing so as a part of its financing decision, yet no RUS project or contact information was provided in the Public Notice. Instead, the Public Notice sets forth we are to provide comments to Chuck Thompson at Dairyland who will then forward comments to the RUS.

We hereby timely respond to the Public Notice within that thirty-day period with insufficient information to make more detailed comments at this time. We are sending this comment directly to Chuck Thompson and forwarding a copy to the RUS. We request that Dairyland extend the response period by forty-five (45) days to allow concerned residents a reasonable amount of time to submit responses. We reserve the right to supplement and amend this letter as more information becomes available.

We submit the following comments and we oppose the proposed project on the following grounds:

BACKGROUND INFORMATION

We own individually and through our Wisconsin limited liability company Midway on the Hill, LLC ("MOTH") three contiguous parcels of residential property in the Town of Onalaska located at N5912 County Road OT, N5924 County Road OT, and N5928 County Road OT, and a private driveway that is contiguous to the eastern and western sides of the N5912

property. The private driveway intersects with County Road OT and Highway 35. Sheet Map 3 in Attachment E includes an aerial view of our properties and Dairyland color-coded our private driveway with a red and white line. The total property is approximately ten acres.

Robert Kathan is retired and a veteran of the Korean War in which he was a Seabee. Robert is 85 years old. Lois Kathan is a retired educator who taught college and high school-level classes locally. Lois is 74 years old. We have resided at the N5912 property, which is our homestead, for more than forty-two years. We raised our children Ann Kathan and Christopher Kathan at this property. Robert Kathan's parents lived next door at the cottage at N5924 County Road OT (the "cottage") and his aunts lived in the neighboring house at N5928 County Road OT. Our children were fortunate to grow up with their grandparents and great aunts right next door. We spent significant amounts of time with them while they were alive.

We have two six-year old granddaughters who are the children of Ann Kathan and Michael Finn. They recently relocated from Florida back to Wisconsin and are living in the cottage. They moved here in order to be near and to help us. We are aging and need assistance, especially Robert who is partially blind due to macular degeneration and has significant hearing loss. We are no longer able to keep up with the physical demands of the properties and we rely on Ann and Michael to assist with the yard work, maintenance, and upkeep. Our reliance on Ann and Michael will increase as we age and as Robert's eyesight diminishes.

Ann and Michael relocated here not only to help us, but also so that we can all spend as much time as possible with each other. It is important to all of us that our granddaughters grow up in an extended family environment just as Ann and Christopher did when they were growing up. Plus, our acreage provides our granddaughters with lots of open green space to play in and explore. We all spend significant amounts of time every day together at our house and at the cottage. We also help to take care of our granddaughters when Michael, who works out of town and often overseas, is at work. We all mutually rely upon each other in a number of ways.

Our land is a beautiful habitat for a rich diversity of wildlife, plants, and flowers. There is an incredibly vibrant bird population which includes a large population of bluebirds. Pollinators of all sorts abound. The Kathan family members have been loving stewards of the land. For several decades Robert and Lois maintained an organic garden. Ann and Michael now do the gardening. The Kathan family members also restored much of the land to native prairie.[1] Robert and Lois Kathan's homestead is a designated Monarch Waystation by Monarch Watch. The open spaces in this area are dwindling as more and more properties are developed, so this property is very special and unique. Photographs of the property and its habitats are contained in Attachment C.

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[1] *Their Plant Business is Growing Wild*, LaCrosse Tribune, October 5, 1978, p. 11.

Through MOTH, Robert and Lois Kathan lease the N5928 property to a family with a young child. Robert and Lois Kathan, through MOTH, receive rental income from the N5928 and the cottage properties. The rental income we receive is crucial to our financial stability. The inability to rent either the N5928 property or the cottage property would have deleterious financial effects on us.

Robert and Lois Kathan's and MOTH's properties lie directly under the flight approach path for the LaCrosse Municipal Airport and are within the Airport's three-mile height restriction Overlay.[2]

Dairyland owns and operates transmission lines known collectively as the Q-1D South Line (the "Line") designated by Dairyland at 161 kilovolts of electrical power, with as yet an unknown capacity. The Line consists of five wires: a single circuit three phase transmission line and two shield wires above. Upon information and belief, three of the wires carry electrical current and at least one shield wire is a fiberoptic line leased by Windstream Communications from Dairyland for the transmission of data between the Twin Cities of Minnesota and Chicago, Illinois. The Line crosses all of Robert and Lois Kathan's and MOTH's properties on a diagonal line approximately 740 feet in length.

The Line runs in very close proximity to the cottage and the N5928 house. The northeast corner of the cottage is 73 (seventy-three) feet from the center of the Line and 62 (sixty-two) feet from the closest conductor, as measured on the ground. A Line pole having a height of approximately sixty feet stands 68 (sixty-eight) feet from the northeast corner of the cottage. The northeast corner of the N5928 house is 62 (sixty-two) feet from the center of the Line and 58 (fifty-eight) from the closest conductor, as measured on the ground. Photographs showing the proximity of the Line to the cottage and the N5928 house are contained in Attachment B.

Our house at N5912 is situated the furthest of the three houses from the Line. The eastern wall of our house is 125 feet from the closest conductor and 142 feet from the center of the Line, as measured on the ground. The wires are spaced widely apart. The center of the Line is approximately 17 feet, as measured from the ground, from the flanking conductors.

Dairyland, through written and verbal communications with the undersigned, has represented that it intends to upgrade the Line which will allegedly include removal of the existing pole on the cottage property and the installation of a new pole with a height of 110 feet at the southeast corner of Robert and Lois' homestead. A map of the proposed Line upgrade prepared by Dairyland is attached hereto as Attachment D. Dairyland designated the new pole as pole number 164.

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[2] *LaCrosse Municipal Airport Use Plan* (2010, adopted January 13, 2011), pp. 4, 7-16, Appendices. This document can be found on-line at http://www.lseairport.com/uploads/content_files/LandUse.pdf.

DUE PROCESS

We object to the Public Notice and the proposed Line upgrade on multiple due process grounds. Dairyland has failed to provide adequate notice to the persons who are affected or who may be affected by the proposed project. First, the Public Notice contains a map that is illegible and does not present sufficient detail so that the location and extent of the project can be understood.

Second, the Public Notice was published in the LaCrosse Tribune once, and as set forth above, that one public notice contained insufficient information to analyze or to form any opinion regarding the project.

Third, there has been no mailing or other written notice of the project delivered to all affected landowners and residents. Dairyland has not provided project information to the landowners and residents, including, but not limited to Line capacity, its definition of "peak capacity," its actual construction schedule, permitting processes, electric and magnetic field emissions, funding processes, reports prepared relating to the Line, and public input opportunities.

Fourth, the Public Notice sets forth a thirty-day response period. This response period is insufficient. Those persons who are or may be affected by the proposed project do not have a reasonable opportunity to learn about the project and to timely file responses. Dairyland has provided insufficient information for the residents to learn about and understand the project.

Fifth, the Public Notice's response period is not thirty days. The thirtieth day from the date of publication, August 28, is Sunday, September 27, 2015. Dairyland's offices are closed on Sunday so no responses can be delivered to Dairyland on the due date. Dairyland's offices are closed on Saturday as well, so the actual response deadline is Friday, September 25, 2015, which date is not 30 days from the publication date.

PROJECT ACCESS

Dairyland published an aerial photograph map labelled Sheet Map 3 in its Appendix A of the Q-1D South Rebuild Project Mapbook dated June 2015 which shows an aerial view of our property. This map is attached hereto in Attachment E with a sticker affixed to it pointing to our property. Dairyland color-coded our private driveway with a red and white line extending the entire length of the driveway. It appears from the map's legend that Dairyland has designated the entire length of our driveway an "Access Route" to be used by Dairyland to get not only to the new pole site, but as a cut-through from Highway 35 to County Road.

We object to Dairyland's designation of our driveway as an Access Route and oppose any attempt by Dairyland to utilize the driveway as an Access Route. First, it is unclear whether the notation "Access Route" refers to access for the Q-1 upgrade project as a whole, or whether the

notation refers only to access for the specific work to be performed on our property. The phrase "Access Route" is undefined. We did not grant Dairyland permission to designate our driveway as an "Access Route" or to use it as such.

Second, Dairyland's designation of our entire driveway as an Access Route is not necessary for the project as a whole or the specific work to be performed on our property. It appears Dairyland designated the entirety of our driveway as an Access Route for its own convenience so that it can more quickly travel from Highway 35 to County Road OT and vice versa. Dairyland has access to the project work site from our driveway where it intersects with County Road OT. Dairyland can access both the pole placement work site and the pole removal work site at the cottage property from our driveway at County Road OT.

Third, Dairyland's designation of the entirety of the driveway as an "Access Route" violates the provisions of the relevant easements held by Dairyland. Access that is in compliance with the provisions of the easements can be gained by Dairyland from County Road OT.

Fourth, the designation of the driveway as an Access Route endangers the safety and welfare of the members of Kathan and Finn families, and particularly our granddaughters. We frequently bike, walk, and play on the road. It has a blind corner near our homestead. Entering the property from the County Road OT point will minimize the risk to our safety and welfare.

DETRIMENTAL HEALTH, SAFETY, AND ECONOMIC IMPACTS

In early January 2015, we began learning about electric and magnetic field emissions from transmission lines, commonly referred to EMF. We researched and read a multitude of publications discussing these fields. Lois Kathan and Ann Kathan initiated a meeting with Steven M. Schauer, Dairyland's Senior Right of Way Agent, in January 2015 to try and obtain more specific information about the proposed upgrade and the EMF emissions from the Line. During this meeting, Mr. Schauer revealed that Dairyland has an employee on staff, Mr. Chuck Thompson, who visits homes free of charge and measures magnetic field emissions.

Despite our numerous communications with Mr. Schauer regarding the Line beginning in October 2014, the first time that Dairyland ever discussed EMF emissions or disclosed that it measures magnetic field emissions as a regular part of its business was at our meeting with Mr. Schauer in January 2015.

Within two weeks of the meeting with Mr. Schauer, Chuck Thompson came to the cottage and measured the magnetic field emanating from the Line using a Gauss meter. Ann Kathan accompanied Mr. Thompson and he conducted magnetic field readings inside and outside the cottage property at various locations. Mr. Thompson also conducted readings inside and outside Robert and Lois Kathan's homestead. Ann Kathan also took measurements using a Gauss meter supplied by Dairyland. Mr. Thompson and Ann Kathan compared their readings

and the readings were the same at each measurement point. Ann Kathan recorded the readings contemporaneously in a log book. Lois Kathan was present for the measurements made inside her homestead and discussed the findings with Mr. Thompson.

The magnetic field emission readings were conducted mid-afternoon on a cold January day when the Line was not being operated at peak capacity. Dairyland has not informed us what "peak capacity" is, nor what it will be with the upgraded Line. This information should be known to Dairyland and disclosed in environmental reports. All electronic devices and appliances in the cottage and Robert and Lois Kathan's homestead had been unplugged so that they would not interfere with the measurements. The measurements show that the magnetic field emissions are significantly high at the cottage, are elevated at Robert and Lois Kathan's home, and exceed levels that are considered safe.

Standing directly under the Line, the Line has magnetic field emissions of 30 to 40 milliGauss ("mG") during a non-peak time. In the cottage's northeastern bedroom, which is our daughters' bedroom and is 73 feet from the center of the Line, the magnetic field emissions range from 5.4 to 13 mG during non-peak times. Throughout the remainder of the cottage, the magnetic field emissions range from 4 to 9 mG. The edge of our garden, which is approximately 25 feet from the center of the Line, has magnetic field emissions of 27 mG. The magnetic field emissions in Robert and Lois' home are also elevated ranging from 3 to 5.5 mG.

The Line's magnetic field emissions increase as the power load on the Line increases. During peak capacity times, and when the weather is warm, the Line physically sags bringing it even closer to the cottage. As the Line sags, our exposure to the magnetic field emissions increases. Again, we do not know what existing levels are, nor have we been informed what they are expected to be and where they will fall off to a "safe" level of 2 mG.

Mr. Thompson stated during the measurement process that he has conducted magnetic field emissions testing in hundreds of houses. He stated that the emissions level in our granddaughters' bedroom is "higher than average" and that most houses have magnetic field emission levels of 1 to 2 mG. He confirmed that our elevated magnetic field emission levels are caused by the Line.

Mr. Thompson discussed that many bike trails are built under transmission lines and this practice "is not good." Through this statement Mr. Thompson admitted that sporadic exposure to magnetic field emissions while using a bike trail is unsafe. So logically then, prolonged continuous exposure to magnetic field emissions, such as in our daughters' bedroom, must be significantly harmful. When asked what Dairyland does with the emissions readings, such as creating a report or cataloging the data, Mr. Thompson replied that Dairyland does nothing with the readings.

Evidence exists that prolonged exposure to high levels of magnetic field emissions can cause serious illness, including cancer. Young children appear to be especially sensitive to

magnetic fields. Dairyland and other utility companies vigorously deny any link between magnetic field emissions and illness.

The reinsurance industry has determined that magnetic field emissions is a significant threat. Swiss Re, one of the world's largest reinsurance companies and well-respected for its cutting edge scientific research, issued its SONAR report in 2013 in which it identifies electric and magnetic field emissions as a "significant risk" that could have a major impact on society and the insurance industry.[3] This determination by Swiss Re is not just a scientific consideration of an established association, it is also an economic consideration.

The findings of the reinsurance industry are relevant for two important reasons. First, the position of the reinsurance industry establishes that electric and magnetic field emissions are a recognized threat to the health and safety of humans, and a recognized risk to be analyzed by underwriters. Second, the insurance industry may begin to exclude coverage for any claims that relate to EMF. Property located near power lines may become uninsurable, which in turn would have devastating effects on the value of real estate and businesses located near power lines. Health insurers may exclude coverage for illness and injury related to electric and magnetic field emissions.

Dairyland's proposed upgrade will not negate or lessen our exposure to magnetic field emissions from the Line, and may in fact increase the magnetic field emissions through increased Line capacity and increased current on the Line.

Dairyland represented to us that it will raise the pole heights on the Line to 110 feet. Dairyland explained that the increased pole height is to pull the Line away from houses, presumably in an attempt to decrease electric and magnetic field exposure. However, based upon communications with Dairyland, the Line, even with a higher pole, will be no further away from the cottage due to the sag point in the Line. Dairyland informed us in 2014 that the upgraded Line, at its lowest sag point, would be thirty-eight feet from the ground. Later, Dairyland stated the sag distance will likely be as low as twenty-six feet from the ground. Whether the sag point is is thirty-eight or twenty-six feet from the ground, the upgraded Line will be much closer to the ground, and our home, than the Line is currently.

Therefore, it is likely that the electric and magnetic field emissions we are exposed to will remain significantly high, particularly in the cottage, and will not be mitigated by the proposed project. The higher structures and raised conductor is for Dairyland's purposes to facilitate the new conductor and presumed higher capacity, and not to lessen impacts on the Line.

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[3] *Swiss Re SONAR Emerging Risks Report*, Swiss Re 2013, p. 11.

The Line has a significant impact on the health and safety of hundreds of people in the Town of Onalaska, the City of Onalaska, and the Village of Holmen.[4] The Line travels through several residential areas beginning near Filler Court and County Road OT. It travels through the Prairieview Addition, then through the Cottonwood Place neighborhood, across the Robert and Lois Kathan and MOTH properties, through Evergreen Estates, through the McHugh Excavating property, Park Lawn Estates Mobile Home Park, and the Oak Hills neighborhood. From the Oak Hills neighborhood the Line travels across an industrial complex and then into residential neighborhoods in the City of Onalaska.

The map prepared by Dairyland and attached as Attachment E shows, from an aerial perspective, how the Line travels through several residential areas. Parklawn Estates, a mobile home park located on Highway 35, is the most densely populated area the Line travels through. The Line travels directly over and within a few feet of many mobile homes. The western wall of one mobile home is one foot from a Line pole, as shown in the photographs of neighboring homes in Attachment F.

Those who live or spend time near the Line are exposed to significantly high levels of both electric and magnetic field emissions. Those who live directly under the Line have the highest exposure. The Line negatively impacts the health and safety of all of us who live or spend time near the Line.

Many people we know in this area who live or who have lived for prolonged periods of time near the transmission lines are suffering from serious illnesses, particularly cancer. The number of seriously ill people in our surrounding neighborhoods is staggering. While no one as of yet has been able to scientifically prove that his or her illness was caused or exacerbated by the transmission lines, the incidence of illness in this area cannot be ignored.

The Line lowers our property values. While it is more difficult to calculate property valuation decreases where a new line replaces an existing one, the awareness and requirements of disclosure will affect marketability of homes in the project area, and the new structures will be much more visible and imposing.

Discovering that our granddaughters' home is unsafe has been devastating to all of us. Ann and her family moved here with the intention of making the cottage their home forever. The electric and magnetic field emissions from the Line make it impossible now for them to continue to live in the cottage. They moved our granddaughters into the bedroom that is furthest away from the Line. Moving them into another bedroom is only a stop-gap measure that will only slightly reduce their exposure to the magnetic field emissions.

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[4] The Village of Holmen and the City of Onalaska recently announced they are working together jointly to implement a development plan for the Holmen-Onalaska area. At some point in the near future it is likely that the Town of Onalaska will be dissolved and the properties contained within the Town of Onalaska will be either annexed to the Village of Holmen or to the City of Onalaska.

This situation is drastically impacting us in many ways. It is likely that Ann and her family will have to relocate. It is improbable that they can find and afford a home comparable to the cottage and its acreage. We all want to continue living together as an extended family and there are few properties that exist in this area with similar substantial acreage and two homes. Those properties that do exist are not affordable for any of us. Relocating to another area is not an option. It is crucial that we all remain in this area because our health care providers are here and our granddaughters are thriving at their elementary school. To move to another school would be tremendously disruptive for all of us and negatively affect our granddaughters especially since they just went through a major move.

A relocation by Ann and her family will cause us to lose our daily companionship, support, and much needed help from them. They help with the grocery shopping, driving, errands, and so many other things every day. Their relocation to Wisconsin has transformed our lives and lifted many burdens. Our need for their help will increase as we get older and less mobile. We will also lose the rental income from the cottage which is essential to our financial stability. Renting the cottage to Ann and her family through MOTH provides a stable and steady income for us. We may not be able to find replacement tenants. The fixed retirement income we receive is insufficient to meet our monthly expenses and the rental income makes up the difference. The stress caused by the uncertainty of this situation is adversely affecting us, our grandchildren, Ann and Michael, and Christopher. We are directly affected by this situation.

An additional loss, which can never be put into a dollar calculation, is that we will lose precious time with our grandchildren once Ann and her family relocate.

PUBLIC SERVICE COMMISSION AND EMF

Upon information and belief, Dairyland's proposed upgrade is not subject to review by the Public Service Commission of Wisconsin ("PSC"). Dairyland stated in a recent written communication that Dairyland follows the siting protocols of the PSC with respect to EMF. Based on Dairyland's statement, the PSC's EMF protocols are relevant and controlling with respect to the Line.

The PSC recognizes that exposure to magnetic field emissions from transmission lines is dangerous. The PSC: (i) has set a minimum safe distance from transmission lines at 300 feet; (ii) requires power companies to document and report EMF measurements; (iii) and requires power companies to mitigate the public's exposure to EMF.[5] The PSC states: "The magnetic

[5] EMF Electric & Magnetic Fields, Public Service Commission of Wisconsin, pp. 8, 9-10. The document can be found on-line at http://psc.wi.gov/theLibrary/publications/electric/electric12.pdf.

field level at 300 feet or more from a transmission centerline should be similar to local ambient, or background, levels."[6] The PSC defines "ambient magnetic field levels" as "1 to 3 mG."[7]

Dairyland, despite its stated commitment to following these PSC protocols, is not following the protocols. The Line runs directly over many houses and many more houses are within 300 feet of the Line. Dairyland stated in its email communication that, "Given the state of the science, we do not move or remove lines or make other costly and unnecessary investments in response to fears about EMF." For Dairyland to be in compliance with the PSC protocols, and to be consistent with its written acknowledgement that it must follow PSC protocols, it must take action to eliminate and mitigate the EMF emissions from the Line.

Dairyland, in a written communication, discounted concern about magnetic field emissions on the basis that science has not established a definitive link between magnetic field emissions and illness: "Given the state of the science, we do not move or remove lines or make other costly and unnecessary investments in response to fears about EMF." The PSC cautions, however, that magnetic field emissions cannot be considered safe simply because science has not proven otherwise: "Science cannot prove a negative, so magnetic fields cannot be proven to have no effect and to be safe."[8]

RIGHT OF WAY

Dairyland has a right of way for the Line based upon easements granted to Dairyland in the early 1950s. Dairyland dismisses out of hand any discussion of solutions to the emission problem asserting its "right of way" rights. The easements should be reevaluated in the context of today's world, which is a very different world than in the 1950s. First, the easements were obtained when most of this area was farmland and very sparsely populated. Agriculture was this area's main industry. The Holmen-Onalaska area has changed dramatically in the last sixty years. It is now densely populated with residences. Agriculture is no longer our main industry. The only remaining farmland near the Line is the George Filler farm on Filler Court, which his daughter owns and continues to farm. The green open spaces are few and far between now.

It makes no sense to continue to run transmission lines over and next to houses. It is unsafe and depresses property values. Many power companies and municipalities are working together to minimize the impact of power lines by either rerouting them or burying them. The municipalities of the Village of Holmen and the City of Onalaska are aware of the need to rethink power line placement and will plan for "a more efficient placement of future utilities and other infrastructure."[9] This joint plan of our leadership will "allow for the enhancement of our mutual

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[6] *Id.* at pp. 9-10.

[7] *Id.* at p. 3.

[8] *Id.* at p. 7.

[9] *Onalaska, Holmen Approve Boundary Agreement*, LaCrosse Tribune, September 18, 2015.

fiscal, social and economic well being." Power lines that travel over and next to residential areas do not enhance the fiscal, social, or economic well-being of the community.

Dairyland, as set forth in a recent email, takes the position that those of us who live by power lines chose to do so and there's nothing more to say. This position ignores two important points. First, not many people know yet about electric and magnetic emissions. Although the power companies have known about these emissions for years, they purposely are keeping people in the dark. They issue no public information about electric and magnetic emissions and spend substantial resources hiring experts to dispel any link between these emissions and illness, such as cancer. As people learn more and more about these emissions, they will choose not to live by power lines. Just as the the tobacco, asbestos, and Dalkon Shield litigation shows, the truth eventually comes out where companies attempt to restrict or hide important information regarding the safety of their products.

Second, the easements obtained by Dairyland do not give Dairyland a "right of way" for emissions or a right to expose us to emissions. Exposure to electric and magnetic field emissions was not a bargained for exchange between Dairyland and the original property owners. Dairyland has no right to expose us to electric and magnetic field emissions along its transmission lines. Those electric and magnetic field emissions, among other things, constitute an ongoing trespass.

Dairyland indicated in a written communication that it takes no responsibility for houses that were constructed under or near the Line. While the local municipalities certainly played a role in the platting and permitting of the construction of the houses, Dairyland was complicit in this process. Dairyland regularly polices the Line and at any point could have stopped construction of any structure that is within or infringes upon its right of way.

ADVERSE IMPACT ON ARCHAEOLOGY AND ENVIRONMENT

The three parcels owned by us are environmentally and archaeologically unique and important. The area was not included in the PSC's staff archeology map in the Badger Coulee project, yet the archaeological area extends from above the blufftop down to the Mississippi River and includes our properties.[10]

A study was conducted at our properties by the Archaeology Department of the University of Wisconsin LaCrosse in 2013. The study covered a significant portion of all three residential properties involving more than 150 shovel test holes for probing and analyzing the underlying soil. Many artifacts were unearthed throughout the testing area including aboriginal ceramics, charcoal, mollusk shells, and chart. The findings evidence that the property had been inhabited by the Oneota, an indigenous Native American tribe. The property is recognized by the

[10] PSC Docket No. 5-CE-142, Direct Testimony of Brea Grace Critical of the Joint Application, p. 12.

University of Wisconsin LaCrosse Archaeology Department and the Mississippi Valley Archaeology Center ("MVAC") as an unrecorded archaeology site. See Attachment G, Wisconsin Archaeological Site Inventory Form prepared by the MVAC.

The MVAC, as a paid agent of Dairyland Power, conducted a single shovel test on the southeast corner of our homestead in April 2015 where Dairyland Power intends to place a new pole. According to MVAC's report, "no cultural material was discovered" in the shovel test. However, the shovel test was conducted within ten (10) feet of the southern perimeter of the 2013 archaeological testing zone. Artifacts had been found within a few feet of the intended pole position. A picture of the shovel test site taken by MVAC with MVAC's map of the site area and its report regarding our property are attached hereto as Attachment H.

Any construction, including the removal of the existing pole on the cottage property or placement of a new pole will disturb and possibly destroy portions of this archaeological site.

The Kathan family has been working for many years to restore the property to a native prairie. Ann Kathan and Lois Kathan have been working with the U.S. Fish and Wildlife Service and other prairie restoration experts on prairie restoration. These persons are the same experts who are restoring the prairie at the Upper Mississippi River National Wildlife and Fish Refuge (Brice Prairie Refuge), which is located just a few miles west and south of our family's property.

Our entire property is a habit for a multitude of birds, insects, pollinators, small mammals, and deer. The property is rich with diverse plant and animal and insect life. The U.S. Fish and Wildlife Service's restoration plan includes reintroducing burr oaks into the eastern portion of the property. The Line inhibits us from completing our restoration efforts and will render our efforts thus far much less effective. The Line inhibits the animals, pollinators, and birds. The Line particularly inhibits and endangers the hawks who live on the property and cannot hunt due to the Line's wires.

LACK OF ADEQUATE DISCLOSURE AND GOOD FAITH

In the fall of 2014, Dairyland representatives went door to door along the Line and presented Project Notice & Acknowledgement papers to the owners of each property along the Line. The papers described Dairyland's intended upgrade of the Line, including statements that pole height would be increased. Dairyland represented in writing and verbally that work would begin immediately. Those property owners who signed Dairyland's papers were paid $250.00 by Dairyland. Dairyland made representations that work would begin forthwith and created an air of urgency which compelled many property owners to sign the Project Acknowledgement in haste. Those representations were made more than one year ago and construction has not yet begun on the Line.

At the time Dairyland presented these papers to the property owners, Dairyland could not have begun work on the schedule set forth by Dairyland because it had not yet obtained all of the

permits necessary before beginning any upgrade of the Line, including environmental permits, Federal Aviation Administration permits, and variances required for any increased pole heights that would pierce the height restriction overlay for the LaCrosse Municipal Airport.

The denial of any of these required permits may greatly affect the upgrade and render work described in the work papers moot. Because Dairyland did not disclose to the property owners when the work papers were presented that all necessary permits had not yet been obtained, that the results of the permit process may greatly impact the upgrade project, especially regarding pole height, that there was an opportunity for comment to RUS about this project, and that the work timeline set forth at the time was not possible, Dairyland's efforts to solicit landowner approval were not in good faith.

Dairyland has engaged in a pattern of misrepresentation and misinformation regarding the Q-1 line. Dairyland represented to some property owners that the Project Notice & Acknowledgement papers are not legally binding. If so, why then did Dairyland pay consideration to those who signed those papers? Dairyland represented to a property owner that it was buying her trees through the Project Notice & Acknowledgement. There is much confusion surrounding Dairyland's Project Notice & Acknowledgment documents and its payments to land owners.

Dairyland represented that the Project Notice & Acknowledgement documents do not constitute a waiver of any rights and those documents, with the accompanying payment for signing, were issued by Dairyland's board of directors to show Dairyland's "good faith" to the community. However, upon information and belief, Dairyland informed one of our community's elected officials during the CapX2020 project that the purpose of the Project Notice & Acknowledgement documents and payments to land owners was to quell objections to the upgrade.

Dairyland recently caused an article to be published in the LaCrosse Tribune entitled *Dairyland Gets Green Light for Transmission Rebuild in Refuge*. The article discusses Dairyland's work on the Q-1 line through the Upper Mississippi River National Wildlife and Fish Refuge. The article sets forth that Dairyland "plans to replace a 13-mile segment of 65-year old lines in LaCrosse and Trempeleau Counties . . ." and that "the Q1-D rebuild was approved separately" from the CapX2020 project. The article further states, "Helicopters should begin removing existing line next week, and the *entire project* should be complete by the end of the year . . . ."[11]

The article is misleading because the Q-1 Line in the Refuge is only a segment of the Q-1 Line upgrade project, yet the statements made by Dairyland make it appear that the *entire* Line has been fully permitted and funded. Dairyland has not obtained all of the necessary permits and

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[11] *Dairyland Gets Green Light for Transmission Rebuild in Refuge*, LaCrosse Tribune, September 17, 2105 (*emphasis added*).

funding for the Line segments that are situated south of the Briggs Road substation. The article also incorrectly states that the entire Line upgrade project will be completed by the end of this year. Dairyland informed us that construction on the Line segment by us will *start* in September 2016 at the earliest.

Many property owners who are aware of the Public Notice did not submit comments because they believe, based upon Dairyland's newspaper article, that the Q-1 line upgrade has been fully funded and permitted and there is no reason to submit a comment. One property owner stated, "after reading that article I thought Dairyland's helicopters were going to show up tomorrow and start the line upgrade."

CONSIDERATION OF NEED AND PROPOSED SOLUTIONS

Need for this project has not been demonstrated, and should be addressed because it is difficult to imagine how additional transmission could be needed with both the new CapX2020 line that is both traveling down from the north in the Alma area down into the Briggs Road substation, and the Badger Coulee line, another 345 kV transmission coming into the Briggs Road substation from the south Madison area. With these two new transmission lines currently under construction, our needs in this area for power should be more than covered.

The Dairyland project should also be considered in the context of the Clean Power Plan, and whether coal plants in the area such as Genoa, Alma, and Madgett may be closed and whether Xcel Energy will keep open its generating plants in LaCrosse. If the coal plants are closed, and the LaCrosse plants are available, there may be no need for transmission. Dairyland so present justification for this project, inform the public of its asserted justification, and allow us to comment on it and present suggestions.

Solution Number 1

An apparently viable solution should be analyzed for resolving and mitigating the negative impacts of the Line on the health and safety of the many affected residents. Dairyland can move a portion of the Line. The Line can be moved to follow Highway 53 south starting from the Briggs Road substation in Holmen and continuing south along Highway 53 past the intersection with County Road OT. From that point southwards, the Line already runs along Highway 53. Shifting the top portion of the Line over to Highway 53 would only affect a few miles of the Line and would have a tremendous positive impact. The Line would bypass several residential communities including, not just the Kathan family and MOTH properties, but also Prairieview Addition, Cottonwood Lane Addition, Evergreen Estates, Park Lawn Estates, and the Oak Hills neighborhood.

Solution Number 2

There exists a second option for moving a portion of the Line. Xcel Energy has an existing transmission line running from the Briggs Road substation south into the City of Onalaska. Xcel Energy's line and the Line travel almost parallel to each other and then meet each other on the eastern side of Highway 53 near its intersection with Main Street in the City of Onalaska. The Xcel Energy transmission line travels through farmland and few residential areas.

Dairyland, beginning at or near the Briggs Road substation, could co-locate on the Xcel Energy line for a portion of its route. At County Road OT where the road crosses over Highway 53, the Dairyland Line could then continue south on its own down the western edge of Highway 53, or it could continue to co-locate on the Xcel Energy line until Main Street in the City of Onlaska. If the Line were to follow this second alternate route, the Line would bypass several residential communities, including not just the Kathan and MOTH properties, but also Prairie View Addition, Cottonwood Lane Addition, Evergreen Estates, Park Lawn Estates, and the Oak Hills neighborhood.

Co-location is a viable alternative as evidenced by the co-location of transmission lines in the CapX2020 project in Holmen. Dairyland itself co-locates transmissions lines and either already is co-locating or intends to co-locate transmission lines with Xcel Energy on a pole just south of the Briggs Road Substation. Dairyland Power and Xcel Energy are partners in the CapX2020 project and have a relationship with each other and history in which co-location is viable.

Solution Number 3

A third alternative route for the Line is for the Line to travel south from the Briggs Road Substation to Highway 35 and then south along Highway 35 until the intersection with County Road OT where it could then cross over Highway 35 to the east and continue on its current route. Rerouting the Line down Highway 35 is feasible because power lines already travel along the Highway. Highway 35 in this area is about to undergo a major overhaul by the Wisconsin Department of Transportation so there should be no or minimal environmental impact by routing the Line along this highway. Most important, routing the Line along Highway 35 moves the Line out of all of the residential properties and communities listed above.

Rerouting the Line would be consistent with the PSC's EMF exposure reduction protocols. Rerouting the Line would remove it from the flight approach path of the LaCrosse Municipal Airport which requires that all "approach, departure, and overflight areas . . . remain free of obstructions and provide a safe environment for airport operations."[12] Rerouting the Line out of the flight approach area would protect the public health, safety and welfare and the long-term economic viability of the Airport. The aerial photographs of Attachment E provide a bird's eye view of where the alternative routes could be situated.

[12] *LaCrosse Municipal Airport Land Use Plan* at p. 16.

An additional benefit of rerouting the Line pursuant to either Solution Number 1, Solution Number 2, or Solution Number 3, is that the Line would bypass the McHugh Excavating property where the Line jeopardizes the health and safety of the employees. Recently, the Line was hit by machinery on the McHugh property. Relocating the Line would also reduce the Henshaw Effect impacts on workers in the area who are subjected to corona charged particles during their workday.

CONCLUSION

Dairyland states in its publications that it is committed to safety. "Safety is our highest priority at Dairyland."[13] The strength of Dairyland as a cooperative turns upon this community's confidence in Dairyland and belief that Dairyland acts in the best interests of the community. Dairyland can both uphold its commitment to safety and bolster the community's confidence in it by relocating the Line.

Relocating the line will protect the health, safety, and welfare of hundreds of people, protect our property values, and enhance the beauty of our community. Additionally, relocating the Line will mitigate or eliminate claims the residents or the municipalities may or could have against Dairyland for injuries or other causes of action related to the Line.

We thank you for this opportunity to comment on the project.

Respectfully submitted by:

Robert Kathan, individually and as a member of
Midway on the Hill, LLC

Lois Kathan, individually and as a member of
Midway on the Hill, LLC

cc: Dennis Rankin, Engineering and Environmental Services, USDA Rural Utilities Service, 1440 Independence Aveune, S.W., Mail Stop 1571, Washington, DC 20250-1571

Enclosures: Attachments A through H.

[13] www.dairynet.com/safety/. "There is no success in business without safety," Barbara Nick, Dairyland President and CEO.

To: Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

COMMENTS FROM ANN KATHAN AND MICHAEL FINN REGARDING PUBLIC NOTICE 8/28/2015 30394422 WNAXLP

and are now owned by Robert and Lois Kathan individually and through their Wisconsin limited liability company Midway on the Hill, LLC ("MOTH").

Dairyland owns and operates transmission lines known collectively as the Q-1D South Line (the "Line") designated by Dairyland at 161 kilovolts of electrical power, with as yet an unknown capacity. The Line consists of five wires: a single circuit three phase transmission line and two shield wires above. Upon information and belief, three of the wires carry electrical current and at least one shield wire is a fiberoptic line leased by Windstream Communications from Dairyland for the transmission of data between the Twin Cities of Minnesota and Chicago, Illinois. The Line crosses all of Robert and Lois Kathan's and MOTH's properties on a diagonal line of approximately 740 feet in length.

Robert and Lois Kathan's and MOTH's properties lie directly under the flight approach path for the LaCrosse Municipal Airport and are within the Airport's three-mile height restriction Overlay.[1]

The Line runs in very close proximity to the cottage. The northeast corner of the cottage is 73 (seventy-three) feet from the center of the Line and 62 (sixty-two) feet from the closest conductor, as measured on the ground. A Line pole having a height of approximately sixty feet stands 68 (sixty-eight) feet from the northeast corner of the cottage. Photographs showing the proximity of the Line to the cottage are contained in Attachment B.

We are married and have two six-year old daughters. We recently relocated from Florida back to Wisconsin and are living in the cottage. We moved here in order to be near and to help Ann's parents, who are retired. Robert and Lois Kathan are aging and need assistance, especially Robert who is partially blind due to macular degeneration. Robert and Lois Kathan are no longer able to keep up with the physical demands of the properties and we assist them with yard work, maintenance, and upkeep.

We also moved here so that our daughters can spend as much time as possible with their only grandparents. We spend significant amounts of time every day at Robert and Lois Kathan's house and they spend time with us at the cottage.

We lease the cottage from MOTH. A family of three, which includes a young child, leases the property located at N5928 County Road OT from MOTH. The rental incomes received by Robert and Lois from the cottage and N5928 are critical to their financial stability. The inability to rent the cottage property or the N5928 property would have deleterious financial effects on Robert and Lois Kathan.

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[1] *LaCrosse Municipal Airport Use Plan* (2010, adopted January 13, 2011), pp. 4, 7-16, Appendices. This document can be found on-line at http://www.lseairport.com/uploads/content_files/LandUse.pdf.

Robert and Lois Kathan's and MOTH's properties together provide approximately ten acres of open space for our girls to play in and enjoy. The land is a beautiful habitat for a rich diversity of wildlife, plants, and flowers. There is an incredibly vibrant bird population which includes a large population of bluebirds. Pollinators of all sorts abound. The Kathan family members have been loving stewards of the land. For several decades Robert and Lois Kathan maintained an organic garden. They also restored much of the land to native prairie.[2] Their homestead is a designated Monarch Waystation by Monarch Watch. The open spaces in this area are dwindling as more and more properties are developed, so our family home here is very special and unique. Photographs of the property and its habitats are contained in Attachment C.

Dairyland, through written and verbal communications with the undersigned, has represented that it intends to upgrade the Line which will allegedly include removal of the existing pole on the cottage property and the installation of a new pole with a height of 110 feet at the southeast corner of Robert and Lois' homestead. A map of the proposed Line upgrade prepared by Dairyland is attached hereto as Attachment D.

DUE PROCESS

We object to the Public Notice and the proposed Line upgrade on multiple due process grounds. Dairyland has failed to provide adequate notice to the persons who are affected or who may be affected by the proposed project. First, the Public Notice contains a map that is illegible and does not present sufficient detail so that the location and extent of the project can be understood.

Second, the Public Notice was published in the LaCrosse Tribune once, and as set forth above, that one public notice contained insufficient information to analyze or to form any opinion regarding the project.

Third, there has been no mailing or other written notice of the project delivered to all affected landowners and residents. Dairyland has not provided project information to the landowners and residents, including, but not limited to Line capacity, its actual construction schedule, permitting processes, electric and magnetic field emissions, funding processes, and public input opportunities.

Fourth, the Public Notice sets forth a thirty-day response period. This response period is insufficient. Those persons who are or may be affected by the proposed project do not have a reasonable opportunity to learn about the project and to timely file responses. Dairyland has provided insufficient information for the residents to learn about and understand the project.

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[2] *Their Plant Business is Growing Wild*, LaCrosse Tribune, October 5, 1978, p. 11.

DETRIMENTAL HEALTH, SAFETY, AND ECONOMIC IMPACTS

In early January 2015, we began learning about electric and magnetic field emissions from transmission lines, commonly referred to EMF. We researched and read a multitude of publications discussing these fields. Ann Kathan and Lois Kathan initiated a meeting with Steven M. Schauer, Dairyland's Senior Right of Way Agent, in January 2015 to try and obtain more specific information about the proposed upgrade and the EMF emissions from the Line. During this meeting, Mr. Schauer revealed that Dairyland has an employee on staff, Mr. Chuck Thompson, who visits homes free of charge and measures magnetic field emissions.

Despite our numerous communications with Mr. Schauer regarding the Line beginning in October 2014, the first time that Dairyland ever discussed EMF emissions or disclosed that it measures magnetic field emissions as a regular part of its business was at our meeting with Mr. Schauer in January 2015.

Within two weeks of the meeting with Mr. Schauer, Chuck Thompson came to the cottage and measured the magnetic field emanating from the Line using a Gauss meter. Ann Kathan accompanied Mr. Thompson and he conducted magnetic field readings inside and outside the cottage property at various locations. Mr. Thompson also conducted readings inside and outside Robert and Lois Kathan's homestead. Ann Kathan also took measurements using a Gauss meter supplied by Dairyland. Mr. Thompson and Ann Kathan compared their readings and the readings were the same at each measurement point. Ann Kathan recorded the readings contemporaneously in a log book.

The magnetic field emission readings were conducted mid-afternoon on a cold January day when the Line was not being operated at peak capacity. Dairyland has not informed us what "peak capacity" is, nor what it will be with the upgraded Line. This information should be known to Dairyland and disclosed in environmental reports. All electronic devices and appliances in the cottage and Robert and Lois Kathan's homestead had been unplugged so that they would not interfere with the measurements. The measurements show that the magnetic field emissions are significantly high at the cottage, are elevated at Robert and Lois Kathan's home, and exceed levels that are considered safe.

Standing directly under the Line, the Line has magnetic field emissions of 30 to 40 milliGauss ("mG") during a non-peak time. In the cottage's northeastern bedroom, which is our daughters' bedroom and is 73 feet from the center of the Line, the magnetic field emissions range from 5.4 to 13 mG during non-peak times. Throughout the remainder of the cottage, the magnetic field emissions range from 4 to 9 mG. The edge of our garden, which is approximately 25 feet from the center of the Line, has magnetic field emissions of 27 mG. The magnetic field emissions in Robert and Lois' home are also elevated ranging from 3 to 5.5 mG.

The Line's magnetic field emissions increase as the power load on the Line increases. During peak capacity times, and when the weather is warm, the Line physically sags bringing it

even closer to the cottage. As the Line sags, our exposure to the magnetic field emissions increases. Again, we do not know what existing levels are, nor have we been informed what they are expected to be and where they will fall off to a "safe" level of 2 mG.

Mr. Thompson stated during the measurement process that he has conducted magnetic field emissions testing in hundreds of houses. He stated that the emissions level in our daughters' bedroom is "higher than average" and that most houses have magnetic field emission levels of 1 to 2 mG. He confirmed that our elevated magnetic field emission levels are due to the Line.

Mr. Thompson discussed that many bike trails are built under transmission lines and this practice "is not good." Through this statement Mr. Thompson admitted that sporadic exposure to magnetic field emissions while using a bike trail is unsafe. So logically then, prolonged continuous exposure to magnetic field emissions, such as in our daughters' bedroom, must be significantly harmful. When asked what Dairyland does with the emissions readings, such as creating a report or cataloging the data, Mr. Thompson replied that Dairyland does nothing with the readings.

Evidence exists that prolonged exposure to high levels of magnetic field emissions can cause serious illness, including cancer. Young children appear to be especially sensitive to magnetic fields. Dairyland and other utility companies vigorously deny any link between magnetic field emissions and illness.

The reinsurance industry has determined that magnetic field emissions is a significant threat. Swiss Re, one of the world's largest reinsurance companies and well-respected for its cutting edge scientific research, issued its SONAR report in 2013 in which it identifies electric and magnetic field emissions as a "significant risk" that could have a major impact on society and the insurance industry.[3] This determination by Swiss Re is not just a scientific consideration of an established association, it is also an economic consideration.

The findings of the reinsurance industry are relevant for two important reasons. First, the position of the reinsurance industry establishes that electric and magnetic field emissions are a recognized threat to the health and safety of humans, and a recognized risk to be analyzed by underwriters. Second, the insurance industry may begin to exclude coverage for any claims that relate to EMF. Property located near power lines may become uninsurable, which in turn would have devastating effects on the value of real estate and businesses located near power lines. Health insurers may exclude coverage for illness and injury related to electric and magnetic field emissions.

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[3] *Swiss Re SONAR Emerging Risks Report*, Swiss Re 2013, p. 11.

Dairyland's proposed upgrade will not negate or lessen our exposure to magnetic field emissions from the Line, and may in fact increase the magnetic field emissions through increased Line capacity and increased current on the Line.

Dairyland represented to us that it will raise the pole heights on the Line to 110 feet. Dairyland explained that the increased pole height is to pull the Line away from houses, presumably in an attempt to decrease electric and magnetic field exposure. However, based upon communications with Dairyland, the Line, even with a higher pole, will be no further away from the cottage due to the sag point in the Line. Dairyland informed us in 2014 that the upgraded Line, at its lowest sag point, would be thirty-eight feet from the ground. Later, Dairyland stated the sag distance will likely be as low as twenty-six feet from the ground. Whether the sag point is is thirty-eight or twenty-six feet from the ground, the upgraded Line will be much closer to the ground, and our home, than the Line is currently.

Therefore, it is likely that the electric and magnetic field emissions we are exposed to will remain significantly high and will not be mitigated by the proposed project. The higher structures and raised conductor is for Dairyland's purposes to facilitate the new conductor and presumed higher capacity, and not to lessen impacts on the Line.

The Line has a significant impact on the health and safety of hundreds of people in the Town of Onalaska, the City of Onalaska, and the Village of Holmen.[4] The Line travels through several residential areas beginning near Filler Court and County Road OT. It travels through the Prairieview Addition, then through the Cottonwood Place neighborhood, across the Robert and Lois Kathan and MOTH properties, through Evergreen Estates, through the McHugh Excavating property, Park Lawn Estates Mobile Home Park, and the Oak Hills neighborhood. From the Oak Hills neighborhood the Line travels across an industrial complex and then into residential neighborhoods in the City of Onalaska.

The map prepared by Dairyland and attached as Attachment E shows, from an aerial perspective, how the Line travels through several residential areas. Parklawn Estates, a mobile home park located on Highway 35, is the most densely populated area the Line travels through. The Line travels directly over and within a few feet of many mobile homes. The western wall of one mobile home is one foot from a Line pole, as shown in the photographs of neighboring homes in Attachment F.

Those who live or spend time near the Line are exposed to significantly high levels of both electric and magnetic field emissions. Those who live directly under the Line have the

[4] The Village of Holmen and the City of Onalaska recently announced they are working together jointly to implement a development plan for the Holmen-Onalaska area. At some point in the near future it is likely that the Town of Onalaska will be dissolved and the properties contained within the Town of Onalaska will be either annexed to the Village of Holmen or to the City of Onalaska.

highest exposure. The Line negatively impacts the health and safety of all of us who live or spend time near the Line.

The Line lowers our property values. While it is more difficult to calculate property valuation decreases where a new line replaces an existing one, the awareness and requirements of disclosure will affect marketability of homes in the project area, and the new structures will be much more visible and imposing.

Discovering that our home is unsafe has been devastating on a personal level. We moved here with the intention of making the cottage our home forever. The electric and magnetic field emissions from the Line make it impossible now for us to continue to live in the cottage. We have moved our daughters into the bedroom that is furthest away from the Line. Moving them into another bedroom is only a stop-gap measure that will only slightly reduce their exposure to the magnetic field emissions.

We will need to relocate, which means we will no longer be in a position to live next to and assist my parents. Relocation imposes a tremendous financial burden on us. Renting the cottage is affordable for us. Finding a new home that provides all of the benefits of the cottage will be impossible and any property in this area equivalent in size will be far beyond our financial reach. Robert and Lois Kathan will lose the rental income from the cottage and may not be able to find replacement tenants. The stress caused by the uncertainty of this situation is adversely affecting us, our children, and Robert and Lois Kathan. Robert and Lois Kathan are directly affected by this situation and we fully incorporate all of their comments and perspectives as if fully related herein.

An additional loss, which can never be put into a dollar calculation, is that we will lose the enjoyment of beautiful unique land that has been in our family for more than sixty years.

PUBLIC SERVICE COMMISSION AND EMF

Upon information and belief, Dairyland's proposed upgrade is not subject to review by the Public Service Commission of Wisconsin ("PSC"). Dairyland stated in a recent written communication that Dairyland follows the siting protocols of the PSC with respect to EMF. Based on Dairyland's statement, the PSC's EMF protocols are relevant and controlling with respect to the Line.

The PSC recognizes that exposure to magnetic field emissions from transmission lines is dangerous. The PSC: (i) has set a minimum safe distance from transmission lines at 300 feet; (ii) requires power companies to document and report EMF measurements; (iii) and requires

power companies to mitigate the public's exposure to EMF.[5] The PSC states: "The magnetic field level at 300 feet or more from a transmission centerline should be similar to local ambient, or background, levels."[6] The PSC defines "ambient magnetic field levels" as "1 to 3 mG."[7]

Dairyland, despite its stated commitment to following these PSC protocols, is not following the protocols. The Line runs directly over many houses and many more houses are within 300 feet of the Line. Dairyland stated in its email communication that, "Given the state of the science, we do not move or remove lines or make other costly and unnecessary investments in response to fears about EMF." For Dairyland to be in compliance with the PSC protocols, and to be consistent with its written acknowledgement that it must follow PSC protocols, it must take action to eliminate and mitigate the EMF emissions from the Line.

Dairyland, in a written communication, discounted concern about magnetic field emissions on the basis that science has not established a definitive link between magnetic field emissions and illness: "Given the state of the science, we do not move or remove lines or make other costly and unnecessary investments in response to fears about EMF." The PSC cautions, however, that magnetic field emissions cannot be considered safe simply because science has not proven otherwise: "Science cannot prove a negative, so magnetic fields cannot be proven to have no effect and to be safe."[8]

RIGHT OF WAY

Dairyland has a right of way for the Line based upon easements granted to Dairyland in the early 1950s. Dairyland dismisses out of hand any discussion of solutions to the emission problem asserting its "right of way" rights. The easements need to be reevaluated in the context of today's world, which is a very different world than in the 1950s. First, the easements were obtained when most of this area was farmland and very sparsely populated. Agriculture was this area's main industry. The Holmen-Onalaska area has changed dramatically in the last sixty years. It is now densely populated with residences. Agriculture is no longer our main industry. The only remaining farmland near the Line is the George Filler farm on Filler Court, which his daughter owns and continues to farm. The green open spaces are few and far between now.

It makes no sense to continue to run transmission lines over and next to houses. It is unsafe and depresses property values. Many power companies and municipalities are working together to minimize the impact of power lines by either rerouting them or burying them. The municipalities of the Village of Holmen and the City of Onalaska are aware of the need to rethink

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[5] EMF Electric & Magnetic Fields, Public Service Commission of Wisconsin, pp. 8, 9-10. The document can be found on-line at http://psc.wi.gov/theLibrary/publications/electric/electric12.pdf.

[6] *Id.* at pp. 9-10.

[7] *Id.* at p. 3.

[8] *Id.* at p. 7.

power line placement and will plan for "a more efficient placement of future utilities and other infrastructure."[9] This joint plan of our leadership will "allow for the enhancement of our mutual fiscal, social and economic well being." Power lines that travel over and next to residential areas do not enhance the fiscal, social, or economic well-being of the community.

Dairyland, as set forth in a recent email, takes the position that those of us who live by power lines chose to do so and there's nothing more to say. This position ignores two important points. First, not many people know yet about electric and magnetic emissions. Although the power companies have known about these emissions for years, they purposely are keeping people in the dark. They issue no public information about electric and magnetic emissions and spend substantial resources hiring experts to dispel any link between these emissions and illness, such as cancer. As people learn more and more about these emissions, they will chose not to live by power lines. Just as the the tobacco, asbestos, and Dalkon Shield litigation shows, the truth eventually comes out where companies attempt to restrict or hide important information regarding the safety of their products.

Second, the easements obtained by Dairyland do not give Dairyland a "right of way" for emissions or a right to expose us to emissions. Exposure to electric and magnetic field emissions was not a bargained for exchange between Dairyland and the original property owners. Dairyland has no right to expose us to electric and magnetic field emissions along its transmission lines. Those electric and magnetic field emissions, among other things, constitute an ongoing trespass.

Dairyland indicated in a written communication that it takes no responsibility for houses that were constructed under or near the Line. While the local municipalities certainly played a role in the platting and permitting of the construction of the houses, Dairyland was complicit in this process. Dairyland regularly polices the Line and at any point could have stopped construction of any structure that is within or infringes upon its right of way.

ADVERSE IMPACT ON ARCHAEOLOGY AND ENVIRONMENT

The three parcels owned by Robert and Lois Kathan and MOTH are environmentally and archaeologically unique and important. The area was not included in the PSC's staff archeology map in the Badger Coulee project, yet the archaeological area extends from above the blufftop down to the Mississippi River and includes the Robert and Lois Kathan and MOTH properties.[10]

A study was conducted at the Robert and Lois Kathan and MOTH properties by the Archaeology Department of the University of Wisconsin LaCrosse in 2013. The study covered a

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[9] *Onalaska, Holmen Approve Boundary Agreement*, LaCrosse Tribune, September 18, 2015.

[10] PSC Docket No. 5-CE-142, Direct Testimony of Brea Grace Critical of the Joint Application, p. 12.

significant portion of all three residential properties involving more than 150 shovel test holes for probing and analyzing the underlying soil. Many artifacts were unearthed throughout the testing area including aboriginal ceramics, charcoal, mollusk shells, and chart. The findings evidence that the property had been inhabited by the Oneota, an indigenous Native American tribe. The property is recognized by the University of Wisconsin LaCrosse Archaeology Department and the Mississippi Valley Archaeology Center ("MVAC") as an unrecorded archaeology site. See Attachment G, Wisconsin Archaeological Site Inventory Form prepared by the MVAC.

The MVAC, as a paid agent of Dairyland Power, conducted a single shovel test on the southeast corner of Robert and Lois Kathan's homestead in April 2015 where Dairyland Power intends to place a new pole. According to MVAC's report, "no cultural material was discovered" in the shovel test. However, the shovel test was conducted within ten (10) feet of the southern perimeter of the 2013 archaeological testing zone. Artifacts had been found within a few feet of the intended pole position. A picture of the shovel test site taken by MVAC with MVAC's map of the site area and its report regarding Robert and Lois Kathan's property are attached hereto as Attachment H.

Any construction, including the removal of the existing pole on the cottage property or placement of a new pole will disturb and possibly destroy portions of this archaeological site.

The Kathan family has been working for many years to restore the property to a native prairie. Ann Kathan and Lois Kathan have been working with the U.S. Fish and Wildlife Service and other prairie restoration experts on prairie restoration. These persons are the same experts who are restoring the prairie at the Upper Mississippi River National Wildlife and Fish Refuge (Brice Prairie Refuge), which is located just a few miles west and south of our family's property.

The entire Kathan property is a habit for a multitude of birds, insects, pollinators, small mammals, and deer. The property is rich with diverse plant and animal and insect life. The U.S. Fish and Wildlife Service's restoration plan includes reintroducing burr oaks into the eastern portion of the property. The Line inhibits us from completing our restoration efforts and will render our efforts thus far much less effective. The Line inhibits the animals, pollinators, and birds. The Line particularly inhibits and endangers the hawks who live on the property and cannot hunt due to the Line's wires.

LACK OF ADEQUATE DISCLOSURE AND GOOD FAITH

In the fall of 2014, Dairyland representatives went door to door along the Line and presented Project Notice & Acknowledgement papers to the owners of each property along the Line. The papers described Dairyland's intended upgrade of the Line, including statements that pole height would be increased. Dairyland represented in writing and verbally that work would begin immediately. Those property owners who signed Dairyland's papers were paid $250.00 by Dairyland. Dairyland made representations that work would begin forthwith and created an air of urgency which compelled many property owners to sign the Project Acknowledgement in

haste. Those representations were made more than one year ago and construction has not yet begun on the Line.

At the time Dairyland presented these papers to the property owners, Dairyland could not have begun work on the schedule set forth by Dairyland because it had not yet obtained all of the permits necessary before beginning any upgrade of the Line, including environmental permits, Federal Aviation Administration permits, and variances required for any increased pole heights that would pierce the height restriction overlay for the LaCrosse Municipal Airport.

The denial of any of these required permits may greatly affect the upgrade and render work described in the work papers moot. Because Dairyland did not disclose to the property owners when the work papers were presented that all necessary permits had not yet been obtained, that the results of the permit process may greatly impact the upgrade project, especially regarding pole height, that there was an opportunity for comment to RUS about this project, and that the work timeline set forth at the time was not possible, Dairyland's efforts to solicit landowner approval were not in good faith.

Dairyland has engaged in a pattern of misrepresentation and misinformation regarding the Q-1 line. Dairyland represented to some property owners that the Project Notice & Acknowledgement papers are not legally binding. If so, why then did Dairyland pay consideration to those who signed those papers? Dairyland represented to a property owner that it was buying her trees through the Project Notice & Acknowledgement.

Dairyland represented that the Project Notice & Acknowledgement documents do not constitute a waiver of any rights and those documents, with the accompanying payment for signing, were issued by Dairyland's board of directors to show Dairyland's "good faith" to the community. However, upon information and belief, Dairyland informed one of our community's elected officials during the CapX2020 project that it was getting property owners to sign the Project Notice & Acknowledgement documents and accept payment in order to quell objections to the upgrade.

Dairyland recently caused an article to be published in the LaCrosse Tribune entitled *Dairyland Gets Green Light for Transmission Rebuild in Refuge*. The article discusses Dairyland's work on the Q-1 line through the Upper Mississippi River National Wildlife and Fish Refuge. The article sets forth that Dairyland "plans to replace a 13-mile segment of 65-year old lines in LaCrosse and Trempeleau counties . . ." and that "the Q1-D rebuild was approved separately" from the CapX2020 project. The article further states, "Helicopters should begin removing existing line next week, and the *entire project* should be complete by the end of the year . . . ."[11]

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[11] *Dairyland Gets Green Light for Transmission Rebuild in Refuge*, LaCrosse Tribune, September 17, 2105 (*emphasis added*).

The article is misleading because the Q-1 Line in the Refuge is only a segment of the Q-1 Line upgrade project, yet the statements made by Dairyland make it appear that the *entire* Line has been fully permitted and funded. Dairyland has not obtained all of the necessary permits and funding for the Line segments that are situated south of the Briggs Road substation. The article also incorrectly states that the entire Line upgrade project will be completed by the end of this year. Dairyland informed us that construction on the Line segment by us will start in September 2016 at the earliest.

Many property owners who are aware of the Public Notice did not submit comments because they believe, based upon Dairyland's newspaper article, that the Q-1 line upgrade has been fully funded and permitted and there is no reason to submit a comment. One property owner stated, "after reading that article I thought Dairyland's helicopters were going to show up tomorrow and start the line upgrade."

CONSIDERATION OF NEED AND PROPOSED SOLUTIONS

Need for this project has not been demonstrated, and should be addressed because it is difficult to imagine how additional transmission could be needed with both the new CapX2020 line that is both traveling down from the north in the Alma area down into the Briggs Road substation, and the Badger Coulee line, another 345 kV transmission coming into the Briggs Road substation from the south Madison area. With these two new transmission lines currently under construction, our needs in this area for power should be more than covered.

The Dairyland project should also be considered in the context of the Clean Power Plan, and whether coal plants in the area such as Genoa, Alma, and Madgett may be closed and whether Xcel Energy will keep open its generating plants in LaCrosse. If the coal plants are closed, and the LaCrosse plants are available, there may be no need for transmission. Dairyland so present justification for this project, inform the public of its asserted justification, and allow us to comment on it and present suggestions.

Solution Number 1

An apparently viable solution should be analyzed for resolving and mitigating the negative impacts of the Line on the health and safety of the many affected residents. Dairyland can move a portion of the Line. The Line can be moved to follow Highway 53 south starting from the Briggs Road substation in Holmen and continuing south along Highway 53 past the intersection with County Road OT. From that point southwards, the Line already runs along Highway 53. Shifting the top portion of the Line over to Highway 53 would only affect a few miles of the Line and would have a tremendous positive impact. The Line would bypass several residential communities including, not just the Kathan family and MOTH properties, but also Prairieview addition, Cottonwood Lane addition, Evergreen Estates, Park Lawn Estates, and the Oak Hills neighborhood.

Solution Number 2

There exists a second option for moving a portion of the Line. Xcel Energy has an existing transmission line running from the Briggs Road substation south into the City of Onalaska. Xcel Energy's line and the Line travel almost parallel to each other and then meet each other on the eastern side of Highway 53 near its intersection with Main Street in the City of Onalaska. The Xcel Energy transmission line travels through farmland and few residential areas.

Dairyland, beginning at or near the Briggs Road substation, could co-locate on the Xcel Energy line for a portion of its route. At County Road OT where it crosses Highway 53, the Dairyland Line could then continue south on its own down the western edge of Highway 53, or it could continue to co-locate on the Xcel Energy line until Main Street in the City of Onlaska. If the Line were to follow this second alternate route, the Line would bypass several residential communities, including not just the Kathan/MOTH properties, but also Prairie View addition, Cottonwood Lane addition, Evergreen Estates, Park Lawn Estates, and the Oak Hills neighborhood.

Co-location is a viable alternative as evidenced by the co-location of transmission lines in the CapX2020 project in Holmen. Dairyland itself co-locates transmissions lines and either already is co-locating or intends to co-locate transmission lines with Xcel Energy on a pole just south of the Briggs Road Substation. Dairyland Power and Xcel Energy are partners in the CapX2020 project and have a relationship with each other and history in which co-location is viable.

Solution Number 3

A third alternative path for the Line is for the Line to travel south from the Briggs Road substation to Highway 35 and then south along Highway 35 until the intersection with County Road OT where it could then cross over Highway 35 and continue on its current route. Rerouting the Line down Highway 35 is feasible because power lines already travel along the Highway. Highway 35 in this area is about to undergo a major overhaul by the Department of Transportation so there should be no or minimal environmental impact by routing the Line along this highway. Most important, routing the Line along Highway 35 moves the Line out of all of the residential properties and communities listed above.

Rerouting the Line would be consistent with the PSC's EMF exposure reduction protocols. Rerouting the Line would remove it from the flight approach path of the LaCrosse Municipal Airport which requires all "approach, departure, and overflight areas . . . remain free of obstructions and provide a safe environment for airport operations."[12] Rerouting the Line out

[12] *LaCrosse Municipal Airport Land Use Plan* at p. 16.

of the flight approach area would protect the public health, safety and welfare and the long-term economic viability of the Airport.

An additional benefit of rerouting the Line pursuant to either Solution Number 1, Solution Number 2, or Solution Number 3, is that the Line would bypass the McHugh Excavating property where the Line jeopardizes the health and safety of the employees. Recently, the Line was hit by machinery on the McHugh property. Relocating the Line would also reduce the Henshaw Effect impacts on workers in the area who are subjected to corona charged particles during their workday. The aerial photographs of Attachment E provide a bird's eye view of where the alternative routes could be situated.

CONCLUSION

Dairyland states in its publications that it is committed to safety. "Safety is our highest priority at Dairyland."[13] The strength of Dairyland as a cooperative turns upon this community's confidence in Dairyland and belief that Dairyland acts in the best interests of the community. Dairyland can both uphold its commitment to safety and bolster the community's confidence in it by relocating the Line. Relocating the line will protect the health, safety, and welfare of hundreds of people, protect our property values, and enhance the beauty of our community. Additionally, relocating the Line will mitigate or eliminate claims the residents or the municipalities may or could have against Dairyland for injuries or other causes of action related to the Line.

We thank you for this opportunity to comment on the project.

Respectfully submitted by:

Ann N. Kathan

Michael W. Finn

cc: Dennis Rankin, Engineering and Environmental Services, USDA Rural Utilities Service, 1440 Independence Aveune, S.W., Mail Stop 1571, Washington, DC 20250-1571

Enclosures: Attachments A through H.

[13] www.dairynet.com/safety/. "There is no success in business without safety," Barbara Nick, Dairyland President and CEO.

To: Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

EXHIBIT BINDER FOR COMMENTS FROM ANN KATHAN AND MICHAEL FINN

AND

COMMENTS FROM ROBERT KATHAN, LOIS KATHAN, AND MIDWAY ON THE HILL, LLC

REGARDING DAIRYLAND POWER COOPERATIVE'S PUBLIC NOTICE 8/28/2015 30394422 WNAXLP

To: Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

EXHIBIT BINDER FOR COMMENTS FROM ANN KATHAN AND MICHAEL FINN

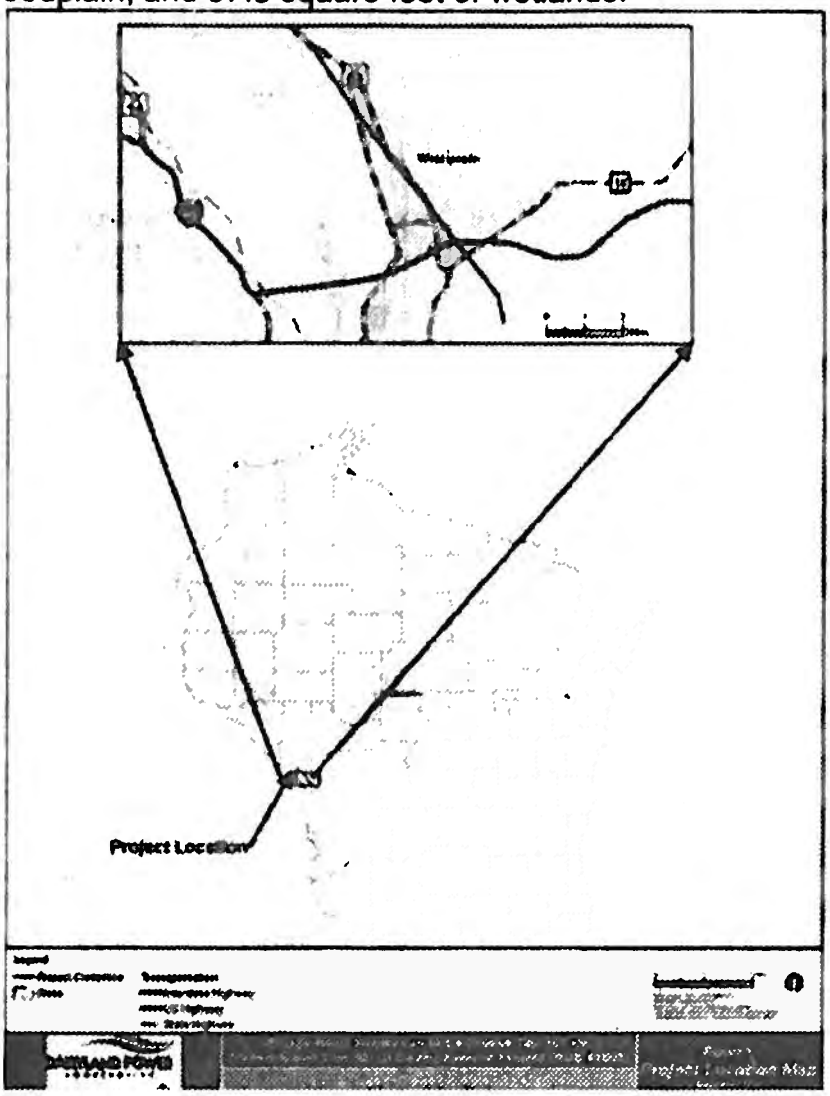
AND

COMMENTS FROM ROBERT KATHAN, LOIS KATHAN, AND MIDWAY ON THE HILL, LLC

REGARDING DAIRYLAND POWER COOPERATIVE'S PUBLIC NOTICE 8/28/2015 30394422 WNAXLP

PUBLIC NOTICE

Dairyland Power Cooperative, 3200 East Avenue South, La Crosse, WI 54602-0817, is planning to rebuild approximately nine miles of 161 kilovolt transmission line in La Crosse County, the Q-1D South Project, near the Village of Holmen. It has been determined that the Project, as proposed, will .be located in a prime farmlands, 100-year floodplain, and wetlands. The Project will occupy 100.8 square feet of prime farmland, 0.09 acres of 100-year floodplain, and 37.8 square feet of wetlands.



Dairyland Power Cooperative has considered a variety of alternatives, including no action, and believes that there is no practicable alternative that will avoid locating the Project in prime farmlands, 100-year floodplains, and wetlands. Additional information on the project can be obtained from Chuck Thompson at the address provided in this notice or by telephoning (608) 787-1432.

Comments on the environmental aspects of the project should be submitted in writing to Dairyland Power Cooperative within 30 days of the publication of this notice. Copies of all comments received will be forwarded to the Rural Utilities Service for consideration prior to approval of financing assistance or taking other Federal action related to the Project.

8/28 30394422 **WNAXLP**

APPENDIX B

View of existing pole on cottage property looking north into the Cottonwood Addition. (The smaller line is an Xcel Energy distribution line. We are Xcel Energy customers.)

The front porch of the cottage faces east.

APPENDIX B

The northeastern edge of the cottage (our daughters' bedroom is located here). The corner is 73 feet from the center of the Line.

Full view of the front of the cottage and the corner bedroom.

APPENDIX B

A view to the north as the Line travels near the edge of N5928 County Road OT.

A view to the east as the Line travels near the cottage's garage.

APPENDIX B

A view to the south as the Line travels across the cottage property and Robert and Lois Kathan's homestead.

Looking north from the southeast corner of Robert and Lois Kathan's homestead.

APPENDIX C

APPENDIX C

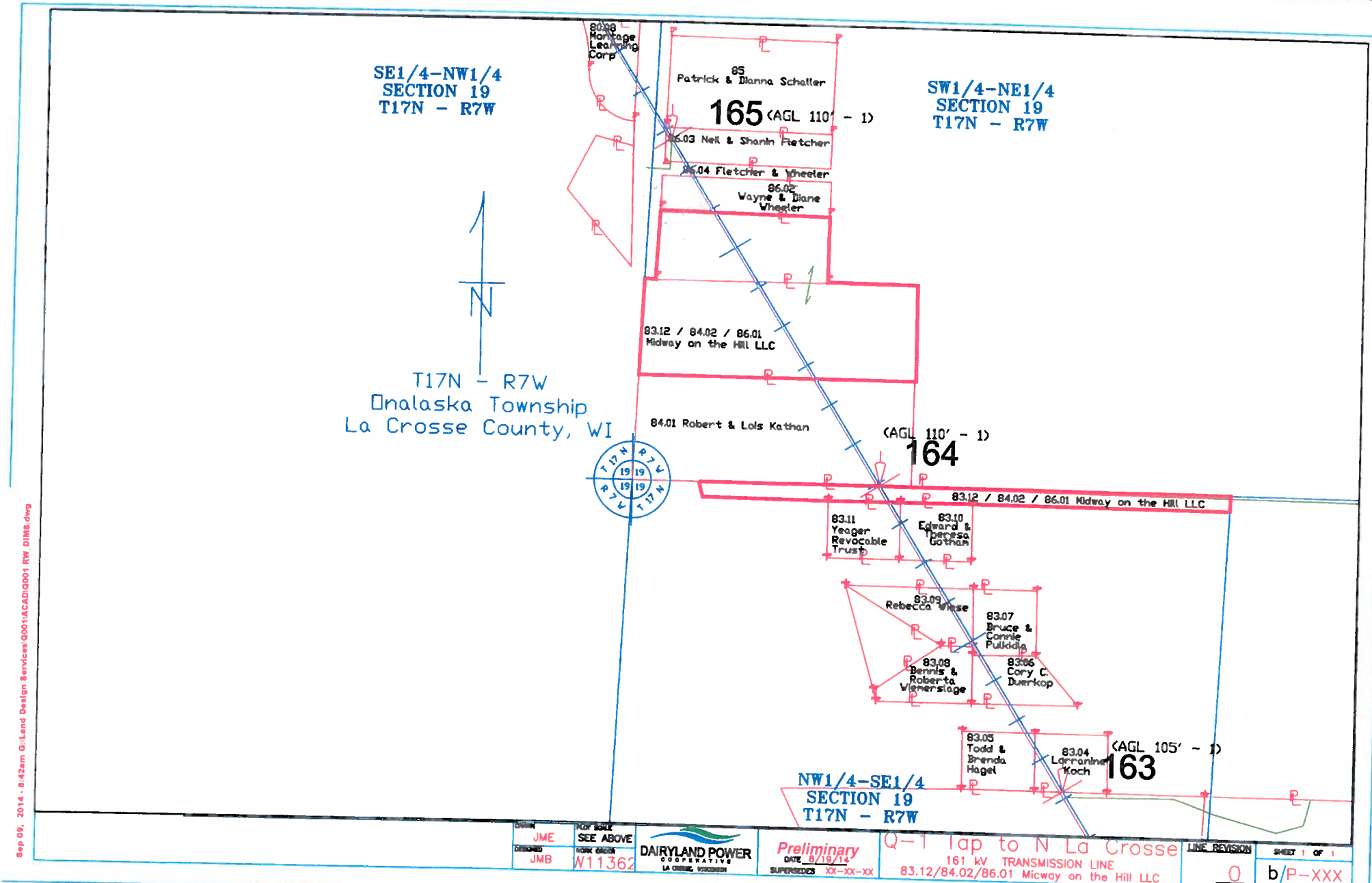
APPENDIX C

APPENDIX C

APPENDIX C

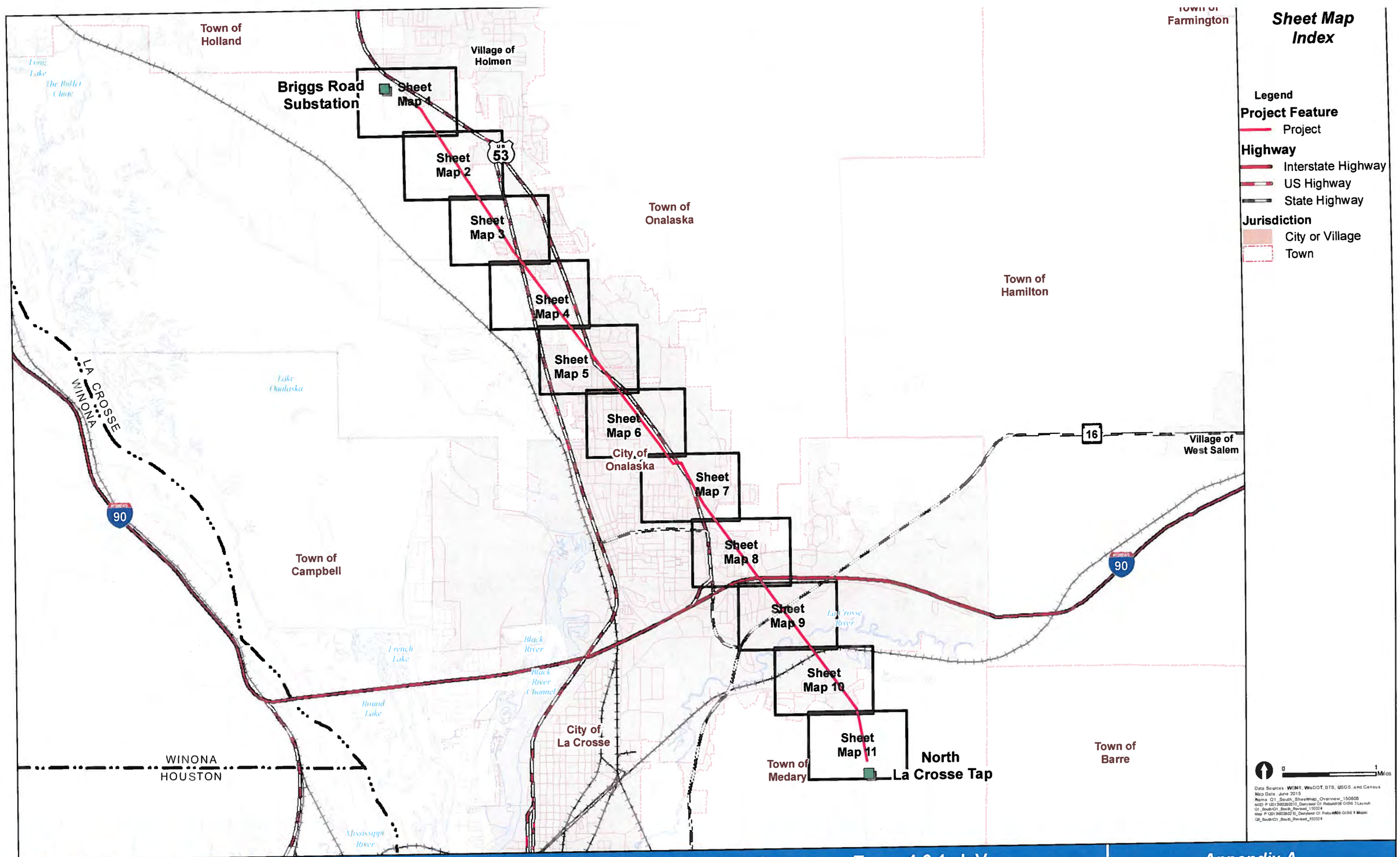
APPENDIX C

APPENDIX C



THIS DRAWING IS NOT TO BE REPRESENTED AS A REGISTERED OR LEGAL SURVEY.

EXHIBIT "A"



DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

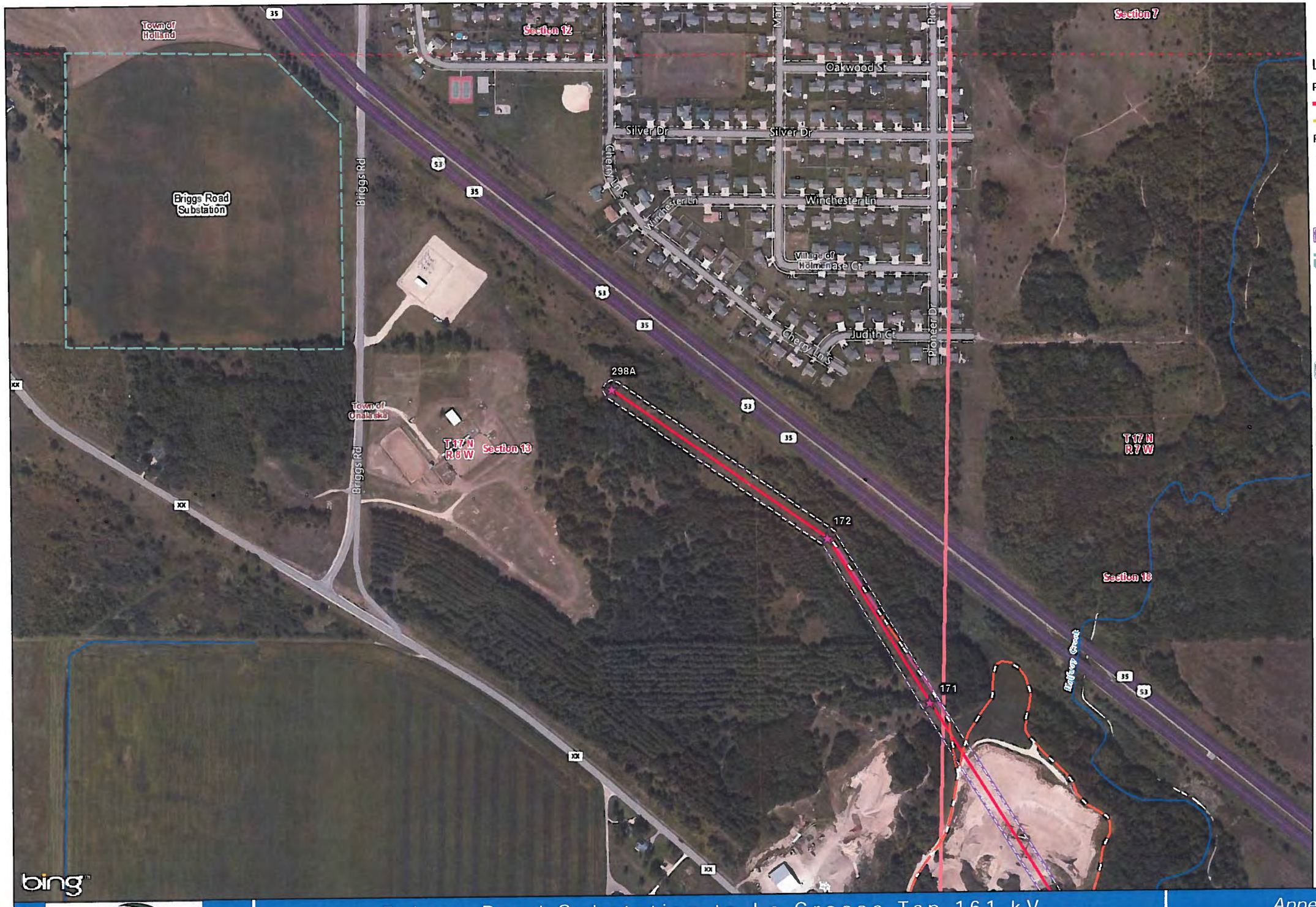
Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Overview Map

June 2015



Sheet Map 1

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
- Access Route - No Grading Required
- Access Route - Grading Required
- Temporary Clear Span Bridge
- Staging Area

Water Feature
- Waterbody
- Field Sketched Waterway
- Delineated Wetland

WDNR 24K Hydrography
- Intermittent Stream
- Perennial Stream

Jurisdiction
- County
- Township
- Section
- City, Village or Town
- Federal Land
- State Land

0 400 Feet

Sheet Map Index

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Aerial Photography Published by Microsoft Bing Maps

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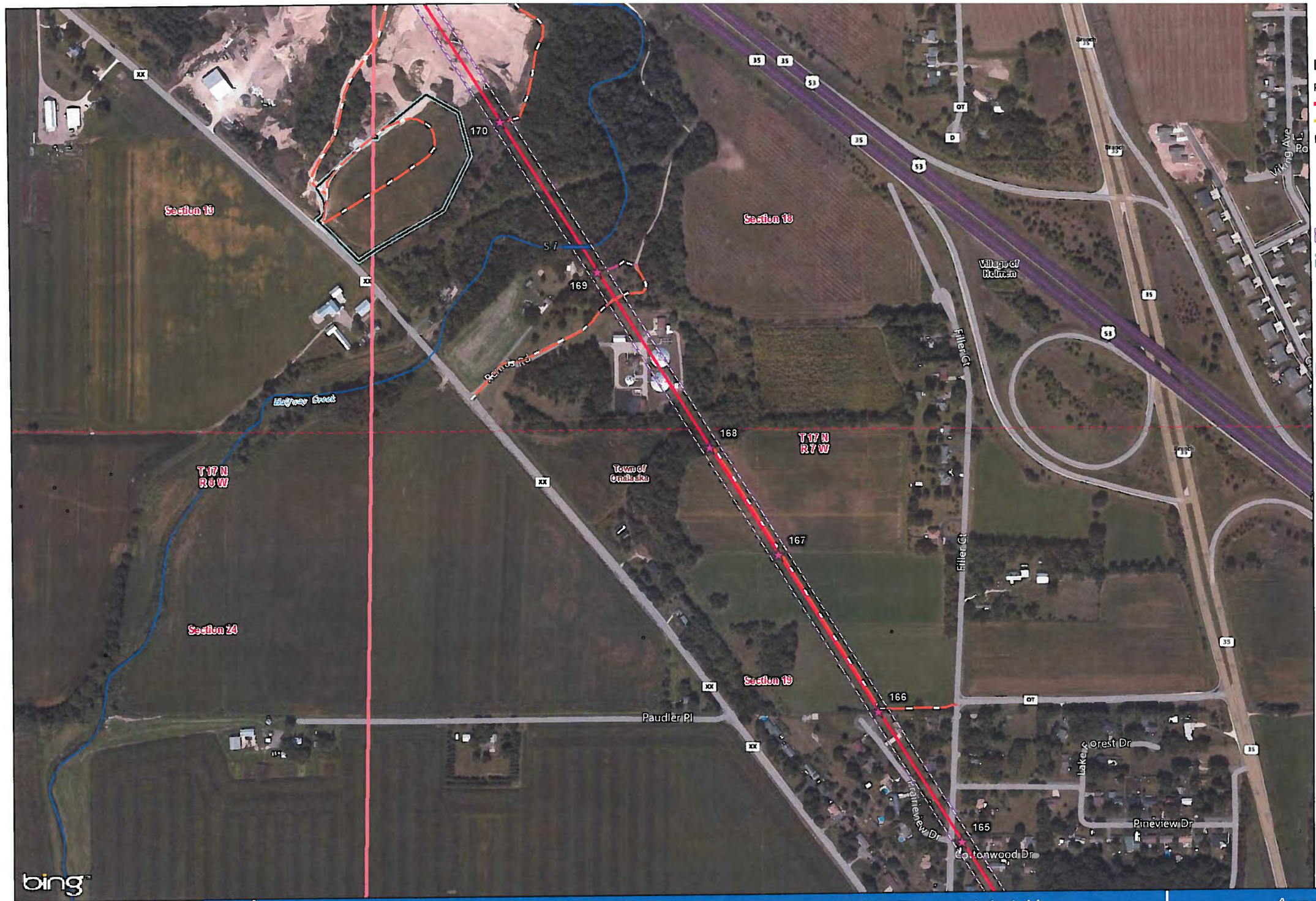
Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

June 2015



Sheet Map 2

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
- Access Route - No Grading Required
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Water Feature
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Jurisdiction
- County
- Township
- Section
- City, Village or Town
- Federal Land
- State Land

0 400 Feet

Sheet Map Index

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Aerial Photography Published by Microsoft Bing Maps

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Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

June 2015

Sheet Map 3

Legend

- Project Centerline
  - Single Circuit
  - Double Circuit
- Project Feature
  - Single Pole Steel
  - Y-Frame Steel
  - H-Frame Steel Deadend
  - Right-of-Way
  - Briggs Road Substation
  - Access Route - No Grading Required
  - Access Route - Grading Required
  - Temporary Clear Span Bridge
  - Staging Area
- Water Feature
  - Waterbody
  - Field Sketched Waterway
  - Delineated Wetland
- WDNR 24K Hydrography
  - Intermittent Stream
  - Perennial Stream
- Jurisdiction
  - County
  - Township
  - Section
  - City, Village or Town
  - Federal Land
  - State Land

0 400 Feet

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Aerial Photography Published by Microsoft Bing Maps

DAIRYLAND POWER COOPERATIVE
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Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

June 2015

Sheet Map 4

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
- Access Route - No Grading Required
- Access Route - Grading Required
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Jurisdiction
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0 400 Feet

Sheet Map Index

Data Sources: WDNR, WisDOT, BTS, Census, and Dairyland Power
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Aerial Photography Published by Microsoft Bing Maps

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

June 2015

Sheet Map 5

Legend

- Project Centerline
  - Single Circuit
  - Double Circuit
- Project Feature
  - Single Pole Steel
  - Y-Frame Steel
  - H-Frame Steel Deadend
  - Right-of-Way
  - Briggs Road Substation
  - Access Route - No Grading Required
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0 400 Feet

Sheet Map Index

Aerial Photography Published by Microsoft Bing Maps

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

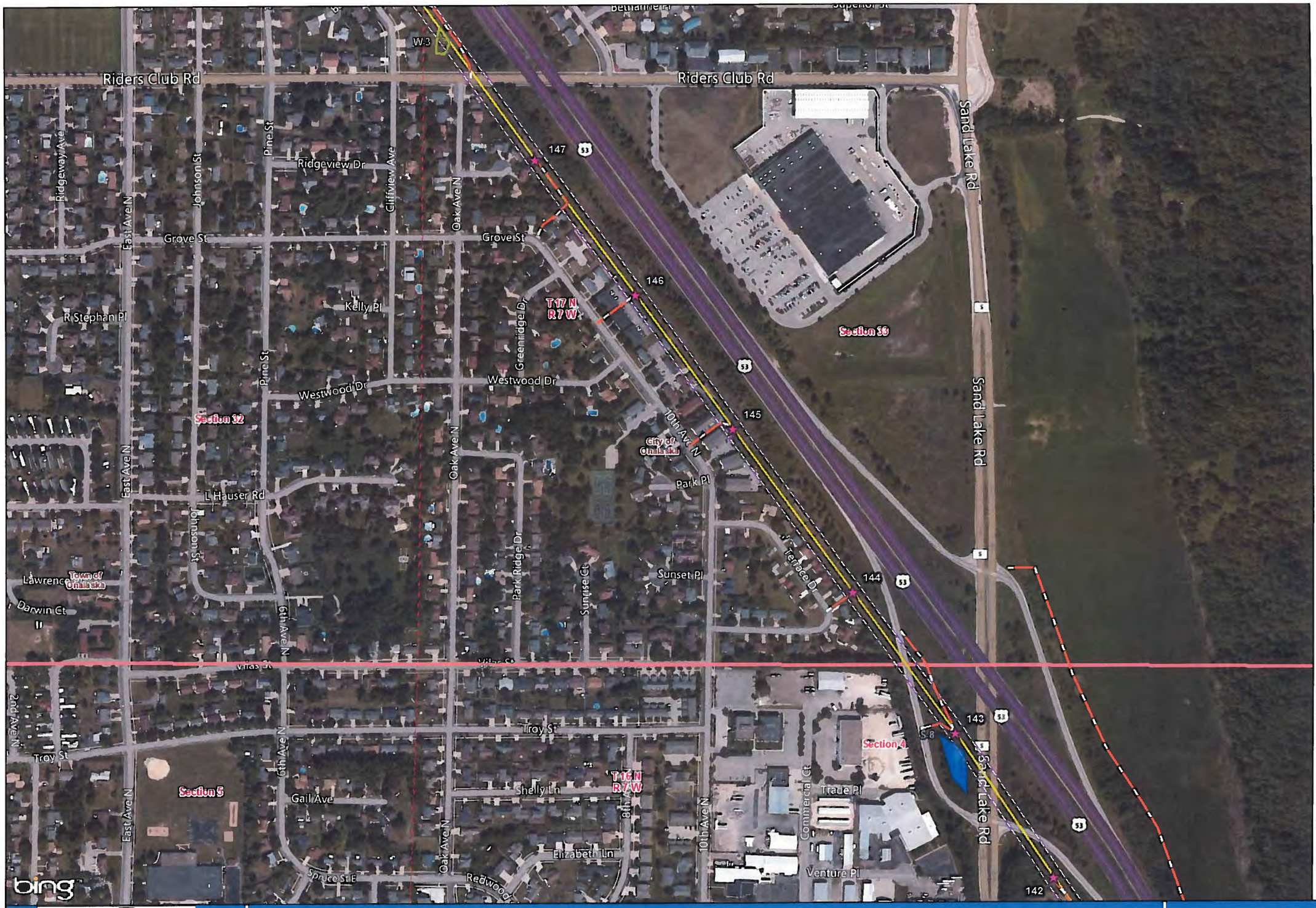
Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

June 2015



Sheet Map 6

Legend

Project Centerline
- Single Circuit
- Double Circuit

Project Feature
- Single Pole Steel
- Y-Frame Steel
- H-Frame Steel Deadend
- Right-of-Way
- Briggs Road Substation
- Access Route - No Grading Required
- Access Route - Grading Required
- Temporary Clear Span Bridge
- Staging Area

Water Feature
- Waterbody
- Field Sketched Waterway
- Delineated Wetland

WDNR 24K Hydrography
- Intermittent Stream
- Perennial Stream

Jurisdiction
- County
- Township
- Section
- City, Village or Town
- Federal Land
- State Land

0 400 Feet

Sheet Map Index

Data Sources: WDNR, WisDOT, BTS, Census, and Dairyland Power
Map Date: June 2015
Name: Q1_South_Sheetmap_150608
MXD: Y:\2013\60280210_Dairyland Q1 Rebuild\06 GIS\6 3 Layout\Q1_South\Q1_South_Revised_150328
Y:\2013\60280210_Dairyland Q1 Rebuild\06GIS\6.1 Maps\Q1_South\Q1_South_Revised_150328

Aerial Photography Published by Microsoft Bing Maps

DAIRYLAND POWER COOPERATIVE
A Touchstone Energy® Cooperative

Briggs Road Substation to La Crosse Tap 161 kV Transmission Line (Q-1D South) Rebuild Project (RUS #1060)

La Crosse County, Wisconsin

Appendix A

Q-1D South Rebuild Project Mapbook

June 2015

APPENDIX F

Park Lawn Estates Mobile Home Park on Highway 35. Note the pole proximity to the homes.

Park Lawn Estates Mobile Home Park.

APPENDIX F

Park Lawn Estates Mobile Home Park on Highway 35.

Park Lawn Estates Mobile Home Park.

APPENDIX F

Park Lawn Estates Mobile Home Park.

Park Lawn Estates Mobile Home Park.

APPENDIX F

Park Lawn Estates Mobile Home Park.

Park Lawn Estates Mobile Home Park.

APPENDIX F

Park Lawn Estates Mobile Home Park with a view to the north.

Park Lawn Estates Mobile Home Park

APPENDIX F

Evergreen Estates located on Highway 35; view looking south

Evergreen Estates; view looking north.

APPENDIX F

Evergreen Estates; view looking north

Evergreen Estates view looking south

APPENDIX F

Evergreen Estates view looking south

Cottonwood Addition on County Road OT looking north

APPENDIX F

County Road OT near Oak Hills Addition looking north

Oak Hills Addition looking east

APPENDIX F

Oak Hills Addition looking east

Oak Hills Addition looking east

APPENDIX F

Oak Hills Addition looking east

Oak Hills Addition looking east

APPENDIX F

Park Lawn Estates Mobile Home Park with close-up views of the southernmost poles

Wisconsin Archeological Site Inventory Form

CODE #47-____ COUNTY: La Crosse

SITE NAME (limit 25 characters) Kathan

FIELD NUMBER(S):____ OTHER NAME: ____

Locational Information (See Appendix B)

CIVIL TOWN(S): Onalaska **OR** MUNICIPALITY:

TOWN # 17 North RANGE # 7 E ☐ or W ■ SECTION # 19 FRENCH/GOV LOT: ____
QUARTER-SECTIONS (at least 3) SW SW NE

QUARTER-SECTION GRID ALIGNMENT (edge and corner):____

ADDITIONAL TRS DATA:

TOWN # ____ North RANGE # ____E ☐ or W ☐ SECTION # ____ FRENCH/GOV LOT: ____
QUARTER-SECTIONS (at least 3) ____

QUARTER-SECTION GRID ALIGNMENT (edge and corner)____

UTM COORDINATES: (110)Zone 15 (112) Easting _____ (114) Northing _____
(See Appendix C)

Method: Interpolated from USGS QUAD: ☐ GPS Field: ☐

USGS 7.5' QUADRANGLE MAP NAME Holmen, WI 7.5' PARCEL ID: _____

GEOGRAPHIC LOCATION & RELATION TO LANDSCAPE FEATURES:

This site is in a fallow farm field located east of CTH XX/OT, west of USH 35/53, and south of Cottonwood Place. The site is bounded on the east side by a strip of trees and on the north side by a wooded area.

Site Description Information

SITE/FEATURE DESCRIPTION:

This site was found during the University of Wisconsin - La Crosse's 2013 summer archaeology field school while shovel testing in 10 meter intervals. There was a light scatter of artifacts throughout the field, although the eastern edge and central portion of the site were sparse. Artifacts were mainly found in the northwestern, north central, and western portion of the site area.

SITE DIMENSIONS: 150 by 75 ☐ feet OR ■ meters (check one)
or
SITE AREA: _____ ☐ acres OR ☐ hectares (check one)

SITE TYPE(S): (Check all that apply. See Appendix D.)

- ☐ Abandoned Community
- ☐ Cabin/homestead
- ☐ Cache/pit/hearth
- ■ Campsite/village
- ☐ Cave/rockshelter
- ☐ CCC/WPA site
- ☐ Cemetery/burials
- ☐ Church/Mission
- ☐ Commercial
- ☐ Corn hills/garden beds
- ☐ Cultural Landscape
- ☐ Cultural Site
- ☐ Dam/historic earthwork
- ☐ Dance Ring
- ☐ Dock/pier/crib
- ☐ Enclosure/earthworks
- ☐ Experimental
- ☐ Farmstead
- ☐ Fish weir
- ☐ Foundation/depression
- ☐ HCM concentration
- ☐ Ice House
- ☐ Isolated find
- ☐ Industrial
- ☐ Kiln
- ☐ Kill site/bone bed
- ☐ Lithic scatter
- ☐ Logging camp
- ☐ Military site
- ☐ Mill/sawmill
- ☐ Mound(s)- effigy
- ☐ Mound(s)- conical
- ☐ Mound(s)- linear
- ☐ Mound(s)- other/unk
- ☐ Non-arch Feature
- ☐ Paleontological
- ☐ Quarry/mine
- ☐ Recreational
- ☐ Redeposited artifacts
- ☐ Rock art
- ☐ Rock feature/petroform
- ☐ School/Government
- ☐ Shell midden
- ☐ Shipwreck
- ☐ Sugar bush
- ☐ Trading/fur post
- ☐ Traditional Cultural Property
- ☐ Transportation site
- ☐ Tower
- ☐ Well
- ☐ Workshop site
- ☐ Unknown

CULTURE(S): (Check all that apply. See Appendix E.)

- ☐ Paleo-Indian
- ☐ Early Paleo-Indian
- ☐ Late Paleo-Indian
- ☐ Archaic
- ☐ Early Archaic
- ☐ Middle Archaic
- ☐ Late Archaic
- ☐ Red Ocher
- ☐ Woodland
- ☐ Initial Woodland
- ☐ Early Woodland
- ☐ Middle Woodland
- ☐ Late Woodland
- ☐ Terminal Woodland
- ☐ Middle Miss.
- ☐ Old Copper
- ■ Upper Miss./Oneota
- ☐ Late Pre-contact
- ☐ Post-Contact American Indian
- ☐ Euro-American
- ☐ Unknown / Indeterminate
- ☐ Unknown Post-Contact
- ☐ Unknown Pre-Contact

INVESTIGATION TYPE(S) COMPLETED: (Check all that apply.)

- ☐ Avocational Survey
- ☐ Chance Encounter
- ☐ Faunal Analysis
- ☐ Floral Analysis
- ☐ Geomorphology
- ☐ Historical Research
- ☐ Interview/informant
- ☐ Major excavation/Mitigation/PIII
- ☐ Mechanical Stripping
- ☐ Monitoring
- ☐ Osteological analysis
- ☐ Records/Background
- ☐ Remote Sensing
- ■ Shovel Testing/Probing
- ☐ Soil core
- ☐ Surface Survey
- ☐ Test excavation/PII
- ☐ Traditional Knowledge
- ☐ Underwater
- ☐ Walk Over (Reconn.)

PHASE/COMPLEX: (Enter all that apply. Please see Appendix F for list of choices.) _____

TRIBE/ETHNIC GROUP: (Enter all that apply. Please see Appendix F for list of choices.)_____

MODERN LAND USE (AT LAST UPDATE): (Check one or two.)

- ■ Agriculture
- ☐ Forest
- ☐ Industrial/commercial
- ☐ Transportation corridor
- ☐ Marked cemetery
- ☐ Recreational
- ☐ Submerged
- ☐ Unknown
- ☐ Pasture/grassland
- ☐ Residential
- ☐ Military
- ☐ Energy corridor

DEGREE OF DISTURBANCE (AT LAST UPDATE): (Check one.)

■ Minimal(0-25%) ☐ Moderate(25-50%) ☐ Heavy(50-75%) ☐ Completely destroyed ☐ Unknown

IMPACTS TO SITE: (Check all that apply.)

- ■ Residential, urban
- ☐ Commercial, urban
- ☐ Energy corridor
- ☐ Transportation corridor
- ☐ Military Training
- ☐ Residential, rural
- ☐ Commercial, rural
- ☐ Impoundment
- ☐ Logging
- ☐ Quarry/Mining
- ■ Agricultural
- ☐ Recreational
- ☐ Collecting/Looting
- ☐ Defacing/Vandalism
- ☐ Natural Threats

Ownership Information:

OWNERSHIP TYPE: (Check all that apply.)

☐ Public-Federal ☐ Public-State ☐ Public-Local ☒ Private ☐ Indian ☐ Unknown

OWNER'S NAME(S) Robert Kathan

OWNER'S ADDRESS(ES) N5912 County Road OT, Onalaska, WI

YEAR OWNERSHIP DETERMINED 2013

Artifact /Archival Information

ARTIFACT/RECORDS REPOSITORY: UW-La Crosse

MATERIAL CLASS(ES): (Check all that apply.)

- ☒ Aboriginal ceramics
- ☐ Euro-American ceramics
- ☒ Debitage
- ☐ Faunal remains
- ☐ Features
- ☐ Fire-altered rock
- ☐ Floral remains
- ☐ Glass
- ☐ Other: _____
- ☐ Ground/pecked /battered stone
- ☐ Historic building material
- ☐ Standing Structures
- ☐ Houses/Structures (in ground)
- ☐ Human bone
- ☐ Metal
- ☒ Other chipped stone
- ☐ Projectile points

ARTIFACT LIST:

DATES: _____

DATING METHOD(S):

- ☐ Artifact style/cross-dating
- ☐ Informant/Oral History
- ☐ Thermoluminescence DATE: _____
- ☐ Historic records
- ☐ Radiocarbon DATE: _____
- ☐ Site type
- ☐ Traditional Knowledge
- ☐ Other: _____

Investigator/Reporter Information:

NAME OF INVESTIGATOR(S)	ORGANIZATION((See Appendix G.)	DATE(S) OF INVESTIGATION
Dr. David Anderson	UW-La Crosse Archaeology Dept.	June 2013
_____	_____	_____
_____	_____	_____

NAME OF SITE REPORTER	ORGANIZATION (See Appendix G.)	DATE SITE REPORTED
D. Anderson and V. Twinde-Javner	UW-La Crosse/MVAC	February 2015

BIBLIOGRAPHIC REFERENCES:

Investigator's Recommendation- (Check all that apply.)

☐ Additional Field Investigations	☐ No Additional Investigation
☐ Additional Archival Research	☐ Redesign-avoid
☐ Protect During Construction	☐ Preserve in Place

Comments: _____

Site Recorded For –

☐ Section 106/Compliance WHS Project# _____
☐ State Regional Archaeological Program WHS Project# _____
☐ WHS Survey & Planning Grant WHS Project # _____
☐ THPO WHS Project# _____
☐ Personal/Private Site Investigation WHS Project#_____
☐ Education WHS Project#_____

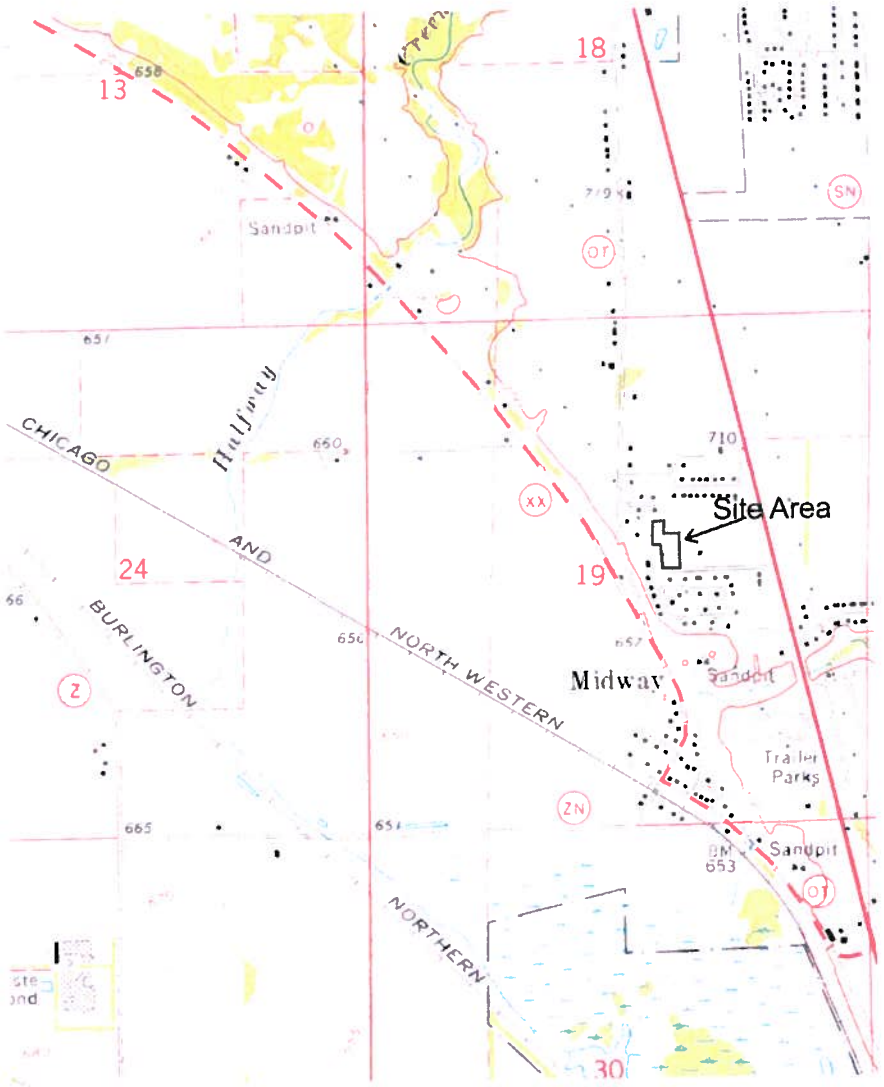

18
13
Sandpit
CHICAGO
AND
NORTH WESTERN
Midway
Site Area
19
24
BURLINGTON
Trailer Parks
Sandpit
NORTHERN
30

Figure 35. View of new pole location (stake with orange flag to left of house in photo) in 47LC169, B. Pralle II. View facing northwest.

Unrecorded Site

One pole location is located immediately adjacent to the southern end of an unrecorded Oneota site found by the UW-La Crosse field school in 2013, located north of Meadow Court and east of Filler Court (see Figure 5). The pole location was located at the edge of a fallow field immediately adjacent to an existing access road and some underground utilities. (Figure 36). One shovel test placed at this pole location exhibited fill over sterile subsoil, and no cultural material was discovered.

Figure 36. View of new pole location (stake with orange flagging in foreground of photo) within unrecorded site located north of Meadow Court and east of Filler Court. View facing northwest).

SUMMARY AND RECOMMENDATIONS

In April, May, and June 2015, the Mississippi Valley Archaeology Center performed a Phase I archaeological survey of approximately nine miles of a portion of the Dairyland Power Cooperative Q-1 transmission line rebuild. Since the pole locations were staked prior to the survey, pole locations only were surveyed along with any new access roads where ground disturbance is proposed. The project passes through several previously recorded sites including two sites that are uncatalogued burial sites and are also currently on the National Register of Historic Places, the Tremaine site (47LC95/BLC71) and the Midway Village Complex (47LC19/BLC1).

At the Tremaine site (47LC95/BLC71), four new poles will be placed in the uncatalogued burial portion of the site. Originally a proposed access road and pad around one pole were proposed to be cut near one pole near the Village of Holmen wastewater treatment plant. However, since artifacts were discovered within the pad location, construction plans have been altered and ground disturbance for the proposed access road and pad have been eliminated to avoid an adverse effect to the site. Matting will be used to access the pole location and to build a pad around this pole during non-frozen and frozen ground conditions. The other three poles within the Tremaine site boundary are located in two adjacent plowed fields. The current plan is to construct during frozen ground conditions, so driving heavy equipment over these plowed fields should not have an adverse effect to the site. However, if construction plans change and the poles will be placed during non-frozen ground conditions, mats will be placed on the fields'

September 20, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

I am submitting this letter in response to the Public Notice that appeared in the LaCrosse Tribune on August 28, 2015 regarding Dairyland Power Cooperative's intention to upgrade the Q-1 transmission line. I oppose Dairyland's proposed upgrade for the following reasons.

I am a retired educator. I taught in our public schools for more than thirty-five years, with most of those years in the School District of Holmen. I have lived in the Holmen-Onlaska region for more than forty-three years.

The Q-1 transmission line travels directly above and very near many homes in the Holmen-Onalaska area. Most people are not aware that transmission lines emit electric and magnetic fields, referred to as EMF. The EMF emissions coming from transmission lines like the Q-1 are significant. The magnetic field emissions directly under the center line of the Q-1 exceed 30 mG, and increase as more power flows through the line. Proximity to the line also increases EMF exposure. The line moves downward in humid and hot weather and as more power flows through it.

Experts in EMF studies, as well as the Public Service Commission of Wisconsin, recognize that prolonged exposure to high EMF emissions poses a threat to our health. Prolonged magnetic field exposure has been linked to cancer. Children seem to be most sensitive to strong magnetic fields.

The EMF emissions from the Q-1 line far exceed the levels that are considered safe. The EMF emissions do not dramatically drop off as you move away from the center line. They continue to be high more than fifty feet away from the centerline. The Public Service Commission has indicated 300 feet is a safe distance from a transmission line.

The houses that are directly under the Q-1 line are getting the highest EMF exposure. The houses near the Q-1 line are also being hit with significant levels of EMF emissions. The Q-1 line is exposing hundred of homes and lots of people to significantly high levels of EMF every day.

Dairyland has made no public disclosures to our community regarding current EMF emissions from the Q-1 line and what the EMF levels are going to be with the proposed upgrade. We, the residents, are being left completely in the dark about this transmission line and the effect it will have on our community.

The power companies, including Dairyland, rely on our ignorance about EMF in order to push their agendas forward. Education is essential to people understanding that power lines like the Q-1 pose a significant threat to the health, safety, and economic welfare of our community. Dairyland needs to make full disclosure to our community regarding the EMF emissions from the line as it exists, what the EMF emissions will be with the proposed upgrade, and explain fully what actual efforts, if any, it has made to locate an alternative route for the Q-1. There are viable options for rerouting the Q-1 line to move it away from many neighborhoods.

Furthermore, the proposed upgrade of the Q-1 line is not consistent with the goals of the leadership of our community. The municipalities of Holmen and Onalaska have linked hands to plan for "the enhancement of our mutual fiscal, social and economic well being." The leadership specifically identified placement of utilities as a primary issue.

Our leadership's plan should start right here and right now by requiring Dairyland to make full disclosure about its Q-1 line and to relocate that line to a safer route.

Respectfully Submitted,

Marlene McCabe

Marlene McCabe

cc: Mr. Dennis Rankin, USDA Rural Utilities Service
Joe Chilsen, Mayor of Onalaska
Nancy Proctor, Village of Holmen President
Brea Grace, Onalaska Land Use and Development Director

September 20, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

I am submitting this letter in response to the Public Notice that appeared in the LaCrosse Tribune on August 28, 2015 regarding Dairyland Power Cooperative's intention to upgrade the Q-1 transmission line. I oppose Dairyland's proposed upgrade for the following reasons.

I am a retired educator. I taught in our public schools for more than twenty-seven years, with most of those years in the School District of Holmen. I have lived in the Holmen-Onlaska region for more than forty-three years.

This area is geographically unique and stunningly beautiful. Anywhere you look you see the forested green bluffs. Our vista cannot be found anywhere else.

The inherent beauty of our area will be forever destroyed if Dairyland is allowed to proceed with its Q-1 transmission line upgrade. The Q-1 line marches through Holmen, the Town of Onalaska, and the City of Onlaska. It travels directly over and very near many homes. Dairyland Power proposes to increase the tower heights to 110 feet, essentially doubling the tower heights. They will replace the existing wooden structures with brown metal poles.

The upgrade, if allowed, will destroy the natural beauty of our region. Instead of seeing our beautiful bluffs, we will see big, tall electrical towers. Holmen and Galesville, with the CapX2020 transmission lines, have already been turned into what look like industrial wastelands.

The economic strength of this area is directly linked to its natural beauty. The natural beauty of this region makes Onalaska a place where people want to live. Our property values are strong, our schools are strong, and our community as a whole is strong. To undermine the beauty of our community would undermine the well being of all aspects of our community—fiscal, social, and economic.

Respectfully Submitted,

John McCabe

cc: Mr. Dennis Rankin, USDA Rural Utilities Service
Joe Chilsen, Mayor of Onalaska; Nancy Proctor, Village of Holmen President
Brea Grace, Onalaska Land Use and Development Director

September 20, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

I am sending this letter in response to the Public Notice that appeared in the LaCrosse Tribune on August 28, 2015 regarding Dairyland Power Cooperative's intention to upgrade the Q-1 transmission line. I strongly oppose Dairyland's proposed upgrade.

I live on Cottonwood Place. The Q-1 line runs through our neighborhood and very near my house. Dairyland proposes in the upgrade to place a massive metal pole in my yard.

The electric and magnetic emissions from the Q-1 line are hitting us constantly and it appears that exposure will increase with the proposed upgrade. Our exposure to these fields, especially the magnetic field, is not good. The power companies, including Dairyland, know that prolonged exposure to these fields is not good for us.

While Dairyland refuses to acknowledge that the emissions from its transmission line are harmful, I find it curious that Dairyland has an employee, namely you Mr. Thompson, who will come to our houses free of charge and measure our EMF exposure. Why do you take these readings when you assert EMF is not harmful? What do you do with the readings? Who do you disclose these readings to?

Additionally, the Q-1 line diminishes the beauty of our neighborhood. The line will have an even greater presence with the proposed upgrade. The pole placement will render most of my yard unusable and will greatly diminish the value of my property.

Dairyland has an obligation to move this line away from residential areas. Dairyland's refusal to do so would run counter to its stated commitment to safety. Keeping the line where it is also undermines the goals of the leadership of Holmen and Onalaska to create a community that thrives socially, physically, and economically.

Respectfully Submitted,

Judith A. Scheidegger

Judith A. Scheidegger

cc: Mr. Dennis Rankin, USDA Rural Utilities Service
Joe Chilsen, Mayor of Onalaska; Nancy Proctor, Village of Holmen President
Brea Grace, Onalaska Land Use and Development Director

September 20, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

We submit this letter in response to the Public Notice that appeared in the La-Crosse Tribune on August 28, 2015 regarding Dairyland Power Cooperative's intention to upgrade the Q-1 transmission line. We strongly oppose Dairyland's proposed upgrade.

We are long-standing residents of the Town of Onalaska. We have lived on Cottonwood Place for many years. The Q-1 line runs through our neighborhood and within approximately fifty feet of our house.

The Q-1 line is ever present in our lives. It diminishes the beauty of our neighborhood. The line will have an even greater presence with the proposed upgrade. The poles will double in height and a pole will be placed directly across the street from us.

The electric and magnetic emissions from the Q-1 line are hitting us constantly. Our exposure to these fields, especially the magnetic field, is not good. The power companies, including Dairyland, know that prolonged exposure to these fields is not good for us. They refuse to acknowledge and want to keep us in the dark as long as possible so they can build their power lines—using taxpayer money no less.

While technically Dairyland may have a "right of way" for the Q-1 line based on easements it obtained more than 60 years ago, it does not have a right to endanger our health, safety, and welfare.

Dairyland has an obligation to move this line away from residential areas. Dairyland's refusal to do so would run counter to its stated commitment to safety and the goals of the leadership of Holmen and Onalaska to create a community that thrives socially, physically, and economically.

Respectfully Submitted,

Diane M Wheeler
Wayne W Wheeler

Diane and Wayne Wheeler

cc: Mr. Dennis Rankin, USDA Rural Utilities Service
Joe Chilsen, Mayor of Onalaska; Nancy Proctor, Village of Holmen President
Brea Grace, Onalaska Land Use and Development Director

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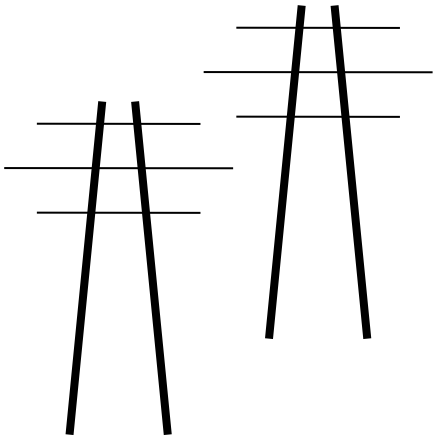

September 14, 2015

Chuck Thompson, Manager
Siting & Regulatory Affairs
Dairyland Power Cooperative
3200 East Avenue South
La Crosse, WI 54602-0617

via email at cat@dairynet.com

Dennis Rankin
Engineering and Environmental Analyst
USDA RUS
1400 Independence SW, Mailstop 1571
Washington D.C., 20250-1571

via email at dennis.rankin@wdc.usda.gov

In Re: **NO CAPX 2020 COMMENT AND REQUEST FOR EXTENSION**
Dairyland Power Cooperative Upgrade of Q-1D South
USDA Rural Utilities Service #1060

Dear Mr. Thompson and Mr. Rankin:

ON BEHALF OF NO CAPX 2020, I REQUEST AN EXTENSION OF THE COMMENT PERIOD REGARDING THIS PROJECT – SPECIFICALLY THAT THE COMMENT PERIOD BE EXTENDED TO AT LEAST 30 DAYS FOLLOWING RELEASE AND PUBLICATION OF PROJECT INFORMATION.

Please regard this as a Comment on this project. Today is September 18, 2015, just one week before comments are due as requested by the public notice of August 28, 2015 (calculated conservatively because September 27 is a Sunday).

Where is the additional information to describe this project and its impacts? Has it been published, posted on-line, available to the public? I can't find anything. I've not received any additional information from you on this project. I presume that there is an Application, of which the Appendix A maps are a part. Like any member of the public, the "public notice" was vague, contained no link for further info, and so I am utterly in the dark on what to comment about!

I can make some guesses based on past transmission experience…

- **The maps denoted as Appendix A are helpful,** from which I've been able to discern that it will run through many residential areas, including trailer parks, many commercial and industrial areas, part of this project will be double circuited, access roads go through residential property, and the "Tap" seems to be proposed for a greenfield just south of the new subdivision the line runs through, near the "substation on a stick" that appears on google earth (could be something else?).

- The MISO planning reports for DPC: P7664 have been helpful, revealing conductor size as 795 ACSS, a higher capacity conductor, but there's no explanation of the double circuiting, the transformer size, or disclosure of the limiting factor for capacity of this line. Project type is "other reliability" which is not further explained. Maybe "ya had to have been there" at MISO in Carmel or St. Paul to get the full scoop.

- Badger Coulee testimony and briefing has also been helpful. The Q-1 line, and specifically this line, a/k/a the North La Crosse – La Crosse 161 kV Tap, was named as a part of the 161 kV system that MISO and Applicants held up as rationale for a need determination for Badger Coulee, that Badger Coulee would alleviate the issues with the 161 kV system. SOUL also advocated for upgrade of the existing 161 kV system as an "**alternative**" to Badger Coulee, but this upgrade was rejected. But now in addition to Badger Coulee and CapX 2020, you're also rebuilding the 161 kV system and increasing its capacity in that rebuild?

As a public advocate, I also note that I've seen no notice to landowners and residents, no notice to local governments, only this "public notice" buried in the paper, and I have no idea how many times this was published and what papers were used. Has there been any direct notice to those along route and those who on property upon which access roads are planned? Affidavits of Service of Notices should also be published and included with the publication of the Application.

Please forward information about this project at your earliest convenience, and post it online for the public to access.

Thank you for your attention to these matters.

Very truly yours,

Carol A. Overland
Attorney at Law

Melinda Peterson
N5969 County Road OT
Onalaska, WI 54650

Chuck Thompson
Manager, Sitting & Regulatory Affairs
Dairyland Power Cooperative
3200 East Avenue South
La Crosse, WI 54602

September 17, 2015

Dear Mr. Thompson,

I am writing to you in response to the Public Notice of the Q-1D South Project near the Village of Holmen (Briggs Road to North La Crosse). I am a resident within the area of which the construction and rebuilding of the power line is proposed. I strongly oppose the rebuilding of the Q-1 line. The rebuilding of these power lines will be harmful to my family physically, economically, and environmentally.

I have lived in the La Crosse area for 15 years and my husband grew up in Onalaska. We have recently purchased a home in the Town of Onalaska within the past two years. We have made long term plans to continue to reside in our new home, and have started a family. The Q-1 line runs very near our home. This line is detrimental to our health because it emits electronic and magnetic fields, commonly referred to as EMF. I've learned that EMF is a "non-ionized" form of radiation. Such radiation, if exposed to for prolonged periods of time, are known to cause serious illness, including cancer, and children are especially sensitive to the EMF emissions.

This causes great concern to me, as I have a 1 ½ year old and am planning on having more children. To even consider running power lines that emit radiation through an area populated with families and children shows that Dairyland Power does not care for the health and well being of the residents of this area.

The rebuilding of the power lines will also affect the residents of the area economically. Simply put, our home properties will lose value due to the placement of the new poles and power lines. Any one will tell you that no one would like their property to decrease in value due to a giant pole placed near their home, as I understand the new poles will be twice the height as the current ones.

Lastly, the placement of the new lines will be harmful to the surrounding environment; the new construction of the lines will destroy farmland, wetlands, and floodplain. The destruction of this land will disturb and destroy natural habitat for many animals and organisms that rely on the wetland and floodplain ecosystems.

It angers me to think that Dairyland Power has made such a negligent decision to place these new power lines in an area that will be harmful to surrounding wildlife, and more importantly to the people who reside there. Especially when there are two alternative routes that poses a lower threat.

Once again, I strongly oppose the rebuilding of the Q-1D South power line in the area proposed. Dairyland Power must find an alternative route.

Sincerely,
Melinda Peterson

cc: Mr. Dennis Rankin, USDA Rural Utilities Service

Rothfork, Mark

From: Rothfork, Mark
Sent: Friday, October 09, 2015 8:13 AM
To: Rothfork, Mark
Subject: FW: Fw: Q-1D South Project

TO: Mr. Chuck Thompson:

FROM; Peter Tabor

N5625 Oak Hills Dr.

Onalaska, WI 54650

DATE; September 15, 2015

RE: Q-1D South Project

I have a few questions about this line upgrade I would appreciate a response to in order to make comments on the project. I would appreciate a response by Sept. 18, 2015.

1) Is Dairyland just rebuilding the existing line or will rebuilding the line also increase the voltage and/or the amount of power put through the line?
2) Will doubling the pole height be a hazard for air traffic at LaCrosse airport?
3) Will the new poles be metal with concrete base or wood?
4) Will the EMF near and under the new line be increased greater than a 2-4 reading on the meter which is considered safe?
5) Will line sag between poles come a safe distance from structure to not increase the EMF level to an unsafe level?
6) Why can not the poles be located in an area with much less population/structures or even co-locate with XCEL energy even if there is an additional cost?

Rothfork, Mark

From: Chuck A Thompson <cat@dairynet.com>
Sent: Thursday, October 15, 2015 8:02 AM
To: Rothfork, Mark
Subject: Fw: [EXT] Dairyland Q1-D South Project Call for Public Comments

----- Forwarded by Chuck A Thompson/Dairynet on 10/15/2015 08:01 AM -----

From: Sarah Ludington <sguyer80@gmail.com>
To: cat@dairynet.com
Cc: dennis.rankin@wdc.usda.gov, jchilsen@cityofonalaska.com, bgrace@cityofonalaska.com, proctor@holmenwi.com
Date: 10/13/2015 07:26 PM
Subject: [EXT] Dairyland Q1-D South Project Call for Public Comments

---

Dear Mr. Thompson,

I am writing in response to the call for public comments regarding the Q1-D South project. I am a rather new resident of Onalaska coming from Ohio and did not know of this project prior to the October 8th, 2015 Courier-Life article. I live in the neighborhood for Northern Hills Elementary School, whose boundaries and whose families this project would impact.

I am in opposition to this project as it is planned right now. While I have informed myself using the links provided in the newspaper article, I realized how confusing it all was. Not so much the information itself, but the manner in which it has been presented or made available to the public. I wouldn't have know about it if not for that Courier-Life article. Even today, the last day to take comments from the public, this headline appeared in the La Crosse Tribune, "Power line completed ahead of schedule". Now, to the lightly informed reader, they might conflate the two projects and decide not to voice their opinion thinking that it is a moot point. This, to me, smacks of purposeful deception and spin. This does not give me confidence that the information provided regarding the project is reliable.

I feel that if this is a project that should be built to last, more care should be taken in exploring other options and being forthcoming about it. The tone from the article made it seem that it all boils down to money and ease on Dairyland's part. For myself and my friends and neighbors, who will be here long after your project is completed, it is about much more than that. Is it safer, for our children, in the long run to bury the line? Is it worth it, morally, to find another route? For a show of good faith to the public, even if certain steps are not required by the processes you are employing, why not go that extra mile and do them anyway?

As a concerned citizen and parent I ask that this project be reviewed with more scrutiny from a third-party and involvement from the people whose lives it will impact day-to-day, not just from the perspective of those who benefit monetarily.

Sincerely,

Sarah Ludington
Onalaska, WI

Rothfork, Mark

From: Chuck A Thompson <cat@dairynet.com>
Sent: Thursday, October 15, 2015 8:02 AM
To: Rothfork, Mark
Subject: Fw: [EXT] Upgrade to the Q-1 161 kilovolt transmission line

----- Forwarded by Chuck A Thompson/Dairynet on 10/15/2015 08:01 AM -----

From: Gayle <gayle.edlin@gmail.com>
To: cat@dairynet.com
Cc: jchilsen@cityofonalaska.com, dennis.rankin@wdc.usda.gov, bgrace@cityofonalaska.com, proctor@holmenwi.com
Date: 10/13/2015 06:36 PM
Subject: [EXT] Upgrade to the Q-1 161 kilovolt transmission line

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To whom it may concern,

Having recently become aware of the upgrade to the Q-1 161 kilovolt transmission line (Briggs Road to La Crosse Tap [Q-1D South] 161 kV Rebuild Project), I'd like to take this opportunity to express my concern about this project.

From what I've read, this line upgrade will increase power, which seems like a good idea on the surface. However, the line already runs through a number of residential areas and recommendations are to reduce human exposures to EMFs. Increasing power will, however, increase exposures, and in residential areas at that. This concerns me greatly as I grew up in the Holmen area and many family and friends also call it home.

To a lesser degree, the size of the poles is also concerning. The large and unsightly poles along the highway would have an even more detrimental appearance, were they to arise in a residential setting.

These are just two points for consideration. I do thank you for your time and the opportunity to comment.

Sincerely,

Gayle C. Edlin
gayle.edlin@gmail.com

Rothfork, Mark

From: Chuck A Thompson <cat@dairynet.com>
Sent: Thursday, October 15, 2015 8:01 AM
To: Rothfork, Mark
Subject: Fw: [EXT] < Dairyland Power Cooperative Upgrade of Q-1D South, USDA RUS #1060 >
Attachments: Comment Opposing CAPX2020.pdf

----- Forwarded by Chuck A Thompson/Dairynet on 10/15/2015 08:01 AM -----

From: Luis Contreras <doccontreras@gmail.com>
To: "Chuck Thompson" <cat@dairynet.com>, "Rankin, Dennis - RD, Washington, DC" <dennis.rankin@wdc.usda.gov>
Date: 10/13/2015 09:20 PM
Subject: [EXT] < Dairyland Power Cooperative Upgrade of Q-1D South, USDA RUS #1060 >

Dear Sirs,

Attached is my request for a full EIS and other comments

Respectfully,

Dr. Luis Contreras

Comment Opposing CAPX2020

October 11, 2015

Chuck Thompson, Manager, Siting & Regulatory Affairs, Dairyland Power Cooperative, 3200 East Avenue South, La Crosse, WI 54602-0617, (608) 787-1432.

Dennis Rankin, Engineering and Environmental Analyst, USDA RUS, 1400 Independence SW, Mailstop 1571, Washington D.C., 20250-1571, or via (202) 720-1953

Re: Dairyland Power Cooperative Upgrade of Q-1D South, USDA RUS #1060

Dear Sirs,

I hereby request a full **Environmental Impact Statemen**t. In particular, the noise, EMF/ELF radiation, lights and other nuisances are a high risk for public health. The standard excuse given by utilities is: there is no proven health risk. This is FALSE. Lines and people are unique. General statements are invalid. If you consider a child with compromised immune system, or a senior person with multiple implanted devices, they would be at high risk living in close proximity from the line for YEARS.

The **precautionary principle** applies for this project. ***When an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.***

Project **segmentation** is a clear violation of NEPA regulations

Easement Acquisition

From what I know of the project, you plan to increase the height of the towers, to reduce the EMF/ELF radiation to the people living near the ROW. The height of the tower is related to the width of the easement thus you would have to make the easement wider. For 150 ft. high towers, for example, the width would be at least 150 ft. to keep the poles and wires inside the ROW, as they tend to fall in the direction of the line, pulled by the weight of the connectors

Respectfully

Dr. Luis Contreras
Cell: 512 / 922 - 9281

Rothfork, Mark

From: Chuck A Thompson <cat@dairynet.com>
Sent: Wednesday, October 14, 2015 2:28 PM
To: Joleen K Trussoni; Rothfork, Mark
Subject: Fw: [EXT] < Dairyland Power Cooperative Upgrade of Q-1D South, USDA RUS #1060 > revised comment - file name only
Attachments: A 90 mile step in reliable energy.pdf; Dairyland Power Cooperative Upgrade of Q-1D South - Dr. Luis Contreras October 12 2015.pdf

----- Forwarded by Chuck A Thompson/Dairynet on 10/14/2015 02:27 PM -----

From: Luis Contreras <doccontreras@gmail.com>
To: "Chuck Thompson" <cat@dairynet.com>, "Rankin, Dennis - RD, Washington, DC" <dennis.rankin@wdc.usda.gov>
Date: 10/14/2015 10:04 AM
Subject: [EXT] < Dairyland Power Cooperative Upgrade of Q-1D South, USDA RUS #1060 > revised comment - file name only

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Dear Sirs,

Attached is a minor revision to my email last night.

The file name for the comment I sent last night should have been ***Dairyland Power Cooperative Upgrade of Q-1D South***

The comment is the same.

CAPX2020 is on my mind. With all the public comments and proven 21st Distributed Generation using Solar carbon-free solutions like everyone else in the world, something everyone knows, I find it absurd to see public fund wasted and shareholders making dumb profits.

Case in point, the 90-mile "reliable energy power to feed markets across the Midwest and possibly as far south as Florida or east to New York." What in the world does that mean? The grid is inherently unreliable, and the top concern today is resilience. Distributed solar generation is both resilient and reliable. Poles and wires will be gone with the next severe storm, no matter what the Deniers like US Sen. Ted Cruz lied about at the Congressional Hearing with Sierra Club

Why not do the right thing once, for YOUR children?

Respectfully,

Dr. Luis Contreras

On Tue, Oct 13, 2015 at 9:20 PM, Luis Contreras <doccontreras@gmail.com> wrote:

Dear Sirs,

Attached is my request for a full EIS and other comments

Respectfully,

Dr. Luis Contreras

Comment Opposing CAPX2020

October 11, 2015

Chuck Thompson, Manager, Siting & Regulatory Affairs, Dairyland Power Cooperative, 3200 East Avenue South, La Crosse, WI 54602-0617, (608) 787-1432.

Dennis Rankin, Engineering and Environmental Analyst, USDA RUS, 1400 Independence SW, Mailstop 1571, Washington D.C., 20250-1571 (202) 720-1953

Re: Dairyland Power Cooperative Upgrade of Q-1D South, USDA RUS #1060

Dear Sirs,

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The **precautionary principle** applies for this project. ***When an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.***

Project **segmentation** is a clear violation of NEPA regulations

Easement Acquisition

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Respectfully

Dr. Luis Contreras
Cell: 512 / 922 - 9281

A 90-mile step in reliable energy

http://www.postbulletin.com/news/local/a--mile-step-in-reliable-energy/article_9e37ef98-8103-5101-86fc-e5d077d0cfd5.html

HOLMEN, Wis. — Teresa Mogenson used the analogy of a backbone to explain the importance of the 90-mile, 345-kilovolt CapX 2020 power line that was recently completed between Pine Island and Holmen, Wis., and energized Sept. 15.

Randy Anderton used the analogy of why Rochester tore apart U.S. Highway 52 and upgraded it to explain why he is so happy the line is in operation.

Mogenson, senior vice president for transmission for Xcel Energy, and Anderton, manager of engineering for Rochester Public Utilities, were in Holmen Tuesday for a brief ceremony in honor of the completion of a 90-mile part of the 800-mile line. Two major lines begin in the Dakotas, one from Fargo, N.D. and the other from Brookings, S.D., and converge in the Twin Cities. From there, it goes to Pine Island. The 90-mile section energized last month stretches from Pine Island east to Alma, Wis., and south to Holmen, Mogenson said.

The next part will be to complete the project to Madison, Wis., where there is already a strong system of power lines, she said.

The entire CapX2020 Hampton-Rochester-La Crosse project, which also includes two 161-kilovolt lines that feed Rochester, is expected to be completed in 2016.

The $2 billion project is the biggest upgrade of power lines in decades, according to CapX2020. It has two major thrusts — one to upgrade and expand the existing transmission system that is getting old and has more demands put on it, and second, to bring more renewable energy, especially wind energy, from the west to eastern markets.

That's why Mogenson used the backbone analogy. From the new big line, smaller lines will be connected to feed markets across the Midwest and possibly as far south as Florida or east to New York, she said. "Everything is connected," she said. The old system "was a weak link prior to CapX," she said. "Wind (power) wanted to get to the regional grid" but it wasn't there.

Locally, Anderton said Rochester needed more capacity, more ways to get power just like the city needed more lanes, ramps and other infrastructure when it upgraded U.S. 52. One of the two feeder lines to Rochester is done and another will be completed soon, giving Rochester five major feeder lines. "There is much more resiliency for the city," he said.

Those are critical, especially during high-demand time in summer, he said. With just three, one might be down for maintenance, and if a storm took out another one, Rochester would have been in trouble. Now, chances for problems are greatly diminished.

The new feeders should also help during the implementation of Destination Medical Center, Mayo Clinic's continuation of its major expansion that could bring many thousand new jobs, and families, to the area, he said. But Anderton added, "we had seen a need for this before we even heard the term DMC."

Most people won't know it's there because most outages are caused by local lines going down, not the major feeders, he said.

Mark Mitchell, director of operations and chief operations officer for the Southern Minnesota Municipal Power Agency, also stressed the need for reliability with CapX. Without it over the years, chances for a much more widespread outage would be greater, he said.

Also, the line gives SMMPA access to a lot more renewable energy, and Minnesota is trying to go greener with energy, Mitchell said.

That was what Chris Kunkle of Wind on the Wires said. He represents companies providing wind turbines, lines and other equipment for wind farms.

Much of the Upper Midwest's best wind power is in the Buffalo Ridge area of southwest Minnesota and into the Dakotas, but markets are to the east, Kunkle said. Without the CapX2020 line, some wind turbines wouldn't be operated at times because of no line capacity. But even more importantly, Kunkle said, new projects couldn't be built without lines to take power to market. In Southeast Minnesota, Mower and Dodge counties, which have been adding turbines, would be in the same dilemma, he said.

Federal regulations that require more renewable energy are driving the push for more wind turbines.

Minnesota has about 3,000 megawatts of wind turbines but many more wind farms could be built. "It will open the door for new projects," Kunkle said. "There is a lot of room for growth."

Rothfork, Mark

From: Chuck A Thompson <cat@dairynet.com>
Sent: Tuesday, October 13, 2015 9:41 AM
To: Rothfork, Mark; Knapp, Leslie
Subject: Fw: [EXT] No CapX 2020 Comment - October 12, 2015
Attachments: NoCapX2020_Comment_October 12 2015.pdf

----- Forwarded by Chuck A Thompson/Dairynet on 10/13/2015 09:40 AM -----

From: "Carol A. Overland" <overland@legalectric.org>
To: cat@dairynet.com, dennis.rankin@wdc.usda.gov
Date: 10/12/2015 04:50 PM
Subject: [EXT] No CapX 2020 Comment - October 12, 2015

Attached please find No CapX 2020 Comment and attachments in the
above-entitled matter.

Thanks for the opportunity to comment.

Carol A. Overland
for No CapX 2020

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"Our lives begin to end the day we become silent
about the things that matter." Dr. Martin Luther King, Jr.

Carol A. Overland
Attorney at Law
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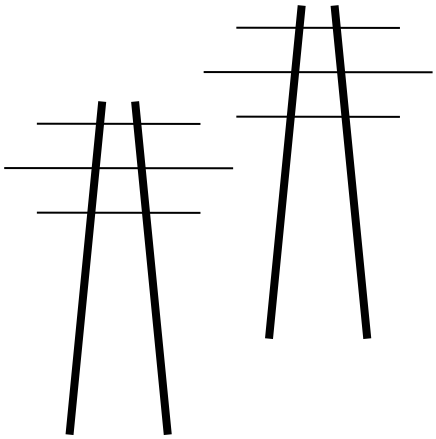
302.834.3466



September 25, 2015

Chuck Thompson, Manager
Siting & Regulatory Affairs
Dairyland Power Cooperative
3200 East Avenue South
La Crosse, WI 54602-0617

via email at cat@dairynet.com

Dennis Rankin
Engineering and Environmental Analyst
USDA RUS
1400 Independence SW, Mailstop 1571
Washington D.C., 20250-1571

via email at dennis.rankin@wdc.usda.gov

In Re: **THIRD NO CAPX 2020 COMMENT AND REQUEST FOR EIS**
Dairyland Power Cooperative Upgrade of Q-1D South, USDA RUS #1060

Dear Mr. Thompson and Mr. Rankin:

ON BEHALF OF NO CAPX 2020, I AGAIN REQUEST THAT A FULL EIS BE COMPLETED ON THIS PROJECT, AS WAS DONE FOR THE MARSHLAND-BRIGGS RD. PROJECT, AS THE REBUILD OF THE Q-1 LINE HAS BEEN SEGMENTED, AND THIS, THE SMALLEST OF THE SEGMENTS, HAS EXTREME IMPACTS, WHICH MAY EVADE ENVIRONMENTAL REVIEW IF SEGMENTED.

For the record, I have requested information regarding this project several times in order to have enough to go on to prepare a comment, and have yet to receive additional information describing this project and its impacts.

This Comment incorporates all prior comments and correspondence regarding this project as if fully related here.

Regarding the Q-1D South project, on behalf of No CapX 2020, I offer the following comments:

The USDA RUS should require an Enviuronmental Impact Statement for this project.

No CapX 2020 hereby requests a full Environmental Impact Statement for this project and for all the associated, segmented parts of the Dairyland Q-1 line and their cumulative impacts.

Specifications and capacity of project

At this time, I rely on the MISO presentations, provided in my second comment, for specifications of the line. Info regarding amps and MVA comes from the attached charts. It's my understanding that this project will significantly increase capacity of the lines and electric and magnetic fields will significantly increase as well. The specifics of this project have yet to be revealed, so let's see the info. This should be evaluated by the RUS.

Rights of way and easements

It is not clear that Dairyland has all the easements and rights of way necessary to build and operate this project. The "access roads" seem to traverse property that goes far beyond the boundaries of easements. This needs to be verified by RUS.

Justifications, need for the project, and rejections and approval by Wisconsin PSC

This full Q-1 line was considered as a justification for the Badger Coulee transmission line, with the claim that there were reliability issues that would be resolved if the Badger Coulee line were built. That problem solving transmission line has been permitted, so there is no reason to believe the Q-1 line needs to be rebuilt.

A rebuilt of the Q-1 line was also considered as an alternative to the Badger Coulee transmission line, and it was rejected and Badger Coulee built instead. Therefore, there is no reason to believe that the Q-1 line should be rebuilt as that was rejected.

Topics raised in "Public Notice" for project

The "notice" was supplemented via a recent email from Dairyland, which provided more information, but still only sketchy details.

AS NOTED PREVIOUSLY, ENVIRONMENTAL REVIEW MUST ADDRESS:

No Build Alternative and Analysis

The environmental review must consider the "No-Build Alternative" for compliance with NEPA.

Alternatives – System Alternatives and Route Alternatives

This bears repeating: The environmental review must consider alternatives. As to routing alternatives, I am not sufficiently familiar with the area to propose routing alternatives. Local residents should be offered opportunity to suggest alternatives for analysis by RUS.

The environmental review must consider alternatives. As to system alternatives, some possibilities include:

- Evaluate removal of the link between Briggs Road as duplicative and unnecessary. For example, because CapX 2020 comes down to Briggs Road, and Badger Coulee runs north from Briggs Road, it may be possible to eliminate the Q-1 161 kV connection completely.

- Evaluate connection of the Genoa northward section of Q-1 to the large new substation south of I-90 and east of La Crosse.

- Evaluate impacts of shut down of Alma coal, Genoa coal, and Cassville coal on need for the connection between these plants and La Crosse.

- Evaluate impact continued operation of the La Crosse 3 generator on need for Q-1. This was a deciding factor in approval of CapX 2020, which claimed the La Crosse generator was not operational, and it was correctly noted that an operational Unit 3 would bring available generation to an acceptable level. See PSC Final Order p. 22, Wisconsin PSC Docket 05-CE-136 (5/30/2012); Xcel Energy Integrated Resource Plan, MPUC Docket 12-1240. The Q-1line, and specifically Q-1D South, may not be needed.

- Environmental Review should evaluate whether this line is needed in light of purpose of Q-1 as transmission for generation to La Crosse, and of available generation in La Crosse and shuttered generation on both the north and southern ends of the line.

Segmentation prohibited under NEPA and CEQ regulations

The multiple Q-1 projects must not be segmented, and environmental review must address this segment, the other segments, and cumulative impacts.

The RUS must consider "connected actions" defined as actions that:

(i) Automatically trigger other actions which may require environmental impact statements;
(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously;
(iii) Are independent parts of a larger action and depend on the larger action for their justification.[1]

[1] See 40 C.F.R. §1508.25(a)(1)(1997).

No "independent utility" justification has been proffered to permit this segmentation.

Further, there has been no finding that this project will have no significant impact. It is my understanding that the RUS will make a determination as to the type and breadth of environmental review required for this project. RUS must take a "hard look" at the consequences of this project and RUS financing of this project that would make this project happen. This "hard look" requires a record, which at this time does not appear to exist. An Environmental Impact Statement is needed due to the substantial impacts, and environmental review must consider:

- Cumulative environmental impacts of all of the Q-1 upgrades, not just this one small segment.

- The cumulative environmental impacts for all Q-1 upgrades, whether financed by USDA RUS or otherwise, should be considered.

- Under NEPA, segmentation of projects is not appropriate, for example, in this case, Dairyland has separated out the project with the most extreme environmental impacts to close residents and directly affected landowners into a nine mile segment that may not receive the same environmental review that it would had it been included as part of the USDA RUS financed Marshland-Briggs Road segment.

- "Connected actions" include not just the other segments of the Q-1 transmission line, but also the RUS funding of various of those segments, including CapX 2020 and Badger Coulee, and the the Marshfield-Briggs Road segment of Dairyland's Q-1.

RUS authority, mission, and criteria for grant of loans

Environmental review, must begin with disclosure of project details, phased and connected actions, and potential for impacts. There must also be a cogent explanation of, and citations for the RUS authority to loan funds for rebuild of facilities such as the Dairyland Q-1 line, a demonstration that this project loan falls within the mission of the RUS, and specific itemization of criteria for the RUS determination of whether to provide funds for this project. Each of these areas should be accompanied by citations to authority.

Request for Information

Again, please forward information about this project at your earliest convenience, and post it online for the public to access. I will also post this information, if and when received, on my No CapX 2020 website.

On behalf of No CapX 2020, I have filed a FOIA request, but that is not likely to result in any information anytime soon.

Request for Full Environmental Impact Statement on this project, all segments of Q-1, and cumulative impacts

ON BEHALF OF NO CAPX 2020, I AGAIN REQUEST THAT A FULL EIS BE COMPLETED ON THIS PROJECT, AS WAS DONE FOR THE MARSHLAND-BRIGGS RD. PROJECT, AS THE REBUILD OF THE Q-1 LINE HAS BEEN SEGMENTED, AND THIS, THE SMALLEST OF THE SEGMENTS, HAS EXTREME IMPACTS, WHICH MAY EVADE ENVIRONMENTAL REVIEW IF SEGMENTED.

Thank you for the opportunity to Comment on this project and for your attention to these matters.

Very truly yours,

Carol A. Overland
Attorney at Law

Enclosures: ACSR and ACSS Tables

Table 1

Computation of Bare ACSR Overhead Conductor Ampacities *(Steady State)*

Per ANSI/IEEE Standard 738-1986

				Temperature C	Temperature F		
	m/hr	ft/s					
Wind speed	1.36	2.00	Ambient air temp	40	104	Latitude	45 degrees N
Coefficient of emissivity		0.5	Conductor surface temp	100	212	Azimuth of line	90 degrees
Coefficient of solar absorption		0.5				Elev above msl	1000 ft

Air viscosity @ T ave	0.04943	lb/h ft
Air density	0.08192	lb/ft^3
Air thermal conductivity	0.00990	W/ft C
Altitude of sun	66.1	degrees
Azimuth of sun	180	degrees
Heat rec'd by a surface	94.64	W/in^2
Elevation correction factor	1.0340	

			Resistance, Ohm/mi		Ohm/kft	Conductor heat transfer, W/ft					Ampacity	kV:	MVA rating @ nominal voltage						
	Conductor		50	100	100	Forced convection heat loss			Reflected	Solar			69	115	138	161	230	345	500
kcm	strand	diam.in	deg C	deg C	deg C	qc1	qc2	max	heat loss	heat gain	amps		1	1	1	1	1	2	3
4/0	6/1	0.563	0.5920	0.6979	0.6979	0.13218	17.48	15.27	17.48	3.79	2.30	378		45	75	90	105				4/0
266	6/7	0.633	0.5520	0.6507	0.6507	0.12324	18.49	16.39	18.49	4.26	2.59	405		48	81	97	113				266
336	18/1	0.684	0.5059	0.5966	0.5966	0.09630	19.23	17.19	19.23	4.61	2.79	555		66	111	133	155				336
336	26/7	0.721	0.5072	0.5982	0.5982	0.09662	19.75	17.71	19.75	4.85	2.94	562		67	112	134	157				336
477	26/7	0.858	0.2169	0.2557	0.2557	0.04843	21.57	19.65	21.57	5.78	3.50	702		84	140	168	196				477
477	24/7	0.846	0.2168	0.2556	0.2555	0.04841	21.42	19.50	21.42	5.70	3.45	699		84	139	167	195				477
556	26/7	0.927	0.1860	0.2192	0.2192	0.04152	22.43	20.60	22.43	6.24	3.78	774		93	154	185	216				556
636	24/7	0.977	0.1631	0.1922	0.1922	0.03640	23.04	21.26	23.04	6.58	3.98	839		100	167	201	234	334			636
795	26/7	1.109	0.1305	0.1538	0.1538	0.02913	24.56	22.92	24.56	7.46	4.52	972		116	194	232	271	387	1161	2525	795
795	45/7	1.115	0.1313	0.1544	0.1544	0.02924	24.64	23.01	24.64	7.51	4.55	972		116	194	232	271	387	1161	2524	795
795	30/19	1.140	0.1307	0.1540	0.1540	0.02917	24.92	23.32	24.92	7.69	4.66	979		117	195	234	273	390	1170	2543	795
954	45/7	1.165	0.1089	0.1281	0.1281	0.02445	25.19	23.62	25.19	7.94	4.75	1076		129	214	257	300	429	1288	2795	954
954	54/7	1.166	0.1094	0.1287	0.1287	0.02456	25.53	24.00	25.53	8.05	4.88	1085		130	216	259	303	432	1297	2820	954
1192	54/19	1.336	0.0933	0.1013	0.1013	0.01919	27.03	25.67	27.03	9.01	5.49	1263		151	252	302	352	503	1509	3281	1192
1272	54/19	1.382	0.0851	0.0999	0.0999	0.01886	27.48	26.17	27.48	9.31	5.63	1285		154	256	307	358	512	1536	3339	1272
1590	54/19	1.545	0.0657	0.0767	0.0767	0.01453	29.09	27.88	29.09	10.40	6.39	1612		161	301	361	422	602	1807	3928	1590
2312	76/19	1.602	0.0505	0.0584	0.0584	0.01106	31.47	30.59	31.47	12.13	7.35	1811		216	361	433	505	721	2164	4704	2312

Notes:
Sun computations based on noon local sun time.
Solar absorption based on "Clear atmosphere"
Azimuth of line: N-S = 0, E-W = 90

Xcel Energy
Delivery System Planning & Engineering

Sheet1

Table 2

Computation of SAC Overhead Conductor Ampacities (Steady State)

Per ANSI/IEEE Standard 738-1986

	mi/hr	ft/s
Wind speed	1.36	2.00
Coefficient of emissivity		0.5
Coefficient of solar absorption		0.5

	Temperature C	Temperature F
Ambient air temp	40	104
Conductor surface temp	200	392

Latitude	45 degrees N
Azimuth of line	90 degrees
Elev above msl	1000 ft

Air viscosity @ T ave	0.05463	lb/h ft
Air density	0.05403	lb/ft^3
Air thermal conductivity	0.0101	W/ft C
Altitude of sun	68.1	degrees
Azimuth of sun	180	degrees
Heat rec'd by a surface	94.64	W/ft^2
Elevation correction factor	1.0340	

Conductor			Resistance, Ohm/mi			Ohm/klt	Conductor heat transfer, W/ft					Ampacity	MVA rating @ nominal voltage							
							Forced convection heat loss			Radiated	Solar		kV:	69	115	138	161	230	345	500	kcm
kcm	strand	diam,in	50 deg C	100 deg C	200 deg C	200 deg C	qc1	qc2	max	heat loss	heat gain	cond/ph:		1	1	1	1	1	2	3	
4/0	6/1	0.563	0.5920	0.6979	0.9097	0.17229	46.46	39.77	46.46	15.72	2.30	590		70	117	141	164				4/0
266	6/7	0.633	0.5520	0.6507	0.8481	0.16063	49.28	42.67	49.28	17.67	2.58	633		76	126	151	177				266
336	18/1	0.684	0.3059	0.3606	0.4700	0.08902	51.24	44.70	51.24	19.09	2.79	871		104	174	208	243				336
336	26/7	0.721	0.3072	0.3623	0.4725	0.08949	52.62	46.14	52.62	20.13	2.94	883		106	176	211	246				336
477	26/7	0.858	0.2169	0.2557	0.3333	0.06313	57.44	51.21	57.44	23.95	3.50	1111		133	221	266	310				477
477	24/7	0.846	0.2168	0.2556	0.3332	0.06311	57.04	50.78	57.04	23.62	3.45	1106		132	220	264	308				477
556	26/7	0.927	0.1860	0.2192	0.2856	0.05409	59.73	53.65	59.73	25.88	3.78	1230		147	245	294	343				556
636	24/7	0.977	0.1631	0.1922	0.2504	0.04742	61.34	55.37	61.34	27.27	3.98	1336		160	266	319	373	532			636
795	26/7	1.108	0.1306	0.1538	0.2002	0.03792	65.38	59.71	65.38	30.93	4.52	1656		186	310	372	434	620	1860	4042	795
795	45/7	1.115	0.1313	0.1544	0.2006	0.03799	65.59	59.93	65.59	31.13	4.55	1558		186	310	372	434	620	1861	4047	795
795	30/19	1.140	0.1307	0.1540	0.2006	0.03799	66.33	60.74	66.33	31.82	4.65	1569		187	312	375	437	625	1875	4076	795
954	45/7	1.165	0.1099	0.1291	0.1675	0.03172	67.06	61.53	67.06	32.52	4.75	1729		207	344	413	482	689	2068	4492	954
954	54/7	1.196	0.1094	0.1287	0.1673	0.03169	67.96	62.51	67.96	33.39	4.88	1745		209	348	417	487	695	2085	4533	954
1192	54/19	1.338	0.0863	0.1013	0.1313	0.02487	71.95	66.86	71.95	37.35	5.46	2044		244	407	488	570	814	2442	5309	1192
1272	54/19	1.382	0.0851	0.0998	0.1286	0.02436	73.14	68.17	73.14	38.58	5.63	2087		249	416	499	582	831	2494	5422	1272
1590	54/19	1.545	0.0657	0.0767	0.0987	0.01869	77.41	72.69	77.41	43.13	6.30	1472		295	492	591	689	985	2954	6423	1590
2312	76/19	1.802	0.0505	0.0584	0.0742	0.01405	83.72	79.94	83.72	50.30	7.35	3002		359	598	718	837	1196	3588	7800	2312

Notes:
Sun computations based on noon local sun time
Solar absorption based on "Clear atmosphere"
Azimuth of line: N-S = 0, E-W = 90

Xcel Energy
Delivery System Planning & Engineering

Ex 35, Application, Appendix 7

ADJUSTABLE TABLE

TABLE 5.2-6. Calculated Magnetic Fields (milligauss) for proposed double circuit 345 kV Transmission Line Designs
(3.28 feet above ground)

STRUCTURE TYPE	SYSTEM CONDITION	CURRENT (AMPS)	DISTANCE TO PROPOSED CENTERLINES												
			-300'	-200'	-100'	-75'	-50'	-25'	0'	25'	50'	75'	100'	200'	300'
1 CIRCUIT	PEAK	1568.95	4.69	9.92	33.40	51.70	85.34	139.36	189.52	176.86	106.50	60.56	37.20	9.81	4.28
DELTA CFG	AVERAGE	301.58	0.90	1.91	6.41	9.94	16.42	26.78	36.42	33.99	20.48	11.64	7.16	1.89	0.82
1 CIRCUIT	PEAK	1568.95	5.11	11.71	42.31	65.97	107.98	163.14	151.84	95.33	58.60	38.09	26.27	8.80	4.22
VERT CFG	AVERAGE	301.58	0.99	2.25	8.13	12.69	20.75	31.36	29.18	18.32	11.26	7.33	5.04	1.68	0.80
2 CIRCUIT W/	PEAK	1568.95	4.22	8.80	26.33	38.21	58.78	95.62	152.26	163.43	108.04	65.97	42.25	11.71	5.11
1 CKT ACTIVE	AVERAGE	301.58	0.82	1.70	5.06	7.35	11.30	18.38	29.26	31.42	20.77	12.67	8.11	2.25	0.99
2 CIRCUIT W/	PEAK	1568.95	1.13	3.45	19.73	36.13	71.08	136.09	178.47	137.05	71.91	36.67	20.15	3.51	1.13
2 CKTS ACTIVE	AVERAGE	301.58	0.21	0.67	3.80	6.95	13.67	26.17	34.30	26.34	13.82	7.06	3.87	0.67	0.23

ENTER MVA BELOW TO ADJUST CURRENT IN THE TABLE:

437.00 MVA PEAK
161.00 kV
1.73 3 Phase
1568.95 Amps PEAK CALC'D

84.00 MVA AVERAGE
161.00 kV
1.73 3 Phase
301.58 Amps AVERAGE CALC'D

Rothfork, Mark

From: Chuck A Thompson <cat@dairynet.com>
Sent: Tuesday, October 13, 2015 3:19 PM
To: Rothfork, Mark
Subject: Fw: [EXT] Power lines

----- Forwarded by Chuck A Thompson/Dairynet on 10/13/2015 03:18 PM -----

From: BRUCE L <olsonbcm@centurylink.net>
To: cat@dairynet.com
Date: 10/13/2015 11:47 AM
Subject: [EXT] Power lines

Dear Sir:
I have seen the power lines in Wisconsin as far as they have come. I predict that every person who has helped bring these ugly poles to our state will at some point be blamed and held accountable for the ugliness they have brought to our beautiful state.
It is shameful. Is tourism a thing of the past?
Carol Olson

Jennifer Shilling

WISCONSIN STATE SENATOR
32ND SENATE DISTRICT

October 8, 2015

Dairyland Power Cooperative
Attn: Mr. Chuck Thompson
3200 East Ave., South
La Crosse, WI 54601

Dear Mr. Thompson,

As you know, citizens in the Onalaska area have raised concerns about the planned replacement of the 161-kilovolt transmission lines along the Q1-D segment through their community. During this extended period of public comment, I encourage you to listen to the concerns of the people who will be affected by this change.

Citizens in the area are worried about the larger, higher capacity power lines, and the proximity of these lines to their homes. When these power lines were first constructed many of these homes did not exist. Now that people live in the vicinity of the power lines, it is important to consider their concerns as this process continues

In speaking with constituents in our region, I have heard that they do not feel their concerns are being listened to. In the remaining time that public comments are being accepted, I hope that Dairyland Power Cooperative will take these concerns into consideration.

Thank you for your consideration of this request and feel free to contact me directly if you wish to discuss this issue further.

Sincerely,

Jennifer K. Shilling
State Senator
32nd Senate District

JKS:jjv

State Capitol • PO Box 7882 • Madison, WI 53707-7882 Phone: 608-266-5490 Toll-free: 1-800-385-3385 Email: Sen.Shilling@legis.wi.gov

October 1, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune on August 28, 2015 regarding Dairyland's intention to upgrade the Q-1 transmission line. Thank you for allowing additional time for residents to respond.

I have lived in the greater LaCrosse area for most of my life. Dairyland's proposed project will negatively impact our communities and I oppose the project as follows:

- Dairyland has not disclosed to the public the electric and magnetic field emissions from the Q-1 line as it exists and what those emissions will be with the upgrade.
- The Q-1 line does not meet the Wisconsin PSC's siting requirements which set 300 feet as the minimum safe distance from magnetic field emissions.
- The line with its electric and magnetic field emissions endangers the health, safety, and welfare of our communities. It negatively affects property values.
- Dairyland has not established a need for upgrading the Q-1 line. This area's power needs are more than adequately met with the CapX2020 and Badger Coulee projects.
- The upgraded line is not consistent with the comprehensive development plans of the City of Onalaska, the Village of Holmen, and the City of LaCrosse.
- By segmenting the project Dairyland has not disclosed the health, safety, and environmental impacts of the Q-1 line as a whole.
- The upgraded line will have tremendous negative visual impacts. The taller poles and any lighting needed for airplane safety will mar destroy the unique scenic beauty of this area.

Respectfully Submitted,

Bev Modahl

cc: Mr. Dennis Rankin, USDA Rural Utilities Service; Nancy Proctor, President Village of Holmen; Joe Chilsen, Mayor City of Onalaska; Brea Grace, Onalaska Land Use and Development Director

October 1, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune on August 28, 2015 regarding Dairyland's intention to upgrade the Q-1 transmission line. Thank you for allowing additional time for residents to respond.

I have lived in the greater LaCrosse area for most of my life. Dairyland's proposed project will negatively impact our communities and I oppose the project as follows:

- Dairyland has not disclosed to the public the electric and magnetic field emissions from the Q-1 line as it exists and what those emissions will be with the upgrade.
- The Q-1 line does not meet the Wisconsin PSC's siting requirements which set 300 feet as the minimum safe distance from magnetic field emissions.
- The line with its electric and magnetic field emissions endangers the health, safety, and welfare of our communities. It negatively affects property values.
- Dairyland has not established a need for upgrading the Q-1 line. This area's power needs are more than adequately met with the CapX2020 and Badger Coulee projects.
- The upgraded line is not consistent with the comprehensive development plans of the City of Onalaska, the Village of Holmen, and the City of LaCrosse.
- By segmenting the project Dairyland has not disclosed the health, safety, and environmental impacts of the Q-1 line as a whole.
- The upgraded line will have tremendous negative visual impacts. The taller poles and any lighting needed for airplane safety will mar destroy the unique scenic beauty of this area.

Respectfully Submitted,

Mary McKeeth

cc: Mr. Dennis Rankin, USDA Rural Utilities Service; Nancy Proctor, President Village of Holmen; Joe Chilsen, Mayor City of Onalaska; Brea Grace, Onalaska Land Use and Development Director

October 1, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune on August 28, 2015 regarding Dairyland's intention to upgrade the Q-1 transmission line. Thank you for allowing additional time for residents to respond.

I have lived in the greater LaCrosse area for most of my life. Dairyland's proposed project will negatively impact our communities and I oppose the project as follows:

- Dairyland has not disclosed to the public the electric and magnetic field emissions from the Q-1 line as it exists and what those emissions will be with the upgrade.
- The Q-1 line does not meet the Wisconsin PSC's siting requirements which set 300 feet as the minimum safe distance from magnetic field emissions.
- The line with its electric and magnetic field emissions endangers the health, safety, and welfare of our communities. It negatively affects property values.
- Dairyland has not established a need for upgrading the Q-1 line. This area's power needs are more than adequately met with the CapX2020 and Badger Coulee projects.
- The upgraded line is not consistent with the comprehensive development plans of the City of Onalaska, the Village of Holmen, and the City of LaCrosse.
- By segmenting the project Dairyland has not disclosed the health, safety, and environmental impacts of the Q-1 line as a whole.
- The upgraded line will have tremendous negative visual impacts. The taller poles and any lighting needed for airplane safety will mar destroy the unique scenic beauty of this area.

Respectfully Submitted,

Jane Johnson

cc: Mr. Dennis Rankin, USDA Rural Utilities Service; Nancy Proctor, President Village of Holmen; Joe Chilsen, Mayor City of Onalaska; Brea Grace, Onalaska Land Use and Development Director

October 4, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune on October 3, 2105 regarding Dairyland's intention to upgrade the Q-1 transmission line. I have lived and worked in the Onalaska area for many years. I submit the following comments and opposition:

1. Dairyland has not demonstrated a need for upgrading the Q-1 line. Rebuild and upgrade proposals for the line were rejected in the Badger Coulee project. What is the justification for the proposed upgrade?

2. The line connects two coal-burning plants. Dairyland shuttered boilers at the Alma plant in 2011 and the remaining coal units are scheduled to be shut down. What is the continued need for this line?

2. Dairyland has not disclosed the environmental impacts of the line on humans. It has not disclosed the electric and magnetic field emissions from the line as it exists and what those emissions will be with the proposed upgrade.

3. The line travels directly over and near to hundreds of residences and businesses in contravention of the siting protocols of the Wisconsin Public Service Commission.

4. Dairyland has not disclosed the *comprehensive* impacts of the line on the health, safety, and welfare of our communities and its environmental and financial impacts.

5. The proposed upgrade will negatively impact the aesthetics of our community. The taller structures and any lighting needed for airplane safety will irreparably damage the viewshed.

6. Dairyland has not disclosed the impacts of an upgrade on 100-year old farmland, our wetlands, marshlands, and other fragile environmental areas.

7. The proposed upgrade is inconsistent with the long-term development visions of the Cities of Onalaska and LaCrosse and the Village of Holmen.

Respectfully Submitted,

Jane M. Barstow

cc: Mr. Dennis Rankin, USDA Rural Utilities Service Jane M. Barstow

October 4, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune on October 3, 2105 regarding Dairyland's intention to upgrade the Q-1 transmission line. I have lived and worked in the Onalaska area for many years. I submit the following comments and opposition:

1. Dairyland has not demonstrated a need for upgrading the Q-1 line. Rebuild and upgrade proposals for the line were rejected in the Badger Coulee project. What is the justification for the proposed upgrade?

2. The line connects two coal-burning plants. Dairyland shuttered boilers at the Alma plant in 2011 and the remaining coal units are scheduled to be shut down. What is the continued need for this line?

2. Dairyland has not disclosed the environmental impacts of the line on humans. It has not disclosed the electric and magnetic field emissions from the line as it exists and what those emissions will be with the proposed upgrade.

3. The line travels directly over and near to hundreds of residences and businesses in contravention of the siting protocols of the Wisconsin Public Service Commission.

4. Dairyland has not disclosed the *comprehensive* impacts of the line on the health, safety, and welfare of our communities and its environmental and financial impacts.

5. The proposed upgrade will negatively impact the aesthetics of our community. The taller structures and any lighting needed for airplane safety will irreparably damage the viewshed.

6. Dairyland has not disclosed the impacts of an upgrade on 100-year old farmland, our wetlands, marshlands, and other fragile environmental areas.

7. The proposed upgrade is inconsistent with the long-term development visions of the Cities of Onalaska and LaCrosse and the Village of Holmen.

Respectfully Submitted,

C. Joseph Barstow III

cc: Mr. Dennis Rankin, USDA Rural Utilities Service

October 3, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune today regarding Dairyland's Q-1 transmission line. I have lived in Onalaska for many years and I am the owner of River Trail Cycles. This area is uniquely beautiful with its bluff and water vistas. It is environmentally diverse and fragile. My business is directly linked to our natural environment. People purchase bikes from my store so that they can ride our trails and enjoy the scenic beauty. The proposed upgrade will negatively impact our community and local businesses, including mine. I oppose the proposed upgrade:

- Dairyland has not demonstrated a need for upgrading the Q-1 line. Rebuild and upgrade proposals for the Q-1 line were rejected in the Badger Coulee project. What is the justification for this line?

- Dairyland has not disclosed to the public the electric and magnetic field emissions from the Q-1 line as it exists and what those emissions will be with the upgrade.

- The Q-1 line does not comport with the siting requirements of the Wisconsin PSC which has set 300 feet as the minimum safe distance from magnetic field emissions. The Q-1 travels directly over and near to hundreds of residences and businesses.

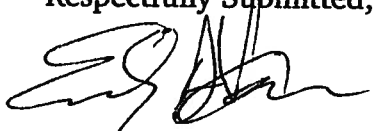
- Dairyland has not disclosed the *comprehensive* impacts of the Q-1 line on the health, safety, and welfare of our communities and its environmental and financial impacts.

- The proposed upgrade will negatively impact the aesthetics of our community. The taller structures and any lighting needed for airplane safety will mar the viewshed.

- The proposed upgrade will deter tourism and outdoor recreation.

- The proposed upgrade is inconsistent with the long-term development visions of the Cities of Onalaska and LaCrosse and the Village of Holmen.

Respectfully Submitted,



Emily Vance

cc: Mr. Dennis Rankin, USDA Rural Utilities Service; Joe Chilsen, Mayor City of Onalaska; Brea Grace, Onalaska Land Use and Development Director

October 1, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune on August 28, 2015 regarding Dairyland's intention to upgrade the Q-1 transmission line. Thank you for allowing the citizens additional time to respond.

I grew up on our family farm in Ettrick and have lived in the greater LaCrosse area for most of my life. This area is uniquely beautiful and environmentally rich with diverse habitats, wildlife, and flora. These are the reasons why I live here and raised my family here. Dairyland's proposed project will negatively impact our area and I oppose the project:

- Dairyland has not demonstrated a need for upgrading the Q-1 line. With the CapX2020 project almost complete and the Badger Coulee transmission line coming, it is difficult to understand how this area needs more power.

- Dairyland has not disclosed to the public the electric and magnetic field emissions from the Q-1 line as it exists and what those emissions will be with the upgrade.

- The Q-1 line does not comport with the siting requirements of the Wisconsin PSC which has set 300 feet as the minimum safe distance from magnetic field emissions.

- Dairyland has not disclosed the impacts of the Q-1 line as a whole, not just its segments, on the health, safety, and welfare of our communities and the environmental impacts.

- The upgraded line will have tremendous negative visual impacts. The taller poles and any lighting needed for airplane safety will mar the beauty of our area.

- The upgraded line is inconsistent with the comprehensive development plans of the City of Onalaska, the Village of Holmen, and the City of LaCrosse.

Respectfully Submitted,

Carolyn Briggs

Carolyn Briggs

cc: Mr. Dennis Rankin, USDA Rural Utilities Service; Nancy Proctor, President Village of Holmen; Joe Chilsen, Mayor City of Onalaska; Brea Grace, Onalaska Land Use and Development Director

October 3, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune today regarding Dairyland's intention to upgrade the Q-1 transmission line. I have lived and worked in the Onalaska area for many years. Dairyland's proposed project will negatively impact our community. I oppose the proposed upgrade:

1. Dairyland has not demonstrated a need for upgrading the Q-1 line. Rebuild and upgrade proposals for the line were rejected in the Badger Coulee project. What is the justification for this line?

2. The line connects two coal-burning plants. Dairyland shuttered boilers at the Alma plant in 2011 and the two remaining coal units are scheduled to be shut down in 2015. What is the justification for this line?

2. Dairyland has not disclosed the environmental impacts of the line on humans. It has not disclosed the electric and magnetic field emissions from the line as it exists and what those emissions will be with the proposed upgrade.

3. The line does not comport with the siting requirements of the Wisconsin PSC which has set 300 feet as the minimum safe distance from magnetic field emissions. The line travels directly over and near to hundreds of residences and businesses.

4. Dairyland has not disclosed the *comprehensive* impacts of the line on the health, safety, and welfare of our communities and its environmental and financial impacts.

5. The proposed upgrade will negatively impact the aesthetics of our community. The taller structures and any lighting needed for airplane safety will mar the vistas.

6. The proposed upgrade will deter tourism and outdoor recreation.

7. The proposed upgrade is inconsistent with the long-term development visions of the Cities of Onalaska and LaCrosse and the Village of Holmen.

Respectfully Submitted,

Sharon Campbell

cc: Mr. Dennis Rankin, USDA Rural Utilities Service; Joe Chilsen, Mayor City of Onalaska; Brea Grace, Onalaska Land Use and Development Director

October 3, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune today regarding Dairyland's intention to upgrade the Q-1 transmission line. We have lived and worked in the Onalaska area for many years. Dairyland's proposed upgrade will negatively impact our community. We oppose the proposed upgrade:

1. Dairyland has not demonstrated a need for upgrading the Q-1 line. Rebuild and upgrade proposals for the line were rejected in the Badger Coulee project. What is the justification for this line?

2. Dairyland has not disclosed the environmental impacts of the line on humans. It has not disclosed the electric and magnetic field emissions from the line as it exists and what those emissions will be with the proposed upgrade.

3. The Q-1 line does not comport with the siting requirements of the Wisconsin PSC which has set 300 feet as the minimum safe distance from magnetic field emissions. The Q-1 travels directly over and near to hundreds of residences and businesses.

4. Dairyland has not disclosed the *comprehensive* impacts of the line on the health, safety, and welfare of our communities and its environmental and financial impacts.

5. The proposed upgrade will negatively impact the aesthetics of our community. The taller structures and any lighting needed for airplane safety will mar the vistas.

6. The proposed upgrade will deter tourism and outdoor recreation.

7. The line runs through environmentally diverse and fragile areas. Dairyland has not disclosed the impacts of an upgrade on these areas.

8. The proposed upgrade is inconsistent with the long-term development visions of the Cities of Onalaska and LaCrosse and the Village of Holmen.

Respectfully Submitted,

Chad and Cindy Wortman

cc: Mr. Dennis Rankin, USDA Rural Utilities Service; Joe Chilsen, Mayor City of Onalaska; Brea Grace, Onalaska Land Use and Development Director

October 4, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune on October 3, 2105 regarding Dairyland's intention to upgrade the Q-1 transmission line. I grew up on our family farm in Ettrick and have lived and worked in the greater LaCrosse area my entire life. I submit the following comments and opposition:

1. Dairyland has not demonstrated a need for upgrading the Q-1 line. Rebuild and upgrade proposals for the line were rejected in the Badger Coulee project. What is the justification for the proposed upgrade?

2. The line connects two coal-burning plants. Dairyland shuttered boilers at the Alma plant in 2011 and the remaining coal units are scheduled to be shut down. What is the continued need for this line?

3. Dairyland has not disclosed the environmental impacts of the line on humans. It has not disclosed the electric and magnetic field emissions from the line as it exists and what those emissions will be with the proposed upgrade.

4. Dairyland has not disclosed the *comprehensive* impacts of the line on the health, safety, and welfare of our communities and its environmental and financial impacts.

5. The proposed upgrade will negatively impact the aesthetics of our community. The taller structures and any lighting needed for airplane safety will irreparably damage the viewshed.

6. Dairyland has not disclosed the impacts of an upgrade on 100-year old farmland, our wetlands, marshlands, and other fragile environmental areas.

7. An environmental review must consider the impact of an upgraded line on our eagle population. The line is directly in the eagle fly and nesting zone.

8. The proposed upgrade is inconsistent with the long-term development visions of the Cities of Onalaska and LaCrosse and the Village of Holmen.

Respectfully Submitted,

Bridget Olson

Bridget Olson

cc: Mr. Dennis Rankin, USDA Rural Utilities Service

October 5, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune on October 3, 2105 regarding Dairyland's intention to upgrade the Q-1 transmission line. I submit the following comments and opposition:

1. Dairyland has not demonstrated a need for upgrading the Q-1 line. Rebuild and upgrade proposals for the line were rejected in the Badger Coulee project. What is the justification for the proposed upgrade?

2. Dairyland closed boilers at the Alma plant in 2011 and the remaining coal units are scheduled to be shut down. What is the continued need for this line?

3. Dairyland has not disclosed the environmental impacts of the line on humans. It has not disclosed the electric and magnetic field emissions from the line as it exists and what those emissions will be with the proposed upgrade.

4. Dairyland has broken the project into segments. What was the purpose of segmenting the project? Was it to avoid review and oversight by entities such as the Wisconsin Public Service Commission?

5. The proposed upgrade will negatively impact the aesthetics of our community. The taller structures and any lighting needed for airplane safety will irreparably damage the viewshed and historic beauty of the City of Onalaska.

6. The proposed upgrade is inconsistent with the long-term visions of the Cities of Onalaska and LaCrosse and the Village of Holmen. The proposed upgrade will negatively affect property values of homes and businesses. It will negatively affect tourism, which is a significant revenue source for this area.

Respectfully Submitted,

Nancy Tolvstad

cc: Mr. Dennis Rankin, USDA Rural Utilities Service

October 9, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Dear Mr. Thompson:

This letter is in response to the Public Notice published in the LaCrosse Tribune last Saturday regarding Dairyland's intention to upgrade the Q-1 transmission line. As a concerned parent and informed citizen of LaCrosse, I comment on and oppose the proposed upgrade, which will affect me and my family for generations:

- There has been a dearth of disclosure by Dairyland about the intended project. What is the amount of power that will travel through the line? What is the justification for this increased power? What is the need?

- Dairyland has publicized its efforts to protect endangered rattlesnakes, but what efforts is Dairyland making to protect the residents? What are the electric and magnetic field emissions from the line currently? What will be the electric and magnetic field emissions from the line under the proposed upgrade? Why does Dairyland not follow the siting protocols of the Wisconsin Public Service Committee which sets 300 feet as a minimum safe distance from magnetic field emissions?

- The line travels over and very near many homes, including mobile and manufactured home communities. The line disproportionately impacts low-income populations.

- The Q-1 line carries fiber optic cables connecting Minneapolis and Chicago. Upon information and belief, these cables are a major data transport for the Midwest and are leased by Windstream Communications. Dairyland has not disclosed any information regarding the fiber optic cables and its intentions regarding those cables in its proposed upgrade. Dairyland has not disclosed the nature of its relationship with Windstream Communications or whether it has an ownership interest in that company or any company related to or affiliated with Windstream, or any details regarding leasing or selling fiber capacity to Windstream or any other communications company. Dairyland has not disclosed whether it intends to affix any telecommunication attachments to its poles. Full disclosure is needed to understand how the fiber optic cables are to be used, what attachments may be made to the poles, the visual impacts, and any magnetic and/or electric emissions that may relate to these attachments.

- Two legal notices regarding the Q-1 line were published by Dairyland in the LaCrosse Tribune on August 28, 2015 and October 3, 2015. Dairyland has provided no information regarding public hearings and other forums for citizen to vocalize concerns about the line. The legal notices published in the LaCrosse Tribune were insufficient to inform citizens about the intended upgrade and to provide them adequate and fair opportunity to comment on the project.

- Dairyland's spokeswoman Katie Thomson recently stated in an article: "Though originally proposed as part of a $500 million joint project linking the Twin Cities, Rochester and Holmen, known as CapX2020, the Q1-D rebuild was approved separately." What was the basis for stating the Q1-D rebuild was approved when the comment period from the Public Notice published by Dairyland on August 28, 2015 was still open? The statement made by Dairyland's spokeswoman was confusing to many people and caused them to not submit comments or objections to the upgrade proposal because they believed all necessary permits and funding had already been obtained.

Respectfully Submitted,

Deborah Nerud

cc: Mr. Dennis Rankin, USDA Rural Utilities Service; Joe Chilsen, Mayor City of Onalaska; Brea Grace, Onalaska Land Use and Development Director

September 20, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

We, the undersigned, jointly submit this letter in response to the Public Notice published by Dairyland Power Cooperative in the LaCrosse Tribune on August 28, 2015. We are residents of the Oak Hills neighborhood located on the corner of County Road OT and Highway 35 in Onalaska. We strongly oppose Dairyland's proposed upgrade of the Q-1 transmission line.

The houses in our neighborhood are either directly next to the Q-1 line or face the Q-1 line. Traveling near and directly behind our houses on the western side of Oak Hills Drive is Dairyland's 69 kilovolt transmission line. Our entire neighborhood is completely encased by Dairyland's Q-1 and 69 kilovolt transmission lines.

First and foremost, we oppose Dairyland's proposed upgrade of the Q-1 line because the line endangers our health and safety. Both the Q-1 line and the 69 kilovolt line emit electric and magnetic fields, commonly referred to as EMF. The emissions from Dairyland's transmission lines are significantly high. The houses on the eastern side of Oak Hills Drive are very near and some are within just feet of the Q-1's center line. There are elevated EMF emissions inside our houses and in our yards.

Day in and day out we are hit with these emissions. Many of us have lived here for decades and have had prolonged exposure to the EMF emissions from these lines.

Evidence shows prolonged exposure to high levels of magnetic fields can cause serious illness, including cancer. Young children appear to be especially sensitive to magnetic fields. The insurance industry has determined that EMF is a significant threat. The Public Service Commission of Wisconsin recognizes that exposure to high EMF emissions is not safe and requires power companies to document and disclose EMF emissions.

Specifically, the PSC requires: "A utility must provide estimates of magnetic fields that would be generated by a proposed transmission line. The estimates are specific to the proposed voltage, line configuration and peak power flows during the first year of operation and after ten years of operation. In its application, a utility must report the number and type of buildings within 300 feet of a proposed centerline, *including schools, hospitals, and daycare centers."* (Public Service Commission of Wisconsin, *EMF Electric & Magnetic Fields*).

The PSC's own words show that magnetic emissions from power lines are of concern particularly with respect to children. Many children live in our neighborhood and we their parents are rightfully concerned about the magnetic field we and our children are exposed to every day from the transmission lines.

Dairyland has made no disclosures to us whatsoever regarding the EMF emissions from the Q-1 line. Despite specific questions presented to Dairyland regarding EMF emissions from the line, Dairyland has failed to inform us about current EMF emissions and how the upgrade will reduce our exposure to those emissions.

In fact, it is probable that Dairyland's proposed upgrade will actually increase the EMF emissions and our exposure to those emissions. Dairyland intends to push more power through the Q-1 line. The Q-1 line, due to increased pole height and spacing, will also have greater sag which will bring it closer to our homes. A Dairyland representative stated the sag could be as low as twenty-six feet from the ground.

The Q-1 line also has a detrimental economic effect on our neighborhood. As people become more educated about EMF emissions, they will not buy property under or near transmission lines. Given the insurance industry's position on EMF emissions, there could come a time when properties near transmission lines become uninsurable and health insurers exclude health insurance coverage.

Dairyland has an obligation to protect our health and safety. Dairyland must move the Q-1 line away from our neighborhood. There are alternative routes the Q-1 line could be moved to in order to eliminate our exposure to EMF emissions.

Moving the Q-1 line would also be consistent with the joint efforts of the City of Onalaska and the Village of Holmen's to ensure our communities are safe and environmentally and economically health. These two municipalities recently joined hands to plan for "a more efficient placement of future utilities and other infrastructure . . . and allow for the enhancement of our mutual fiscal, social and economic well being." (La-Crosse Tribune, September 19, 2015, *Onalaska, Holmen Approve Boundary Agreement*).

To leave the Q-1 line in place and proceed with the upgrade would show a reckless disregard by Dairyland for our health and safety, and would fly in the face of the efforts of the City of Onalaska and the Village of Holmen to ensure our community thrives.

Respectfully Submitted,

Pete Tabor N5625 Oak Hills Dr

Marie Tabor N5625 OAK HILL DR.

Lori Schroeder N5624 Oak Hills Dr

Mark Schroeder N5624 Oak Hills Dr

DAN LEFFELMAN N5617 OAK HILLS DR.

Heather Kammerude N5617 Oak Hills Dr.

John C Zimmerman N5618 Oak Hills Dr.

Andy T. Zimmerman
N5618 Oak Hills Dr.

cc: Mr. Dennis Rankin, USDA Rural Utilities Service

ADDENDUM SIGNATURE PAGE: page 1 of 1 pages

Print name
James Page - N5633 Oak Hills Dr

Print name
Angela M. Page; N5633 Oak Hills Dr.

Print name
Christine Gruendeman
N5468 Oak Hills Dr Onalaska

Print name
ESTHER EASTMAN
N5645 Oak Hills
ONALASKA, WI. 54650

Print name
Dennis Eastman
N5645 Oak Hills Dr
Onalaska

Print name
N5611 Oak Hills Dr.
Onalaska, Wi. 54650

Print name
Penny Morton
N5611 Oak Hills Dr.
Onalaska, Wi 54650

Print name
N5606 Oak Hills DR
Onalaska, WI 54650

Print name
Robert Geary
N5606 Oak Hills Dr
Onalaska WI 54650

Print name
Mary L. Larson
N5612 Oak Hills Dr.
Onalaska, WI 54650

Print name
Susan Huber
W6856 County Road OT
Onalaska WI 54650

Print name
JOHN LARSON
N5612 OAK HILLS
ONALASKA WI
54650

Print name:

September 21, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

We submit this letter in response to the Public Notice that appeared in the LaCrosse Tribune on August 28, 2015 regarding Dairyland Power Cooperative's intention to upgrade the Q-1 transmission line. We strongly oppose Dairyland's proposed upgrade.

Our house is located in the Town of Onalaska in Evergreen Estates. We have lived in this house for thirty-three years. We raised our family here and our daughter and son-in-law live with us. The Q-1 line runs through our property and right next to our house. The center line of the Q-1 line is approximately 50 feet from our master bedroom.

Dairyland's notice in the Tribune provided no concrete information about its intended upgrade. The map is illegible. The notice gives us only 30 days to submit objections. That time period is insufficient. Most of the people affected by the Q-1 upgrade have no idea that a notice was published and that an objection period is running.

We have had to do our own research to try and understand what Dairyland intends to do. Dairyland represented to some of us that it intends to raise the pole height and it was going to begin work right away on the Q-1 line. Despite the air of urgency created by Dairyland, it now appears that Dairyland has not obtained the necessary permits or funding for an upgrade of the Q-1 line. Dairyland's statements and actions are beyond confusing.

The most important issue relating to the Q-1 line is its electric and magnetic emissions. These emissions from the Q-1 line continuously hit us. We cannot shield ourselves from these emissions. They are constant and penetrate our house. It appears that our emission exposure will increase with the proposed upgrade. Our exposure to these fields, especially the magnetic field, is harmful.

The power companies, including Dairyland, know that prolonged exposure to these fields is not good for us. While Dairyland refuses to acknowledge that the emissions from its transmission line are harmful, why then does Dairyland have an employee on staff (you) who will take EMF readings in our homes? Why does the Public Service Commission require utilities to file EMF emission reports and take steps to mitigate EMF exposure, especially near schools and daycare facilities? So it appears that indeed you do know that EMF emissions are not good for us and particularly not good for children.

Additionally, the Q-1 line has a significant negative economic impact. It depresses the value of our properties. A gigantic metal pole will be placed right near our backyard. The beautiful view we have enjoyed for so many years from our backyard will be forever ruined with that pole placement. We are so angered by the proposed upgrade that we are considering selling our home.

Dairyland has an obligation to move this line away from residential areas. Dairyland purports to be committed to safety first and foremost. If you are truly committed to safety, then you must move this line. There are at least alternative routes this line can take. Moving the line will eliminate the line's negative impacts on our health, safety and economic welfare.

Respectfully Submitted,

Michael Yeager

Ashley Yeager

cc: Mr. Dennis Rankin, USDA Rural Utilities Service
Joe Chilsen, Mayor of Onalaska;
Nancy Proctor, Village of Holmen President
Brea Grace, Onalaska Land Use and Development Director

September 21, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

My husband and I submit this letter in response to the Public Notice that appeared in the LaCrosse Tribune on August 28, 2015 regarding Dairyland Power Cooperative's intention to upgrade the Q-1 transmission line. We strongly oppose Dairyland's proposed upgrade.

I was raised in my parents' home located at W7092 Meadow Place in the Town of Onalaska. My husband and I have moved home in order to help my parents who are aging and suffering from some severe health issues. This house has been our family home for thirty-three years.

The Q-1 line runs through our property and right next to our house. The center line of the Q-1 line is approximately 50 feet from our home's master bedroom.

Dairyland's notice in the Tribune provided no specific information about its intended upgrade. The map is illegible. The notice gives us only 30 days to submit objections. That time period is insufficient. Most of the people affected by the Q-1 upgrade have no idea that a notice was published and that an objection period is running.

We have had to do our own research to try and understand what Dairyland intends to do. The most important issue relating to the Q-1 line is its electric and magnetic emissions, referred to as EMF. These emissions from the Q-1 line are strong. Those who live closest to the line, like us, are bombarded the most with these fields.

The utility companies steadfastly refuse to recognize the dangers of these fields, particularly the magnetic field, even though the insurance industry considers them a significant risk to our physical and fiscal health. Dairyland has made no disclosures to the public regarding current magnetic field emission lev-

els from the Q-1 line and what those emissions will be with the proposed upgrade.

Dairyland states that its first concern is safety. Dairyland also states that it follows the Public Service Commission of Wisconsin's construction and siting policies related to EMF. However, Dairyland is not living up to its words. The Public Safety Commission sets forth that 300 feet from a transmission line should be a safe distance. Our house is far closer to the line than 300 feet.

Dairyland will argue that we chose to live here. However, none of the residents in this area knew about EMF when they purchased their homes. Dairyland does not make disclosures to the public regarding EMF emissions from its lines. We all are just learning about EMF. Additionally, Dairyland polices its lines using a helicopter. Dairyland has always had the ability to stop construction in areas near or under its lines, but it chose not to. So Dairyland cannot argue that this unsafe situation is the fault of the residents.

The Q-1 line also has a significant negative economic impact. It depresses the value of our properties. A gigantic metal pole will be placed right near our backyard. The beautiful view we have enjoyed for so many years from our backyard will be forever ruined with that pole placement. My parents are so angered by the proposed upgrade that we are considering selling our home.

Dairyland has an obligation to move this line away from residential areas. Dairyland purports to be committed to safety first and foremost. If you are truly committed to safety, then you must move this line. There are at least alternative routes this line can take. Moving the line will eliminate the line's negative impacts on our health, safety and economic welfare.

Respectfully Submitted,

Jeremy A Duffee

Kim E Duffee

cc: Mr. Dennis Rankin, USDA Rural Utilities Service
Joe Chilsen, Mayor of Onalaska;
Nancy Proctor, Village of Holmen President
Brea Grace, Onalaska Land Use and Development Director

September 23, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

I am writing to you in response to the Public Notice published in the LaCrosse Tribune on August 28, 2015 regarding Dairyland Power Cooperative's intention to upgrade the Q-1 transmission line. I oppose Dairyland's proposed upgrade.

I have lived in the Holmen-Onalaska area for close to fifty years. I am a retired educator. A major reason my family and I made this area our home is its scenic beauty. The CapX2020 project has utterly destroyed the scenic beauty of Holmen and Galesville. areas. Dairyland's proposed upgrade of the Q-1 line will have a similar negative impact on Onalaska and Lacrosse. An upgraded Q-1 line with the proposed massive poles will make those communities look like industrial centers.

The Holmen and Onalaska areas have already a tangled mass of power lines. Just look about and one sees them everywhere. Dairyland has an opportunity to not increase that mass by co-locating the Q-1 line with other lines that run through the town ships such as the Xcel Energy transmission line. Locating different from the proposed route and away from homes will help maintain and not decrease property values. I would not recommend raising children in a home with proximity to a massive power line.

Finally, the Public Notice fails to provide adequate information regarding Dairyland's intended upgrade of the Q-1 line. The map contained in the Public Notice was illegible and very few residents were even aware of the Public Notice that was published only once in the La Crosse Tribune. I request that you republish the Public Notice on multiple days and extend the objection period so that all residents have a reasonable amount of time to better understand your intentions and to submit responses.

Respectfully Submitted,
Roy Munderloh
N6756 Freier Rd
Holmen,Wi

cc: Mr. Dennis Rankin, USDA Rural Utilities Service
Joe Chilsen, Mayor of Onalaska; Nancy Proctor, Village of Holmen President
Brea Grace, Onalaska Land Use and Development Director

September 22, 2015

Dairyland Power Cooperative
Attn: Chuck Thompson, Project Manager
3200 East Avenue South
LaCrosse, Wisconsin 54602-0817

Re: Public Notice 8/28 30394422 WNAXLP

Dear Mr. Thompson:

I am sending this letter in response to the Public Notice that appeared in the LaCrosse Tribune on August 28, 2015 regarding Dairyland Power Cooperative's intention to upgrade the Q-1 transmission line. I strongly oppose Dairyland's proposed upgrade.

My late husband and I purchased our home on Cottonwood Place in the Town of Onalaska in 1971. We raised our family here and I have lived in this house for forty-four years. Your Q-1 transmission line runs right through my neighborhood. It runs very near my neighbors' homes and I understand that you intend to place a massive pole in my next door neighbor's yard.

I have read and attempted to understand Dairyland's Public Notice. The notice provides no concrete information about your intended upgrade. The map is illegible. The notice gives us only 30 days to submit objections and that time period is insufficient. Most of the people affected by the Q-1 upgrade have no idea that a notice was published and that an objection period is running. My neighbors and I have had to do our own research to try and understand what Dairyland intends to do.

I request that you extend the objection period so that all of us who are affected by the Q-1 line have a reasonable amount of time to better understand what you intend to do and to submit responses.

My biggest concern about the Q-1 line is its emissions. The electric and magnetic emissions from the line are strong. My neighborhood is continuously hit with these emissions. While my house is a bit further away from the Q-1 line than my neighbors' homes, I am good friends with my neighbors and spend a significant amount of time visiting them.

The power companies, including Dairyland, and the Public Service Commission of Wisconsin know that prolonged exposure to these fields is not good for us, especially the magnetic field. The Public Service Commission sets forth in published materials that 300 feet or more is a safe distance from a transmission line. The Public Service Commission requires utilities to file EMF emission reports and to take steps to mitigate EMF exposure, especially near schools and daycare facilities.

The Q-1 line has a significant negative economic impact on our neighborhood. It depresses the value of our properties. As people become more and more educated about EMF emissions, they will not want to buy property near power lines. And, the line is an eyesore and will become an even bigger eyesore if you are successful in installing higher poles.

Dairyland has an obligation to move this line away from residential areas. Dairyland purports to be committed to safety first and foremost. If you are truly committed to safety, then you must move this line. There are alternative routes the line can take. The costs you will impose on our community if you leave the line where it is will greatly exceed the cost of moving the line now.

Sincerely,

Judith Ann (Judy) Holley

Judy Holley

cc: Mr. Dennis Rankin, USDA Rural Utilities Service
Joe Chilsen, Mayor of Onalaska; Nancy Proctor, Village of Holmen President
Brea Grace, Onalaska Land Use and Development Director

Fw: DPC Q-1D
Chuck A Thompson to: Joleen K Trussoni 09/28/2015 09:27 AM

----- Forwarded by Chuck A Thompson/Dairynet on 09/28/2015 09:27 AM -----

From: "Rankin, Dennis - RD, Washington, DC" <Dennis.Rankin@wdc.usda.gov>
To: Geo Nygaard <geonygaard@gmail.com>
Cc: "Chuck A Thompson (cat@dairynet.com)" <cat@dairynet.com>
Date: 09/25/2015 06:41 AM
Subject: RE: DPC Q-1D

Dairyland has not yet submitted this project for review. I am forwarding your comments to Dairyland.

From: Geo Nygaard [mailto:geonygaard@gmail.com]
Sent: Thursday, September 10, 2015 3:56 PM
To: Rankin, Dennis - RD, Washington, DC
Subject: DPC Q-1D

Dennis, I have sister who lives near the Q-1 line in Onalaska and she has been notified that a new double circuit 161 kV was to be built in her backyard, yet, I have not been able to find an application. If you have one, I would be interested in getting a copy.
I have a hard time understanding why RUS is involved as the Brigs Rd to La Crosse Tap is really urban to urban connection.
George Nygaard

Fw: Dairyland Power Q1-D South project app
Chuck A Thompson to: Joleen K Trussoni 09/28/2015 09:27 AM

----- Forwarded by Chuck A Thompson/Dairynet on 09/28/2015 09:27 AM -----

From: "Rankin, Dennis - RD, Washington, DC" <Dennis.Rankin@wdc.usda.gov>
To: Chris Hubbuch <Chris.Hubbuch@lee.net>
Cc: "Chuck A Thompson (cat@dairynet.com)" <cat@dairynet.com>
Date: 09/25/2015 06:37 AM
Subject: RE: Dairyland Power Q1-D South project app

At this point in time Dairyland has not submitted this project for review. Therefore I am forwarding your request for information to Dairyland.

From: Chris Hubbuch [mailto:Chris.Hubbuch@lee.net]
Sent: Thursday, September 17, 2015 5:40 PM
To: Rankin, Dennis - RD, Washington, DC
Subject: Dairyland Power Q1-D South project app

Hello Dennis,

I am trying to find information on a Dairyland Power 161-kv transmission line upgrade. In particular for the segment labeled Q1-D South. I know that other parts of the rebuild have been financed through RUS, but I can't find anything on this segment.

I understand you are in charge of the project. Is there an application that you could send me?

I'd appreciate any help.

Regards,

Chris Hubbuch
La Crosse Tribune
(608) 791-8217Q

Fw: Project Q-10 Rebuild

Chuck A Thompson to: Joleen K Trussoni 09/28/2015 09:29 AM

----- Forwarded by Chuck A Thompson/Dairynet on 09/28/2015 09:28 AM -----

From: Edie Ehlert <edieehlert@centurytel.net>
To: cat@dairynet.com, dennis.rankin@wdc.usda.gov
Date: 09/25/2015 08:27 AM
Subject: Project Q-10 Rebuild

Dear Mr. Thompson and Mr. Rankin,

Please extend the public comment time on this project. I have not found adequate information to be able to comment, as I understand is the case for other citizens. Those of us who live in this area want to be able to have informed input on projects that affect our communities. Please make public more information on this project before ending public comments.

Thank you.

Respectfully submitted,

Edie Ehlert
15981 Moldrem Rd
Ferryville, WI 54628

Fw: Project Q-10 Rebuild
Chuck A Thompson to: Joleen K Trussoni 09/28/2015 09:29 AM

----- Forwarded by Chuck A Thompson/Dairynet on 09/28/2015 09:29 AM -----

From: "Rankin, Dennis - RD, Washington, DC" <Dennis.Rankin@wdc.usda.gov>
To: Edie Ehlert <edieehlert@centurytel.net>
Cc: "Chuck A Thompson (cat@dairynet.com)" <cat@dairynet.com>
Date: 09/25/2015 08:31 AM
Subject: RE: Project Q-10 Rebuild

Dairyland has not submitted this project for review. I will forward your request for an extension to Dairyland.
-----Original Message-----
From: Edie Ehlert [mailto:edieehlert@centurytel.net]
Sent: Friday, September 25, 2015 9:27 AM
To: cat@dairynet.com; Rankin, Dennis - RD, Washington, DC
Subject: Project Q-10 Rebuild

Dear Mr. Thompson and Mr. Rankin,

Please extend the public comment time on this project. I have not found adequate information to be able to comment, as I understand is the case for other citizens. Those of us who live in this area want to be able to have informed input on projects that affect our communities. Please make public more information on this project before ending public comments.

Thank you.

Respectfully submitted,

Edie Ehlert
15981 Moldrem Rd
Ferryville, WI 54628

Fw: Project Q-10 Rebuild
Chuck A Thompson to: Joleen K Trussoni 09/28/2015 09:29 AM

----- Forwarded by Chuck A Thompson/Dairynet on 09/28/2015 09:29 AM -----

From: Edie Ehlert <edieehlert@centurytel.net>
To: "Rankin, Dennis - RD, Washington, DC" <Dennis.Rankin@wdc.usda.gov>
Cc: "Chuck A Thompson (cat@dairynet.com)" <cat@dairynet.com>
Date: 09/25/2015 08:47 AM
Subject: Re: Project Q-10 Rebuild

Thank you for your prompt response. I apologize as I read the title of the project incorrectly. It is Q-1D South Upgrade project.

Edie Ehlert

> On Sep 25, 2015, at 8:30 AM, Rankin, Dennis - RD, Washington, DC <Dennis.Rankin@wdc.usda.gov> wrote:
>
>
> Dairyland has not submitted this project for review. I will forward your request for an extension to Dairyland.
> -----Original Message-----
> From: Edie Ehlert [mailto:edieehlert@centurytel.net]
> Sent: Friday, September 25, 2015 9:27 AM
> To: cat@dairynet.com; Rankin, Dennis - RD, Washington, DC
> Subject: Project Q-10 Rebuild
>
> Dear Mr. Thompson and Mr. Rankin,
>
> Please extend the public comment time on this project. I have not found adequate information to be able to comment, as I understand is the case for other citizens. Those of us who live in this area want to be able to have informed input on projects that affect our communities. Please make public more information on this project before ending public comments.
>
> Thank you.
>
> Respectfully submitted,
>
> Edie Ehlert
> 15981 Moldrem Rd
> Ferryville, WI 54628

Fw: Extending deadlines for more information on the extension

Chuck A Thompson to: Joleen K Trussoni 09/28/2015 09:36 AM

---- Forwarded by Chuck A Thompson/Dairynet on 09/28/2015 09:36 AM ----

From: Kathleen Lockington <KALRKD@msn.com>
To: "cat@dairynet.com" <cat@dairynet.com>
Date: 09/25/2015 07:42 PM
Subject: Extending deadlines for more information on the extension

I am asking that you give the people more information on the extension of the power lines in Wisconsin. Please have meetings on this proposal so we can comment on this extension . Nothing is more important than accurate information .
Thank you,
Kathleen Lockington

Fw: Upgrade of transmission line
Chuck A Thompson to: Joleen K Trussoni 09/28/2015 09:37 AM

----- Forwarded by Chuck A Thompson/Dairynet on 09/28/2015 09:37 AM -----

From: "Wayne & Joan" <waynejoan@charter.net>
To: <cat@dairynet.com>
Date: 09/27/2015 08:22 PM
Subject: Upgrade of transmission line

Dear Mr. Thompson,

We are writing to voice our opposition to the power line upgrade planned to run through our neighborhood. Our home is located at N5963 Prairieview Drive in the Town of Onalaska and approximately 75 feet from the line.

Due to our close proximity, we are deeply concerned about the potential impact to our physical health due to potential EMF emissions. We also understand that Dairyland Power intends to double the tower height and this raises strong concern about our property value as this power line would be in direct view from the front of our home.

We have lived in our home for over 36 years and cherish our area's beauty and surroundings. We understand the line will be located in prime farmlands, 100-year floodplains, and wetlands and yet Dairyland Power has decided there are no practicable alternatives. However, we also understand that there are at least 2 other feasible routes and we urge you to give them your highest consideration as viable and safer options.

Thank you for your consideration.

Wayne and Joan Wojciechowski
N5963 Prairieview Drive
Onalaska, WI 54650
(608)526-4725

Submitted Sunday, Sept. 27 (within the 30 day public comment period).