Application For
PSCW Certificate of Authority
and
WDNR Utility Permit

Northern Adams County Area Network Improvement Project

PSCW Docket No. 137-CE-213

January 2025

ATC
Energizing Your Future

SECTION **PAGE**

ACEC	Adams-Columbia Electric Cooperative
ACSR	Aluminum Conductor Steel Reinforced
AFUDC	Allowance for Funds Used During Construction
AGL	Above Ground Line
AIS	Agricultural Impact Statement
APE	Areas of Potential Effect
ARRL	American Radio Relay League
ASNRI	Areas of Special Natural Resource Interest
ATC	American Transmission Company
ATV	All-Terrain Vehicle
BMP	Best Management Practice
BVP	Best Value Planning
CA	Certificate of Authority
CPCN	Certificate of Public Convenience and Necessity
Commission	Public Service Commission of Wisconsin
CWIP	Construction Work in Progress
DATCP	Department of Agriculture, Trade and Consumer Protection
DBH	Diameter at Breast Height
EMF	Electromagnetic Field
ER	Endangered Resources
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FCC	Federal Communications Commission
FCL	Forest Crop Law
FEMA	Federal Emergency Management Act
FPP	Farmland Preservation Program
GIS	Geographic Information Systems
HDD	Horizontal Directional Drilling
kcMIL	Kilo circular mils
kV	Kilovolt
LDC	Local Distribution Company
LIRF	Load Interconnection Request Form
MFL	Managed Forest Land

MISO	Midcontinent Independent System Operator, Inc.
MSL	Mean Sea Level
MTEP	Midwest Transmission Expansion Plan
MVA	Megavolt Ampere
NERC	North American Electric Reliability Corporation
NEV	Neutral to Earth Voltage
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTIA	National Telecommunications and Information Administration
OHWM	Ordinary High-Water Mark
PAD-US	Protected Areas Database of the US
PSCW	Public Service Commission of Wisconsin (Commission)
ROW	Right-of-way
T&E	Threatened and Endangered
TCSB	Temporary Clear Span Bridges
TPL	Transmission Planning
USACE	United States Army Corps Engineers
USFWS	United States Fish and Wildlife Service
WDNR	Wisconsin Department of Natural Resources
WDNR-BNHC	Wisconsin Department of Natural Resources Bureau of Natural Heritage Conservation
WDNR-NHI	Wisconsin Department of Natural Resources Natural Heritage Inventory
WHPD	Wisconsin Historic Preservation Database
WisDOT	Wisconsin Department of Transportation
WPDES	Wisconsin Pollution Discharge Elimination System
WRAM	Wisconsin Rapid Assessment Methodology
WRRD	Wisconsin Remediation and Redevelopment Database

APPLICATION FOR PSCW CERTIFICATE OF AUTHORITY AND WDNR UTILITY PERMIT[1]

1.0 PROJECT OVERVIEW

Description

The Northern Adams County Area Network Improvement Project (Project) will complete system upgrades to ATC's existing Saratoga 69 kV (Y-302) line to serve the new Colburn Substation for Adams-Columbia Electric Cooperative (ACEC). The Project will also improve network service to three existing ACEC-owned substations being radially fed from the Saratoga 69 kV (Y-302) line. As part of the 12 Central Wisconsin counties that ACEC serves, projected load growth in Adams County exhausted ACEC's distribution-serving capabilities and requires an additional transmission service. The requested in-service date is December 31, 2026.

To complete the connection to the new substation and improve networking on the three other existing substations, the Saratoga 69 kV (Y-302) line will be extended approximately 9.8 miles. The Project also requires expanding the existing ACEC Badger West Substation to install a new 138/69 kV 100 MVA transformer and 69 kV terminal that will provide a second source to the Y-302 circuit, improving networking capability of the substations connected to Y-302. Due to the additional load being added to Badger West Substation, new 138 kV line circuit breakers will be installed at the substation to sectionalize the existing Petenwell – Saratoga 138 kV (X-43) line.

Need

The Project is needed to reliably serve the load interconnection request at ACEC's proposed new Colburn Substation and to provide a second source for the new and existing loads served by the Saratoga 69 kV (Y-302) line.

Cost

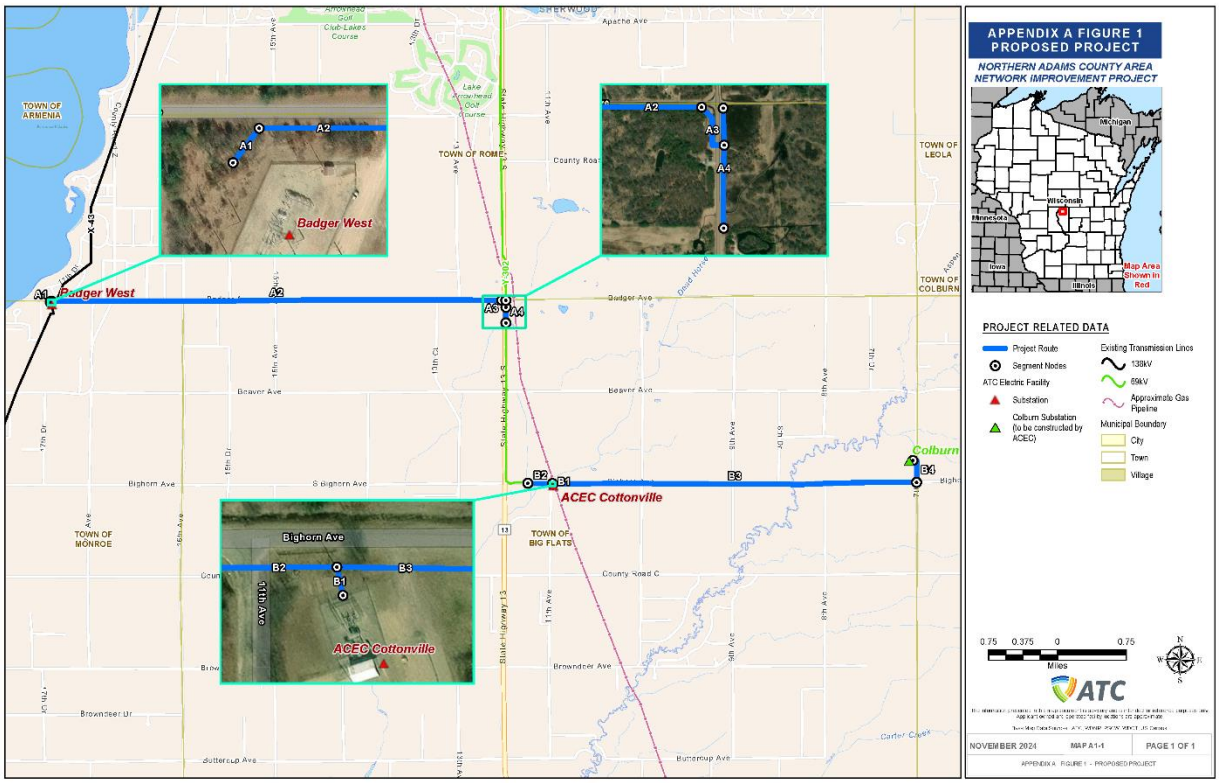
The estimated Project cost is $41.3M.

Schedule

The Project plans to energize the new Colburn distribution substation by the end of 2026.

[1] This Application was prepared in accordance with the PSCW and WDNR *Application Filing Requirements Transmission Line Projects*, Version July 2024, and the *Application Filing Requirements for Substation Projects*, Version 2024 (collectively referred to as the Application Filing Requirements).

Route and Location



1.1 Owners and Investors

American Transmission Company LLC and its corporate manager, ATC Management Inc. (collectively ATC or Applicant), W234 N2000 Ridgeview Parkway Court, Waukesha, Wisconsin 53188, propose to construct the Project, which will be 100% owned by ATC.

1.2 Agreements

ATC has not entered into any contractual agreements related to this Project with any developer to construct, finance, lease, use or own transmission facilities.

1.3 Project Location and Endpoints

The Project will extend the existing 69 kV Y-302 line by constructing approximately 9.8 miles of new 69 kV overhead electric facilities. The 9.8 miles will be divided into two sections, the Cottonville to Colburn section and the Badger West to State Highway 13 (Hwy 13) section, within the Towns of Monroe and Big Flats in Adams County.

Cottonville to Colburn Section:

The Cottonville to Colburn section will extend Y-302 approximately 4.5 miles east from the existing structure that is outside of the existing ACEC Cottonville Substation. The 4.5-mile extension of Y-302 is entirely in the Town of Big Flats and will connect to ACEC's new Colburn Substation that is near the intersection of Bighorn Ave and 7th Ave.

The new line section was routed entirely on the south side of Big Horn Ave. to avoid a cemetery, reduce the number of residences impacted within 300 feet, and connect to the existing circuit which is located on the south side of Big Horn Ave. outside of Cottonville Substation.

Badger West to Hwy 13 Section:

The Badger West to Hwy 13 section will create a new connection from the existing Y-302 line near Hwy 13 to the existing Badger West Substation. Approximately 5.3 miles of new 69 kV line will be built within the Towns of Big Flats and Monroe to make the connection that will provide networking benefits to existing substations served by Y-302.

The new line section was routed entirely on the south side of Badger Ave. to reduce the impact to residences along Badger Ave. The proposed circuit will need to extend one span length south on Hwy 13 to avoid the proposed 69 kV switching structure being located in a ponded location. For safety, constructability and to avoid wetland impacts, the switch cannot be in a location that often sees standing water conditions.

The Badger West Substation, located on Badger Ave. near Monroe Center, will be expanded to the west within the existing substation property. A new 138/69 kV power transformer will be installed, which will allow for installation of a 69 kV line terminal to connect to the Y-302 line. New 138 kV circuit breakers will be installed in the existing 138 kV yard to sectionalize the X-43 transmission line from Petenwell Substation to Saratoga Substation. The Badger West Substation will also receive a new control enclosure with relaying and communications for the substation additions. for the substation additions.

1.4 Impacted Cities, Villages, and Townships

The Towns of Big Flats, Colburn, Monroe, and Rome, within Adams County are impacted by the Project. There is also a Project laydown yard located in the Town of Plainfield, Waushara County.

1.5 PSCW Review

1.5.1 Type of Application

Pursuant to the requirements of Wis. Stat. §§ 1.11, 1.12, 196.025, 196.49 and 196.491, and Wis. Admin. Code chs. PSC 4, 111 and 112, ATC hereby applies (Application) to the Commission for a Certificate of Authority (CA) together with any other authorization needed to construct the proposed Project as set forth in further detail below. Through this Application and pursuant to Wis. Stat. ch. 283 and §§ 30.025(1s), 30.19, 30.123 and 281.36; and Wis. Admin. Code chs. NR 103, 216, 299, and 320, ATC hereby applies to the Wisconsin Department of Natural Resources (WDNR) for a Utility Permit. Information necessary for the WDNR permits and authorizations necessary to construct the Project are included in **Section 8**.

By this filing, ATC confirms its understanding that through the pre-application process provided for in Wis. Stat. § 30.025(1m) the WDNR, the PSCW, and ATC have conferred and made a preliminary assessment of the Project's scope and alternatives and have identified potentially interested persons. ATC is also aware, in accordance with Wis. Stat. §§ 30.025(1m)(b) & (c), of the information that it is required to provide and the required timing for the information submissions.

1.5.2 Type of Commission Action

The Project is categorized as a Type II action pursuant to Wis. Admin. Code § PSC 4.10, Table 2, subsection h. Information necessary for the initial preparation of an Environmental Assessment is provided as part of this Application.

1.5.3 Certificate of Public Convenience and Necessity (CPCN) Exemption

This Project does not qualify for a CPCN exemption under Wis. Stat. § 196.491(4)(c).

1.5.4 Expedited Review

ATC is not seeking an expedited review of this Project.

1.6 Project Details and Project Area Information

1.6.1 Identify if the proposed project is new construction, rebuilding of an existing line, maintenance of an existing line, etc.

The Project is new construction to serve a customer's new substation and to improve networking capabilities on existing ATC circuit 69 kV Y-302. The existing Badger West Substation will be expanded to create a new 138 kV to 69 kV connection point on the system.

1.6.2 For new or expanded above-ground facilities, such as substations, provide the following:

1.6.2.1. Identify the type of new or expanded facility.

To provide the new 138 kV to 69 kV connection, the existing Badger West Substation will be expanded.

The ACEC Colburn Substation will be owned, constructed and permitted by ACEC. ATC's Project will end at the transmission line dead-end structure adjacent to the Colburn Substation.

1.6.2.2. The location of route(s)the new or expanded facility.

The Badger West Substation, located in the Town of Monroe, will be expanded to the west of the existing station yard and within the current Badger West Substation property.

1.6.2.3. The size and dimensions of the new facility or expansion of the existing facility, including any new or expanded driveways.

The Badger West Substation will be expanded approximately 193 feet to the west of the existing substation. The area of the pad expansion will be approximately 0.67 acres. Additional grading facilities and the stormwater pond will add another 0.42 acres of disturbance. A temporary construction access will be added off of Badger Ave. to facilitate construction.

1.6.2.4. Total size of the parcel the new or expanded facility would be placed, and the orientation of the facility within the parcel.

The expansion and associated facilitates at Badger West Substation will be entirely within property currently owned by ACEC.

1.6.2.5. State if the applicant owns the parcel or is in negotiations for purchase of the parcel.

ACEC owns the parcel on which Badger West Substation is currently located.

1.6.2.6. The current land use and zoning of the parcel.

The existing parcel is zoned PSP-1, Public and Semi-Public District.

1.6.2.7. Construction procedures to build or expand the facility.

Required actions to avoid or minimize impacts to protected species will be implemented before and during construction as needed. In general, the actions could include implementing time-of-year avoidance periods or installing and maintaining exclusion fencing. Once the protocol requirements have been met, a temporary driveway will be installed and the expansion area will be cleared and stumps removed. Grading activities will then start by removing top soils followed by excavating the storm water pond. The pond spoils, if adequate for use as fill,

will be used to increase the grade of the site and engineered fill will be hauled in to build up the remaining site as needed. Final grading will take place to meet the design requirements.

1.6.2.8. Describe associated permanent storm water management features that would be constructed, or expansion of or modification to existing storm water treatment facilities. Identify the locations of the point(s) of collection and discharge.

A stormwater pond will be installed to the west of the expansion area at Badger West Substation. The pond will be roughly 40 feet by 100 feet and will have an earthen weir for outflow.

1.6.3 Generalized Geology, Topography, Land Cover and Land Use

Generalized Geology

Glaciation has largely determined the physiography, topography, and soils of the region in which the Project is located. Adams County is in the Central Lowland Physiographic Province of the United States. In particular, the Project is located within the Central Sand Plain. The western portion of the County is a historical lakebed of glacial lake Wisconsin during the Arnott glaciation within the last episode of the Wisconsin glaciation. Sand overlain by silt and clay was deposited after the lakes retreat during the later part of the Elderon Phase of the Wisconsin glaciation. The Eastern portion of the County is composed of outwash sand deposited from meltwater rivers off of the Green Bay lobe of the Laurentide Ice Sheet. Specifically, the Project is within the windblown sand that was blown over Pleistocene offshore sediment. The bedrock is composed of sandstone with some dolomite and shale within the Cambrian system of the Paleozoic Age.

(Clayton, Lee. “Pleistocene geology of Adams County, Wisconsin.” Information Circular, 1987, https://doi.org/10.54915/fnqs2846. Accessed July 2024)

Topography

The topography along the route is relatively flat, ranging from 970 feet mean sea level (msl) to 1030 feet msl. There are occasional rolling hills and valleys that give the landscape undulating topography. Topographic changes in the Project area range from generally gradual to moderate slopes near stream valleys and on the west portion of the Project. Elevation overall decreases towards the west end of the Project area with topographic lows occurring near Petenwell Lake.

Land Cover

The Project route predominantly follows road shoulders where the land cover consists primarily of agricultural lands, grasslands and interspersed woodlands. Other land cover types within the Project area include wetlands and occasional residential areas.

Land Use

The primary land use within the Project area is for agricultural production, forest production, and undeveloped grasslands and woodlands. Agricultural practices consist of non-specialty row crops; generally, potato, corn, or wheat/rye crops. Residential land and fallow fields are also present along the routes. There are also several conifer plantations along the Project and shrublands that appear to be recently harvested conifer plantations. The route has been designed to follow existing transportation corridors including, county highways, and local roadways, where possible. Other land uses include undeveloped wetlands, and low density urban/developed lands.

The proposed Badger West Substation expansion current land use is grassland and zoned Public and Semi-Public.

1.6.4 Special or Unique Natural or Cultural Resources

The Project area intersects multiple wetlands and waterway areas as described in **Sections 8.1 and 8.2**. There are no known federally managed properties, unique landforms, migratory animal concentrations sites, outstanding or exceptional water resources, parks or recreation areas, scenic roads/highways along the route.

Cultural resources were reviewed and evaluated along the Project route. One Euro-American cemetery was identified on the north side of Bighorn Ave. adjacent to Segment B1, as discussed in **Section 6.4**.

The Project area does intersect or is located near the following special or unique areas:

- Several WDNR Forest Legacy Program parcels are intersected by Segment A2.
- The Big Roche A Cri Creek (Class II Trout Stream) is intersected by Segment B3.
- The Petenwell Flowage is located outside of the Project area, approximately 0.2 miles west of the Badger West Substation

1.6.5 Areas of Residential Concentrations and Urban Centers

The Project area is primarily rural in nature and does not cross any urban centers. The closest urban developments to the route are the City of Nekoosa approximately 10 miles north of the Project area and the Village of Hancock approximately 10 miles east of the Project area. Residential properties are intersected by the route along town and county highways. However, the route does not cross any notable residential concentrations.

A list of impacted municipalities is included in **Section 1.4**.

1.6.6 Transmission Configuration

The proposed Project will construct a single-circuit, 69 kV transmission line, primarily on monopole structures with delta configurations.

There are above and below ground distribution lines along the proposed alignment.

The new transmission line is planned to cross over any conflicting existing above ground distribution lines, with no modification anticipated.

The Project will construct two short sections of underground fiber. One will be located near the Badger West Substation and one will cross underneath Hwy 13.

Line X-43 Crossing: The Badger West to Hwy 13 section will cross under the existing X-43 Saratoga to Petenwell 138 kV transmission line just outside the Badger West Substation. Typical structure framing will not be used at the crossing to avoid modification of the X-43 facility. The crossing will be made by installing two self-supporting dead-end structures on foundations at the crossing span. Typical crossing structure framing requires the use of a series of jumpers to transition the wires from the standard delta configuration to a flat configuration where the proposed new Y-302 line will cross under the existing line X-43 facilities. There is one structure type for this modification.

1.6.7 Proposed Project ROW

The typical right-of-way (ROW) width requirement for the Project's transmission line facilities is 80 feet with a typical span length of approximately 540 feet. By proposing to co-locate the Project transmission facilities and share other infrastructure ROW, the amount of required new ROW width for the Project transmission facilities, where ROW sharing occurs, has been reduced. The majority of the proposed transmission line runs alongside existing road and adjacent to public ROW. A portion of the required 80 foot easement will therefore overlap with public ROW. The new ROW on the non-roadside will be expanded to a total of 40 feet from the proposed transmission line alignment in the direction further from the road. The new ROW on the roadside will be extended up to the existing public ROW, generally about four feet. Where the Project meets with existing transmission line facility ROW, easements will be evaluated to ensure current ROW widths are adequate.

1.7 Other Agency Correspondence, Permits and Approvals

1.7.1 Agency Correspondence

Copies of ATC correspondence with all government agencies concerning the Project are included in **Appendix H**.

1.7.2 State and Federal Permits/Approvals Required

All state and federal permits and approvals required for this Project and their status are listed below.

Federal			
Agency	**Activity**	**Permit**	**Status**
United States Army Corps of Engineers (USACE)	Wetland Impacts	Section 404 of the Clean Water Act	ATC will submit permit application upon receipt of a PSCW order.
USACE	Archaeological Review	Section 106 National Historic Preservation Act	USACE will initiate consultation upon receipt of ATC's permit application.
USACE	Waterway crossing	Section 10 of the Rivers and Harbors Act	Not applicable, no Section 10 waterway crossings.
Federal Aviation Administration (FAA)	Erection of tall structures near airports/heliports	FAA 7460 (Notification)	Not applicable, no airports within 5 miles.
United States Fish and Wildlife Service (USFWS)	Protected species coordination	Incidental Take Authorization-Section 10 of the Endangered Species Act; Migratory Bird Treaty Act; Bald and Golden Eagle Act	USACE will initiate consultation upon receipt of ATC's permit application.

State			
Agency	**Activity**	**Permit**	**Status**
Department of Agriculture, Trade and Consumer Protection (DATCP)	Potential use of eminent domain on more than 5 acres of any farm	Agricultural Impact Notification (AIN)/Agricultural Impact statement (AIS)	Not applicable - power lines that carry less than 100 kilovolts are not

State			
Agency	**Activity**	**Permit**	**Status**
			subject to the AIS requirements.
Wisconsin Department of Transportation (WisDOT)	Utility Crossing/Longitudinal Occupancy (roads)	Utility Permit DT 1553	ATC will apply for these permits if necessary.
WisDOT	Driveway Construction	DT1504 – Connection to State Trunk Highway	ATC will apply for these permits if necessary.
WisDOT	Oversize Loads or Excessive Weights	Wis. Stat. ch. 348 Vehicles – Size, Weight and Load; Wis. Stat. § 348.25-Vehicle Weight and/or Load Permit	ATC will apply for these permits if necessary.
WisDOT	Utility Crossing/Longitudinal Occupancy (WSOR)	Utility Permit DT 2036	Not applicable
Wisconsin Historical Society; State Historical Preservation Officer	Archeological Review of impacts to previously documented cultural resources	Approval of Archaeological Surveys (Wis. Stat. § 44.40 and Section 106 of National Historic Preservation Act)	See **Section 6.4**
WDNR	Wetland and Waterway impacts	Utility Permit	See **Section 8.0**
WDNR	Soil disturbance	Stormwater/Erosion Control – NR 216	ATC will apply upon receipt of a PSCW Order.
WDNR	Protected Species coordination	Incidental Take Authorization/Permit	See **Section 9.0**

1.7.3 Local Permits

The following local permits and ordinances apply to the proposed Project:

Adams County: Conditional Use Permit for transmission line construction.
Adams County: Right of Way Permit.
Adams County: Floodplain Permit (if necessary).
Adams County: Driveway Access Permit (if necessary).
Waushara County: Driveway Access Permit (if necessary).
Town of Rome: Right of Way Permit.
Town of Rome: Driveway Permit (if necessary).
Town of Big Flats: Right of Way Permit.
Town of Monroe: Conditional Use Permit for transmission line construction.
Town of Monroe: Driveway Permit (if necessary).
Town of Monroe: Clear Cutting Application (if necessary).

1.7.4 Railroad

There are no railroad impacts or coordination required for the Project.

1.7.5 Pipeline

Segment B3 crosses Enbridge Pipeline ROW. The crossing over the pipeline is planned to be fully overhead to reduce conflicts between the two types of infrastructure.

ATC has notified the pipeline owner of the new crossing and does not anticipate any concerns.

1.7.6 WisDOT

Segment A3 parallels the west side of Hwy 13 and crosses the highway for approximately 0.1 miles. Segment A4 parallels the east side of Hwy 13 for approximately 0.3 miles. Both segments partially share WisDOT ROW. This is a new crossing and ATC and its consultants met with WisDOT representatives to discuss the Project and to give WisDOT an opportunity to provide input. A general overview of the Project was provided to WisDOT staff at these meetings and information about the Project was shared. WisDOT provided feedback and had no comments on the proposed route and did not foresee issues with permitting the work. A copy of the WisDOT communication is provided as **Appendix H, Exhibit 2**. If the Project is approved by the Commission, ATC will meet with WisDOT to discuss any remaining concerns and incorporate the resolutions to these concerns.

1.8 Construction Schedule and Sequence

1.8.1 Construction Schedule

ATC anticipates constructing the Project according to the following schedule:

Project Activity	Preliminary Date
Submittal of PSCW CA Application and WDNR Utility Permit	January 2025
PSCW CA Approval and Order	July/August 2025
WDNR Utility Permit Issuance - Anticipated	August/September 2025
Start Construction	November 2025
Project In-Service	December 2026

1.8.2 Outage Constraints

The existing Y-302 circuit is a radial 69 kV circuit that does not have networking capability. Y-302 serves multiple radial substations making outages challenging. The Project team will coordinate backfeeding local loads and outages with multiple customers to complete required construction work. Multiple short outages on Y-302 throughout the entire Project schedule are anticipated to complete the overall Project.

1.8.3 Construction Spreads

Transmission line construction is currently planned to be completed in two spreads.

Spread 1 - Badger West Substation to Y-302 Badger West Tap

Spread 2 –ACEC Cottonville to Colburn

1.8.4 Construction Sequence

Project construction is anticipated to first start at the Badger West Substation expansion. Site clearing and grading will commence in Q4 2025 after the order is received for the Project. Site rough grade is planned to be achieved prior to heavy winter conditions and seasonal road restrictions taking place. Substation construction is currently planned to resume once seasonal road restrictions are removed and will take place through Q2 and Q3 of 2026.

Transmission line construction will begin with Spread 1, Badger West Substation to Y-302 Badger West Tap, to accommodate sensitive species mitigation for completing work in specific timeframes. Completing Spread 1 will provide transmission networking benefits for existing Y-302. Vegetation clearing activities are planned to start in Q2 of 2026. Construction of the new circuit is planned to start in Q2 of 2026 and finish in Q3 of 2026.

Spread 2, ACEC Cottonville to Colburn section, vegetation clearing will begin once Spread 1 vegetation clearing is complete. Overhead construction is planned to start in Q3 of 2026 once Spread 1 is complete. Spread 2 is planned to finish in Q4 of 2026. This timeframe is necessary to

meet the distribution customer's requested energization date of December 2026 for their new Colburn Substation. Restoration will be completed by end of Q2 2027.

Note the timing of the two spreads may change depending on the customer's schedule and environmental constraints.

1.9 Project Maps

A set of Project maps is provided in **Appendix A, Figures 1-6.** The maps showing the Project route and other Project data are provided on aerial photographs and/or navigation basemaps, and include environmental, parcel, land use, and existing utility/infrastructure data. Also included is environmental information required to support WDNR permitting activities. ATC is providing separately to the Commission, in electronic format, Geographic Information System (GIS) data files supporting the mapping.

1.10 ESRI ArcGIS Data Files

All Project maps were created using Esri ArcGIS Pro 3.1.4. A spreadsheet of each GIS file, including the description of the data, the data source, and the date when the data was generated or collected is provided as part of the GIS data.

1.11 Mailing Lists

The Mailing Lists are provided in Microsoft Excel format separately to the Commission. The information used to compile the landowner mailing lists was derived from Adams County tax parcel data. ATC expects that this information is reasonably accurate but recognizes that changes in parcel ownership occur over time.

Data regarding local officials is available from the applicable counties and municipalities. ATC expects that this information is reasonably accurate but recognizes that changes in personnel occur over time.

2.0 PROJECT NEED ANALYSES

2.1 Project Need

ACEC notified ATC in April 2022 of a new load interconnection via the load interconnection Request Form (LIRF) #40773 provided as part of **Appendix D, Exhibit 1**. The Northern Adams County Network Improvement Project Best Value Planning (BVP) Report in **Appendix D, Exhibit 1**, in conjunction with information supplied by ACEC in Appendix K of the BVP Report in **Appendix D, Exhibit 1***,* was used to determine the best value solution for the area.

ACEC projects load growth that exhausts their distribution-serving capabilities and requires transmission service. The existing Y-302 69 kV transmission line is radially fed from Saratoga Substation and feeds three other ACEC substations. This limits ACEC's ability for load bridging when ATC needs to take outages for maintenance or other reasons. ACEC and ATC studied various distribution and transmission solutions. ATC determined that the transmission solution to extend Y-302 to the new ACEC Colburn substation and extend a tap from Y-302 to Badger West Substation, installing breakers and a 138/69 kV transformer at Badger West was the best value solution among all the alternatives because it networked Y-302 at the lowest cost and with fewer impacts.

See section 4.1.2.1 in the BVP Report in **Appendix D, Exhibit 1** for information on the Additional Source Initiative and how that is used to justify the extension to Badger West.

This Project is in MTEP23 Appendix A, ID 23913.

2.2 Transmission Network Alternatives

ATC considered two transmission alternatives to address the load interconnection and networking needs. Alternative 1 is the preferred solution. The preferred solution extends Y-302 to serve the new ACEC Colburn Substation and extends a tap from Y-302 into Badger West Substation to network Y-302. Alternative 2 is to extend Y-302 to the new ACEC Colburn Substation, install line breakers at Colburn, and build a new line between ACEC Colburn and Hancock Substation.

Both alternatives include a new ACEC Colburn Substation that will be owned by ACEC. In the preferred option, ATC will own no assets at Colburn Substation.

The power flow analysis performed for the transmission solutions demonstrated that the addition of the proposed ACEC Colburn Substation and networking Y-302 at Badger West will not adversely impact the power flow performance of the transmission system. The performance was evaluated against North American Electric Reliability Corporation (NERC) Reliability TPL categories P0 through P7. No new limitations were found that required mitigation. The details of the analysis can be found in the BVP Report in **Appendix D, Exhibit 1.** The transmission solutions also will not negatively impact distribution performance in the area.

2.2.1 Proposed Solution

The preferred solution (Alternative 1) includes extending line Y-302 to the new ACEC Colburn Substation, extending a tap from Y-302 to Badger West Substation, adding breakers and a 138/69 kV transformer at Badger West. Please refer to the Project Diagram **(Appendix D, Exhibit 1)**.

No limitations during the contingency analysis were mitigated with this Project.

The preferred solution was determined to be the best value solution because it had lower cost and fewer impacts.

2.2.2 Viable Alternatives Considered

Alternative 2 includes extending line Y-302 to the new ACEC Colburn Substation, building a greenfield 69 kV line from Hancock Substation to the new Colburn Substation, expanding Hancock to include a new line terminal, and installing breakers on the line terminals at Colburn Substation.

No limitations during the contingency analysis were mitigated with this Alternative.

2.2.3 Discussion of Proposed Solution and Viable Alternatives Considered

The power flow analysis performed for the transmission solutions demonstrated that the addition of the proposed Colburn Substation and the networking of Y-302 at the Badger West Substation will not adversely impact power flow performance of the transmission system. The performance was evaluated against NERC Reliability TPL categories P0 through P7 for 69 kV and above. The details of the analysis can be found in Section 6 of the BVP Report attached in **Appendix D, Exhibit 1**. The transmission solutions will also improve distribution performance in the area. Appendix K of the BVP Report in **Appendix D, Exhibit 1** provides additional information regarding distribution benefits.

According to the Customer Engineering Assessment Report provided in Appendix K of the BVP Report in **Appendix D, Exhibit 1,** the existing load is served by Hancock Substation. The existing distribution infrastructure is not capable of serving the additional load proposed at the facility. ACEC requests a new transmission source closer to the customer facility to serve the load expansion and provide source diversity in the event of failure of a transmission element.

Of the two studied transmission solutions, the preferred solution was determined to be the best value solution because it had lower cost and fewer impacts.

2.3 Local Transmission, Distribution, and Distributed Resource Alternatives

2.3.1 Studied Alternatives

ATC did not study any other alternatives beyond the transmission solutions discussed in the previous sections. ACEC studied various distribution alternatives and found that serving the

additional load at a significant distance from the existing distribution substations was not feasible and did not address the issue of source diversity. Building a new distribution substation connecting to the transmission system was the only viable solution in their distribution study. Refer to Appendix K of the BVP Report in **Appendix D, Exhibit 1** for information regarding the distribution study.

2.3.2 Reasons for Rejecting Studied Alternatives

ACEC's distribution study indicated that a distribution solution was not adequate and that a new distribution substation connected to the transmission system was the only feasible solution to address the identified need. Of the two studied transmission solutions, the preferred solution was determined to be the best value solution because it had lower cost and fewer impacts.

2.4 Non-transmission Options

ACEC considered various distribution options. ACEC's distribution study included adding the new load at the end of the existing distribution facilities. The study showed that all distribution-only options were inadequate from a voltage and contingency perspective. ACEC's distribution study concluded that a new distribution substation connected to the transmission system was the only feasible solution.

Per the Customer Engineering Assessment Report provided in Appendix K of the BVP Report in **Appendix D, Exhibit 1**, there are no generation or non-transmission options available for this study area. Of the two studied transmission solutions, the preferred solution was determined to be the best value solution because it had lower cost and fewer impacts. ACEC determined that renewable and non-renewable resources by themselves are not considered feasible solutions to adequately serve the load in the area.

2.5 No-build Options

ACEC and ATC are required to serve load in their service territories. The "No-Build" option would not allow ACEC or ATC to serve their forecasted load reliably. Therefore the "No-Build" option is not a viable option.

2.6 Energy Conservation and Efficiency, and Demand Response

ATC is a transmission-only utility that is precluded from implementing energy conservation, efficiency, or demand response programs.

2.7 Market Efficiency Projects

The need for the proposed Project is not based on market efficiency. Therefore, a market efficiency study was not performed.

2.8 Modeling Information

Data files containing power flow modeling information are being provided separately. ATC used PSS®E (Version 34) for building the models and TARA for the power flow analysis included in the BVP Report. The modeling files are provided in PowerWorld format.

2.9 Area Load Information

General area load information, including discussion of the annual growth rates, is contained in Section 4.2 of the BVP Report (**Appendix D, Exhibit 1**).

2.10 Generation and Resource Retirements

There are no new generator additions or retirements in the area that affect the need drivers for the Project.

2.11 Regional Transmission Organization Information

ATC provides transmission service under the terms of the MISO Open Access Transmission and Energy Markets Tariff. The Project was approved in Appendix A in the Midwest Transmission Expansion Plan for 2023 (MTEP23, ID# 23913) and is classified as Other because of load growth. There is no cost sharing under the Tariff for this classification.

3.0 MAGNETIC FIELDS

Magnetic fields are present whenever current flows in a conductor and are not dependent on the voltage of the conductor. Magnetic field strength decreases with distance from the source. Magnetic field strength is a function of both the current on the conductor and the design of the system. The unit of measurement for magnetic fields is called Gauss. For lower levels normally associated with transmission lines, the unit used is milliGauss.

An electromagnetic field (EMF) study was completed to a minimum distance of 300 feet from the centerline of the proposed transmission line. The study was completed based on current and anticipated load flow for existing (Year 2024); one year post construction (Year 2027); and future, 10-years post-construction (Year 2036) conditions using the Power Line Systems Inc.'s PLS CADD software. The results are included in **Appendix G, Exhibit 1**, which includes reference maps and drawings showing typical configurations, current levels, and magnetic field estimates.

3.1 Magnetic Field Profiles

The EMF profile of the proposed transmission line within any route will vary depending on the presence or absence of existing transmission or distribution facilities, as well as other factors. The EMF Map in Appendix D of the EMF Report (**Appendix G**, **Exhibit 1**), provides the location of each typical facility configuration and its associated EMF profile. Corresponding figures and tables can be found in Appendix E and Appendix F of the EMF Report, which detail the existing and proposed magnetic field results within 300 feet of the proposed transmission centerline.

3.2 Magnetic Field Scenario

The tables provided in the EMF Report provide the estimated magnetic field levels at 80% and 100% of peak load for one- and ten-years post construction, out to 300 feet from the configuration centerline. As applicable, the tables have been modified to account for estimated present magnetic field levels for existing facilities.

3.3 Assumptions

Magnetic field modeling assumptions are provided on each of the figures included in the EMF Report. Each figure represents a typical condition that exists on the proposed alignment. Typical configurations were defined as any configuration, transmission, or distribution, more than 2,500 feet in length. Facilities whose configurations were less than 2,500 feet were assigned to the predominant configuration in the area. The figures identifying the facility configuration along the line segments contain the modeling assumptions including the conductor Phase ID and phase angles, a pole design diagram identifying conductor locations, the horizontal distance from the conductors to the poles, and the height of all conductors above ground at mid-span. Where underground electric lines exist, the assumed distance below

the ground surface is shown. The figures also provide the estimated current levels for the year of estimated in service and 10 years post construction.

3.4 Substations

Existing Substations

Magnetic field measurements were taken at the existing Badger West and ACEC Cottonville substations. The magnetic field readings are provided on diagrams of the substations included as Appendix B.1 (Badger West Substation), and Appendix B.2 (ACEC Cottonville Substation) of the EMF report (**Appendix G, Exhibit 1**).

New Substations

The ACEC Colburn Substation will be owned, constructed and permitted by ACEC. ATC's Project will end at the transmission line dead-end structure adjacent to the Colburn Substation.

Substations Associated with New Generation

There are no substations associated with new generation.

4.0 PROJECT COSTS

4.1 Transmission Route and Substation Costs

The following table provides the total cost estimate of each route alternative and substation site combination. The dollars are based on the projected in-service year. To align with Commission guidance, ATC presents these costs as a +10%/-30% estimate. ATC will continue, however, to minimize ratepayer impact by seeking to limit cost wherever possible.

TABLE FOR PROJECTS WITHOUT 345 kV

PROJECT COST CATEGORY	**Estimated Cost**
Y-302	
Material	$4,370,000
Labor	$13,203,000
Other	$6,457,000
Subtotal	$24,030,000
Badger West	
Material	$7,168,000
Labor	$8,380,000
Other	$46,000
Subtotal	$15,594,000
Precert	$1,666,000
TOTAL PROJECT COST	$41,290,000

*The estimated Project costs above do not include allowance for funds used during construction (AFUDC). ATC has received MTEP Appendix A approval from MISO for this Project, which allows for Construction Work in Progress (CWIP) in Rate Base treatment and no AFUDC costs. Contingency costs are included in the cost estimate for the Project.

An application for PSCW approval of a project is filed very early in a project's overall development timeline. Because of this, a contingency amount (20%) was applied generally across the board to all line items in the cost estimate for this Project. Once ATC receives approval from the PSCW, the detailed design phase of the Project begins and ATC can finalize

structure placement (if applicable), begin outage coordination, and finalize construction activities.

As the Project progresses through its timeline, the amount of contingency is reviewed and may be reduced as key activities are completed. For example, in the time in between preparing the estimates for a filing and the receipt of an order, commodity costs can fluctuate significantly. Once final engineering for the Project is completed and the steel is ordered, the amount of contingency is reduced. On the other hand, contingency costs for labor may be increased until outage availability is confirmed, and ATC is able to determine the appropriate level of necessary labor.

ATC has found that it is difficult to determine if/when contingency dollars may need to be used, and often, the contingency associated with one line item may not be necessary. However, contingency dollars greater than what was associated with other line items may exceed the budgeted amount. Thus, ATC initially applies an across-the-board amount to allow for flexibility throughout the Project.

4.2 345 kV Project

This sub-section does not apply to this Application.

5.0 ROUTING AND SITING INFORMATION

5.1 Routing and Siting Factors

The Project involves construction of new transmission lines and establishing new ROW. In addition to the siting priorities in Wis. Stat. § 1.12(6), other factors the Project team considered during the selection of the proposed centerline of the Project route were: circuit mileage, cost, construction duration, and environmental and residential impacts.

Following the routing priorities defined in Wis. Stat. § 1.12(6), the Project team reviewed options to route along existing road corridors, Badger Ave. and Bighorn Ave., to minimize the overall required ROW as the new ATC ROW will overlap with existing town road ROW. The Project team also reviewed the Project area to consider routing with existing utility infrastructure to connect the Project endpoints, however there is no existing transmission infrastructure between the endpoints and little to no other utility infrastructure that could be followed. Routing along Badger Ave. and Bighorn Ave. and sharing the road ROW corridor reduces the number of easements and ROW that need to be acquired. Reducing the required ROW reduces impacts on landowners, environmental impacts, cost, and construction access.

Environmental impacts and the overall segment lengths are very similar when comparing routes on the north and south sides of Badger Ave. and Bighorn Ave., so the Project team reviewed other routing and siting factors such as the number of residences within 300 feet, sensitive areas, and constructability to determine the Project route.

The south side of Badger Ave. was chosen for the Badger West to Y-302 Project route as it greatly reduces the number of residences within 300 feet. By routing on the south side of Badger Ave., the Project impacts 16 fewer residences within 300 feet versus routing on the north side of Badger Ave. The Badger Ave. Tap switch structure also is required to be outside of wet areas which is another contributing factor for routing on the south side of Badger Ave. A preferred tie-in location on the existing Y-302 line on Hwy 13 was identified south of Badger Ave. that will greatly reduce wetland impacts for construction of the new switch structure and safety grounding platform.

The south side of Bighorn Ave. was chosen for the ACEC Cottonville to Colburn section of the Project route as it reduces the number of residences within 300 feet and avoids a cemetery. By routing on the south side of Bighorn Ave., the Project impacts four fewer residences within 300 feet versus the north side of Bighorn Ave. A cemetery on the north side of Bighorn Ave. was identified and routing on the south side of Bighorn Ave. eliminates the transmission line routing adjacent to the cemetery and the need to obtain easements from the cemetery.

Substation

No new ATC substations are proposed for the Project. The ACEC Colburn Substation will be owned, constructed and permitted by ACEC. ATC's Project will end at the transmission line dead-end structure adjacent to the Colburn Substation.

5.2 Easements and Existing Utility Infrastructure

ATC will be acquiring all new easements for this Project for both new ROW and for select portions of the existing circuit where modifications are needed to account for the new facilities. ATC reviewed the existing easements for the overlap areas along the proposed route and determined that the existing easements are not sufficient to accommodate the new Project transmission line facilities. A sample easement is provided as **Appendix E, Exhibit 2**.

The easement width required for the new Project transmission line facilities is typically 80 feet. The existing easements do not provide for the necessary width (varying but generally smaller than 80 feet). ATC is seeking to overlap as much of these new ROWs as possible. Where necessary, new easements will be negotiated to account for changes in modernized language and easement width.

At Project completion, ATC will evaluate whether existing easements will be retained or can be released based on the specific provisions in each easement.

5.3 Route Segments

The Project routes have been broken into various segments to provide more detailed information about affected areas. Maps of the proposed segments are shown in **Appendix A, Figures 1-5**. Proposed length and ROW widths of each segment are shown in **Appendix B, Table 1**.

ATC performed preliminary engineering to develop structure types and configurations suitable to each section of line in each segment. The majority of the 69 kV single-circuit structures will be tubular steel monopoles and will have a weathering steel finish. Typical structure drawings are provided in **Appendix C, Figure 1**. Selection of structure types may be modified during final design. Segment characteristics are summarized in the following table:

Table 5.3.1-1 Route Characteristics

Segment	Structure Type	Transmission Configuration	Transmission Conductor	Span Length	Affected Existing Distribution	ROW Sharing
A1 *(0.03 miles)*	Weathering steel monopole typically 60' above ground line (AGL)	*69 kV* *Single-Circuit*	New TP 477 kcmil ACSR "Hawk"	*Approx. 170 feet*	No Local Distribution Company (LDC) facilities parallel or attached on the corridor or existing crossings to be altered	*None*
A2 *(4.91 miles)*	Weathering steel monopole typically 40' to 75' AGL	*69 kV* *Single-Circuit*	New TP 477 kcmil ACSR "Hawk"	Typically, 180 to 600 feet	No LDC facilities parallel or attached on the corridor or existing crossings to be altered	*ROW Sharing with Badger Ave.*
A3 *(0.11 miles)*	Weathering steel monopole typically 65' to 70' AGL	*69 kV* *Single-Circuit*	New TP 477 kcmil ACSR "Hawk"	Typically, 125 to 290 feet	No LDC facilities parallel or attached on the corridor or existing crossings to be altered	*ROW Sharing with Hwy 13*
A4 *(0.12 miles)*	Weathering steel monopole typically 55' to 65' AGL	*69 kV* *Single-Circuit*	New TP 477 kcmil ACSR "Hawk"	Typically, 320 to 350 feet	Approximately 0.2 miles of ACEC facilities will be relocated	*Existing ROW is Shared with Hwy 13*
B1 *(0.01 miles)*	Galvanized steel monopole typically 70' AGL	*69 kV* *Single-Circuit*	New TP 477 kcmil ACSR "Hawk"	*Approx. 70 feet*	No LDC facilities parallel or attached on the corridor or existing	*ROW Sharing with Bighorn Ave.*

					crossings to be altered	
B2 *(0.07 miles)*	Weathering steel monopole typically 60' AGL	*69 kV* *Single-Circuit*	New TP 477 kcmil ACSR "Hawk"	*Approx. 360 feet*	No LDC facilities parallel or attached on the corridor or existing crossings to be altered	*ROW Sharing with Bighorn Ave.*
B3 *(3.97 miles)*	Weathering steel monopole typically 65' to 90' AGL	*69 kV* *Single-Circuit*	New TP 477 kcmil ACSR "Hawk"	Typically, 275 to 580 feet	No LDC facilities parallel or attached on the corridor or existing crossings to be altered	*ROW Sharing with Bighorn Ave.*
B4 *(0.28 miles)*	Weathering steel monopole typically 65' to 70' AGL	*69 kV* *Single-Circuit*	New TP 477 kcmil ACSR "Hawk"	Typically, 210 to 420 feet	No LDC facilities parallel or attached on the corridor or existing crossings to be altered	*ROW Sharing with 7th Ave.*

5.4 Impact Tables

The following tables are included in **Appendix B**.

Table 1 – General Route Impacts

Table 2 – Land Cover

Table 3 – Federal, State, Local, and Tribal Lands

Table 4 – Distances of Schools, Daycare Centers, and Hospitals from ROW Centerline

Table 5 – Distances of Residential Buildings from ROW Centerline

Table 6 – Estimated Magnetic Field Data (Provided in Appendix G)

Table 7 – Route Impact Summary

In general, the information contained in **Appendix B**, **Tables 1 through 5, and Table 7** was developed from a combination of sources including available reference data, aerial photography, and field observations along the Project route. These sources were utilized to measure and calculate impacts using GIS software.

The reference data includes county tax parcel data obtained in 2024 and state managed lands information from the WDNR, roads and road width data from WisDOT, and sensitive receptor datasets from the Wisconsin Department of Public Instruction, Wisconsin Department of Health Services, and Homeland Infrastructure Foundation-Level Data. Aerial imagery sources include the National Agriculture Imagery Program (Accessed 2024), ESRI World Imagery and World Imagery basemaps, and Google Earth, Maps, and Street View (sourced from ©2024 Google and its data suppliers). As a supplement, aerial imagery from several recent dates were also viewed in Pictometry, a licensed imagery-based system that provides high resolution, two- or four-way oblique views of the ground surface.

Table 1 – General Route Impacts

The general ROW requirements and ROW sharing characteristics for the Project are presented in **Appendix B, Table 1**. The Project was broken into eight segments to facilitate analysis. The Route is approximately 9.8 miles in length, includes a total of 95 acres of ROW and contains segments A1 through A4 and B1 through B4. GIS software was used to determine lengths, and the new and shared ROW widths and areas.

The type and extent of existing ROW was determined from the following sources in conjunction with aerial photography and field observations:

- Utility Easement: Existing ATC owned utility easement widths were determined from review of easement agreements.

- Road: Within the Project area, parcel data did not define the extent of the local road ROW. The ROW width was estimated based on aerial photograph interpretation (e.g., fence lines, differences in vegetation) and immediately adjacent parcel data.

Proposed routes were designed to follow existing utility and transportation corridors to the extent practicable. Approximately 50% of the route occurs within existing utility and/or transportation corridors.

Table 2 – Land Cover

Land cover data was obtained in 2024 and reviewed along proposed routes. Additional land cover analysis was completed by review of aerial photography and field observations, where accessible. Field work along the route was completed April and May 2024. Land cover was

digitized using GIS software to quantify the area by category within the ROW of the route. The area of each identified land use was quantified using GIS software and the resulting acreages were summed by land cover category by segment for the route.

The results of this review, broken down by segment, are presented in **Appendix B, Table 2**. Land cover identified within the Project study area consisted of Crop Land, Grassland, Forested Upland, Forested Wetland and Non-Forested Wetland. For this table, land cover analysis of forested lands includes both forested and shrub lands per the Application Filing Requirements. A summary of land cover analysis results is provided in the table below.

Table 5.4-1 – Summary Land Cover Analysis Results

Land Cover	% of The Route
Crop Land	5.9%
Specialty Agriculture	0.0%
Grassland	32.5%
Forested Upland	34.9%
Forested Wetland	2.5%
Non-Forested Wetland	3.4%
Developed/Urban	20.8%

Table 3 –Federal, State, Local and Tribal

Wisconsin parcel data from the State Cartographers office (June 30, 2024) and PAD-US GIS 3.0 database were used to identify federal, state, local, and tribal lands along the Project ROW. Road ROW was not included in this evaluation. This information is provided in **Appendix B, Table 3**.

No tribal lands, American Indian reservations, or federally owned (or managed) lands are present along the Project ROW. Segment B3 crosses one small local property owned by the Town of Big Flats.

Table 4– Distances of Schools, Daycare Centers and Hospitals from ROW Centerline

The presence of sensitive receptors (schools, daycare centers, nursing homes, and hospitals) within 300 feet of the Project centerline were determined using GIS measurements and field verified to the extent practicable**.**

There are no schools, daycare centers, nursing homes or hospitals within 300 feet of the Project centerline. This information is provided in **Appendix B, Table 4**.

The following databases were used to identify these facilities:

- Locations of licensed family and group childcare centers were provided by the Wisconsin Department of Children and Families (downloaded on September 4, 2024, current as of July 22, 2022);
- Public and private school locations were provided by the Wisconsin Department of Public Instruction (downloaded on September 4, 2024, current as of January 22, 2024);
- Hospital locations were provided by the Wisconsin Department of Health Services (downloaded on September 4, 2024, current as of February 1, 2024); and
- Nursing Home locations were provided by the Wisconsin Department of Health Services (downloaded on September 4, 2024, current as of April 12, 2024).

Table 5 – Distances of Residential Buildings from ROW Centerline

Residential building types (homes and apartments) and the distance of these buildings from the centerline were determined using GIS measurements and field verified to the extent practicable. This information is provided in **Appendix B, Table 5**. Residential buildings were tallied according to five distance categories from the ROW centerline: 0–25 feet, 26–50 feet, 51–100 feet, 101–150 feet, and 151–300 feet.

There are zero apartment buildings within 300 feet of the Project centerline. There are 33 homes within 300 feet of the Project centerline. Homes within the five distance categories are summarized in the table below.

Table 5.4-2 – Distances of Residential Buildings from Route Centerline

Distance (feet)	The Route
0 - 25	0
26 - 50	1
51 - 100	3
101 - 150	11
151 - 300	18

Table 6 – Estimated Magnetic Field Data

Please see **Appendix B, Table 6** and **Appendix G, Exhibit 1**.

Table 7 – Route Impact Summary

This table presents a summary of impacts along the Project route including total route length and ROW acreage; upland and wetland acreage within the Project ROW; and residential buildings within 300 feet of the route centerline. This information is provided in **Appendix B,**

Table 7. No new analyses were performed; the data is a summary of the information in Tables 1-5.

5.5 Construction Impacts

5.5.1 Construction Sequence

Construction of an overhead transmission line requires several different activities at any given location. T-Line construction will start on Spread 1 and transition to Spread 2. There may be activities occurring on both spreads simultaneously such as foundations and vegetation clearing. Grading activities for the Badger West Substation expansion are planned to be completed in Q4 of 2025 to mitigate schedule risk with seasonal road restrictions in the spring. The substation construction schedule is built around the assembly and testing of the new 100 MVA transformer. Transformers are best assembled and tested outside of the winter months. Therefore, the Project will look to complete below grade work in the spring of 2026, once seasonal road restrictions are lifted, to support the delivery and assembly of the new transformer later in the summer of 2026. **Section 5.5.2** describes the major construction activities, approximate sequence, and anticipated impacts associated with each activity.

5.5.2 Construction Impacts by Phase

Surveying and staking of ROW

This activity will have minimal impact, typically completed by a two-person crew travelling by foot, ATV, or pick-up truck.

Installation of environmental exclusion fencing

Exclusion fencing may be installed in specific areas as mitigation to reduce impacts to specific species per permitting requirements. Where installed, the exclusion fencing will be inspected and repaired as necessary.

Clearing of ROW

To facilitate construction equipment access and ensure safe clearances between vegetation and the transmission line, all vegetation will be cleared for the full width of the ROW. Vegetation will be cut at or slightly above the ground surface using mechanized mowers, harvesters, or by hand. Root stocks will generally be left in place, except in areas where stump removal is necessary to facilitate the movement of construction vehicles or required by the landowner. Where permission of the landowner has been obtained, stumps of tall-growing species will be treated with an herbicide to discourage re-growth.

Temporary staging of poles and other materials along ROW

This activity will have minimal impact. Trucks, loaders, and cranes are needed to unload poles and other materials near each work location.

Installation of erosion control Best Management Practices (BMPs)

BMPs will be location specific and installed prior to all anticipated ground disturbance. Where unexpected ground disturbance occurs, BMPs will be installed immediately after the disturbance occurs.

Foundation installation and/or excavation for transmission structures

Excavation or drilling is required for all structures whether they are direct- embedded, or reinforced concrete foundations.

In general, the excavated holes for each type of foundation will range from three to 10 feet in diameter and may be nine to 30 feet in depth, or greater depending on soil conditions. The method of installation, diameter, and depth of the foundation will vary depending on the soil capability and structure loadings.

- For direct-embedded poles (no concrete foundation required), a hole is excavated to the appropriate depth. The base of the structure is placed into the excavated hole, and the area around the pole is backfilled with clean granular fill.
- For structures requiring a reinforced concrete foundation, a hole is drilled or excavated, and a rebar cage and anchor bolts are placed into the excavation. The excavation is then filled with concrete to a point where the rebar cage and anchor bolts are covered leaving a typical one to two foot reveal of the foundation above grade with exposed threaded anchor bolts. The complete caisson is allowed to cure.

Excess soils from excavations may be spread in the ROW in upland areas and stabilized or hauled to an offsite disposal location, depending on the setting and the property owner's requirements.

In areas where groundwater seeps into the excavation, or where water is needed to hold the hole during drilling, it may be necessary to dewater the excavation. Depending on site conditions, the water may be de-silted and discharged to an upland area where it is allowed to re-infiltrate, or removed from site via a tank truck.

Typical equipment for this phase of construction includes pick-up trucks, dump trucks, back hoes, drill rigs, cranes, vacuum trucks, tanker trucks and concrete trucks.

Structure setting

After the direct-embed base is set or the caisson is cured, the remainder of the steel pole structure (or sections) is mounted to the base. Typical equipment for this phase of construction are cranes, bucket trucks, pick-up trucks and dump trucks.

Wire stringing and clipping

After all the structures within a wire pull segment are set, the wires are pulled and clipped into place. This requires access to each structure with a bucket truck. Wire set up areas containing reel trailers, wire pullers, and related equipment are located at each end of the wire pull.

Cleanup and Restoration of ROW

Upon completion of construction, cleanup and site restoration is completed. This includes removing construction mats, and other material or debris from the ROW, and any necessary seedbed preparation and seeding. Typical equipment for these activities includes mat trucks, bobcats, pickup trucks and other light duty vehicles.

Transmission line construction will be confined to the ROW, off-ROW workspace/stringing areas, and the laydown and staging areas. ATC will utilize existing roads or ROW. Most disturbances will likely occur in the area immediately surrounding transmission line structures. In areas where access cannot be gained from existing roads, some disturbance from vehicular traffic may also occur. Disturbance at these areas may include clearing of vegetative cover, soil compaction, vehicular tracking, and some topsoil disturbance.

5.5.3 Unique Construction Methods

Alternate foundation types:

Vibratory caissons, an alternative foundation type other than direct embedding, is being considered for the structure foundations because of increased construction efficiency. This alternative foundation type also reduces spoils, can eliminate the need for gravel backfill, and the need for using culverts to hold holes open. Further investigation will be completed to determine if the soil types will allow for vibratory caissons to be used on the Project.

Vibratory caissons are installed by driving a galvanized H-shaped steel column or open ended, large diameter steel tube into the ground with a heavy vibrating hammer. After the caisson has been driven to the desired depth, the structure is attached to a welded or mechanically connected base plate on the caisson using bolts.

Directional Drilling:

Due to outage constraints and the operating mechanisms on the proposed switch structure, the Project will be installing an underground fiber optic cable for the Hwy 13 crossing. The underground fiber construction will require a permit from WisDOT and the design and

installation will follow all WisDOT requirements. Conduit to hold the fiber optic cable is planned to be directional drilled under Hwy 13.

5.5.4 Special Construction Methods

There are no other special construction methods other than any described in **Sections 5.5.3 or 5.5.5**.

5.5.5 Dewatering Methods

Dewatering may be required for the installation of some concrete foundations, directly embedded structures, or bore pits. Dewatering operations will meet the requirements described in WDNR Technical Standard 1061 – Dewatering Practices for Sediment Control. Dewatering BMPs such as discharging to an internally drained area, using temporary or portable settling basins/tanks, or using geotextile filtering practices may be used to reduce impacts from dewatering operations. If the selected BMP is not adequately removing sediment to meet the performance criteria, the dewatering operations will be stopped, and the treatment method altered before resuming to prevent impacts to regulatory water features or off-ROW areas.

5.6 Substation Construction Impacts

The existing Badger West Substation will be expanded to the west to create space for the new 69 kV network connection. Typical equipment anticipated to be used during construction includes, but is not limited to, pick-up trucks, UTVs, bulldozers, scrapers, loaders, trenchers, dump trucks, manlifts, backhoes, drill rigs, cranes, vacuum trucks, bucket trucks, concrete trucks, and related equipment.

In general, for all ATC substation construction activities, the excavated area for each structure will range from three to six feet in diameter and eight to 30 feet in depth. In addition to the concrete foundation impacts, the Project anticipates the need for grounding wells as part of the grounding design since drawings for the existing site show four 8” diameter x 350’ deep grounding wells are present on the site. Additional design is required to verify the need for additional ground wells, however the Project accounted for three new wells in the Project estimate. If the grounding analysis shows new ground wells are not required, the team will not construct additional ground wells.

Construction substation activities will occur at the Badger West Substation property. Access will occur via the already established entrance to the Badger West Substation and a temporary access that will be installed to the new expansion area from Badger Ave. Matting or temporary grading may be utilized for the temporary access off Badger Ave. Excess soils from excavations may be spread on the substation property in upland areas and stabilized or hauled to an approved offsite disposal location.

See **Section 5.9** for additional information on the substation scope.

5.7 Staging Areas and Temporary Work Space

ATC has identified five construction laydown areas for the Project. In limited cases, a smaller temporary workspace consisting of a matted work pad will be necessary just outside the ROW to facilitate conductor stringing operations. A site map depicting the proposed laydown areas is provided in **Appendix A, Figure 3**. Off-ROW stringing setup areas are depicted in **Appendix A, Figure 3.**

Laydown yard locations have been selected based on their proximity to the Project. When possible, preference was given to locations where either existing improved paved or gravel lots were present, or where active quarries and gravel pits had the necessary capacity to store equipment and personnel during various construction phases. The Badger West Substation (Laydown 1) has an improved gravel lot adjacent to the substation. Laydown yards 2, 3, and 4 are fallow grassland areas located in the corners of center pivot agricultural fields that are not planted along the route. Construction matting will be temporarily placed in Laydown yards 2, 3, and 4 to support construction use. Temporary impacts will be included with applicable stormwater and erosion control permit applications and appropriate erosion control BMPs will be installed as necessary. Laydown yard 5 is an inactive gravel quarry. Minimal improvements are anticipated for laydown yard 5 to use for construction.

Laydown Yard	Address	Description/Land Use
Badger West Substation (Laydown 1)	1739 Badger Ave, Monroe WI	Gravel lot
Laydown 2, 3, and 4	Bighorn Ave	Fallow Field
Gravel Quarry (Laydown 5)	N6102 6TH Dr, Plainfield WI	Quarry/gravel pit

If additional staging areas or temporary workspaces are required, ATC will notify the Commission of these new construction locations and will submit the necessary information to the PSCW prior to establishing any such areas in accordance with Wis. Admin. Code § PSC 112.073.

5.8 Off ROW Access Routes

At this time, off-ROW access is not proposed because the majority of the Project route parallels existing roads. Access will occur entirely from within the proposed or existing ATC ROWs.

If off-ROW routes are identified, ATC will complete an environmental review and submit the necessary information to the PSCW prior to establishing any such areas in accordance with Wis. Admin. Code § PSC 112.073.

5.9 Substation Site Information

5.9.1 Description, Diagrams, Graphics

The Project will expand the existing Badger West Substation by 193 feet to the west. The expansion will be fully graded to match the existing yard. A new stormwater pond will be created to the west of the site. One 100 MVA 138/69 kV transformer will be installed with concrete oil containment provisions. This transformer will connect to the existing 138 kV yard through a newly installed 138 kV circuit breaker. The newly created 69 kV yard will include an H-frame deadend and one 69 kV circuit breaker to serve as a new terminal for the 69 kV Y-302 line. The 69 kV yard will be rated for 2000 A. The existing 138 kV yard will have two 138 kV circuit breakers installed to sectionalize the existing 138 kV X-43 transmission line from Petenwell to Saratoga. The 138 kV yard will be rated for 2000 A.

Various disconnect switches and bus support steel will be installed as part of the substation construction. A new control enclosure will be installed with protective relay and communication panels to provide protection and communication for the new facilities in the substation. Cable trench will be added between the new control enclosure and the new yard facilities. Two existing wood pole static masts outside of the substation yard will be removed and replaced with steel poles as part of the new substation yard expansion.

The substation will be built as a typical low-profile using ATC and industry standard designs and with standard construction practices. The substation will be expanded into an area that was previously planned for expansion. The layout of the substation expansion and equipment will allow for a future 138 kV line terminal coming from the north.

The ACEC Colburn Substation will be owned, constructed and permitted by ACEC. ATC's Project will end at the transmission line dead-end structure adjacent to the Colburn Substation.

5.9.2 Associated Transmission and Distribution Line Work

A new 69 kV transmission circuit will be constructed and will connect to the newly expanded Badger West Substation. The new transmission circuit will also interconnect to existing facilities offsite. The transmission circuit will be single-circuit steel poles. An 80-foot ROW will be required for the newly constructed transmission line.

6.0 NATURAL RESOURCE IMPACTS

6.1 Forested Land

Forested lands were identified and reviewed using aerial photography and observations from fieldwork completed in 2024. Forested areas along the route were quantified as part of the land cover impact analysis (**Section 5.4**) and the resulting acreages are provided in the Land Cover table (**Appendix B, Table 2**). Forested lands are defined as an upland area of land covered with woody perennial plants reaching a mature height of at least six feet tall with definite crown (closure of at least 10%). For the purposes of the Application Filing Requirements, forested lands do not include narrow windbreaks located between agricultural areas but does include shrublands and forested riparian areas.

6.1.1 Impacted Woodlands

Forested lands were identified and reviewed using aerial photography and observations from fieldwork completed in 2024. Forested areas along the route were quantified as part of the land cover impact analysis (**Section 5.4**) and the resulting acreages are provided in the Land Cover table (**Appendix B, Table 2**). Impacts will occur as a result of vegetation clearing for the new ROW, with an average clearing width of 80 feet. The ROW will then be maintained for the life of the asset to ensure that the area remains free of woody vegetation incompatible with electric transmission lines. No woodland impacts are planned for off ROW access or outside the ROW.

Properties beyond the easement area, and within the appropriate buffers, will be evaluated for hazard tree risk and hazard tree easements will be obtained as needed. Hazard trees are defined as a tree that has been assessed and found to be likely to fail and cause an unacceptable degree of injury, damage, or disruption. Hazard trees pose a high or extreme risk. Hazard tree removal is sparse and selective in nature and does not result in a loss of forested land. Removal of hazard trees has not been included within this assessment as the impact is negligible.

The route contains approximately 35.49 acres of woodlands within the limits of the proposed 80-foot ROW. Dominant tree and shrub species generally consist of jack pine (*Pinus banksiana*), red pine (*Pinus resinosa*), red oak (*Quercus rubra*), pin oak (*Quercus palustris*), white pine (*Pinus strobus*), black cherry (*Prunus serotina*), trembling aspen (*Populus tremuloides*), American hazelnut (*Corylus americana*), choke cherry (*Prunus virginiana*), common serviceberry (*Amelanchier arborea*), and red cedar (*Juniperus virginiana*). Other species present consist of oaks, spruce, maples, willows, and honeysuckle. These species comprise a range of size classifications as determined during field surveys. These woodlands are within the private property of individual landowners. Some properties are enrolled in State conservation programs that may include areas managed for timber.

A summary of the forest types, amount of acres to be cleared, average size of trees, ownership, and use are shown in **Table 6.1.1-1** below by segment.

The following tree size classification system was used:

- Saplings refer to live trees from one to five inches diameter at breast height (dbh);
- Pole timber ranges from five to nine inches dbh (softwoods) and from five to 11 inches dbh (hardwoods);
- Saw timber is greater than nine inches dbh (softwoods) and greater than 11 inches dbh (hardwoods).

Table 6.1.1-1 Tree Clearing Summary

Segment	Type of Woods	Acres	Average Size of Trees	Dominant Species	Ownership / Use
A1	Forested Wetland	0.0	Saplings	Pin oak and jack pine	Public Road ROW, Private / Recreation, Utility
	Upland Forest	0.13			
A2	Forested Wetland	0.99	Pole Timber	Jack pine, white pine, red pine, pin oak, jack pine, red cedar, trembling aspen	Public Road ROW, Private / Recreation and Timber Production
	Upland Forest	19.84			
A3	Forested Wetland	0.09	Pole Timber	Jack pine	Public Road ROW, Private / Recreation
	Upland Forest	0.06			
A4	Forest Wetland	0.08	Pole Timber	Jack pine, white pine, white oak	Public Road ROW, Private / Recreation
	Upland Forest	0.14			
B1	Forested Wetland	0.0	-	-	-
	Upland Forest	0.0			

B2	Forested Wetland	0.63	Pole Timber	Jack pine, white pine, pin oak, red maple, river birch, black cherry, trembling aspen, swamp white oak	Public Road ROW, ATC ROW Private / Recreation
	Upland Forest	0.36			
B3	Forested Wetland	0.60	Pole Timber	Jack pine, trembling aspen, white pine, red maple, red oak, pin oak	Public Road ROW, Private / Recreation and Timber Production
	Upland Forest	12.55			
B4	Forested Wetland	0.0	Pole Timber	Jack pine, red oak, pin oak, white pine	Public Road ROW, ATC ROW Private / Recreation
	Upland Forest	0.01			
Badger West Substation Expansion	Forested Wetland	0.0	Pole Timber	Jack pine, trembling aspen, white pine, red oak, pin oak	Private / Utility
	Upland Forest	0.79			

6.1.2 Managed Forest Law and Forest Crop Law

ATC obtained information from the WDNR identifying quarter-quarter (40-acre) sections in which all or some portion of the land is enrolled in the Managed Forest Land (MFL) or the Forest Crop Law (FCL) programs. MFL properties exist along the route and are summarized below in **Table 6.1.2-1**. No FCL enrolled properties were identified along the route.

Table 6.1.2-1 MFL Parcel Table

Type	Segment	Order Number	Approximate Forested Clearing (acres)	Order Expiration Date	Location
MFL	A2	01-307-1999	1.99	December 31, 2048	T19-R05E-S02, Entire NW of the NW
MFL	A2	01-056-2023	2.87	December 31, 2047	T19-R05E-S03, Entire NE of the NE

MFL	A2	01-056-2023	3.17	December 31, 2047	T19-R05E-S03, Entire NW of the NE
MFL	A2	01-010-2017	2.84	December 31, 2066	T19-R05E-S03, Entire NE of the NW
MFL	A2	01-307-1999	1.82	December 31, 2048	T19-R05E-S01, Entire NE of the NE
MFL	A2	01-307-1999	1.91	December 31, 2048	T19-R05E-S01, Entire NW of the NE
MFL	A2	01-307-1999	1.18	December 31, 2048	T19-R05E-S01, Entire NE of the NW
MFL	A2	01-307-1999	1.54	December 31, 2048	T19-R05E-S01, Entire NW of the NW
MFL	A2	01-307-1999	2.28	December 31, 2048	T19-R05E-S02, Entire NE of the NE
MFL	A2	01-307-1999	1.03	December 31, 2048	T19-R05E-S02, Entire NW of the NE
MFL	A2	01-007-2017	1.46	December 31, 2041	T19-R06E-S05, Part of the NW of the NW
MFL	A2	01-318-1999	2.50	December 31, 2048	T19-R06E-S06, Part of the NE of the NE
MFL	A2	01-307-1999	2.53	December 31, 2048	T19-R06E-S06, Entire NW of the NE
MFL	A2	01-307-1999	1.87	December 31, 2048	T19-R06E-S06, Entire NE of the NW
MFL	A2	01-307-1999	1.26	December 31, 2048	T19-R06E-S06, Entire NW of the NW
MFL	B3	01-078-2005	2.34	December 31, 2029	T19-R06E-S16, Part of the NE of the NE
MFL	B3	01-026-2023	2.46	December 21, 2047	T19-R06E-S16, Entire NW of the NE

MFL	B3	01-058-2002	1.91	December 31, 2026	T19-R06E-S16, Part of the NE of the NW
MFL	B3	01-037-2018	1.56	December 31, 2042	T19-R06E-S13, Part of the NE of the NE
MFL	B3	01-002-2002	2.93	December 31, 2026	T19-R06E-S14, Entire NE of the NE

The full extent to which program participation may be affected cannot be determined based on the information available to ATC. If the proposed easement area does not encumber the forested areas on the parcel, there would be no impact to the program. During the easement negotiation process, conflicts between the terms and conditions of the MFL Program Agreement and ATC's proposed easement, if any, will be addressed. If any landowner would be unable to continue in the program, or if the level of participation is impacted, ATC will compensate the landowner as appropriate. Due to conflicts between transmission line easements and the obligations of the landowner under the terms and conditions of this program, the land in the easement area may have to be removed from the MFL program.

6.1.3 Mitigating Minimizing Construction Impacts In and Around Forested Lands

ATC will clear trees and brush for the full width of the ROW to facilitate construction equipment access and ensure safe clearances between vegetation and the transmission line. Vegetation will be cut at or slightly above the ground surface using mechanized mowers, sky trims, processors, harvesters, or by hand. Rootstocks will generally be left in place. Grubbing will not occur except for within the area of the Badger West Substation expansion. Where necessary to facilitate the movement of construction vehicles, stumps may be ground down to, or just below, the ground surface while leaving the majority of the root structure in place.

The cut and scatter method may be used during construction in some areas. The purpose of this method is to minimize the disturbance that may be caused by hauling cut vegetation out of the ROW.

Use of a forestry mower may result in woody vegetative debris scattered throughout the ROW. In wetlands or floodplains, care will be taken to ensure that woody debris does not prevent vegetative growth, alter the bottom elevation or hydrology. Mowed or chipped material from the Project may be used as mulch in upland areas to provide surface protection from erosion along access paths. Upon abandonment of access routes, mulch will be spread evenly so that it does not hinder revegetation. **Section 6.3** (Invasive Species) describes tree clearing timing restrictions and management procedures to prevent the spread of invasive species and disease-causing organisms.

Woody vegetation will be removed periodically through routine vegetation management activities throughout the operational life of the transmission asset.

6.2 Grasslands

6.2.1 Grasslands Impacted by the Project

Grasslands were identified and reviewed using aerial photography and observations from fieldwork completed in 2024. Grasslands are defined as upland areas covered by non-cultivated herbaceous vegetation.

Grassland areas along the Project route were quantified as part of the impact analysis (**Section 5.4**) and the resulting acreages are provided in the Land Cover table in **Appendix B, Table 2**. Grasslands identified along the route consist primarily of roadside and old fields no longer in agricultural production.

The route intersects approximately 30.86 acres of grassland. Dominant species generally consist of smooth brome (*Bromus inermis*), Kentucky bluegrass (*Poa pratensis*), spotted knapweed (*Centaurea stoebe*), Pennsylvania sedge (*Carex pensylvanica*), and little bluestem (Schizachyrium scoparium). Other species present include common mullein (*Verbascum thapsus*), red raspberry (*Rubus idaeus*), common dandelion (*Taraxacum officinale*), Canada goldenrod (Solidago canadensis), wild strawberry (*Fragaria virginiana*), and common cinquefoil (*Potentilla simplex*). These grasslands are within the private property of individual landowners or public road ROW.

Table 6.2.1-1 below summarizes grasslands within each Segment.

Table 6.2.1-1 Grassland Impacts Summary

Segment	Grassland Type	Dominant Species	Grassland Acreage	Ownership / Use
A1	Roadside, Old Field	Kentucky bluegrass, smooth brome, little bluestem, and spotted knapweed	0.02	Private / Recreation, Utility
A2	Roadside, Old Field, Lawn	Kentucky Bluegrass, smooth brome, little bluestem, spotted knapweed, Canada Goldenrod, Pennsylvania sedge, big bluestem, common cinquefoil, and wild strawberry	15.63	Private, Public Road ROW / Recreation, Non-Productive Agriculture

A3	Roadside	Kentucky Bluegrass, spotted knapweed, and smooth brome	0.29	Private, Public Road ROW / Recreation
A4	Roadside	Kentucky Bluegrass, spotted knapweed, and smooth brome	0.52	Private, Public Road ROW / Recreation
B1	Roadside	Kentucky Bluegrass, Smooth Brome, Canada Goldenrod, Pennsylvania sedge, little bluestem, spotted knapweed, common cinquefoil, wild strawberry, and common dandelion	0.02	Private / Recreation
B2	Roadside,	Kentucky bluegrass, smooth brome, common dandelion, spotted knapweed, and common mullein	0.67	Private, Public Road ROW / Recreation
B3	Roadside, Old Field, Lawn	Kentucky bluegrass, smooth brome, common dandelion, spotted knapweed, common mullein, and little bluestem	12.24	Private, Public Road ROW / Recreation, Non-Productive Agriculture
B4	Roadside, Old Field	Kentucky bluegrass, smooth brome, common dandelion, spotted knapweed, common mullein, common cinquefoil, and wild strawberry	1.45	Private, Public Road ROW / Recreation, Non-Productive Agriculture
Badger West Substation Expansion	Old Field	Kentucky bluegrass, smooth brome, little bluestem, and spotted knapweed	1.19	Private / Utility

6.2.2 Mitigating and Minimizing Construction Impacts In and Around Grasslands

BMPs to minimize construction impacts to grassland include the following:

- Erosion control BMPs will be used to reduce potential topsoil loss and stormwater runoff.
- Where grading is needed to provide a safe and level driving surface for equipment, the area of grading will be limited to the smallest extent possible.
- Timber construction matting may be used to reduce impacts to the ground surface.

- Sensitive grasslands with areas of native vegetation or sensitive species appear to be limited within this Project area. If sensitive grasslands are subsequently identified, attempts will be made to avoid or minimize access paths where possible.
- Once construction is completed, appropriate seed mixes will be used during restoration. See **Section 6.6** for more details regarding restoration.

BMPs to prevent the introduction and spread of invasive species in grasslands will be followed as described in **Section 6.3**.

6.3 Invasive Species

6.3.1 Invasive Species/Disease-Causing Organisms

The general location and composition of regulated invasive plant species present were documented during environmental field surveys completed during the 2024 growing season. The invasive species information collected is considered preliminary, as surveys performed to date were limited to the public ROW and where access was granted by existing utility easements or private landowners. Prior to the start of construction, supplemental environmental field surveys will be performed, to the extent practicable, to gather more comprehensive documentation of invasive species presence along the Project corridor to better inform construction BMPs.

Regulated invasive plant species were commonly observed along all segments and are typical of roadsides, agricultural and developed areas. It is assumed these species are present within Project areas that were not accessible at the time of field survey. Overall, three invasive plant species were noted. All species fall into the "Restricted" category of Wis. Admin. Code ch. NR 40. The observed species are listed in **Table 6.3.1-1** below.

Table 6.3.1-1 Invasive Species

Invasive Species	
Species observed	**NR 40 Status**
Tartarian honeysuckle (Lonicera tatarica)	Restricted
Spotted knapweed (Centaurea stoebe)	Restricted
Canada thistle (Cirsium arvense)	Restricted

The Project's location in Adams County is within the established state distribution of oak wilt disease (Bretziella fagacearum) and Heterobasidion root disease (Heterobasidion irregulare). The Project's location is also within a quarantine county for emerald ash borer (Agrilus planipennise) and spongy moth (Lymantria dispar).

6.3.2 Mitigation Methods

BMPs will be used to comply with Wis. Admin. Code ch. NR 40 and Commission requirements. These BMPs are considered reasonable precautions to prevent the transport, introduction, possession or transfer of invasive species.

General BMPs that may be used during construction are presented below. Any site-specific or species-specific BMPs implemented for the Project will be developed after more detailed documentation of invasive species presence is collected.

- Avoid accessing through populations where possible;
- Minimizing ground disturbance;
- Placing a barrier between construction vehicles and plants (i.e., construction matting);
- Removing soil and plant parts from construction vehicles and matting;
- Proper storage and disposal of plant materials;
- Promoting native regeneration; and
- Leaving cut vegetation on site where it is cut (i.e., mowing shrubs)

To minimize the spread of oak wilt, ATC will avoid cutting or pruning oak trees during the restricted times outlined in Wis. Admin. Code § PSC 113.051 (April 15 – July 1).

Standard practices to minimize the spread of emerald ash borer and spongy moth will be followed including avoiding the movement of ash wood from emerald ash borer quarantine areas to non-quarantine areas as per Wis. Admin. Code § ATCP 21.17 and avoiding movement of wood from spongy moth quarantine areas to non-quarantine areas as per Wis. Admin. Code § ATCP 21.10. If cut vegetation cannot be left on-site, alternative plans will be developed to meet the requirements.

ATC will incorporate WDNR Guidelines for Stump Treatment to Reduce the Risk of Introduction and Spread of Heterobasidion Root Disease into the vegetation management plan.

6.4 Archaeological and Historic Resources

6.4.1 Sites within the APE

Pursuant to Wis. Stat. § 44.40, Stantec, ATC's consultant, conducted an archival and literature review concerning known historic architecture, archaeological sites, and human burials/cemeteries with the potential to be impacted by the proposed Project. To assess potential cultural resource impacts, Stantec staff examined the National Register of Historic Places (NRHP), inventories contained in the Wisconsin Historic Preservation Database (WHPD),

environmental data, archival documents, and reports concerning prior archaeological investigations.

Stantec staff considered separate areas of potential effect (APEs) for archaeology and historic architecture. The proposed Project's archaeological area of potential effect (APE) consists of all physical locations where Project-related ground disturbance could occur, while lands lying within a quarter mile of existing transmission line centerlines and a half mile from new, proposed centerlines comprise the historic architecture APE. Maps identifying these APEs and the location and description of all known resources within them are included in **Appendix F, Exhibit 2**.

6.4.2 Boundaries, Historic Significance, and Integrity

Review of the WHPD yielded negative results for known archaeological sites and/or structures within the Project's APEs, while one Euro-American cemetery was identified within the Project's historic architecture APE. Known as the Niebull Cemetery, this resource has not been evaluated previously for its historic significance or integrity, but evidence suggests it is a typical example of a rural, Euro-American cemetery in Wisconsin. As a typical example of a relatively common cultural resource without ties to persons or events significant to history, it is possible that the Niebull Cemetery lacks the significance necessary for listing in the National Register of Historic Places (NRHP).

6.4.3 Potential Project Impacts

The Niebull Cemetery is located on the north side of Bighorn Avenue, across the road from the Project route, therefore no direct impacts are anticipated. The Project has the potential to result in visual impacts to the cemetery. Project-related activities south of Bighorn Avenue will include vegetation management within the proposed transmission line ROW and structure installation, both of which have the potential to alter the viewshed of the Niebull Cemetery. While the Project has the potential to result in visual impacts to the Niebull Cemetery, it is Stantec's position that these effects will not be considered adverse as the cemetery has a low likelihood to be eligible for listing in the NRHP.

6.4.4 Project Mitigation Measures

Current Project plans avoid ground disturbing impacts to known cultural resources, with minimal visual impacts to one likely NRHP-ineligible architecture history resource. As the Project has been designed to avoid impacts to known resources with the potential to be listed in the NRHP, it is not expected that further mitigation measures will be necessary. ATC will continue to seek opportunities to avoid or minimize impacts to cultural resources, to the extent practicable, through engineering and construction planning and implementation measures.

In addition, all Project crew members will receive specific training prior to the start of construction. This training will include directions for avoidance and/or minimization of impacts to cultural resources if needed and plans to address any unanticipated archaeological discoveries. Routine environmental construction monitoring, to be conducted throughout the course of Project implementation, will document Project activities in the vicinity of cultural resources and help to identify and avoid potential issues in the field.

6.4.5 Burial Site Disturbance

While there is one cemetery located within the Project's historic architecture APE, it is located across Bighorn Avenue from the Project and current plans do not indicate that this resource will be impacted by Project-related ground disturbance, therefore the Project does not require Burial Site Disturbance Authorization/Permitting.

6.4.6 Unanticipated Archaeological Discoveries

An Unanticipated Archaeological Discoveries Plan is provided as **Appendix F, Exhibit 1**. Prior to start of construction, all crew members will receive Project specific training that includes direction for avoidance and/or minimization of impacts to cultural resources as well as plans to address any unanticipated archaeological discovery.

6.4.7 Native American Human Burial Sites

No Native American human burials or significant archaeological sites are mapped within the Project's archeological APE.

6.5 Conservation Easements

The Project crosses 13 properties, in two sets of contiguous areas along Segment A2, with known conservation easements. The parcels are all under single ownership (Sand Valley Restoration Fund LLC) and are part of the MFL and Forest Legacy Program (Central Sands Forest Legacy Area), with the WDNR holding the easements. These lands were identified based on a review of conservation easement data available from the National Conservation Easement Database, Protected Areas Database of the United States, The Nature Conservancy Lands, the Wisconsin Department of Natural Resources and the Wisconsin Department of Agriculture Natural Resources Conservation Service Easements.

The title search information has not been completed for the Project. Upon receipt of a PSCW Final Decision, title searches will be completed. If additional information regarding conservation easements is discovered during the easement acquisition process, ATC will work with the landowner to accommodate the existing agreement or make them whole.

6.6 Restoration

6.6.1 Type of Re-vegetation Proposed for Impacted Areas

Site restoration, including re-vegetation where necessary, will be completed as soon as practicable upon completion of construction. The need for and approach to site restoration and re-vegetation will be based on the degree of disturbance caused by construction activities and the ecological setting of each location. In areas where seed is needed to facilitate re-vegetation, the seed mix used will be appropriate to the surrounding area (and similar to pre-construction conditions), and the seed bed will be adequately prepared to ensure successful germination. Seed mixes will not contain invasive species. The decision to install a temporary cover crop and/or permanent seed mixes will be a field decision made by the Environmental Monitor, based on items such as level of disturbance and erosion potential. Preliminary proposed Project seed mixes are included in **Appendix F, Exhibit 4**. Species substitutions and rate adjustments to the seed mixes may be made on a case-by-case basis. The species components of individual mixes are subject to availability at the time of purchase.

In some cases, re-growth of vegetation in disturbed areas may occur without supplemental seeding. In cases where there is no sign of re-growth of pre-existing vegetation in the first month of the subsequent growing season, an assessment will be made and, if necessary, an appropriate seed mix will be properly applied. In general, upland areas that are graded or cleared of woody vegetation will be seeded following construction. For wetland areas, open water communities will not be seeded and shallow marsh communities will only be seeded where there is no standing water at the time of seed installation. The remaining upland and wetland areas are anticipated to revegetate naturally. Additionally, permanent seed will not be installed within agricultural areas that may be impacted by the Project, unless requested by the landowner. The sites that are seeded will be monitored to track seed germination and plant growth.

6.6.2 Vegetative Monitoring Criteria

Throughout Project implementation, inspections will be conducted on a routine basis to monitor disturbance to soils and vegetation and track the need for re-vegetation and restoration activities in accordance with Wis. Admin. Code Ch. NR 216 and the Wisconsin Pollution Discharge Elimination System (WPDES) general permit conditions. Documentation of inspections describing the re-vegetation progress and corrective measures taken will be maintained where applicable. Upon completion of restoration, ATC will continue monitoring each work location and access route to ensure stabilization and re-vegetation occurs. If regulated by Wis. Admin. Code ch. NR 151, monitoring will continue until vegetative cover reaches 70%. If required by the WDNR Utility Permit, additional monitoring of wetland vegetation will be completed.

6.6.3 Invasive Species Monitoring and Management

The invasive species located along the Project ROW and the BMPs to avoid the spread of invasive species are discussed in **Section 6.3**. Prior to construction, ATC will identify locations where BMPs will be implemented to avoid the spread of invasive species to comply with the requirements of Wis. Admin. Code ch. NR 40.

6.7 Contaminated Sites

6.7.1 Wisconsin Remediation and Redevelopment Database Sites

Contaminated sites were identified using the Wisconsin Remediation and Redevelopment Database (WRRD), http://dnr.wi.gov/topic/Brownfields/WRRD.html. The presence of contaminated sites within two miles of the Project area were determined using GIS measurements. There are no WRRD sites within the proposed Project area. The Route does include 16 WRRD closed sites and no open sites within two miles of the Project area. This information is provided in **Appendix F, Table 3.**

6.7.2 Waste disposal Sites

Waste disposal Sites were identified using the Historic Registry of Waste Disposal Sites, http://dnr.wi.gov/topic/Landfills/registry.html. The presence of waste disposal sites within two miles of the Project area were determined using GIS measurements. There are no Historic Registry of Waste Disposal Site sites within the proposed Project area, but there is one site within two miles of the Project area. This information is provided in **Appendix F, Table 3.**

6.8 Floodplains

6.8.1 Identify work occurring in floodplains

There are two floodplains crossed by the Project, Big Roche A Cri Creek and Dead Horse Creek. Project work proposed to occur within the mapped 100-year FEMA floodplain includes vegetation clearing, structure installation, placement of construction matting to facilitate vehicle access, and other construction activities as described in **Section 5.5**. Permanent fill in floodplains will be limited to the footprint of the new poles and reduction in flood storage will be negligible. Based on preliminary design assumptions, the route will have one new structure and one replacement structure located in floodplain. Floodplains along the route are displayed on **Appendix A, Figure 2**.

6.8.2 Discuss if impacts to the floodplain have been evaluated and how impacts to the floodplain will be avoided or minimized

The Project will avoid or minimize floodplain impacts to the extent practicable. Permanent impacts will be minimized through the engineering design of the Project. When construction activities are complete, matting will be removed, and the ground surface will be restored to pre-existing conditions.

6.8.3 Local Floodplain Ordinances

No discussions have occurred with the floodplain zoning authority to date. However, as described in **Section 7.1**, Project notification was sent to county and local officials and ATC representatives met with several local officials.

As described in **Section 1.7.3**, ATC will apply for a floodplain permit if required.

7.0 COMMMUNITY IMPACTS

7.1 Communication with Potentially Affected Public

In October 2024 ATC sent Project notification mailings to landowners within 300 feet of the proposed centerline as well as to state, county and municipal local officials and staff. Direct communication with these landowners and elected officials took place through the pre-Application filing Project notification mailing (a copy is provided as **Appendix E, Exhibit 1**) In addition, a Project web page (atc-projects.com/adamscountydic) is available that provides additional resources, including a Project map, FAQs, direct contact information for Project representatives, and PSCW docket information.

Finally, pre-Application filing phone calls/conversations, one-on-one meetings and presentations were made to local officials to keep them informed and prepared for any constituent inquiries.

7.2 Community Issues

Based upon ATC's outreach, ATC is not aware of any specific community issues. However, ATC will continue to monitor concerns throughout Project development and respond accordingly. ATC anticipates that the issues, if raised, will largely relate to easement acquisition, construction traffic, property access and restoration. ATC will work with stakeholders to address and minimize the impacts of these issues.

7.3 Land Use Plans

Existing land use plans are provided in **Appendix A, Figure 6.**

7.4 Agriculture

7.4.1 Type of Farming

The primary farming practice along the Project is non-specialty row crops; generally, corn, potato and wheat/rye crops. The amount and type of agricultural land use along the proposed route, by route segment, is detailed in **Appendix B, Table 2**. No specialty agricultural land use is present along the proposed route. The total agricultural land use along the route is 5.58 acres or approximately 6% of the proposed ROW.

7.4.2 Agricultural Practices affected by Farming

Approximately 5.58 acres of the Project route contain lands that are currently under a form of agricultural production. Cropland is the only agricultural practice that will be affected by the Project as no specialty agriculture has been identified within either Project Route ROW. Due to

agricultural BMPs of crop rotation, fallow years, and the planting of non-harvested cover crops, the type of crop affected is unknown at this time.

There are two known landowners with center pivot systems and ATC will work with the landowners to mitigate any impacts. If additional center pivot systems are determined to be affected by placement of structures, ATC will work with landowners to mitigate impacts. Drainage tile may be present but has not been confirmed. Temporary impacts during construction may include crop loss, soil compaction, and damages to drain tiles. ATC will work with landowners to address drain tile concerns throughout construction planning and implementation.

The only permanent impact to agriculture will occur as a result of transmission structures proposed to be installed within agricultural fields along the Project route. Impacts from construction will be minimized through mitigation measures presented in **Section 7.4.4.**

7.4.3 Farmland Preservation Program

Landowners with farmland that is located within an area zoned for farmland preservation can voluntarily participate in the Farmland Preservation Program (FPP) or landowners located in other zoning districts may have existing FPP agreements with DATCP.

DATCP indicates that six parcels along segments A1 and A2, ranging in size from 9.5 acres to 40.2 acres, are located within Farmland Preservation Plan Areas. Two parcels adjacent to segment B4 are within the A-1 Exclusive Agricultural Zoning District, and are also within Farmland Preservation Plan Areas, but they do not intersect the Project ROW.

7.4.4 Mitigation of Construction Impacts – Agricultural Lands

As standard practice, ATC seeks to minimize construction impacts on agricultural lands. ATC will minimize impacts to agricultural lands through careful consideration of agricultural impacts during the routing and siting process and through the use of carefully planned construction access routes, timber matting for vehicle/equipment access and work pads to distribute equipment loads over a larger surface area and minimize compaction of soils. ATC will work with landowners through the design process to locate structures such that impacts to drain tiles are avoided or minimized to the extent practicable. Following construction, ATC will work with landowners to restore agricultural lands to pre-existing conditions through soil de-compaction, repair of drain tile if necessary, and appropriate compensation for any loss in productivity. ATC, if necessary, will hire an experienced Agricultural Specialist to work with farmers through negotiations, construction, and restoration.

Upon receipt of a Final Decision, ATC will coordinate with each agricultural landowner regarding farm operation, locations of farm animals and crops, current farm biological security practices, landowner concerns, and coordination of construction access routes.

7.4.5 Drainage Districts

There are no drainage districts which impact this Project.

7.4.6 Agricultural Impact Statement (AIS) Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP)

Per Wis. Stat. § 32.035(2), electric transmission lines that carry less than 100 kV are not subject to the AIS requirements.

7.4.7 Neutral-to-Earth (NEV) and Induced Voltage

No confined dairy operations are located within one-half mile of the Project route.

ATC has identified one agricultural building within 300 feet of the Project route, along segment A2. This building is identified within **Appendix A, Figure 5**.

ATC does not plan to complete any scope of work to account for neutral to earth or induced voltage concerns since no confined dairy operations are located within one-half mile of the Project route.

7.5 Residential and Urban Areas

There are 33 homes located within 300 feet of the Project centerline; one of these existing residences are located within the Project ROW in Segment B3 as shown in **Appendix B, Table 7**.

Anticipated impacts to residences and the planned mitigation are described below:

Noise

A majority of the proposed transmission line is located in non-residential areas. The equipment noise levels of the laydown yards will be consistent with local truck traffic and equipment. The construction noise levels along the transmission line route including the substation sites will be equivalent to highway traffic and truck equipment throughout the remaining Project route.

Noise will be intermittent and not out of the ordinary for general truck traffic. Most truck and equipment noise will be from 7:00 am to 6:00 pm, Monday through Friday. Most trucks will leave the designated laydown yards each day during this time.

When undertaking construction activities around residences, ATC and its contractor will be cognizant of the residents and will limit work hours in that area, specifically during the early morning hours.

Dust

ATC and its contractor will be performing drilling operations for the installation of the transmission structures, and will not be creating large spoil piles in relation to this work. Dust impacts will be minimized in residential areas. In addition, ATC and its contractors will clean up daily any dirt or mud that may be tracked onto private driveways, access roads, local roads or the highway.

Duration of Construction

Construction is anticipated to begin in November 2025 and end in December 2026. Restoration efforts may continue into the middle of 2027.

Time-of-Day Construction

Construction work will generally occur Monday through Friday during daylight hours. Weekend work is also a possibility. No night work is anticipated at this time.

Road Congestion

Construction vehicles will use public roads to access the ATC ROW. The proposed route parallels local roads so there will be occasions when construction vehicles are parked on roads during construction. ATC will minimize the number and amount of time vehicles are parked on the roads. All current traffic control measures will be adhered to while equipment is on a public roadway.

There is one highway crossing on the Project. The Hwy 13 crossing has been designed as a dead end to dead end span to limit the impact on highway traffic during construction. ATC will coordinate with WisDOT for a short closure of Hwy 13 so conductors can be pulled between the two dead end structures.

Impacts to Driveways

The only driveways ATC and its contractors anticipate using are driveways on which ATC receives specific landowner permission to travel or park equipment. ATC will ensure residence driveways are not blocked with equipment.

The proposed route crosses multiple residential driveways. Arrangements will be made with individuals to close driveways, provide guard structures, or to provide spotters during wire pulling operations to ensure public safety.

7.6 Aesthetic Impacts

No photos simulations were requested by Commission Staff. No scenic roads were identified in the Project area.

No scenic roads were identified in the Project area.

7.7 Parks and Recreation Areas

The route parallels one public recreation area, identified in the Protected Areas Database of the US (PAD-US) 3.0. The Monroe Prairie Recreation area is located to the north of Segment A2 along Badger Ave. Parcel data within the Monroe Prairie Recreation areas shows it is privately owned by Woodland Dunnes LLC and multiple other private individuals. The recreation area has a small gravel parking lot for All-Terrain Vehicle (ATV) trails on the north side of Badger Ave.

Multiple ATV and snowmobile trails intersect the Project route. Two ATV trails that cross Badger Ave. are intersected by Segment A2. One snowmobile trail maintained by the Rome Sno-Bandits is intersected by Segment A2. One snowmobile trail maintained by Jack Pine Savages is intersected by Segment B1.

Section 7.1 describes communication with the landowners of these recreational facilities.

ATC will avoid and minimize impacts to the ATC and snowmobile trails through the following:

- Minimize access routes that overlap with trails whenever possible.
- Develop safety plans that include signage, spotters, and/or flaggers to keep the public out of the construction zone until it is safe for them to cross through the zone.
- Installing signage and cones where matting will be placed on or near trails.
- Installing transitions at the edge of matting so there are no hard/steep edges.
- Attempting to contact local ATV/Snowmobile clubs to notify them of work to discuss possible trail closures or detours and inform riders of the construction activities.

7.8 Airports

7.8.1 Location of Private and Public Airstrips

No airports are present within five miles of the Project route. The closest airport to the Project route is Jennie's Field (WI13), a private airport in the Town of Saratoga, Wood County, approximately 6.9 miles north of segment A2.

7.8.2 Description of Airports

No airports are present within five miles of the Project route.

7.8.3 Impact to Aircraft Safety

A preliminary evaluation of structure heights was completed in July 2024 based on the Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace. This is a high-level evaluation that identifies where structures are close to an FAA listed airport, and whether the structures would obstruct navigable airspace and prove hazardous for the flight of aircraft landing or taking off at the airport. This evaluation considered all currently planned structures along the proposed alignment.

ATC consultant, ECI, used the FAA Notice Criteria Tool to check all proposed structure locations to verify if any will require filing with the FAA. The FAA Notice Criteria Tool returned a "No Hazard" result for all structures. Based on the FAA results, no structure is anticipated to be hazardous to air navigation.

7.8.4 Potential Construction Limitations and Permit Issues

An evaluation of preliminary structure heights was completed in July 2024 using the Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace. The aeronautical study revealed that the structures, as currently designed, do not exceed obstruction standards and would not be a hazard to air navigation. Documentation of the FAA Notice Criteria Tool checks along with a summary of checks performed and results are included in **Appendix H, Exhibit 1**.

7.8.5 FAA Documentation

Results of the FAA Notice Criteria Tool are provided in **Appendix H, Exhibit 1**.

7.9 Communication Towers

7.9.1 Communication Interference

A preliminary Communication Interference Impact Study Report was performed for the proposed line route and has been provided in **Appendix D, Exhibit 2**. The Federal Communications Commission (FCC) database was queried to identify and locate all licensees and others within 10 kM of the new 69 kV power line ROW that may experience power line noise interference after the new transmission line has been constructed and energized. The following communications were identified in the report: microwave service towers and antenna structure registration.

Other communication facilities susceptible to transmission line noise interference but not listed in the FCC licensee database may exist. These include licensed private Amateur Radio stations, unlicensed Amateur Radio Repeater stations, National Radio Astronomy Observatories and various other National Telecommunications and Information Administration (NTIA) government regulated radio systems. These types of communication facilities are described below.

For any issues determined during detailed design, further analysis will be conducted to determine the scope of interference, if any, and the associated mitigation option.

Amateur Radio Stations – The American Radio Relay League (ARRL) represents all privately owned licensed Amateur Radio stations and have an arrangement with the FCC to include these stations in the FCC database. Even though no Amateur radio stations may appear on the FCC licensee list, there may still be licensed Amateur radio stations located within the study area because of the licensee's ability to relocate without notifying the FCC.

Amateur Radio Repeater Stations – These stations operate in an unlicensed status; therefore, they will not appear in the FCC database and are not considered in this study.

National Radio Astronomy Observatories – A separate query of the NTIA database shows no observatories operating in the study area. The nearest observatories are located in Virginia and New Mexico, well outside the study area.

Microwave Radio Stations – All microwave antennas emit a unidirectional polarized signal which can be obstructed when man-made objects, such as steel poles, are placed within 0.6F1 (1st Fresnel zone) of the parabolic antenna's cone of radiation. Other factors that are also considered to determine if microwave tower reliability will be affected include the diameter of the transmission line pole, pole height, microwave antenna height above ground level, and distance from the communication tower to the transmission line pole (Fraunhofer region). Microwave signals are not affected by transmission line conductors. During detailed engineering a situational analysis can be completed to determine if any transmission line pole obstructions exist. If obstructions do exist there are several ways to remedy the issue. Remedies include: 1.) Remounting the microwave antenna elsewhere on the communication tower, if possible, to reestablish line of sight clearance to the far end communication tower (note: FCC license modification is required when raising a microwave antenna more than five feet above its licensed height on the tower); 2.) Relocating the transmission line pole. During inspection no microwave facilities were found near the proposed line which would need modification at this time, and network engineers would plan new facilities to avoid the power line.

7.9.2 GIS Location Information

To determine the types of communication towers adjacent to the proposed transmission line routes, a research of available FCC databases was conducted and all communication towers within a 10 km distance were determined. A location map showing all facilities within the 10 km range and accompanying tables which indicate facility type, owner, location, and distance to the proposed routes can be found in **Appendix D, Exhibit 2**.

7.10 Community Income

This section is not applicable to the Project because the proposed facilities are designed for operation at less than 345 kV.

8.0 WATERWAY/WETLAND PERMITTING ACTIVITIES

8.1 Waterway Activities

Waterways were identified within the Project area through a combination of wetland determination field investigations and review of multiple years of high-resolution aerial imagery, topographic data, and existing hydrologic data sets (WDNR 24K Hydrography layer). Field investigators and geospatial analysts used their best professional judgement to identify waterway routes and ordinary high-water mark (OHWM) widths. A summary of all waterways intersecting the proposed route and laydown yards is provided in **Appendix F, Table 2**, with additional details provided in the Wetland Delineation Report (**Appendix F, Exhibit 5)**.

8.1.1 Waterways Present

The proposed route intersects a total of four waterways; two named perennial waterways (Big Roche A Cri Creek and Dead Horse Creek), and two unnamed waterways (one intermittent stream (WBIC 5023134) and one perennial stream (WBIC 5023461)). These waterways were identified through a combination of field observations and aerial reviews. Additional information about each waterway can be found in **Appendix F, Table 2**. As described in **Section 8.1.4**, no waterway crossings are required for Project construction.

8.1.2 Waterway Special Classifications

The Big Roche A Cri Creek is classified as a Class II Trout Stream. The Big Roche A Cri Creek generally flows southwest before eventually flowing into the Wisconsin River. This segment of Big Roche A Cri Creek is classified as a cool-warm mainstem and headwater having fair general conditions.

Waterways designated as Exceptional or Outstanding Resource Waters and Wild and Scenic Rivers are not present along the route.

8.1.3 Navigability Determination Request

A Navigability Determination Request will not be submitted to WDNR for these waterways. All waterways are assumed to be jurisdictional.

8.1.4 Waterway Impacts

8.1.4.1

Project construction plans will avoid vehicle/equipment crossing of waterways. No temporary clear span bridges (TCSBs) are proposed for the Project.

8.1.4.2

No structures are proposed to be placed below the OHWM of a waterway.

8.1.4.3

No waterway activities regulated under Wis. Stat. Chapter 30 are anticipated.

8.1.4.4

No waterways will be crossed using underground installation methods.

8.1.5 Mitigating Construction Impacts – Waterway Crossings

Stream crossings have been avoided by accessing the ROW on either side of the stream, from adjacent roads, or by use of existing bridges, culverted drives, or existing ford crossings. No culverts or permanent bridges are proposed.

Appropriate erosion control measures will be installed and maintained where soil disturbance occurs near waterways until construction disturbances are restored and conditions are permanently stabilized. Other mitigation methods including invasive species prevention (**Section 6.3**) and re-vegetation and restoration plans (**Section 6.6**) will be employed during construction to further reduce potential impacts to waterways.

8.1.6 Open-cut Trenching in Waterways

No waterways will be open-cut trenched for the Project. No direct impacts to waterways or work below the OHWM is proposed.

8.1.7 Directional Boring in Waterways

No waterways will be directionally bored for the Project. No direct impacts to waterways or work below the OHWM is proposed.

8.1.8 TCSB Installation and Removal

No waterways will be crossed by a TCSB for the Project. No direct impacts to waterways or work below the OHWM is proposed.

8.1.9 Vegetation Management – Waterway Crossings

ATC's typical vegetation management practice near waterways is to selectively remove incompatible vegetation within waterway buffers (typically 35 feet) and will leave the existing herbaceous vegetation largely intact. Vegetation management occurs primarily above the ground surface and will not impact root structures within waterway buffers. Once the Project is

complete and banks restored, herbaceous vegetation and low growing shrubs will be allowed to revegetate. The ROW will then be maintained for the life of the asset via routine vegetation management practices to ensure that the area remains free of incompatible woody vegetation.

8.1.10 Permanent Culverts, Bridges, and Storm Water Ponds

No culverts or permanent bridges will be installed within or across waterways. No construction of storm water ponds is proposed with 500 feet of waterways.

8.2 Wetland Activities

8.2.1 Wetland Identification

ATC's environmental consultant, Stantec, completed field surveys to identify aquatic resources within the Project area for the route during April and May 2024. Field survey was conducted within the public ROW and where access was allowed by existing utility easements or private landowners. Where access permissions were not available, wetlands were investigated both from adjacent accessible areas and through additional review of desktop resources to identify all wetland and waterway areas contained within the proposed ROW and all off-ROW work areas for the route. Field surveys included a combination of both wetland delineation and determination methods. Where formal delineation was conducted, surveys were completed using the criteria and methods outlined in: the United States Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE 1987); the Interim Regional Supplement to the Corps of Engineers 1987 Wetland Delineation Manual: Midwest Region (2010); subsequent guidance documents (USACE 1991, 1992); the Guidelines for Submitting Wetland Delineations in Wisconsin to the St. Paul District Corps of Engineers (USACE 1996); the Guidance for Offsite Hydrology/Wetland Determinations (MN BWSR 2016); and the Basic Guide to Wisconsin's Wetlands and their Boundaries (Wisconsin Department of Administration Coastal Management Program 1995). Wetland consultation from the WDNR Office of Energy was received on September 23, 2024 (**Appendix H, Exhibit 5**). Additional detail regarding field survey methodology is provided in the Wetland Delineation Report (**Appendix F, Exhibit 5**).

8.2.2 Wetland Inventory

Wetland areas along the route were quantified as part of the impact analysis (**Section 5.4**) and the resulting acreages are provided in the Land Cover table in **Appendix B, Table 2**. The route contains 24 wetlands, totaling approximately 5.59 acres of wetland. Additional detail on the wetlands identified along the route are provided in the Wetland Delineation Report (**Appendix F, Exhibit 5**). The proposed route intersects multiple wetland community types, as identified and summarized below in **Table 8.2.2-1**.

Table 8.2.2-1 - Summary of Wetlands by Route

Route		
Wetland Community	**Total Square Feet w/in ROW**	**Total Acreage w/in ROW**
Seasonally Flooded Basin	563.8	0.01
Fresh Wet Meadow	82,422.8	1.89
Shallow Marsh	13,615.1	0.31
Shrub-Carr	14,873.4	0.34
Hardwood Swamp	80,543.17	1.85
Floodplain Forest	7,905.4	0.18
Sedge Meadow	43,425.6	1.00

8.2.3 Wetland Functional Values

8.2.3.1

The majority of wetlands identified along the route are low quality (degraded) to medium quality fresh wet meadow dominated by reed canary grass (*Phalaris arundinacea*), sedge meadows, or medium quality hardwood swamps and shrub-carr communities. Many of these wetlands have formed as a direct result of the historic disruption of natural drainage features by farming practices and road construction activities and have low plant diversity. Vegetation within the wet meadow wetlands consists primarily of fast-growing adventitious species, such as reed canary grass, hybrid cattail (*Typha X glauca*), and giant goldenrod (*Solidago gigantea*). Other dominant species observed within wet meadow wetlands includes a mix of sedges and bulrush.

Several wetlands along the route are also forested and/or shrub dominated wetlands with dominant tree species that include swamp white oak (*Quercus bicolor*), Jack pine (*Pinus banksiana*), white pine (*Pinus strobus*), and quaking aspen (*Populus tremuloides*). The shrub layer was dominated by willows, dogwoods, and nannyberry (*Viburnum lentago*). Dominant herbaceous species include marsh marigold (*Caltha palustris*), skunk cabbage (*Symplocarpus foetidus*), reed canary grass, cattails, lake sedge, and giant goldenrod. Specific characteristics of wetlands are summarized in **Appendix F, Table 2**, and further described in the Wetland Delineation Report (**Appendix F, Exhibit 5**).

General functional value of wetlands along the route is low to medium. As described above, many wetlands are comprised of communities with low species diversity and wetlands that have been impacted by land use. Most wetlands have low to medium functional values based on limited plant diversity which may affect wildlife habitat use including threatened and

endangered (T&E) species. Despite the low floristic diversity, some of these lower-quality wetlands can still provide important groundwater and flood attenuation functions. Public use is restricted for most wetlands given the private ownership.

Other wetlands with higher vegetative diversity with multiple community types tend to have greater functional values. These wetlands often provide better habitat for wildlife. These wetlands also tend to be associated with larger wetland complexes that are associated with waterways, and therefore provide greater hydrologic functions. Two wetlands (W-5 and W-12) associated with the Big Roche A Cri Creek and Dead Horse Creek, both may serve as moderate wildlife and fish spawning habitat although the forested area is impacted by invasive species resulting in limited diversity of vegetation. Human use may occur for fishing or other recreational activities based on adjacent access from public road ROW, but it is limited by private ownership.

8.2.3.2

Existing functional values of wetlands along the route may be temporarily impacted by transmission line construction including equipment access, ROW clearing, pole installation, and other construction activities. Forested and shrub wetland areas that exist within the proposed ROW will be cleared and converted to herbaceous wetland communities. The ROW will be maintained as an herbaceous community for the life of the asset through routine vegetation management cycles. The wetland conversion may affect the functional value of the wetland because of a change in plant community, but forested and shrub areas will remain intact immediately outside of the ROW. Wildlife use may be temporarily reduced during times when construction is actively working in the area. Permanent fill in wetlands will be limited to the footprint of the new poles and loss and fragmentation or reduction in flood storage will be negligible. The Project will avoid or minimize wetland impacts to the extent practicable through the engineering design of the Project, the use of specific construction techniques, and implementation of BMPs. Following construction, all temporarily impacted wetlands will be restored to pre-existing conditions through re-vegetation and restoration plans.

8.2.3.3

Wisconsin Rapid Assessment Methodology (WRAM) forms were not completed as part of the delineation.

8.2.4 “Sensitive” or “High-Quality” Wetlands

8.2.4.1

The wetland communities identified during field surveys and desktop reviews (**Section 8.3**) were evaluated to determine which wetlands are considered Areas of Special Natural Resource Interest (ASNRI) as described in Wis. Admin. Code § NR 1.05 (**Appendix F, Table 2**). One wetland area (W12) along the Project has been identified as ASNRI. Wetlands are considered ASNRI

when they fall within (entirely or in part), or are contiguous with, one or more of the designated special features listed in NR 103.04 (e.g., trout streams, state wildlife areas or parks, etc.). The wetland area (W12) located along segment B3 is designated as an Area of Special Natural Resource Interest due to its adjacency to the Big Roche A Cri Creek (trout steam).

Although Wetland W12 is an ASNRI-designated wetland, its quality may be impacted due to its proximity to a road and the potential impacts from road maintenance and culverted crossing of the associated waterway.

8.2.4.2

The identified wetlands were also reviewed to determine if any of the following wetland community types were present: deep marsh, northern or southern sedge meadow not dominated by reed canary grass, wet or wet-mesic prairie not dominated by reed canary grass, fresh wet meadows not dominated by reed canary grass, coastal marsh, interdunal or ridge and swale complex, wild rice-dominated emergent aquatic, open bog, bog relict, muskeg, floodplain forest, and ephemeral ponds in wooded settings.

Five wetland communities are designated as special features due to containing wet meadow or sedge meadow communities that are not dominated by reed canary grass or other non-natives or floodplain forest communities. W1, W7-a and W11-b are sedge meadow communities not dominated by reed canary grass. W8-a is a wet meadow community not dominated by reed canary grass. W12 is a floodplain forest community. **Appendix F, Table 2** includes a description of wetland type and quality for each identified wetland.

8.2.4.3

No other wetlands were observed to have high functional values based on abundance of native species and/or rare species, wildlife habitat, hydrology functions or other indicators of high functional values.

8.2.5 Wetland Impacts

A detailed inventory of wetland impacts is provided **Appendix F, Table 1** and are illustrated on the Environmental Features and Access Plan map set (**Appendix A, Figure 3**). Construction access through and within wetlands will be restricted to identified access roads and work areas.

To conservatively estimate wetland impacts by the Project, impact calculations have assumed that new structures will be installed as currently designed. There are no wetland impacts from laydown yards, off-ROW access, or the Badger West substation expansion.

8.2.5.1

Temporary timber matting will be required to gain vehicle/equipment access to complete the necessary scope of work. The purpose of the construction matting is for safe equipment access

and to reduce wetland disturbance. A total of 21 wetlands will have construction matting placed within them. Conservative estimates of temporary wetland impacts associated with matting include 194,593 square feet (4.47 acres) along the route.

8.2.5.2

A total of 7 structures will be permanently constructed within wetlands resulting in 293 square feet (0.007 acres) of permanent fill. **Appendix F, Table 1** summarizes all structures proposed within wetlands as they are currently designed, as well as temporary impacts associated with access routes and work areas needed to deliver and install structures. The wetland impact calculations were made using conceptual structure locations and access plans. Structure locations will be finalized during the detailed design phase with the objective of reducing wetland impacts, by locating structures outside of or at the edge of wetlands, to the extent practicable.

8.2.5.3

A total of six wetlands will be impacted by the installation of permanent structures resulting in 293 square feet (0.007 acres) of permanent fill on the route. **Appendix F, Table 1** summarizes all structures proposed within wetlands as they are currently designed.

8.2.5.4

Shrub and forested wetlands will be cleared to establish the proposed Project ROW. An estimated 102,577 square feet (2.35 acres) of shrub and forested wetland will be cleared along the route. These impacts were calculated using the following definition of forested or shrub wetland covered with woody perennial plants reaching a mature height of at least six feet tall with definite crown (closure of at least 10%). **Appendix F, Table 1** summarizes the total conversion impacts by community along the route.

8.2.5.5

All anticipated wetland impacts regulated under Wis. Stat. § 281.36 are described in the sections above. No grading or cutting will occur in wetlands. The Badger West Substation Expansion will not impact wetlands. Matting for access on ROW was accounted for in **Section 8.2.5.1.**

8.2.5.6

Underground fiber installation is described in **Section 8.2.8**, below.

8.2.6 Construction Matting in Wetlands

Matting will be placed prior to or during construction and will be removed after construction completion. ATC anticipates that matting in some wetlands will be left in place for greater than 60 days between May 15 and November 15, although attempts will be made to reduce this matting duration to the extent feasible. When construction activities are complete, the matting

will be removed, and restoration will occur as described in **Section 6.6, 8.2.14** and the Temporary Matting Impacts Restoration Proposal (**Appendix F**, **Exhibit 3)**.

8.2.7 Open-cut Trenching in Wetlands

No wetlands will be open-cut trenched for the Project.

8.2.8 Directional Boring in Wetlands

As described in **Section 5.5.3**, a single span of fiber optic cable will be installed underground using horizontal directional drilling (HDD) method. This span crosses below wetland W4-b and W5-a from segments A3 to A4. No bore pits are located within wetlands. No wetlands are proposed to be impacted by the HDD drilling method. Proper sediment, erosion control, and invasive species control BMPs will be installed/used adjacent to the wetlands and waterbodies prior to construction activities.

8.2.8.1

Bored wetlands and bore pits with be access from upland areas located within the proposed ROW.

8.2.8.2

Temporary staging and equipment storage will be located within uplands of the proposed ROW.

8.2.8.3

No bore pits are located within wetlands. Bore pits will be located approximately 20 feet outside wetland boundaries.

8.2.8.4

The contingency plan for Inadvertent Release of Non-hazardous Drilling Fluid is provided in **Appendix F, Exhibit 6.**

8.2.9 Plowing in Wetlands

No wetlands will be plowed for the Project.

8.2.10 Equipment Access in Wetlands

Access and construction within wetlands are necessary as part of this Project. Where access through wetlands is needed, one or more of the following methods will be used to reduce soil and vegetation disturbance: completing construction during dry or frozen conditions, utilizing equipment with low ground pressure tires or tracks, and/or using construction matting.

Therefore, no discharge of fill from soil mixing and/or soil rutting is anticipated. Wetland restoration is discussed in detail in **Section 8.2.14**.

8.2.11 Vegetation Management in Wetlands

8.2.11.1

Trees and brush will be cleared for the full width of the ROW to facilitate construction equipment access and ensure safe clearances between vegetation and the transmission line. New transmission line ROW development will require clearing of incompatible woody vegetation to an average ROW width of 80 feet. Forested and shrub wetland areas that exist within the 80 foot corridor will be cleared and converted to herbaceous wetland communities. The ROW will be maintained as an herbaceous community for the life of the asset through routine vegetation management cycles.

8.2.11.2

Clearing will be completed in advance or concurrent with transmission line construction. Construction spreads and sequencing is further described in **Sections 1.8.3** and **1.8.4**.

8.2.11.3

Vegetation will be cut at or slightly above the ground surface using mechanized mowers, sky trims, processors, harvesters, or by hand. Rootstocks will generally be left in place except in areas where stump grinding is necessary to facilitate the movement of construction vehicles, or if requested by the landowner. No discharge of fill from soil mixing and/or soil rutting is anticipated.

8.2.11.4

Forested and shrub wetland types will be cleared to facilitate construction equipment access and ensure safe clearances between vegetation and the transmission line.

8.2.11.5

The Project requires clearing of incompatible woody vegetation for the full width of the ROW. Forested and shrub wetland areas within the ROW will be cleared and converted to herbaceous wetland communities. The ROW will be maintained as an herbaceous community throughout the life of the asset through routine vegetation management cycles.

8.2.11.6

Some of the woody vegetation that is cleared may remain in the wetland areas. This includes lop and scatter of tree limbs and thin scatter of woody vegetation fragments resulting from mowing the shrub and sapling layer. Material left in the wetland will be scattered in a manner that does not impede vegetation growth, water flow, or alter the bottom elevation of the wetland.

Larger woody material which cannot readily be mowed, will generally be removed from wetland areas to adjacent uplands or for offsite disposal.

8.2.11.6.1

Mowing the ROW with a forestry mower is a common method used for vegetation management. This results in woody debris fragments scattered in a uniform layer across the mowed area. Removal of this type of vegetative debris is not practical or necessary if it does not result in wetland fill. This type of woody debris can also provide the benefit of temporary surface stabilization. Lop and scatter of tree limbs or shrubs may prevent ground disturbance by limiting the number of trips needed to haul material out of the wetland.

8.2.11.6.2

ATC will implement wetland impact minimization measures during forested wetland clearing activities to prevent deposition of wetland fill and so that the site can be successfully restored and revegetated following construction. These measures consist primarily of efforts to minimize the volume and depth of cut vegetation deposited in wetlands so that it does not act as wetland fill.

Cut vegetation which is mowed/chipped will be thinly scattered in a manner that allows for rapid decomposition and does not impede vegetative growth. Thinly scattered chipped vegetation is a loose, biodegradable material, providing effective temporary surface stabilization and readily allowing for infiltration and surface flow of water within wetlands. Where necessary, woody material will be removed from wetland areas as needed to minimize deposition of chipped vegetation.

8.2.11.6.3

Wetland areas will be monitored over the duration of the Project to ensure wetland impact minimization measures are followed and that site restoration and revegetation is successful following construction completion. Routine environmental monitoring will ensure compliance with impact minimization requirements and that performance standards for wetland revegetation are achieved.

If routine environmental monitoring identifies revegetation impeded, surface elevations altered, and/or water flow obstructed from wood chip placement, the Project's environmental monitor will immediately notify and work with the construction and/or vegetation management contractors to develop and implement plans to address the concern. These plans may include physical removal, further scattering of chipped material, and supplemental seeding applications.

8.2.12 Wetland Impact Minimization

Not all wetlands crossed by the ROW will be impacted as preliminary designs and construction plans have been developed to avoid and minimize impacts to wetlands to the extent practicable. However, due to the length of the Project, engineering constraints (span lengths and clearances), routing limitations (such as landowner impacts), constructability, and the extent and configuration of wetlands along the proposed ROW, complete avoidance of wetlands is not possible. The Project will avoid or minimize wetland impacts to the extent practicable through the engineering design of this Project, the use of particular construction techniques, and implementation of BMPs and ATC's standard environmental protection practices. These efforts include spotting structures outside of wetland areas or near their edges, avoiding access through wetlands, using construction matting or low-ground pressure equipment, and/or accessing during dry or frozen conditions, and use of HDD for underground fiber installation. Wetland access routes will not require permanent fill. Temporarily impacted wetlands will be restored to pre-existing conditions through re-vegetation and restoration plans, discussed in **Section 8.2.14** and the Matting Restoration Plan (**Appendix F, Exhibit 3**).

Based on the preliminary transmission line design typical span lengths described in **Section 5.3** some structures will need to be located in wetlands. Through final engineering design, the Applicants will attempt to minimize the number of structures located in wetlands.

If construction is proposed in a wetland that has dry, stable, and cohesive soils, or that is frozen, construction will proceed in a manner similar to upland construction. If the wetland soils are not saturated at the time of construction and can support both tracked and/or rubber-tired equipment, construction mats will be used when needed to minimize impacts and stabilize the area to support construction vehicles.

Final construction access plans will consider opportunities to minimize temporary construction impacts to wetlands to the extent practicable by the following techniques:

- Attempts will be made to avoid access through wetlands that occur in only a portion of the ROW.
- Previously existing access routes within wetlands will be utilized when possible.
- Access from uplands at either end of certain wetlands may be used so travel through the entire length of wetland is not necessary.
- Complete all necessary construction activities during the same mobilization so that each wetland is only temporarily impacted and restored once.

ATC will implement other standard minimization practices including removing spoils from wetlands, using invasive species BMPs as described in **Section 6.3** and installing erosion control BMPs in accordance with WDNR Technical Standards.

8.2.13 Environmental Monitoring

To maintain compliance with environmental standards and to reduce impacts to the environment, ATC will use environmental monitor(s) to inspect construction activities. The monitor(s) will observe the Project routinely and be responsible for monitoring compliance with the requirements and practices such as:

- The PSCW Final Decision;
- WDNR Utility Permit;
- Erosion control and restoration activities in accordance with Wis. Admin. Code Ch. NR 216 and the WPDES Stormwater Discharge permit; and
- The Certified Endangered Resource Review.

Monitoring reports detailing the inspections of previously matted wetland areas will be maintained through the construction of the Project. Project areas will be considered closed out when all restoration objectives are met. Additional details about monitoring during construction and restoration are described in **Sections 8.2.11, 8.2.14**, and the Matting Restoration Plan provided in **Appendix F, Exhibit 3**.

8.2.14

When construction and restoration activities are complete, the matting will be removed, and the ground surface restored to the pre-existing condition to the extent practicable. Wetland areas in which ground disturbance occurs may be seeded with an annual cover crop to stabilize soils. Generally, wetland areas will be allowed to naturally revegetate, however, native seed mixes most closely resembling existing conditions may be used in areas where revegetation rates are low. Additional details about restoration are described in **Sections 8.2.6 and 8.2.11** and the Matting Restoration Plan provided in **Appendix F, Exhibit 3**.

ATC will monitor restoration and revegetation progress within wetland (and upland) areas in accordance with Wis. Admin. Code Ch. NR 216 and WPDES general permit conditions. The Environmental Monitor will document germination success and community composition. The Project will be considered permanently stabilized once all Project disturbances have been restored including returning pre-existing topography and a uniform perennial vegetative cover with a density of >70% perennial vegetative cover is achieved (unless pre-existing vegetative cover is <70%). The Project will be considered permanently stabilized once all Project disturbances have been restored and a uniform perennial vegetative cover with a density of at least 70% of its pre-existing condition has been established.

8.3 Mapping Wetland and Waterway Locations, Impacts, and Crossings

Environmental Features and Access Plan Maps are provided in **Appendix A, Figure 3**. This figure set depicts the Project scope as well as permanent and temporary impacts and field and desktop identified wetlands and waterways. Environmental maps depicting delineated wetlands and waterways, WDNR mapped wetlands and waterways, wetland indicators, and mapped hydric soils are provided as an attachment to the Wetland Delineation Report provided in **Appendix F, Exhibit 5**. These maps include the required wetland and waterway mapping information as listed below.

- Field Delineated, Field Determined, and Desktop Determined wetlands labeled with the feature unique ID.
- DNR mapped waterways and waterbodies.
- Field identified waterways, labeled with the feature unique ID.
- Proposed ROW – note the ROW is approximate.
- Preliminary Structure Locations – note these are approximate and subject to change. Final pole placement will not be determined until detailed engineering is completed.
- Existing transmission lines, and existing transmission line ROW where shared with the Project Proposed transmission line routes with segment naming.
- Off-ROW laydown yards and stringing areas.
- Footprint of Badger West Substation expansion and storm water facilities

Wisconsin Wetland Inventory and hydric soils data is shown on Figure 2 of the Wetland Delineation Report (**Appendix F, Exhibit 5**).

Because no vehicle crossing of waterways is proposed for this Project, no waterway crossings are mapped.

No off-ROW access paths are proposed for this Project, therefore none are shown on the maps.

Construction matting is anticipated to be placed for access crossing all wetlands in the Project ROW, and work pads for each structure located in wetland. This is omitted from the map for clarity and noted in the map legend.

9.0 ENDANGERED, THREATENED, SPECIAL CONCERN SPECIES AND NATURAL COMMUNITIES

9.1 WNDR Endangered Resources Review

A Certified Endangered Resources (ER) Review covering the route, Badger West Substation expansion and proposed laydown yard areas was submitted to the WDNR Bureau of Natural Heritage Conservation (WDNR-BNHC) on August 14, 2024.The WDNR-BNHC approved the ER Review and provided concurrence and recommendations on September 26, 2024. Due to its confidential status, a redacted version of this review has been provided in **Appendix F, Exhibit 7**. The WDNR Natural Heritage Inventory (NHI) database was accessed to identify all state-listed rare species (threatened, endangered, or special concern), natural communities, and other natural features with documented element occurrences within one mile of the Project segments for terrestrial and wetland species, and within two miles for aquatic species. In addition to providing an inventory of rare species and communities, the ER Review also outlines the required follow-up actions necessary to prevent impacts to state-listed threatened and endangered animal species, federally-listed plants and animals, as well as follow-up actions that are recommended to help conserve rare species, communities, or other natural features that are not legally protected or are exempt from protection by the Project (i.e., special concern animal species, threatened, endangered, and special concern plant species, and natural communities).

9.2 NHI Occurrences

A total of 25 element occurrences (a species or community may have multiple occurrences within applicable range) are included in the approved ER Review. Records of protected species within one- and two-mile buffers of the Project area include one state endangered bird species, and one state endangered reptile species. Records lacking legal protection include three state special concern bird species, two state special concern butterfly species, seven natural communities, one special concern dragonfly species, one endangered plant species, one threatened plant species, five special concern plant species, one special concern turtle species and one “other” category (high potential zone for federally listed butterfly). There is one observation of federally protected species that is recorded within applicable one- and two-mile buffers of the Project area (one federal listed endangered butterfly species).

ATC plans to conduct presence/absence surveys along the Route for the one protected bird species during their nesting period in spring to summer of 2025. Survey results will be submitted to the WDNR-BNHC and will inform follow-up actions required to construct the Project. One additional biological survey is planned for a federally listed butterfly species in spring to summer of 2025.

9.3 Species as Identified in the Completed ER Screening and/or Field Assessments

9.3.1

There are three required actions included in the approved ER Review. ATC will incorporate these into the Project through the following:

- Endangered Bird: conduct presence/absence surveys during the specified survey window or avoid Project disturbance during the avoidance period.
- Endangered Butterfly and High Potential Range: implement approved survey and construction protocols.
- Endangered Lizard: complete Incidental Take Application and implement required minimization measures including exclusion fencing and/or time-of-year avoidance periods.

9.3.2

ATC will implement recommended actions to the extent practicable. Recommended actions include: conducting voluntary presence/absence surveys during the specified survey window or avoid Project disturbance during the avoidance period, implementing approved survey and construction protocols if host plant is present, implementing erosion control measures near waterways, implementing approved invasive species BMP's and construction protocols, implementing approved minimization measures such as exclusion fencing, time-of-year avoidance periods and/or walk through or gently disturb the Project area immediately prior to disturbance.

9.3.3

Special concern animal species; threatened, endangered, and special concern plant species; natural communities; and natural features are not legally protected or are exempt from protection. ATC will implement recommended actions described in **Section 9.3.2** to the extent practicable.

9.4 Provide Communications with DNR and U.S. Fish and Wildlife Service, as Applicable

See **Appendix H, Exhibits 4 and 5** for WDNR correspondence related to the ER Review.

Communication with USFWS has not occurred to date and will be initiated as necessary through the USACE authorization process.