

**Information for: File # 2015-02828-RQM**

**Applicant: Great River Energy**

**Corps Contact: Robert Maroney**

**Address: 10867 East Gull Lake Drive NW Brainerd, Minnesota 56401**

**E-Mail: robert.q.maroney@usace.army.mil**

**Phone: (651) 290-5766**

**Primary County: Wadena and Hubbard County, Minnesota**

**Section, Township, Range:**

<b>Sections</b>	<b>Township</b>	<b>Range</b>
31	139N	35W
6, 7, 18, 19, 20, 29, 32, 33	138N	35W
4, 5, 9, 15, 16, 22	137N	35W

**Information Complete On: 12 May 2016**

**Posting Expires On: 23 May 2016**

**Authorization Type: LOP-05-MN**

This application is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act identified in Regulatory Guidance Letter 07-01. We have made a preliminary determination that the aquatic resources that would be impacted by the proposed project are regulated by the Corps of Engineers under Section 404 of the Clean Water Act. Our jurisdictional review and final jurisdictional determination could result in modifications to the scope of the project's regulated water body and/or wetland impacts and compensatory mitigation requirements identified above. Approved jurisdictional determinations are posted on the St. Paul District web page at <http://www.mvp.usace.army.mil/>.

**Project:**

**PROJECT DESCRIPTION AND PURPOSE: (as provided by applicant)**

**General Project Description/Purpose and Need**

The electric transmission improvement project in the Menahga area will serve two primary purposes:

- Strengthen the electric transmission system in the Menahga area, as the existing 34.5 kV system serving the area is becoming outdated and is reaching its maximum capacity.
- Provide electric service to the proposed new Todd-Wadena Electric Cooperative (Todd-Wadena) Red Eye distribution substation that would provide electric power to a new pipeline pumping station proposed by Minnesota Pipe Line Company (MPL).

The Project includes:

- Construction of an east-west transmission line between the existing Great River Energy Hubbard Substation and the existing Minnesota Power Pipeline Substation, of which approximately 4.5 miles will be double-circuit 115 kV line and approximately 2.5 miles will be single-circuit 115 kV line.
- Construction of a generally north-south transmission line between the existing Minnesota Power Pipeline Substation and the proposed new Todd-Wadena Red Eye distribution substation, which will be approximately 15 miles of primarily single-circuit 115 kV line.
- Construction of the proposed new Great River Energy Blueberry Substation in the vicinity of the existing Menahga Substation and the new Todd-Wadena Red Eye Substation to serve the new MPL pumping station; and modifications to the existing Todd-Wadena Menahga Substation and the Minnesota Power Pipeline Substation.

The new transmission line will be constructed with primarily single wood pole structures. The average height of the structures will be 60-90 feet above ground with 275-400 foot average span lengths. Tree clearing for the transmission line construction is scheduled to begin in August 2016.

Grading at the Blueberry Substation site is scheduled to begin in July 2016. The Blueberry Substation site was logged by the previous landowner before Great River Energy acquired the parcel.

**WATERS OF THE UNITED STATES SUBJECT TO LOSS:**

<b>Aquatic Resource Type</b>	<b>Impact Type</b>	<b>Impact Duration</b>	<b>Impact Size: Acres</b>	<b>Plant Community Circular 39</b>
Wetland	Fill - Poles	Temporary	0.01	2,3,6,7
Wetland	Fill – Substation	Permanent	2.23	5,7
Wetland	Tree Removal (Non-Fill Conversion)	Permanent	23.2	6,7
Wetland	Construction Mats	Temporary (150 days)	0.75	2,3,6,7

**ALTERNATIVES CONSIDERED: (as provided by the applicant)**

Great River Energy considered the alternative of “no build”, but that alternative was unacceptable because it leaves transmission system overload issues in the area unresolved and the inability to serve the new MPL pump station.

Great River Energy chose the routes for the new 115 kV line because they follow existing transmission lines, distribution lines and roads for the vast majority of the Project. Use of existing corridors minimizes impacts to landowners and natural resources, and reduces the amount of ROW clearing required.

**Off-Site Alternatives – Blueberry Substation**

Several alternative locations for the Blueberry Substation were considered. Two locations (Location #1 and #2, below) were evaluated by Great River Energy prior to submitting the Route Permit application for the Project. In addition, Location #3 was considered as an alternative in the Environmental Assessment (EA).

**Location #1:** This site was evaluated as it was fairly level, mostly open and would require minimal vegetation removal, adjacent to the existing 34.5 kV line that will connect to the Blueberry Substation, and near the existing Todd-Wadena Menahga Substation, which will be relocated to the Blueberry Substation. The site was determined to not be acceptable as there is a double-circuit electric distribution line and an 8-inch natural gas line that angle across the site, leaving limited useable space while maintaining adequate setbacks to the home located northwest of the site.

**Location #2:** This site was evaluated as it was fairly level and adjacent to the existing 34.5 kV line that will connect to the Blueberry Substation. The site was not as desirable, due to the large pipeline corridor located just easterly of the site. In addition, based on discussions with landowners, there was not a willing seller.

**Location #3:** The Western Blueberry Substation Site Alternative was considered in and was not selected as the approved location for the Blueberry Substation in the Route Permit.

**Compensatory Mitigation:**

The applicant proposes to mitigate the project impacts by purchasing wetland credits totaling 8.04 acres (5.8 acres for the conversion at ratio of 0.25:1, plus 2.24 acres for poles in wetland and impacts for the substation at ratio of 1:1), most likely from the Aitkin County Highway Department bank in Aitkin County, Bank Service Area 5.

**National Historic Preservation Act (Section 106)**

The literature survey for the entire Project is complete. The literature review and reconnaissance survey (Phase 1A-1) for the Blueberry Substation is also complete. The Archaeological Phase 1 Reconnaissance Survey for the transmission line in the Straight River Switch to Red Eye Substation Segment will be conducted by Merjent in April 2016 and the results will be forwarded to the Corps as soon as available.

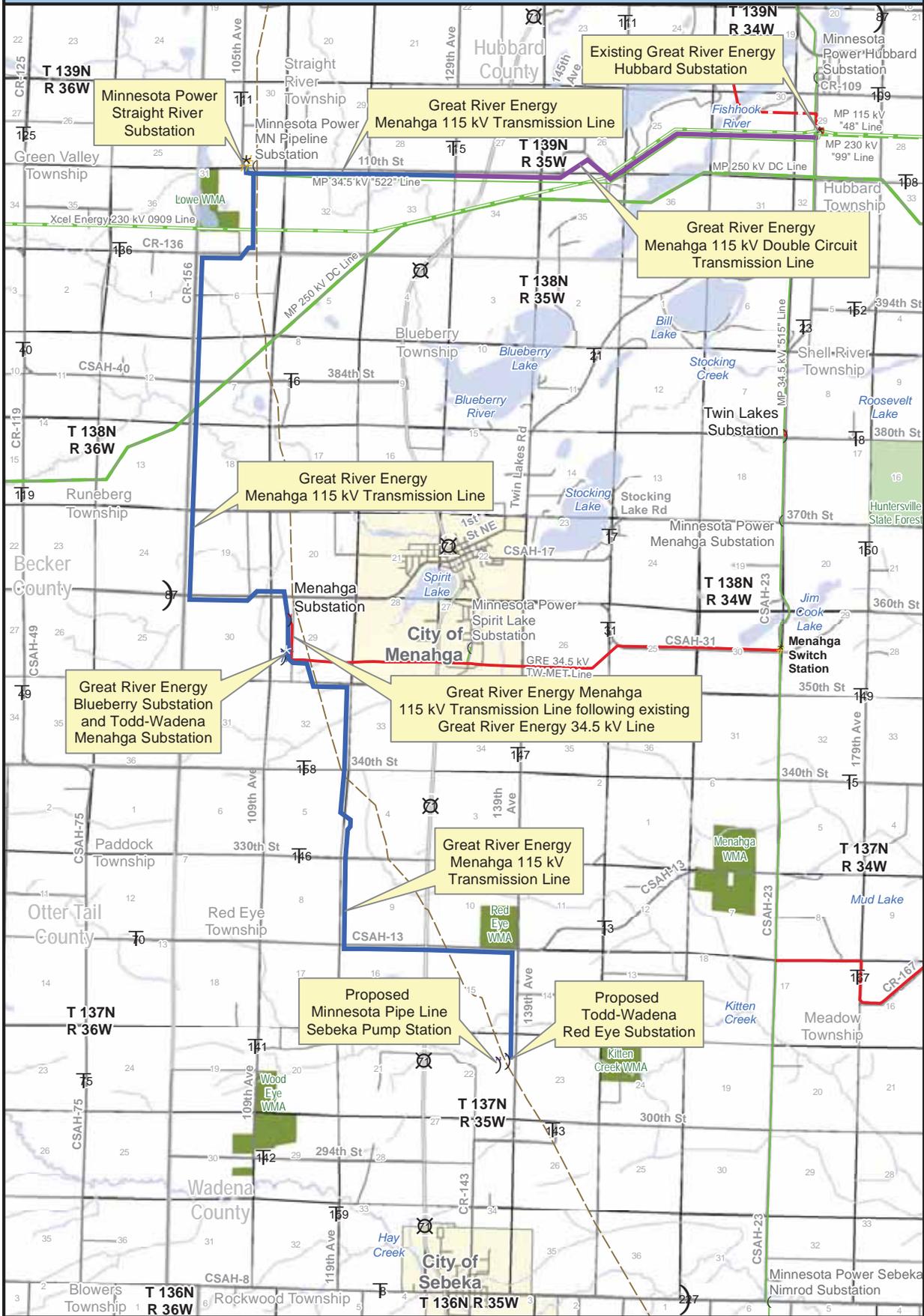
The project will be coordinated with Corps archeologists in accordance with the St. Paul District's Programmatic Agreement with the Minnesota State Historic Preservation Office (SHPO).

**Endangered Species Act**

The project will be coordinate with the United State Fish and Wildlife Service. The project may affect but is unlikely to adversely affect the Northern Long-eared Bat.

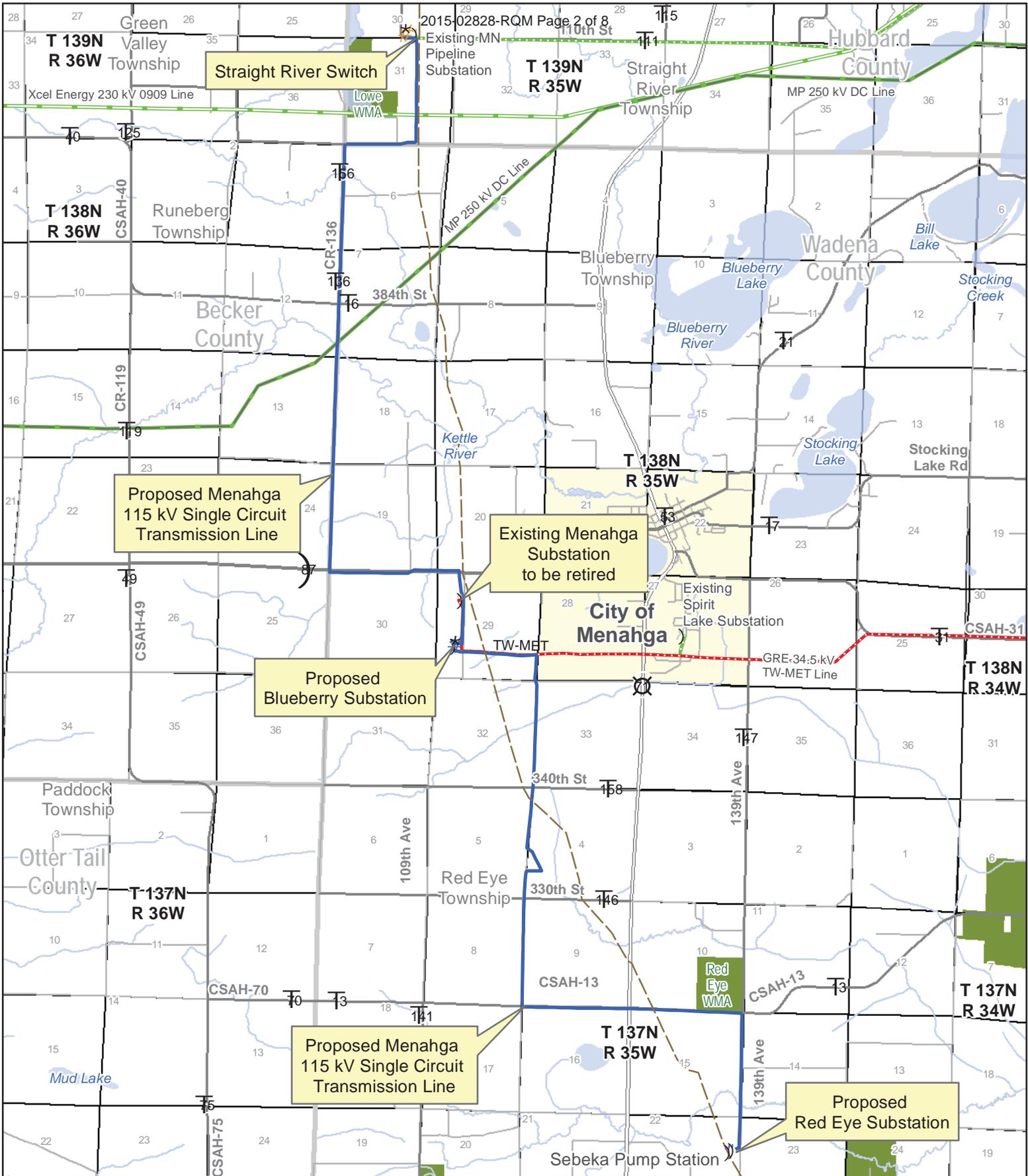
**Drawings** See attached.

# Proposed Project



Proposed		Existing	
	Great River Energy Double Circuit 115 kV Transmission Line		Great River Energy 115 kV Transmission Line
	Great River Energy Single Circuit 115 kV Transmission Line		Great River Energy 34.5 kV Transmission Line
	Great River Energy Transmission Substation		Minnesota Power and Xcel Energy 230 kV Transmission Line
	Todd-Wadena Distribution Substation		Minnesota Power 250 kV DC Transmission Line
	Minnesota Pipe Line Pump Station		Minnesota Power 115 kV Transmission Line
	Minnesota Power Transmission Substation		Minnesota Power 34.5 kV Transmission Line
			Pipeline
			Great River Energy Substation
			Great River Energy Switch Station
			Todd-Wadena Distribution Substation
			Minnesota Power Distribution Substation





- Great River Energy
- Proposed Alignment - Single Circuit 115 kV
- Proposed Transmission Substation
- Proposed Distribution Substation
- Minnesota Power
- Proposed Transmission Substation
- Existing 34.5 kV Transmission Line
- Existing 230 kV Transmission Line

- Existing 250 kV Transmission Line
- Existing Distribution Substation
- Minnesota Pipe Line
- Proposed Pump Station
- Existing Minnesota Pipeline
- Existing Pipeline

GIS Data sources include:  
 MNGEO, MNDNR, MNDOT,  
 and Great River Energy.

0 0.5 1 Miles



**GREAT RIVER ENERGY™**

**Straight River Switch to  
 Red Eye Substation Segment  
 Site Location Map  
 Attachment 2**

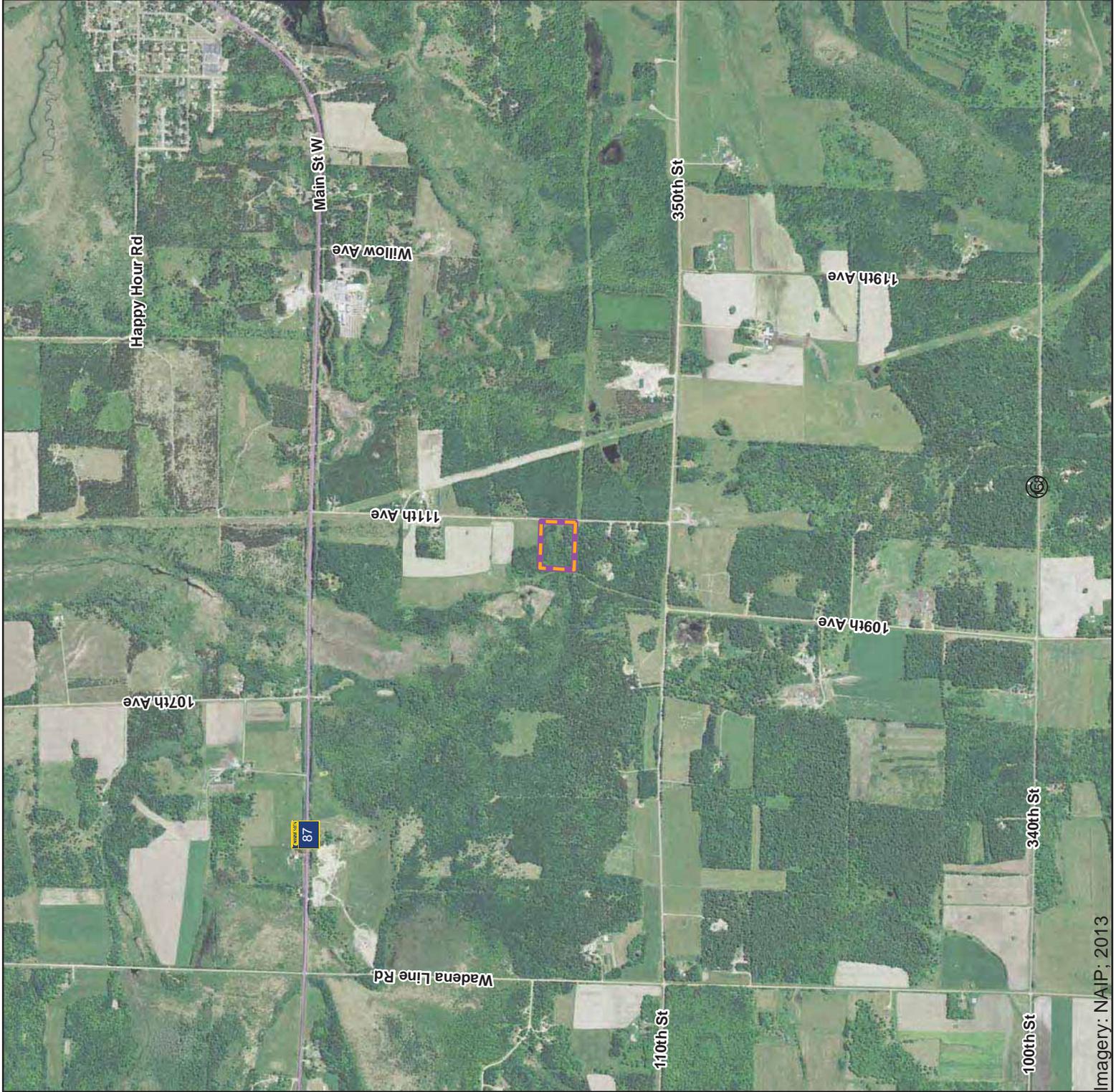


Blueberry Substation  
Location



Figure 1

PROPERTY LOCATION MAP  
Blueberry Substation Location  
Menasha, WI  
Attachment 4





- ) Sample Points
- Delineated Wetland
- Blueberry Substation Location



Figure 2

DELINEATED WETLAND AREA  
 Blueberry Substation Location  
 Menasha, WI  
 Attachment 4







- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Blueberry Substation Location

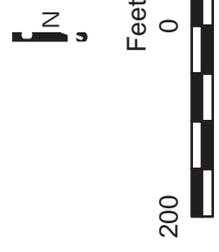


Figure 4

NATIONAL WETLAND  
INVENTORY  
Blueberry Substation Location  
Menasha, WI  
**Attachment 4**



Imagery: NAIP, 2013



Public Water Inventory

Watercourses

Public Water Inventory Basins

Blueberry Substation Location



Feet

0 2,000 2,000



Figure 5

**PUBLIC WATERS INVENTORY**  
Blueberry Substation Location  
Menasha, WI  
**Attachment 4**



**Hydric Soils**

- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)

Blueberry Substation Location



Figure 6

**HYDRIC SOILS**  
 Blueberry Substation Location  
 Menahga, MN  
**Attachment 4**

