

# AGRICULTURAL IMPACT STATEMENT



**DATCP  
#4600**

**Western Wisconsin Transmission  
Connection Project  
Chippewa, Clark, Eau Claire and  
Trempealeau Counties  
PSC Docket ID 5-CE-158**



**WISCONSIN DEPARTMENT OF AGRICULTURE,  
TRADE AND CONSUMER PROTECTION**  
*PUBLISHED JANUARY 17, 2025*

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DATCP #4600

Western Wisconsin Transmission Connection Project  
Chippewa, Clark, Eau Claire, and Trempealeau Counties

## WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION

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*PUBLISHED January 17, 2025*

# MISSION STATEMENT

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Dear Reader,

Through the Agricultural Impact Statement ("AIS") program, agricultural operations have the opportunity to provide feedback, document impacts, and suggest alternative solutions when their agricultural lands are affected by an entity with the potential powers of eminent domain. The AIS program also provides affected agricultural landowners time to gather information to make well-informed decisions before a study begins. Lastly, the AIS program makes suggestions and recommendations to study initiators to promote study alternatives and management practices that would reduce potential impacts to agricultural lands and operations.

The AIS program also serves the needs of the study initiator by conducting the AIS analysis and publishing the statement within a timely manner as required by Wis. Stat. § 32.035. In addition, the AIS program provides a continuing presence throughout study development and oversight processes in order to support agricultural operations and the statewide priority to preserve prime farmland.

The Agricultural Impact Statement program and the WI Department of Agriculture, Trade and Consumer Protection are honored to provide this essential state service to the agricultural landowners and operators of the state.

Thank you,

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## ACRONYMS

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AEA	Agricultural Enterprise Area
AIN	Agricultural Impact Notification
AIS	Agricultural Impact Statement
CPCN	Certificate of Public Convenience and Necessity
CREP	Conservation Reserve and Enhancement Program
CRP	Conservation Reserve Program
DATCP	Department of Agriculture, Trade, and Consumer Protection
EA	Environmental Assessment
EIS	Environmental Impact Statement
FP	Farmland Preservation Program
FSA	Farm Service Agency
HVTL	High voltage transmission line
IAM	Independent Agricultural Monitor
IEM	Independent Environmental Monitor
kV	Kilovolt
MFL	Managed Forest Law
NEV	Neutral to Earth Voltage
PSC	Public Service Commission of Wisconsin
ROW	Right-of-Way
USDA	U.S. Department of Agriculture
WisDNR	Wisconsin Department of Natural Resources

## TERMS

CIRCUIT	A continuous electrical path along which electricity can flow from a source, like a power plant, to where it is used, like a home. A typical transmission circuit consists of three phases, with each phase on a separate set of conductors.
CONDUCTOR	A wire composed of multiple aluminum strands wrapped around a steel core that together carry electricity. A transmission line is constructed with three conductors, one for each phase of the circuit generated by a power plant.
DOUBLE-CIRCUIT	Electric lines with two sets of three conductors, totaling six conductors on one structure. These two circuits are independent of one another.
DISTRIBUTION LINE	An interconnected group of lines and equipment for the delivery of low voltage electricity between the transmission network and end users (i.e. home/business)
KILOVOLT (kV)	A unit of electricity equal to 1,000 volts.
LAYDOWN YARD	Temporary equipment staging and storage areas.
SINGLE-CIRCUIT	Electric lines with one set of three conductors.
TRANSMISSION LINE	An interconnected group of lines and equipment for transporting electric energy on a high voltage power line between power plants and substations.

# SUMMARY OF AGRICULTURAL IMPACT STATEMENT

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The Wisconsin Department of Agriculture, Trade and Consumer Protection (the Department) has prepared Agricultural Impact Statement (AIS) #4600 for the construction of a new 345-kV electric transmission line in Chippewa, Clark, Eau Claire, and Trempealeau Counties, WI (“the Project”) by Northern States Power Company (NSPW), a Wisconsin corporation doing business as Xcel Energy. The applicant is proposing to construct the Western Wisconsin Transmission Connection Project (Project or WWTC). The Project consists of a new 345 kilovolt (kV) high voltage transmission line (HVTL) connecting the existing Tremval Substation and a new substation or substation expansion in Eau Claire to be owned by Xcel Energy and a new Jump River substation to be owned and operated by American Transmission Company, LLC and its corporate manager ATC Management, Inc. (collectively, ATC). ATC is a co-applicant in this proceeding with respect to its ownership of the Jump River Substation. Xcel Energy is sponsoring all other facilities, including route selection. Xcel Energy hosts a website for the Project, which can be found here: <https://wwtconnection.com/>. Among other things, if the Project is constructed, it will connect three existing 345 kV HVTLs coming into the state of Wisconsin from the west.

The Project is part of a series of regional projects that the Mid-Continent Independent System Operator (MISO) is developing alongside energy companies throughout the Upper Midwest to identify new transmission projects that can be built to manage a new energy system called Long Range Transmission Planning (LRTP). The Project is also known as LRTP-5 and is part of Tranche 1 in the series. More information about LRTP and MISO can be found at <https://www.misoenergy.org/planning/long-range-transmission-planning/>.

Xcel Energy has proposed two route alternatives for the Project, Route 1 and Route 2 (Figure 1). For both Route 1 and Route 2, Xcel Energy proposes a common segment (referred to as Segment 1A or 2A) that will co-locate the new 345 kV line with the existing 161 kV line. Overall, 88% of Route 1 and 93% of Route 2 will follow existing utility corridors, and in some cases share right-of-way (ROW) with existing utility corridors. The length of the Project will be approximately 80 to 94 miles in length, depending on which route is selected. The projects proposes to impact between 1261.3 to 1476.1 acres of agricultural lands and impact approximately between 223 and 263 agricultural landowners, depending on the selected alternative.

The Public Service Commission of Wisconsin (PSC) has authority over the Project and Xcel Energy must obtain a Certificate of Public Convenience and Necessity (CPCN) to obtain the right to proceed with the Project. Through the issuance of a CPCN, the PSC would select the project route and other project criteria Xcel Energy shall follow. On September 3, 2024, Xcel Energy submitted a CPCN application ([REF # 515940](#)) for the Project to the PSC under PSC Docket ID: [5-CE-158](#) and on October 3, 2024, the PSC determined the application to be incomplete. On December 2, 2024, Xcel Energy filed a revised application with supplemental materials and on December 20, 2024 PSC



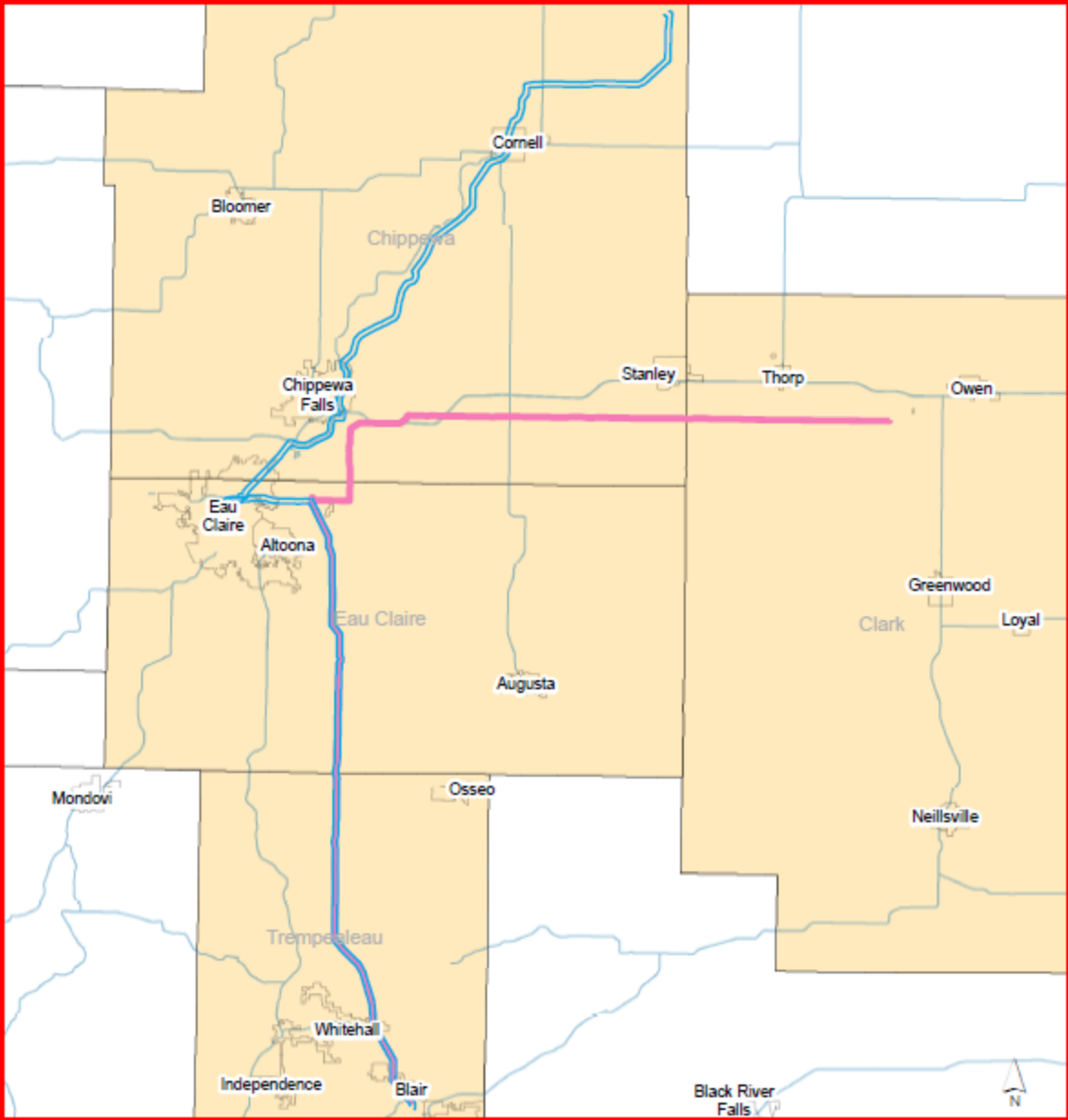
deemed the application complete. The Department has continued to reference REF # 515940 throughout this document as there had not yet been another CPCN application determined complete by the PSC for the Project during the time of this analysis. The Department will provide the PSC with AIS #4600 as evidence to aid in determining the outcome of the project initiators' CPCN application.

In accordance with [Wis. Stat. §32.035\(3\)](#), Xcel Energy has provided the Department with the necessary information and materials to conduct an AIS. The Department has also contacted the agricultural property owners and operators impacted by the alternative routes. In accordance with [Wis. Stat. §32.035\(4\)\(b\)](#), the Department has reviewed and analyzed Xcel Energy's materials and the comments obtained by the Department from the affected agricultural property owners and operators to assess the agricultural impacts of the proposed project. Through the AIS analysis, the Department offers a set of recommendations and conclusions to the PSC, Xcel Energy and the agricultural landowners and operators to help mitigate current and future impacts on agricultural lands and agricultural operations along the selected route.

The set of recommendations are located within the AIS Recommendation Section beginning on page 8. The AIS analysis begins on page 13 with information on the project located in Section 2. Information and conclusions on the agricultural setting of Chippewa, Clark, Eau Claire, and Trempealeau Counties and impacted areas can be found in Section 3. The agricultural impacts of the project on the impacted land, landowners and operators can be found in Section 4. Appendices for AIS #4600 contain the following information: additional project figures and tables (Appendix A), information on the appraisal and compensation process (Appendix B), a complete record of comments submitted to the Department from agricultural landowners & operators (Appendix C), a copy of Wisconsin's agricultural impact statement statute (Appendix D), various additional sources of related information for agricultural landowners and operators (Appendix E) and a copy of the Department's agricultural monitoring form for transmission line projects.

If the project initiators deviate from the proposed route segments, alternatives or the selected sites, they shall re-notify the Department. The Department shall review the re-notification for new potential impacts to agricultural lands and may generate an addendum to this AIS, if warranted.

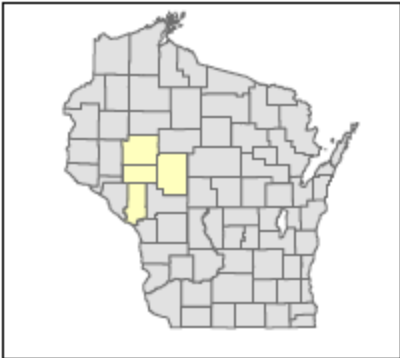
# Western Wisconsin Transmission Connection Project AIS 4600



0 5 10 Miles

**Legend**  
**Project Routes**

- 1
- 2



This map is prepared by Wisconsin Department of Agriculture, Trade and Consumer Protection for administering the Agricultural Impact Statement Program and is an example of the proposed routes.

Figure 1: Location of the proposed routes for the Project, DATCP.

# AGRICULTURAL IMPACT STATEMENT RECOMMENDATIONS

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The Wisconsin Department of Agriculture, Trade and Consumer Protection (the Department) has reviewed and analyzed the materials provided by Xcel Energy and comments from the affected agricultural property owners and operators regarding the proposed Western Wisconsin Transmission Connection Project. Should the PSC approve the Project, the Department provides the following recommendations, in accordance with [Wis. Stat. §32.035\(4\)\(b\)](#), to the PSC, Xcel Energy and agricultural landowners and operators to help mitigate impacts on agricultural lands and agricultural operations.

## Recommendations to the Public Service Commission

- 1) Of the two routes proposed by Xcel Energy, the Department recommends PSC to consider approving Route 1 based on its lower volume of overall agricultural land acreage being impacted and having a significantly less amount of prime farmland soils and soils with state and federal importance posed to be impacted. Further analysis on this recommendation is based on is provided in Section 3 and 4 of the AIS.
- 2) If approved by the PSC, the Department recommends that for the duration of project construction, Xcel Energy be required to hire an Independent Environmental Monitor (IEM) and/or an Independent Agricultural Monitor (IAM), or an individual with the capacity for both an IEM and IAM, but that only has stop-work authority when acting in the capacity of the IEM. The IEM/IAM should be hired in consultation with and the approval of the PSC, DATCP, and WisDNR and all reports generated by IEM/IAM should be shared with the PSC, DATCP, and WisDNR.
- 3) Should the PSC require an IAM for the Project, the Department recommends the IAM complete the Department's standard Agricultural Monitoring Form for Transmission Line Projects (ARM-LWR-543) seen in Appendix F or equivalent.

## Recommendations to Xcel Energy

- 1) The Department recommends Xcel Energy follow all the additional recommended mitigation efforts described in Section 5.5.1 through Section 5.5.17 to mitigate Project impacts to or regarding: topsoil mixing, soil compaction, drainage, de-watering, irrigation, erosion, temporary access roads, managed forest lands, fencing, weed control, construction debris, crop rotation & dairy operations, organic farms & other areas with certifications, biosecurity, stray voltage, and construction noise.

- 2) Xcel Energy should continue to monitor the Project ROW for soil erosion and maintain erosion control practices until there is sufficient vegetative growth in the ROW to mitigate soil erosion.
- 3) Xcel Energy should provide agricultural landowners and operators advanced notice of acquisition and construction schedules so agricultural activities can be adjusted accordingly.
- 4) Xcel Energy should provide landowners with direct phone numbers and email addresses to Xcel Energy project staff and project contractors that are able to respond to a range of topics including but not limited to: environmental & agricultural impacts, land acquisition & ROW, project schedule, access limitations, compensation for release of lands from conservation programming and project complaints.
- 5) If there is adequate growing season for a crop to mature and be harvested after Xcel Energy has an interest in the impacted lands, but before construction along the Project corridor begins, Xcel Energy should allow the current agricultural operators to harvest a crop for that season to the extent possible or the Xcel Energy shall compensate the agricultural operators for crop damages.
- 6) Xcel Energy should consult with the affected agricultural landowners and operators to ensure any relocated, temporary or newly established agricultural land access points are located in areas that provide safe and efficient access to remnant agricultural properties.
- 7) Xcel Energy should provide appropriate compensation to all landowners with land enrolled in a conservation easement or farm program if the landowner must reimburse the administering agency for the land's removal or alteration. These conservation or farm programs could include, but are not limited to, Conservation Reserve Program (CRP), Conservation Reserve and Enhancement Program (CREP), Farmland Preservation Program (FP), or the Managed Forest Law program (MFL).
- 8) Xcel Energy should consult the Department as soon as a route is selected affording as much time as possible prior to construction regarding the status of effective agreements within the project corridor and for information regarding required releases of land and repayment of funds for any CREP or FP agreements within the chosen project corridor.
- 9) Xcel Energy should provide the Eau Claire County Land Conservation Department with selected route information affecting the Golden Triangle AEA when available.
- 10) Xcel Energy is advised to consult the applicable County Land Conservation Department on the existence of installed SWRM conservation practices within the Project area.

- 11) Xcel Energy should implement training for all construction supervisors, inspectors, and crews to ensure that they understand the steps needed to protect the integrity of agricultural lands and operations during project construction and restoration.

### **Recommendations to Agricultural Landowners and Operators**

- 1) Agricultural landowners and operators should review [Wis. Stat. §182.017](#) (i.e. the Landowner Bill of Rights) seen in Appendix D (V) to understand their rights prior to the start of easement negotiations.
- 2) Landowners should review the recommended mitigation efforts described in Section 5.5.1 through Section 5.5.17 to mitigate project impacts to or regarding: topsoil, soil compaction, drainage, de-watering, irrigation, erosion, temporary access roads, managed forest lands, fencing, weed control, construction debris, crop rotation & dairy operations, organic farms & other areas with certifications, biosecurity, stray voltage, and construction noise.
- 3) The Department recommends that the landowners or farm operators with a CREP or CRP agreement consult with their local FSA contact and discuss the impacts of the proposed project to determine what information is necessary to share with the project initiator in order to maintain compliance with CREP or CRP agreements, as well as to receive any necessary FSA authorizations or approvals.
- 4) The Department recommends that agricultural landowners work with the project initiators to discuss agricultural practices that may be impacted by the project and provide a list of and contact information for land operators, renters or tenants that the project initiators may reach out to for a complete understanding of these practices.
- 5) Landowners with organic certification or other certifications should inform the project initiators of their certifications, provide documentation of certification and inform the project initiators of prohibited and/or limited activities and the range and type of substances that are and are not permitted according to their certifications.
- 6) The construction of a new transmission line is a non-conforming land use on lands subject to an effective farmland preservation agreement according to Wis. Stat. § 91.62(1)(c). Agricultural lands covered by an effective FP agreement, where a non-conforming land use is planned, are required to release the affected lands prior to the initiation of the non-conforming land use. Landowners should contact the Department to release affected agricultural lands from an effective FP agreement.
- 7) Landowners should consider potential implication of the proposed route to their MFL enrolled lands. Impacted landowners should reach out to their local DNR Tax Law Forestry Specialist and discuss the implication of the route to their MFL enrolled lands.

- 8) Agricultural landowners have the authority under [Wis. Stat. § 182.017\(7\)\(d\)](#) to allow or deny herbicide applications within the ROW they own and agricultural landowners should provide written consent or written lack of consent to Xcel Energy regarding herbicide applications.
- 9) Landowners with conservation easements within the ROW should consult with the conservation program provider to determine if any effects will occur due to the land's alteration or removal from the contract. If the landowner is charged a fee for removing or altering the land within the conservation easement, the landowners should contact the Xcel Energy staff member, as designated by Xcel Energy, responsible for handling compensation for release of lands from conservation programs.
- 10) Landowners who are aware of any SWRM cost-shared practices on their farm within the proposed Project area should consult with the County Land Conservation Department to determine 1) the compatibility of the proposed ROW easement with the existing conservation practice and 2) if any effects will occur due to alteration of a practice during construction activities.
- 11) Landowners concerned about potential impacts to their agricultural land should keep records of the conditions of the ROW before, during, and after construction, including field moisture conditions, historic presence/absence of ponded water prior to the start of construction for post-construction comparisons, crop yield records and photographs taken every season.
- 12) Landowners should inform Xcel Energy about the existence and location of drainage systems or planned drainage systems that could be affected by the Project.
- 13) Landowners with organic certification or other certifications should contact Xcel Energy and report the range and type of substances that are and are not permitted according to their certifications.
- 14) Agricultural landowners and beekeepers should consider using the free online [DriftWatch](#)<sup>™</sup> and [BeeCheck](#)<sup>™</sup> registries, operated by [FieldWatch](#)<sup>™</sup> to communicate areas containing specialty crops or beehives with pesticide applicators, in order to minimize the risk of accidental exposure. For more information on DriftWatch, please visit the [DATCP DriftWatch website](#) at the provided link or at <https://wi.driftwatch.org/>.
- 15) Landowners who wish to farm within the deforested area should discuss tree stump removal with Xcel Energy during the easement negotiation process.
- 16) Landowners should inform Xcel Energy if they use aerial planting or aerial spraying.

- 17) Livestock owners & operators within the Project ROW who are concerned about the noise potential for the Project should inform Xcel Energy or their representatives during the easement negotiation process.
- 18) Confined animal feeding operations or any operation with livestock facilities within ½-mile of the selected Project ROW should request pre- and post-transmission line energization NEV testing from their utility provider, which Xcel Energy can assist in coordinating.
- 19) Landowners should fully describe and discuss property improvements and agricultural operations with appraisers so the appropriate value of the affected property is established.
- 20) Prior to the start of construction, landowners should identify for Xcel Energy where construction activities may interfere with farm operations, farm building/facilities or farming infrastructure including but not limited to drain tiles, wells, watering systems, drainage ditches, drainage tile, culverts, fencing, farm access roads, or grain bins.
- 21) Affected farmland owners should inform the tenant agricultural operators if an easement has or will be obtained by the Project Initiators on the land the rent, regardless if by judicial offer or voluntary negotiation.
- 22) After construction is complete, landowners and Xcel Energy should monitor for drainage problems. If problems are observed that can be attributed to construction, the landowner and Xcel Energy should work together to develop a mutually agreeable solution.

# AGRICULTURAL IMPACT STATEMENT

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## 1. INTRODUCTION

The Wisconsin Department of Agriculture, Trade and Consumer Protection (the Department) has prepared Agricultural Impact Statement (AIS) #4600 in accordance with [Wis. Stat. §32.035](#) for the proposed construction of a new 345-kV electric transmission line in Chippewa, Clark, Eau Claire, and Trempealeau Counties by Northern States Power Company (NSPW), a Wisconsin corporation doing business as Xcel Energy. The applicant is proposing to construct the Western Wisconsin Transmission Connection Project (“the Project” or “WWTC”). The Project consists of a new 345 kilovolt (kV) high voltage transmission line (HVTL) connecting the existing Tremval Substation and a new substation or substation expansion in Eau Claire to be owned by Xcel Energy and a new Jump River substation to be owned and operated by American Transmission Company, LLC and its corporate manager ATC Management, Inc. (collectively, ATC). ATC is a co-applicant in this proceeding with respect to its ownership of the Jump River Substation. Xcel Energy is sponsoring all other facilities, including route selection. Additionally, if the Project is constructed, it will connect three existing 345 kV HVTLs coming into the state of Wisconsin from the west.

Xcel Energy has proposed two route alternatives for the Project, Route 1 and Route 2 (Figure 1). For both Route 1 and Route 2, Xcel Energy proposes a common segment (referred to as Segment 1A or 2A) that will co-locate the new 345 kV line with the existing 161 kV line. Overall, 88% of Route 1 and 93% of Route 2 will follow existing utility corridors, and in some cases share right-of-way (ROW) with existing utility corridors. The length of the Project will be approximately 80 to 94 miles in length, depending on which route is selected.

According to [Wis. Stat. §32.035](#), the AIS is designed to be an informational and advisory document that describes and analyzes the potential effects of a proposed project on agricultural operations and agricultural resources, but it cannot stop a project. This analysis is limited to routes submitted by the project initiator within the AIN. The Department is required to prepare an AIS when the actual or potential exercise of eminent domain powers involves an acquisition of any interest in more than five acres of land from any agricultural operation. The term agricultural operation includes all owned and rented parcels of land, buildings, equipment, livestock, and personnel used by an individual, partnership, or corporation under single management to produce agricultural commodities.

The AIS reflects the general objectives of the Department in its recognition of the importance of conserving vital agricultural resources and maintaining a healthy rural economy. The Department is not involved in determining whether or not eminent domain powers will be used or the amount of compensation to be paid for the acquisition of any property.



Xcel Energy has submitted a Certificate of Public Convenience and Necessity (CPCN) to the Public Service Commission of Wisconsin (PSC) ([REF # 515940](#)) to obtain approval to construct the Project (Xcel Energy, 2024a). The PSC has assigned the Project PSC Docket ID: [5-CE-158](#), which can be followed within the PSC [Electronic Records Filing System](#). The PSC will analyze the need for the project and the potential environmental and community impacts in an Environmental Impact Statement (EIS). In addition, the PSC will receive testimony and hold hearings to further assess the impacts of this project. Afterwards, the PSC will approve, modify, or deny Xcel Energy's proposed project. Construction on the project cannot begin before Xcel Energy receives a CPCN from the PSC, as well as permits and approvals from other regulatory entities.

As established under [Wis. Stat. §32.035\(4\)\(d\)](#), if Xcel Energy intends to actualize its powers of condemnation at any point during the project through a jurisdictional offer(s), Xcel Energy may not negotiate with an owner or make a jurisdictional offer until 30 days after the AIS has been published. If Xcel Energy deviates from the selected alternative or the selected sites, Xcel Energy shall re-notify the Department. The Department shall review the re-notification for new potential impacts to agricultural lands and may determine to generate an addendum to this AIS.

The full text of [Wis. Stat. §32.035](#) is included in Appendix D. Additional references to statutes that govern eminent domain and condemnation processes and other sources of information are also included in Appendices B, E, and F.

## **2. PROJECT DESCRIPTION**

### **2.1. Project Summary**

Xcel Energy has provided the Department with an agricultural impact notification (AIN) and requested spatial materials for analysis for the proposed project (DATCP, 2024a). The AIN, requested materials from Xcel Energy, and Xcel Energy's CPCN application to the PSC, serve as the main reference documents for the Project. The proposed project route alternatives presented here do not represent the final project route, which requires PSC approval.

Xcel Energy is proposing to construct a new 345 kilovolt (kV) high voltage transmission line (HVTL) connecting the existing Tremval Substation and a new substation or substation expansion in Eau Claire to be owned by Xcel Energy and a new Jump River substation to be owned and operated by American Transmission Company, LLC and its corporate manager ATC Management, Inc. (collectively, ATC).

The Project is part of a series of regional projects that the Mid-Continent Independent System Operator (MISO) is developing alongside energy companies throughout the Upper Midwest to identify new transmission projects that can be built to manage a new energy system called Long Range Transmission Planning (LRTP). The Project is also known as LRTP-5 and is part of Tranche 1 in the series. More information about LRTP and MISO can be found at

<https://www.misoenergy.org/planning/long-range-transmission-planning/>.

As the acquisition of agricultural lands or property rights are a pre-requirement to conduct an AIS, this analysis will only analyze and evaluate the aspects of the Project that acquire ROW's from agricultural lands. The proposed Project, depending on the selected route, will impact up to 263 agricultural landowners and approximately between 1261.3 and 1476.1 acres of agricultural lands, excluding staging areas. A full list of the impacted acres for each agricultural landowner is provided Appendix A, Table 1 and 2.

## **2.2. Public Service Commission of Wisconsin (PSC)**

The PSC is an independent regulatory agency that regulates public electric, natural gas, water and sewer utilities in Wisconsin. Through PSC regulations, public utilities must obtain PSC approval before setting new utility rates and undertaking major construction projects, such as electric transmission lines or substations. Prior to gaining approval, PSC staff review the utilities application and prepare either an Environmental Impact Statement (EIS) or an Environmental Assessment (EA) to evaluate the need, alternatives, cost, and environmental and social impacts of the proposed project.

Approval from the PSC is obtained by the issuance of a CPCN or a Certificate of Authority (CA), both of which grant the utility the right to proceed with the project as described within the CPCN or CA. Issuance of a CPCN or CA is determined by a three-member PSC Commission. PSC Commissioners are full-time staff, appointed by the Governor, tasked with reviewing the project case file (documents, reports, testimony) and ultimately deciding whether to approve, modify, or deny a project. If the PSC determines that the project is needed and feasible, the utility must adhere to the PSC ruling and project alternatives/route selected by the Commission. PSC approval is not constrained by the utilities' "preferred" or "alternate" route designations mentioned within this AIS and the Commission may choose any combination of route segments described in the application.

Xcel Energy submitted an application for a CPCN for the Project to the PSC on August 30, 2024 under PSC Docket ID: [5-CE-158](#) (Xcel Energy, 2024a). DATCP expects the PSC to utilize the information contained within this AIS, the EIS, the CPCN application, and testimony from the public to determine the degree of impacts each route alternative will have on the agricultural landscape and economy, prior to issuing a ruling.

## **2.3. Project Design and Purpose**

Xcel Energy proposes to construct the Western Wisconsin Transmission Connection Project. The Project consists of a new 345 kilovolt (kV) HVTL connecting the existing Tremval Substation and a new substation or substation expansion in Eau Claire to be owned by Xcel Energy and a new Jump River substation to be owned and operated by ATC. According to the CPCN (REF#: [515940](#)), Xcel

Energy has offered the PSC two different route alternatives (Route 1 and Route 2). Proposed Route 1 would be approximately 94 miles in length, and proposed Route 2 would be approximately 80 miles in length. Route 2 is Xcel Energy's preferred route because it would be shorter and have fewer overall impacts.

The Department reviewed the Project's CPCN (REF#: [515940](#)) found it to contain information on the system alternative and the system alternative comparative analysis performed by Xcel Energy (Xcel Energy, 2024a). Xcel Energy evaluated potential routes based on potential impacts to human settlement and environmental setting, as well as sharing existing route corridors, aesthetics, construction issues, and estimated cost. Proposed Route 1 was generally identified by MISO in Tranche 1 of its LRTP study, then refined by Xcel Energy. Xcel Energy also identified a second option for the Project, Route 2, to provide a shorter route option that reduces effects on environmental features and populated areas while still meeting the goals identified by MISO in its LRTP study.

### ***2.3.1. Project Location***

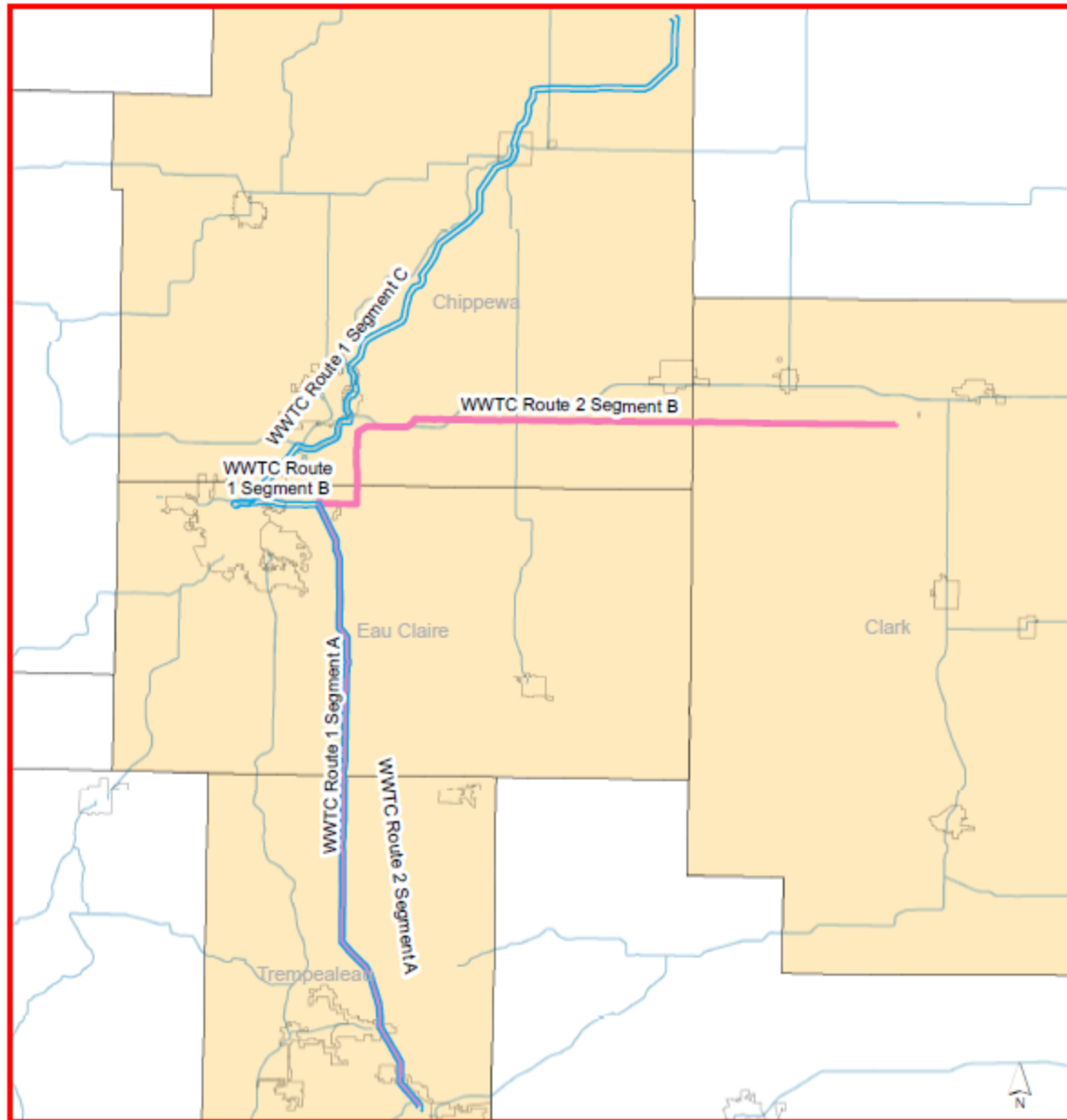
Route 1 and Route 2 of the Project occur within Chippewa, Clark, Eau Claire, and Trempealeau Counties, WI (Xcel Energy, 2024a).

Proposed Route 1 would be approximately 94 miles in length and would begin at the Tremval Substation Expansion South which is west of Blair and south of the Trempealeau River in the Town of Preston in Trempealeau County. Route 1 generally travels north into Eau Claire County toward the City of Eau Claire, connects to the existing Eau Claire Substation, and then continues traveling north into Chippewa County eventually connecting to the proposed Jump River Substation North near Sheldon, Wisconsin.

Proposed Route 2 would be approximately 80 miles in length and would begin at the Tremval Substation Expansion North just west of the Town of Blair and north of the Trempealeau River in the Town of Preston, Trempealeau County. Route 2 travels north toward Eau Claire County along the same path as Route 1 and interconnects to the new proposed Elk Farm Substation. Route 2 travels east out of the proposed Elk Farm Substation, then north toward Chippewa Falls and State Highway 29 in Chippewa County. Just south of Cindy Lake in Lafayette Township, Route 2 begins to travel east for about 33 miles before connecting to the Jump River Substation South in Clark County.

Approximately 39 miles of Route 1 and Route 2 overlap beginning at the Tremval Substation, which is northwest of Blair and north of the Trempealeau River in the Town of Preston, Trempealeau County, and ending in the proposed Elk Farm Substation, which is east of Eau Claire in the Town of Seymour, Eau Claire County.

# Western Wisconsin Transmission Connection Project AIS 4600

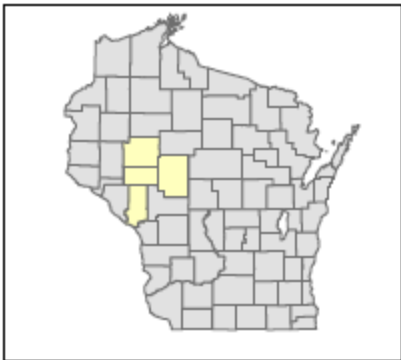


0 5 10 Miles

**Legend**

**Project Routes**

- 1
- 2



This map is prepared by Wisconsin Department of Agriculture, Trade and Consumer Protection for administering the Agricultural Impact Statement Program and is an example of the proposed routes.

Figure 2: WWTC Project Route Segments, created by DATCP.

### ***2.3.2. Preferred Project System with Preferred Route Description***

According to the AIN submitted to the Department (DATCP, 2024a) and the CPCN (REF#: [515940](#)) submitted to the PSC under Docket ID: [5-CE-158](#) (Xcel Energy, 2024a), Xcel Energy identified Route 2 as the preferred route. Route 1 was generally identified by MISO in Tranche 1, then refined by Xcel Energy. Xcel Energy identified Route 2 to provide a shorter option that reduces effects on environmental features and populated areas while still meeting the goals identified by MISO in its LRTP study. Both Routes 1 and 2 tie into the existing ATC 345 kV L-GDP181 Line and both routes utilize existing transmission line corridors as much as practicable, following PSC routing priorities, to lessen the impact of new infrastructure on landowners, communities, and the environment (see Appendix A figure series of the [PSC ERF Docket](#) for detailed maps of route segments and related structures; see Figure 2 for an overview of route segments).

Integrating Route 2 into the existing transmission system would require expansion of the existing Tremval Substation (Tremval Substation Expansion North) which would be constructed, owned, and operated by Xcel Energy, just west of the Town of Blair and north of the Trempealeau River in the Town of Preston in Trempealeau County. The proposed Elk Farm Substation would be a new substation that also would be constructed, owned, and operated by Xcel Energy on the east side of N. 65th Avenue about 0.5 mile northeast of the intersection of County Highways P and Q in Township 27N, Range 8W, Section 7 in Eau Claire County. Finally, the Jump River Substation South would be a new substation constructed, owned, and operated by ATC approximately 5 miles southwest of Owen on the north side of County Highway N in Township 28N, Range 2W, Section 7 in Clark County. Modifications to Xcel Energy's existing Briggs Road Substation in La Crosse County, and ATC's existing Stone Lake Substation in Sawyer County and Gardner Park Substation in Marathon County would also be necessary to interconnect the new Jump River Substation South into the companies' systems.

Route 2 would be double- or triple-circuited with existing transmission lines for approximately 52% of its length, 37% would parallel Xcel Energy's existing 115 kV W3305 and 345 kV W3102 Line, and 11% of the route would be greenfield. For the Project, new double-circuit or triple-circuit capable structures would be installed adjacent to the existing structures, and the new 345 kV line and the existing lines would be strung on the new structures; the old structures would then be removed. The existing 100-foot ROW would be expanded to 150 feet wide to accommodate the double-circuited lines and structures. For a short 0.9-mile stretch Route 2 would be triple circuited with Xcel Energy's Line W3305 and Line W3418. Lines W3305 and W3418 are currently double circuited in this location. Similar to the double-circuiting scenario, new triple-circuit capable structures would be installed adjacent to the existing structures within the existing 100-foot ROW, the new 345 kV line and the two existing lines would be strung on the new structures, and the existing double-circuit structures would then be removed (DATCP, 2024a; Xcel Energy, 2024a).

Route 2 would be about 80 miles in length and begin at the Tremval Substation Expansion North in Trempealeau County. Route 2 would travel north toward Eau Claire County and interconnect to the proposed Elk Farm Substation. Route 2 would travel east out of the proposed Elk Farm Substation, then north toward Chippewa Falls and State Highway 29 in Chippewa County. Just south of Cindy Lake in Lafayette Township, Route 2 would begin to travel east for about 41 miles before connecting to the Jump River Substation South in Clark County. Route 2 is comprised of two segments – Segment 2A and Segment 2B (see Figure 2).

Segment 2A would be about 39 miles in length and begin at the Tremval Substation Expansion North which is northwest of Blair and north of the Trempealeau River in the Town of Preston, Trempealeau County. Segment 2A would end at the proposed Elk Farm Substation, which is east of Eau Claire in the Town of Seymour, Eau Claire County.

Segment 2B would be about 41 miles in length and would exist the proposed Elk Farm Substation traveling east and north. Segment 2B terminates at the proposed Jump River Substation South in the Town of Longwood in Clark County.

### **2.3.3. *Alternative Route Description***

Route 1 was generally identified by MISO in Tranche 1, then refined by Xcel Energy. Proposed Route 1 would be approximately 94 miles in length (DATCP, 2024a; Xcel Energy, 2024a). The route is described as follows: Route 1 would begin at the Tremval Substation Expansion South which is west of Blair and south of the Trempealeau River in the Town of Preston in Trempealeau County. Route 1 generally travels north into Eau Claire County toward the City of Eau Claire, connects to the existing Eau Claire Substation, and then continues traveling north into Chippewa County eventually connecting to the proposed Jump River Substation North near Sheldon, Wisconsin. Route 1 is comprised of three segments: Segments 1A, 1B, and 1C (see Figure 2). If approved, the PSC may choose to select the alternate route, combinations of a different route segments, or alter a proposed route segment when deciding the final route.

Segment 1A would be about 40 miles in length and begin at the Tremval Substation Expansion South which is on the north/east side of U.S. Highway 53, west of Blair, and south of the Trempealeau River in the Town of Preston in Trempealeau County and head north towards Eau Claire. It would end at Structure S1-32, about 0.3 mile northeast of the intersection of N 65th Avenue and Olson Drive in the Town of Seymour (DATCP, 2024a; Xcel Energy, 2024a).

Segment 1B would be about 5 miles in length and begin about 0.3 miles northeast of the intersection of N 65th Avenue and Olson Drive in the Town of Seymour and run west toward the City of Eau Claire and the Eau Claire Substation. Segment 1B ends at the existing Eau Claire Substation which is just west of the Chippewa River (DATCP, 2024a; Xcel Energy, 2024a).

Segment 1C would be about 49 miles in length starting at the Eau Claire Substation, running northeast, and ending at the proposed Jump River Substation North in the Town of Ruby, Chippewa County.

#### **2.3.4. *Off-ROW Access Roads***

According to the AIN and the CPCN application, wherever possible, Xcel Energy intends to access the Project by traveling down the Project ROW or directly from public roads that intersect the Project ROW (DATCP, 2024a; Xcel Energy, 2024a). Access from outside the Project ROW will be required in some cases where physical limitations exist within the Project ROW, where other constraints prevent direct access from public roads, or to avoid impacts to environmentally sensitive areas within the Project ROW. A list of proposed access roads can be found in the PSC ERF docket as a series named Appendix A Figure 4 (Docket ID: [5-CE-158](#)).

#### **2.3.5. *Staging Areas***

Temporary staging areas (laydown yards/laydown areas) outside of the Project ROW will be utilized to store job trailers, construction vehicles and equipment, transmission line structures, conductor, cables and equipment, and other related material/equipment.

Potential laydown yards have been identified based on the construction requirements of the Project, proximity to work areas, and environmental and landowner impacts. Laydown yards are selected based on the ability to minimize the amount of disturbance and preparation required to provide suitable surfaces for temporary storage and staging of construction equipment and material. For example, sites that are paved and/or have been previously graded and cleared of vegetation, such as parking lots, old gravel pits, and fields are ideal locations for laydown yards. Originally, Xcel Energy identified nine potential laydown yards along Route 1 and seven along Route 2. Xcel Energy has since removed the Altoona laydown yard, so there are currently eight potential laydown yards along Route 12 and six along Route 2 (Kate Schindler, Xcel Energy, Personal Communications, January 2025). The potential laydown yards for each route are listed in this document as Appendix A, Table 3 and are shown on within the PSC ERF Docket for the Project as Figure 4 in Appendix A (Docket ID: [5-CE-158](#)).

#### **2.3.6. *Project Need***

The Project is part of the MISO LRTP Tranche 1 Portfolio, projects that are recommended by MISO to meet transmission reliability, economic and policy needs to meet energy demands in the region (Xcel Energy, 2024b). The Project is also known as the Western Wisconsin Transmission Connection Project, and it will connect three existing 345 kV HVTLs coming into Wisconsin from the west. The project will also improve reliability and reduce congestion along the grid, allowing energy from renewable sources in neighboring states to reach Wisconsin customers (DATCP, 2024a; Xcel Energy, 2024a).



### **2.3.7. Existing Transmission Lines**

As proposed, the Project will construct a new 345 kilovolt (kV) HVTL connecting the existing Tremval Substation and a new substation or substation expansion in Eau Claire to be owned by Xcel Energy and a new Jump River substation to be owned and operated by ATC. Where Proposed Routes 1 and 2 would be double and triple circuited with existing transmission lines, the existing 100-foot ROW would be expanded to 150 feet to accommodate the new double-circuited lines and structures while existing structures will be removed (Xcel Energy, 2024a).

Route 1 presents issues in areas of high residential concentrations, such as the cities of Eau Claire and Chippewa Falls; there are areas where the existing ROW cannot be expanded and installing additional structures and transmission lines within a more restricted corridor increases potential safety concerns. Route 2 generally avoids areas of high residential concentrations and issues related to expanding existing ROW are not anticipated for this route option (Xcel Energy 2024a).

### **2.3.8. Project Routing and Siting**

Proposed Route 1 was generally identified by MISO in Tranche 1 of its LRTP study, then refined by Xcel Energy. Xcel Energy also identified a second option for the Project, Route 2, to provide a shorter route option that reduces effects on environmental features and populated areas while still meeting the goals identified by MISO in its LRTP study. Both route options were developed to tie into the existing ATC 345 kV L-GDP181 Line and both routes utilize existing transmission line corridors as much as possible, following PSC routing priorities, to lessen the impact of new infrastructure on landowners, communities, and the environment.

Within their CPCN application, Xcel Energy stated they applied the criteria set forth in [Wis. Stats. § 1.12\(6\)](#) Siting of Electric Transmission Facilities contained within the State Energy Policy in its route development process. The following corridors should be utilized in the following order of priority:

- 1) Existing utility corridors
- 2) Highway and railroad corridors
- 3) Recreational trails, to the extent the facilities may be constructed below ground and that the facilities do not significantly impact environmentally sensitive areas.
- 4) New corridors

As mentioned within the CPCN application, Xcel Energy prefers Route 2 as it is anticipated to minimize impacts on population centers and sensitive environmental resources to a greater degree.



Additional information on route alternatives and Xcel Energy’s analysis can be found within the Project application for a CPCN to PSC, under PSC Docket ID: [5-CE-158](#) (Xcel Energy, 2024a) and within the PSC ERF Docket as Appendix H ([REF# 515798](#)).

**2.3.9. Project Schedule**

According to the AIN and the CPCN application, pending approval by the PSC and obtaining all state agency permits, the estimated construction duration of the new transmission lines is approximately 28 to 32 months, depending on which route is chosen by the Commission. Construction is expected to begin in Fall 2026 and be in-service by Fall 2029, pending agency permits and authorizations.

Table 1: The anticipated project timeline for the proposed Project, pending approval by the PSC and obtaining all state permits (DATCP, 2024a; Xcel Energy, 2024a).

Project Activity	Preliminary Date
Joint PSC CPCN and WDNR Wetland and Waterway Application Submittal	Fall 2024
PSC CPCN Approval - Anticipated	Spring 2026
WDNR Wetland and Waterway Permit Issuance - Anticipated	Fall 2026
Start Construction	Fall 2026
Project In-Service	Fall 2029

**2.4. Project Right-of-Way (ROW)**

A majority of the proposed routes will follow existing utility corridors (88% for Route 1 and 93 % for Route 2) and share ROW in some cases (see Tables 1 and 2 in Appendix B of the CPCN application). Where Proposed Routes 1 and 2 would be double and triple circuited with existing transmission lines, the existing 100-foot ROW would be expanded to 150 feet to accommodate the new double-circuited lines and structures while existing structures will be removed (Xcel Energy, 2024a). There are two exceptions: the first is a 1.8-mile segment of Segments 1A and 2A where the existing 100-foot ROW within the Eau Claire County Forest would be maintained and would not be expanded. The second location is where Segment 1C of Route 1 overlaps the eastern edge of the Jean Brunet Woods State Natural Area (SNA) and crosses the Fisher River within Brunet Island State Park. Segment 1C would be double circuited with existing Line W3301 (115 kV) in this 0.3-mile crossing of the SNA and Xcel Energy would not expand the existing 100-foot ROW in this location (Xcel Energy, 2024a).

In Chippewa County, for a short 0.4-mile stretch, Route Segment 1C would be triple circuited with Xcel Energy’s 161 kV Line W3219 and a DPC 69 kV line. Line W3219 and the DPC 69 kV line

are currently double circuited in this location within a 100-foot ROW. Similar to the double-circuiting scenario, new triple-circuit capable structures would be installed adjacent to the existing structures and the existing 100-foot ROW would be expanded to 150 feet (Xcel Energy, 2024a).

### **3. AGRICULTURAL SETTING**

#### **3.1. Farmland Preservation**

Wisconsin’s farmland preservation (FP) program provides local governments and landowners with tools to aid in protecting agricultural land for continued agricultural use and to promote activities that support the larger agricultural economy. Lands that are planned for farmland preservation by the county and included in a certified zoning district or located within an Agricultural Enterprise Area (AEA) are afforded land use protections intended to support agriculture, and are eligible for the farmland preservation tax credit.

##### ***3.1.1. Farmland Preservation Planning***

###### *Chippewa County*

The Department certified Chippewa County’s current FP plan in 2015 for a ten-year period ending in 2025 (Chippewa County, 2015). The criteria for land planned for FP in Chippewa County *excludes* any land that is inside incorporated municipal boundaries; inside the Eau Claire Sewer Water Service Area; publicly owned; any parcels that are majority assessed as either residential, commercial or manufacturing; any parcel less than 5 acres in size that is not assessed agricultural; any parcel under county zoning that is not in an agricultural or conservancy district; and any land that is identified as manufacturing, industrial, commercial or residential in a town comprehensive plan (Chippewa County, 2015). All towns in Chippewa County have lands that are planned for FP as part of the county’s FP Plan.

Approximately 479.88 acres planned for farmland preservation in the county’s FP plan are affected by the Project’s proposed Route 1. Approximately 401.04 acres planned for farmland preservation in the county’s FP plan are affected by the Project’s proposed Route 2.

###### *Clark County*

The Department certified Clark County’s current FP plan in 2018 for a ten-year period ending in 2028 (Clark County, 2018). The criteria for land planned for FP in Clark County includes lands in an Agricultural Enterprise Area or a certified FP zoning district; or land taxed at agricultural use-value and containing USDA-NRCS prime agricultural soils (Clark County, 2018). All towns in Clark County have lands that are planned for FP as part of the county’s FP Plan.

Approximately 252.13 acres planned for farmland preservation in the county's FP plan are affected by the Project's proposed Route 2.

#### Eau Claire County

The Department certified Eau Claire County's current FP plan in 2015 for a ten-year period ending in 2025 (Eau Claire County, 2015). The criteria for land planned for FP in Eau Claire County includes land in certified FP zoning districts; land in productive agricultural uses; lands mapped for rural preservation in town comprehensive plans; lands with NRCS class I-III soils; lands managed forestry; and lands adjacent to or near significant investments in continued agricultural operations (Eau Claire County, 2015). All towns in Eau Claire County have lands that are planned for FP as part of the county's FP Plan.

Approximately 245.42 acres planned for farmland preservation in the county's FP plan are affected by the Project's proposed Route 1. Approximately 258.04 acres planned for farmland preservation in the county's FP plan are affected by the Project's proposed Route 2.

#### Trempealeau County

The Department certified Trempealeau County's current FP plan in 2016 for a ten-year period ending in 2026 (Trempealeau County, 2018). The plan's expiration has since been extended to 2028. The criteria for land planned for FP in Trempealeau County includes soils that are suitable for agricultural production; land historically used for agricultural, forestry or agriculture-related use; lands historically in Farmland Preservation contracts; and lands historically in the county's Farmland Preservation Plan (Trempealeau County, 2018). All towns in Trempealeau County have lands that are planned for FP as part of the county's FP Plan.

Approximately 510.70 acres planned for farmland preservation in the County's FP plan are affected by the project's proposed routes, Segment A.

### ***3.1.2. Farmland Preservation Zoning***

Establishing FP zoning strengthens farmland protections beyond what an FP plan affords. Xcel Energy has applied for a CPCN under [Wis. Stat. § 196.491](#) from the PSC. If such certificate is issued, the project will be a permitted use in the FP zoned area under [Wis. Stat. § 91.44\(f\)](#). If a CPCN is not issued, the project will be subject to conditional use regulations in the FP zoned area under [Wis. Stat. § 91.46\(4\)](#) and must meet the requirements listed under [Wis. Stat. § 91.46\(4\)\(a\)-\(4\)\(e\)](#).

#### Eau Claire County

A review of the Department's FP program participation map shows that several towns in Eau Claire County are covered by FP zoning administered under county zoning authority (DATCP, 2024b). The

FP-zoned towns with lands impacted by the Project include the towns of Clear Creek, Seymour and Washington.

No other counties have jurisdictions with certified FP zoning within the proposed project area.

### ***3.1.3. Agricultural Enterprise Areas and Farmland Preservation Agreements***

AEAs are community-led efforts to establish designated areas important to Wisconsin's agricultural future. This designation highlights the importance of the area for local agriculture and further supports local farmland preservation and agricultural development goals. Designation as an AEA also enables eligible landowners to enter into FP agreements. Through an FP agreement, a landowner agrees to voluntarily restrict the use of his/her land to agriculture for a minimum of ten years (or fifteen years if signed before December 8, 2023) in exchange for eligibility for the farmland preservation tax credit. It is possible that new agreements could be enrolled between the time of this analysis and potential construction of finalized designs related to the project corridor. The Department recommends Xcel Energy consult the Department in the year preceding construction regarding the status of effective agreements within the project corridor and for information regarding required releases of land from effective farmland preservation agreements.

A review of the Project's proposed routes identified one county – Eau Claire County – that contains a designated AEA within both the Project's proposed routes (DATCP 2024a; DATCP 2024b). The Golden Triangle AEA has approximately 50 acres within both of the project's proposed routes, Segment A.

The construction of a new transmission line is a non-conforming land use on lands subject to an effective farmland preservation agreement within an AEA, according to Wis. Stat. § 91.62(1)(c). Agricultural lands covered by an effective FP agreement, where a non-conforming land use is planned, are required to release the affected lands prior to the initiation of the non-conforming land use. Landowners should contact the Department to release affected agricultural lands from an FP agreement. As part of the release, the Department is required to collect a conversion fee, according to Wis. Stat. § 91.66, to release lands from an FP agreement. None of the Project's proposed routes encroach upon existing effective FP agreements within AEAs.

Prior to 2009, owners of eligible farmland could sign 10 to 25-year FP agreements outside of AEA boundaries. Approximately 7.74 acres of land covered by effective pre-2009 FP agreements in Trempealeau County are affected by both of the Project's proposed routes, Segment A. This includes contract numbers 15099 recorded as Document number 328073 on December 14, 2000 in the Trempealeau County Register of Deeds; 15100 recorded as Document number 327765 on November 29, 2000 in the Trempealeau County Register of Deeds; and 15748 recorded as Document number 380191 on January 1, 2007 in the Trempealeau County Register of Deeds. These pre-2009 FP agreements are effective through 2025, 2025 and 2031, respectively.

### ***3.1.4. Managed Forest Law***

The MFL program is a voluntary sustainable forestry program administered by WisDNR under [subch. III of ch. NR 46](#). In exchange for reduced property taxes, eligible landowners commit to a 25-50 year sustainable forest management plan on their privately owned woodlands. Sustainable forestry practices such as harvesting mature timber according to sound forest management practices, reforestation and afforestation of the land, are required in enrolled landowner's management plans. Potential enrollees must also show their parcel complies with size and density requirements under [Wis. Stat. § 77.82\(1\)\(a\)2](#), which states that at least 80% of the parcel must be producing or capable of producing a minimum of 20 cubic feet of merchantable timber per acre per year. Land with buildings or improvements associated with buildings are not eligible for MFL. Exceptions such as utility ROWs are permitted such that the project and its ROW will not interfere with future or current MFL eligibility (WisDNR, 2017).

In order to analyze project impacts on MFL enrollments, the Department conducted a spatial analysis to determine total acres impacted on parcels enrolled in MFL as compared to their sizes, and therefore their MFL eligibility. This analysis indicated that the Project's proposed Route 1 will impact approximately 98.15 acres of MFL enrolled land, including 10 parcels where the impacted acres are greater than 10% of the parcel's total, meaning there is a greater potential that they no longer meet the 80% eligibility requirement to remain enrolled in the MFL program. These parcel's state IDs are 121020-00088-0015; 121018-00765-0000; 121017-00777-0000; 121078-01006-0005; 121030-00064-0000; 01723001-0234-00000000; 01723107-3544-00020000; 01723206-3512-00000000; 01723206-3521-00000000; and 0350241016020000. The Project's proposed Route 2 will impact approximately 13.98 acres of MFL enrolled land, including two parcels where the impacted acres are greater than 10% of the parcel's total, meaning they may no longer meet the 80% eligibility requirement to remain enrolled in the MFL program. These parcel's state IDs are 01722807-1131-00000000 and 01722807-1132-00000000.

The Department recommends that all landowners review potential implication of the proposed routes to their MFL enrolled lands. Impacted landowners should visit the WisDNR Forestry Assistance Locator website [www.dnr.wi.gov/fal/](http://www.dnr.wi.gov/fal/) to find their local DNR Tax Law Forestry Specialist and discuss the implication of the routes to their MFL enrolled lands.

### ***3.1.5. Purchase of Agricultural Conservation Easement Programs (PACE)***

The 2009 - 2011 State of Wisconsin budget authorized the state Purchase of Agricultural Conservation Easement (PACE) Program under [Wis. Stats. § 93.73](#), which is intended to provide matching funds to assist local governments and non-profits with the purchase of permanent agricultural conservation easements. The intent of the PACE program is to preserve agricultural land of significance at risk of development and to provide an additional layer of permanent protection to certified FP planned areas and designated AEAs. Post PACE acquisition, the partnering local entity and the Department co-hold the agricultural conservation easement voluntarily

purchased from landowners. At the time of this analysis, the state's PACE Program is not currently funded or accepting new applications. However, the state holds 17 PACE easements.

A review of the Department's PACE Program shows the Project would not impact any state held PACE easements.

Counties and private non-governmental organization such as land trusts may also hold agricultural conservation easements. Based on a review of publicly available online resources, the Department found that some publically-held easements in Chippewa (Old Abe State Trail-DNR) and Trempealeau counties (WRP-NRCS) may be impacted by the Project (NCED, 2024).

### **3.2. Drainage Districts**

Drainage districts are local governmental entities governed under Wis. Stat. Ch. 88 and organized under a county drainage board for the primary purpose of draining of lands for agricultural use (DATCP, 2021). Landowners who benefit from drainage pay assessments to cover the cost to construct, maintain, and repairing the district's drains. According to the Department, approximately 190 active districts exist within 27 of Wisconsin's 72 counties.

A review of the Department's Drainage Program database indicates that no drainage districts will be directly impacted by the Project.

### **3.3. Conservation Programs**

Voluntary conservation programs such as the USDA Conservation Reserve Enhancement Program (CREP) and the USDA Conservation Reserve Program (CRP) are financial incentive programs to help agricultural landowners meet their conservation goals. The USDA and the Department jointly administer the CREP program in Wisconsin.

#### ***3.3.1. Conservation Reserve Enhancement Program***

CREP pays eligible agricultural landowners enrolled within the program to install filter strips along waterways or to return continually flooded fields to wetlands while leaving the remainder of the adjacent land in agricultural production. To be eligible for CREP payments, a recipient must have agricultural lands in crop production that are within 150 ft of a stream or water body or 1,000 ft from a grassland project area (DATCP, 2019).

CREP pays eligible agricultural landowners enrolled within the program to install filter strips along waterways or to return continually flooded fields to wetlands while leaving the remainder of the adjacent land in agricultural production. To be eligible for CREP payments, a recipient must have agricultural lands in crop production that are within 150 ft of a stream or water body or 1,000 ft from a grassland project area (DATCP, 2019).

#### Chippewa County

A review of the Department's CREP records indicate that as of October 2024, the Project's proposed Route 1 will encroach upon three effective CREP agreements and one perpetual easement in Chippewa County. The Project's proposed Route 2 will encroach upon one effective CREP agreement and two perpetual easements in Chippewa County.

#### Clark County

No CREP sites in Clark County are affected by proposed routes for the Project.

#### Eau Claire County

A review of the Department's CREP records indicate that as of October 2024, the Project's proposed routes, Segment A will encroach upon five effective CREP agreements in Eau Claire County.

#### Trempealeau County

Trempealeau County is not currently a part of the CREP program.

CREP enrollment information is privileged to the USDA, Cooperators, such as the Department and the Chippewa County Land Conservation and Forest Management Department, and program participants. Construction activities for the Project may directly or indirectly increase the occurrence of storm water runoff, erosion and sedimentation on lands in the project corridor. The effective status of CREP agreements and new enrollment is subject to change between the time of this analysis and any proposed construction activity.

It is the responsibility of the landowner to maintain their CREP or CRP agreements, and they can work with the project initiator to maintain this compliance. The Department recommends that the landowners or farm operators with a CREP or CRP agreement consult with their local FSA contact and discuss the impacts of the proposed project to determine what information is necessary to share with the project initiator in order to maintain compliance with CREP or CRP agreements.

The Department advises Xcel Energy to:

- Work with landowners to identify effective CREP agreements prior to any construction or site disturbance activities
- Coordinate with the appropriate Wisconsin CRP contact regarding effective CRP contracts within the project area and coordinate with FSA regarding impact mitigation to CREP enrolled lands and/or potential contract (CRP-1) releases within 12 months of expected construction or site disturbance activities
- To limit situations of CRP-1 contract termination, limit site disturbance of CRP/CREP to times outside of the Primary Nesting Season (May 15th to August 1st) to the extent practicable and necessary in coordination with FSA to ensure compliance with these contracts



- Consult with the Department as soon as a route is selected affording as much time as possible prior to any construction or site disturbance activities to determine the impact of the selected route on any CREP easements or any state agreements that may require termination and repayment of funds. If any portion of the CRP-1 contract is terminated by USDA-FSA, the corresponding area under the state CREP agreement must also be terminated. Termination of any part of a CREP agreement requires repayment of any funds issued to the landowner under the terms of the agreement.
- In the case of CREP easements held by Chippewa County, the project initiators should consult the Chippewa County Land Conservation and Forest Management Department as soon as a route is selected affording as much time as possible prior to any construction or site disturbance activities to determine the impact of the selected route on any CREP easements or any state agreements that may require termination and repayment of funds. If any portion of the CRP-1 contract is terminated by USDA-FSA, the corresponding area under the state CREP agreement must also be terminated. Termination of any part of a CREP agreement requires repayment of any funds issued to the landowner under the terms of the agreement.

### ***3.3.2. Conservation Reserve Program (CRP)***

CRP is a land conservation program administered by the Farm Service Agency of the USDA. In exchange for a yearly rental payment, eligible agricultural landowners enrolled in the program agree to remove highly erodible land from agricultural production and plant resource-conserving plant species such as grasses or trees that will improve environmental health and quality (USDA, 2019). Eligible agricultural landowners must possess lands with the potential for long-term improvements to water quality, prevent soil erosion or establish beneficial wildlife habitats according to the USDA Environmental Benefits Index (USDA, 2019). CRP enrollment information is privileged to the USDA and CRP program participants. The Department is therefore unable to determine if any of the impacted agricultural parcels are enrolled within the CRP program, unless landowners voluntarily share this information with the Department.

Of the 51 responses to the Department’s pre-construction questionnaire, 7 of the landowners impacted by the project included that part of their land is enrolled within CRP.

It is the responsibility of the landowner to maintain their CREP or CRP agreements, and they can work with the project initiator to maintain this compliance. The Department recommends that the landowners or farm operators with a CREP or CRP agreement consult with their local FSA contact and discuss the impacts of the proposed project to determine what information is necessary to share with the project initiator in order to maintain compliance with CREP or CRP agreements.

The Department advises Xcel Energy to:



- Work with landowners to identify effective CRP agreements prior to any construction or site disturbance activities
- Coordinate with the appropriate Wisconsin CRP contact regarding effective CRP contracts within the project area and coordinate with FSA regarding impact mitigation to CREP enrolled lands and/or potential contract (CRP-1) releases within 12 months of expected construction or site disturbance activities

### ***3.3.3 Soil and Water Resource Management Grant Program (SWRM)***

The state has a SWRM program with goals including: enhancing surface and groundwater protections, providing financial and technical assistance for locally led conservation and addressing soil and water resource concerns. Through the SWRM Program, the Department allocates funds to County Conservation Departments to facilitate landowner cost-share for installation of conservation practices. When a cost-share contract is issued under Wis. Stat. §92.14, a landowner and or grant recipient agrees to install and maintain the conservation practice according to an operation and maintenance plan.

Landowners who are aware of any SWRM cost-shared practices on their farm within the proposed Project area should consult with the County Land Conservation Department to determine 1) the compatibility of the proposed ROW easement with the existing conservation practice and 2) if any effects will occur due to alteration of a practice during construction activities.

Xcel Energy is advised to consult the applicable County Land Conservation Department on the existence of installed SWRM conservation practices within the Project area. Practices that are not maintained in accordance with the terms of the contract operation and maintenance plan may be subject to repayment of cost-shared funds. If a landowner is required to repay any cost-share funds because a construction impact resulted in a violation of the SWRM contract, the landowners should contact the Xcel Energy staff member, as designated by Xcel Energy, responsible for handling compensation for release of lands from conservation programs. The landowner should be compensated for any termination of SWRM grant contract resulting from a construction impact.

## **4. AGRICULTURAL IMPACTS**

In addition to being a key component of [Wis. Stat. §32.035](#), documenting the agricultural impacts of a project provides the project initiator and the agricultural landowner the opportunity to better understand the project in its own right as well as learn how the project will impact agriculture. Furthermore, the documentation of agricultural impacts by agricultural landowners and operators creates the opportunity for discussion of alternatives that may reduce impacts to agricultural lands.

In order to promote the opportunity for alternatives, the Department has used information provided by Xcel Energy for this AIS and information gathered by the Department to analyze the potential agricultural impacts of the Project in Chippewa, Clark, Eau Claire, and Trempealeau Counties, WI. The analysis of the agricultural impacts and conclusions drawn from the analysis

form the basis of the Department’s recommendations within the AIS Recommendation Section above.

Agricultural operations and future productivity may be affected during construction of the Project. Impacts to agricultural lands may include but are not limited to:

- Interference with farm operation access in the ROW and adjacent areas
- Alteration of surface and subsurface drainage systems
- Impacts to grazing areas, row crops or existing fencing
- Use of prohibited substances on farms that follow organic or other sustainable management practices

Following construction, some impacts may affect agricultural operations for years. These long term impacts may include but are not limited to:

- Yield reduction due to erosion, topsoil mixing and/or compaction
- Ponding from altered surface and subsurface drainage profiles
- Inadequate restoration resulting in alteration to original land contours

Xcel Energy has identified agricultural mitigation practices that may be applied in the Project ROW, which can be found in section 7.4.4 of Xcel Energy’s CPCN application ([REF # 515940](#)). Pending Project approval, Xcel Energy will coordinate and consult with each agricultural landowner to obtain detailed information about each agricultural operation including but not limited to: locations of farm infrastructure, livestock and crops, locations of drainage tiles, and landowner concerns. Xcel Energy will use agricultural landowner feedback to identify potential project impacts to each agricultural operation along the Project route and to the extent practicable, implement measures to mitigate impacts (Xcel Energy, 2024a). Subsequent discussion includes agricultural acquisitions and recommended additional agricultural mitigation practices beyond what Xcel Energy cites within their CPCN.

#### **4.1. Landowner Rights**

[Wisconsin Statute § 182.017](#), also referred to as the “Landowner Bill of Rights”, describes the rights of landowners and the requirements the utility must adhere to, when a transmission line will be constructed on private property. The transmission line applicant and contractor operating on the applicants behalf must comply with all aspects of this statute, which covers the range of topics described below:

- |                               |  |
|-------------------------------|--|
| ▪ Compensation                | ▪ Landowner and Utility Liabilities              |
| ▪ Infrastructure Repair       | ▪ Tree Harvesting and Tree Ownership             |
| ▪ Soil Conservation & Erosion | ▪ Interference with television & radio reception |

- Debris Removal
- Consent for Weed & Brush Control
- Right-of-way Restriction

The applicant may request landowners to waive some rights during the negotiation process, but landowners are not required to do so. The Landowner Bill of Rights is still applicable to condemned land. The Department recommends that each affected landowner review the Landowners Bill of Rights (see Appendix D Section V) in its entirety prior to the start of easement negotiations.

## 4.2. Agricultural Land Acquisitions

In order to implement the proposed Project, Xcel Energy and ATC will affect approximately 1261.3 – 1476.1 acres of agricultural lands depending on the selected route and affect up to 263 agricultural landowners. Proposed staging areas and laydown yards are described in Section 2.3.5. *Staging Areas*. A majority of either route follows corridors that Xcel Energy currently owns, but they have determined the existing easements are insufficient to accommodate the proposed Project for reasons outlined in Section 2.4 above. Therefore, Xcel Energy plans to use a combination of temporary and permanent easements to obtain the necessary rights to construct the Project across all agricultural lands, regardless of a lands’ current easement status (Xcel Energy, 2024a). The Department analyzed impacts to agricultural land within the proposed new easements.

The Department attempted to contact 128 agricultural landowners impacted by the Project alternative routes who had agricultural impacts of five or more acres (Appendix A, Table 5). There were another 224 agricultural landowners impacted by the proposed Project route alternatives with impacts less than 5 acres, who were not contacted (Appendix A, Table 6). The following section relays the feedback and comments received from stakeholders and agricultural landowners through the Department’s efforts. The information obtained from these responses helped form the basis of the Department’s analysis of agricultural impacts to specific agricultural landowners and agricultural landowners in general.

Agricultural tenant operators impacted by the Project may be eligible for a farm replacement payment from Xcel Energy in accordance with Wis. Stat. §32.19(4m)(b) if Xcel Energy exercises the powers of eminent domain through a jurisdictional offer to the agricultural property owner. A voluntary sale between Xcel Energy and an agricultural property owner, after a jurisdictional offer has been made, would not negate the potential for a farm replacement payment.

## 4.3. Summary of Landowner Concerns

In order to gather additional information about the project’s impact to agricultural lands and farm operations, the Department mailed surveys, referred to as “pre-construction questionnaires”, to agricultural landowners in the Project ROW routes who had agricultural impacts of five or more

acres. In total, the Department mailed 128 surveys. Agricultural landowners were given the opportunity to respond by mail or call the AIS program manager to give a verbal response. A total of 51 agricultural landowners responded, resulting in a response rate of 39.8%. A complete record of responses received for the Project can be found in Appendix C: Agricultural Landowner Comments.

The majority of the respondents (40 of the total 51 landowners, or 78%) reported their agricultural operations consisted of cropland. Of the total respondents, 51% or 26 landowners cited that the impacted parcels also had homes and farm buildings on them, 49% or 25 landowners cited that they were managed woodlands, and 41% or 21 landowners cited that their impacted parcels had pasture land. Twenty-one respondents (41%) also indicated their agricultural operations possessed livestock and farm animals, including dairy cattle, replacement dairy cattle, beef cattle, pigs, sheep/goats, poultry, deer, turkeys and horses. Eight percent of respondents indicated having idle or fallow land. Twenty-four percent or 12 respondents indicating have other land use on their property, with the majority being wetlands and one of the respondents having a county-approved airstrip.

When asked to select any of the concerns shown in Figure 3 about the Project, the primary concerns identified by respondents were impacts to grassed waterways (43% of respondents), access issues (43% of respondents), and impacts to fencing (35% of respondents) (Figure 3). Respondents were also notably concerned about impacts related to erosion control, impacts to manure or fertilizer application or storage, impacts to firewood or timber production, drainage structures or drainage tiles, impacts to aerial spraying or seeding activities (Figure 3). Other areas of concern reported by the respondents are shown in Figure 3.

Agricultural landowners were also asked to indicate if they participated in any conservation or agricultural programming including FP agreements, FP zoning, CREP, CRP and MFL. Four respondents indicated that they have land enrolled in FP agreements and/or FP zoning, four respondents indicated they have lands enrolled in MFL, two respondents indicated participating in the CREP program, and seven respondents indicated they participate in the CRP program. Additionally, one landowner cited their land was being used as a preservation for wildlife, but did not indicate if it was associated with a specific conservation program.

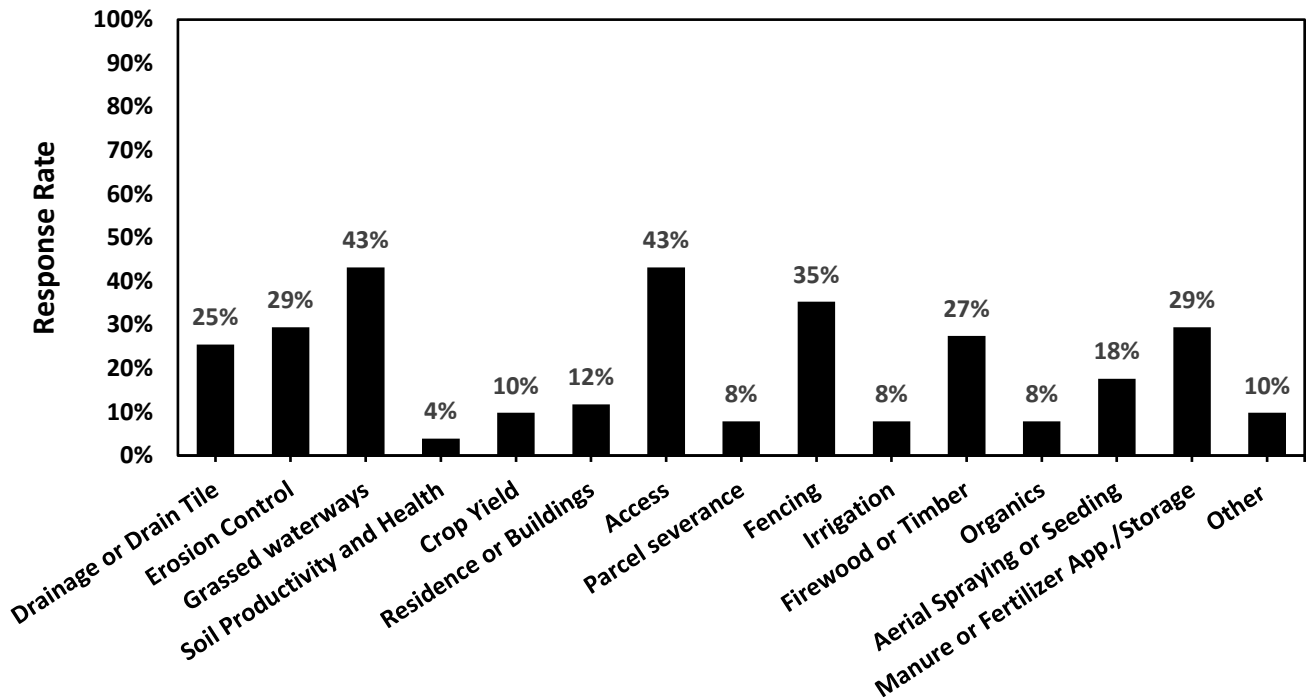


Figure 3: Landowner concerns gathered from the pre-construction questionnaire regarding the proposed Project.

#### 4.3.1. Landowner Concern Conclusions

After review and analysis of the agricultural landowner responses obtained from the Department’s pre-construction questionnaire surveys, the Department has identified the following priority areas of agricultural landowner concerns: grassed waterways (43% of respondents), access issues (43% of respondents), and impacts to fencing (35% of respondents) (Figure 3).

Forty-three percent of respondents were concerned about impacts to grassed waterways. Grassed waterways significantly reduce gully erosion by utilizing grass or other suitable vegetation to slow and direct concentrated flows of water and run-off. Transmission line projects can exacerbate soil erosion on agricultural land by disturbing soil, removing vegetation, and increasing runoff. These disturbances often lead to greater soil erosion, reduced soil fertility, and potential sedimentation in waterways. In general, farmland drainage systems such as grassed waterways are an important tool for managing water levels especially on hydric soils and for increasing crop yield. Please refer to Section 5.5.6 “Erosion and Conservation Practices” for additional information about erosion and related mitigation practices. Twenty-five percent of respondents were concerned about drainage and impacts to drainage tiles overall. To mitigate impacts to drainage systems, agricultural landowners should provide Xcel Energy with locations of drainage structures and waterways; in turn, Xcel Energy should provide additional considerations to preserve these structures, which are linked to the productivity of the impacted agricultural land. Please refer to Section 5.5.3 “Drainage” for additional information about drainage damage mitigation practices.

The second largest category for landowner concerns regarding the project included access (43%) and fencing (35%). Blocking access to aspects of a farm operation during construction and after transmission line structures are in place can impact how an operator tends to their field, control livestock, and operational efficiency for a farm operation overall. Adequate fencing is important for livestock control, crop protection from livestock, operational efficiency and security for a farm operation. Please refer to Section 5.5.9 "Fencing" for additional information about fencing mitigation practices. Xcel Energy is also proposing temporary access roads across the project corridor to access properties and staging areas during the duration of construction. Please refer to Section 5.5.7 "Temporary Access Roads" for additional information about temporary access road mitigation practices.

Please refer to Section 4.5 "Prime Farmland and Soils" for a comparative analysis of route impacts to agricultural soils. The Department also recommends additional mitigation efforts to reduce as much potential impact as possible beyond what Xcel Energy cites for their standard practices. Please refer to Section 5.5 *Recommended Mitigation Efforts* for additional agricultural mitigation practices.

#### **4.4. Severance, Access and Wasteland**

The temporary and permanent easements of agricultural property required to implement any of the proposed Project alternative routes could result in agricultural parcel severance, removal of existing field access points and potentially the creation of wastelands and uneconomic remnant parcels. The circumstances (i.e. loss of access, severance, wasteland etc.) surrounding the impacts to each impacted remnant agricultural parcel are unique, thus some agricultural parcels may remain economically viable, while others may not. The following analysis will document the potential for severance, loss of access and potential creation of wastelands and uneconomic remnant parcels for the agricultural parcels impacted by the proposed alternatives for the proposed Project in Chippewa, Clark, Eau Claire and Trempealeau Counties, WI.

##### **4.4.1. Severance**

As proposed, Route 1 and Route 2 will temporarily and/or permanently sever agricultural parcels to accommodate the construction of the transmission line. Severance may be a physical barrier such as a temporary access road or a non-physical barrier such as permanent land use restrictions. Imposing land use restrictions as part of a transmission line easement ROW may still allow an agricultural landowner to access lands. However, barring the growth of trees or other woody plants as part of an easement may prevent the continuation of an existing agricultural land use, such as managed forestlands. Regardless of the means, severing an agricultural parcel effectively splits the existing parcel into two or more smaller parcels. Severing an agricultural parcel may also remove existing access points, create agricultural wastelands or uneconomic remnant parcels, and even divide the operation of a farm. Under Wisconsin's Eminent Domain Statute, compensation for damages resulting from severance is described in Wis. Stat. § 32.09(6).

Route 1 consists of 3 segments and Route 2 consists of 2 segments (see Figure 2). The project will connect 3 existing 345kV transmission lines. Routes 1 and 2 have a common segment (Segment 1A or 2A) that co-locates a 345 kV line with a 161 kV line. This segment will require the replacement of existing single circuit 161 kV structures with double circuit structures. Segment 1C also requires the replacement of single circuit structures with double circuit structures. Where the project will require existing lines to be rebuilt, a 150 foot ROW is proposed. Some segments of routes 1 and 2 may require a proposed ROW of 75- 150 feet. In total, 88% of Route 1 follows existing utility corridors and 64% of ROW area in acres is shared with existing utility and transportation corridor ROW. In total, 93% of Route 2 follows existing utility and corridors and 38% of ROW area in acres is shared with existing utility and transportation corridor ROW (Xcel Energy, 2024a). Both the proposed preferred and alternative Project routes hold the potential to sever agricultural parcels.

Landowners are encouraged to review [Specific details for mitigating or minimizing construction impacts in and around](#) within Section 7.4.4 of the project CPCN application for specific details regarding mitigating or minimizing construction impacts in and around agricultural lands prior to easement negotiation and construction.

Where the proposed Project impacts MFL lands, the Department recommends the Project Initiator utilize the mitigation efforts described in Section 5.5.8 "Managed Forest Law, Trees and Other Woody Vegetation" to mitigate impacts to managed forests and preserve continuous tracks of managed forests where possible.

#### ***4.4.2. Access***

As proposed, the Project has the potential to temporarily limit agricultural field access and limit access to agricultural operations during construction. When agricultural lands and operations lose access, even temporarily, agricultural productivity may be impacted if crops, livestock or other agricultural products cannot be tended too. Lost access may also directly result in lost income if a field cannot be planted or harvested, or if an agricultural operation as a whole is hindered.

Site-specific access limitations will be specific to temporary and permanent easements utilized for laydown yards, staging areas, off-ROW access roads and the transmission line ROW. Construction mitigation efforts for each farm will vary according to land use activities of the farm operator, type of farm operation, soil conditions, extent of construction activities on the parcel or farm operation, and feasibility to avoid areas of concern. Landowners and farm operators with concerns related to access on their farm operation should discuss them with the project initiator during easement negotiations and in subsequent communications.

#### ***4.4.3. Wasteland***

Acquisitions and easements that impact farmland frequently create small remnant fields that may be difficult to access, are irregularly shaped, or are no longer able to produce the pre-existing

agricultural crop (e.g timber). These small irregularly shaped remnant fields may also contain numerous obstacles, such as transmission line poles, that can make it difficult for agricultural equipment to navigate and reduce the amount of tillable acres. This in turn reduces agricultural productivity, decreases the economic viability of the land and increases the likelihood of creating undeveloped land (Wis. Stat. § 70.32(2)(a)(5)) or what is commonly referred to as wasteland as shown in Figure 4. Compensation for the reduction in the value of parcels that are small and/or irregularly shaped and the potential creation of uneconomic remnant parcels according to Wis. Stat. 32.06(3m) should be addressed in the appraisal of each affected parcel.

#### 4.4.3.1. Wasteland

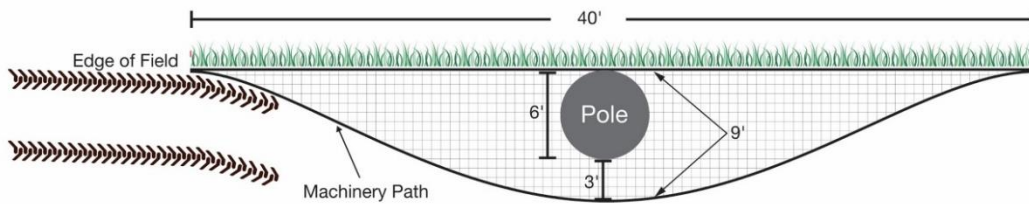
By the nature of transmission line projects, both Route 1 and Route 2 proposed for the Project have the potential to permanently create small amounts of agricultural wastelands in the immediate area surrounding each transmission line pole (Figure 4). Three agricultural landowners and tenants (43% of respondents) reported to the Department concerns about driving farming equipment around transmission towers and the lost productivity and revenue that would result from altering planting patterns around the towers (Appendix C "Agricultural Landowner Comments"), which elevates the cause for concern around the creation of tower induced wastelands. To mitigate the impacts of wasteland creation, the Department recommends that design practices be applied that prioritize edge of field siting for transmission structures in agricultural areas to minimize farmland conversion.

Where the transmission line would require the deforestation of managed forestlands and prevents further growth of timber, the entirety of Project ROW within an MFL parcel may be wastelands if that land does not have a suitable secondary agricultural purpose.

To mitigate the potential to create wastelands of MFL land, the Department recommends that the PSC select a route that avoids the fragmentation of major blocks of forest and prioritize the preservation of windbreaks and MFL lands. Furthermore, the Department recommends the project initiator utilize the mitigation efforts described in Section 5.5.8 "Managed Forest Law, Trees and Other Woody Vegetation" to mitigate impacts to managed forests and preserve continuous tracks of managed forests where possible.



**Figure A: Field Edge Effect on Tower Location**



**Figure B: In-Field Effect of Tower Location**

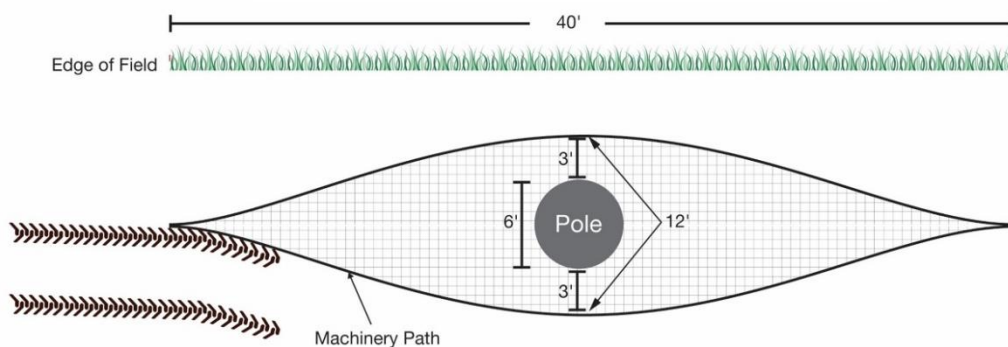


Figure 4 A and B: Examples of agricultural wastelands created by altering the pathway of agricultural machinery to navigate around transmission line towers along a field edge (Figure A) and within a field (Figure B).

#### 4.4.3.2. Uneconomic Remnant Fields

Uneconomic remnant is defined in [Wis. Stat. § 32.06\(3m\)\(a\)](#) to mean “the property remaining after a partial taking of property, if the property remaining is of such size, shape, or condition as to be of little value or of substantially impaired economic viability. Under this provision, if the acquisition of only part of a property for the benefit of the project would leave the landowner with an uneconomic remnant, a condemnor shall offer to acquire the remnant concurrently.

Landowners or operators who are concerned about the creation of a physical or financial remnant that is negligible in value as a result of acquisition of any permanent easement affecting their farm operation should share information regarding impaired use or lost income or value in consultations or easement negotiations with the project initiator.

To mitigate the potential creation of uneconomic remnant fields, if the PSC approves the Project the Department recommends the PSC consider selecting a route that minimizes the creation of new ROW and maximizes total shared ROW.

If the proposed Project is approved, narrow tracks of MFL forestlands would no longer be permitted to grow timber, yet the impacted land may have no suitable alternative agricultural use as they are

part of larger blocks of MFL land. In effect, the land use restrictions on the impacted MFL land could turn the remnant field into uneconomic remnants. To mitigate the potential creation of uneconomic remnant fields, if the PSC approves the Project the Department recommends the PSC consider selecting a route or building a route from individual segments that share existing ROW to the greatest extent possible in order to mitigate impacts to MFL lands and the potential creation of uneconomic remnant fields.

#### **4.5. Prime Farmland and Soils**

In spatial data provided in the AIN, the project initiator reported the Project will impact between 1261.3 to 1476.1 acres of agricultural lands, including cropland, forest management land, pasture, specialty farmland and other agricultural land, and agricultural soils depending on the selected route. This soils analysis includes lands to be used for distribution line ROW, transmission line ROW, work areas, laydown yards, substations, and off ROW access roads.

Impacts to prime farmland and soils measured in this analysis reflect the Project's cumulative impact and does not necessarily differentiate between permanent or temporary impacts to an agricultural operation. The soils impacted by the proposed Project were cataloged and analyzed by farmland classification, for each route alternative, using the USDA-Natural Resources Conservation Service prime farmland soils GIS layer. Farmland soil classifications impacted by the Project include prime farmland, prime farmland if drained, farmland of statewide importance or farmland of local importance (Table 3). Prime farmland is designated by the USDA according to section 622.3 of the National Soil Survey Handbook (USDA, 2017) and is based on the ability of the land and soil to produce crops. Definitions of prime farmland, prime farmland if drained and farmlands of statewide/local importance are provided under Table 3. The soil texture of agricultural soils impacted by the Project was analyzed, in general terms, across the project ROW.

If selected, Route 1 distribution line ROW, transmission line ROW, work areas, laydown yards, substations, and off ROW access roads will impact up to 1261.3 acres of agricultural soils. Across impacted parcels in Route 1, 62% hold some level of Federal or State priority designation, with 38% classed as not prime farmland. An estimated 329.36 acres of agricultural lands within Route 1 distribution line ROW, transmission line ROW, work areas, laydown yards, substations, and off ROW access roads are known to be hydric or contain hydric inclusions. See Section 4.6.1 for *Drainage and Soil Health Impacts* for additional discussion of hydric soils.

If selected, the Route 2 distribution line ROW, transmission line ROW, work areas, laydown yards, substations, and off ROW access roads will impact up to 1476.1 acres of agricultural soils. Across impacted parcels in the South route, 66.3% hold some level of Federal or State priority designation, while 33.7% are classed as not prime farmland. An estimated 349.5 acres of agricultural lands within the Route 2 distribution line ROW, transmission line ROW, work areas,

laydown yards, substations, and off ROW access roads are known to be hydric or contain hydric inclusions.

Across the impacted agricultural parcels in both routes, the soils primarily consist of loam and silt loam textured soils of various soil series. Loam and silt loam soils are medium-textured soils (Cornell, 2017) with good soil structure, possess an ideal ability to hold onto water without becoming excessively wet and are usually well suited for crop production (UW-Extension, 2005).

This soils analysis shows that both the Routes 1 and 2 will impact or remove prime farmland and high quality soils. Comparatively, the acreage of potential impacts to prime farmland posed by Route 2 (586.5 acres) are 45.2% greater than potential impacts to prime farmland posed by Route 1 (369.9 acres). When evaluating the cumulative impacts to all farmlands with some designation of Federal and State importance, the impact of the Route 2 increases to 22.26% more acres than Route 1. In general, the Department recommends selecting a route that shares existing ROW to the greatest extent possible to mitigate new or expanded impacts to prime farmland and agricultural soils. According to the project initiator, the Route 1 will afford 64% shared ROW area in acres; the Route 2 will afford 38% shared ROW area in acres.

Table 2: Agricultural soils, shown by Project route and farmland classification, impacted by the proposed Project.

<b>Soil Texture</b>	<b>Prime Farmland*</b> (acre)	<b>Prime Farmland if Drained<sup>o</sup></b> (acre)	<b>Farmland of Statewide Importance<sup>f</sup></b> (acre)	<b>Not Prime Farmland<sup>h</sup></b> (acre)	<b>Total</b> (acre)
<b>Route 1 ROW</b>					
Alluvial	0.0	0.0	0.0	12.5	12.5
Complex	0.0	0.0	0.0	63.5	63.5
Gravel	0.0	0.0	0.0	2.7	2.7
Loam	59.5	9.2	18.4	35.1	122.1
Loamy Sand	0.0	0.0	0.0	110.8	110.8
Muck	0.0	0.0	0.8	17.5	18.3
Peat	0.0	0.0	0.0	0.9	0.9
Sand	0.0	0.0	0.0	49.2	49.2
Sandy Loam	143.2	3.3	107.8	63.7	318.0
Silt Loam	167.2	209.6	63.7	117.3	557.8
Water	0.0	0.0	0.0	5.6	5.6
				<i>Route 1 Total</i>	1261.3
<b>Route 2 ROW</b>					
Alluvial	0.0	0.0	0.0	12.5	12.5
Complex	0.0	4.9	0.0	60.5	65.4
Loam	173.3	66.9	67.5	131.2	438.8
Loamy Sand	0.0	0.0	0.0	95.8	95.8
Muck	0.0	0.0	2.4	16.9	19.2
Sand	0.0	0.0	0.0	102.6	102.6
Sandy Loam	162.9	2.9	65.7	38.2	269.7
Silt Loam	250.3	144.6	37.5	37.7	470.0
Water	0.0	0.0	0.0	2.0	2.0
				<i>Route 2 Total</i>	1476.1
<p><b>*Prime farmland</b> is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and may be utilized for cropland, pastureland, rangeland, forest land, or other lands excluding urban built-up land or water. It has the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when treated and managed according to acceptable farming methods, including water management.</p> <p><b><sup>o</sup>Prime farmland if drained</b>, indicates that if farmland is drained it would meet prime farmland criteria.</p> <p><b><sup>f</sup>Farmlands of statewide importance</b> are set by state agency(s). Generally, these farmlands are nearly prime farmland and economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce yields high as prime farmlands under proper conditions.</p> <p><b><sup>h</sup>Not Prime farmland</b>, indicates farmland is neither prime farmland nor of designated importance.</p>					

## 4.6. Drainage and Soil Health

Maintaining proper field drainage and preserving soil health is vital to the success of an agricultural operation. If drainage is impaired, water can settle in fields and cause substantial damage, such as reducing soil health, harming or killing crops and other vegetation, concentrating mineral salts, flooding farm buildings, or causing hoof rot and other diseases that affect livestock. Soil structure, texture, organic matter and microorganisms are all important factors that influence soil health (Wolkowski and Lowery, 2008).

### 4.6.1. Drainage and Soil Health Impacts

Project construction activities have the potential to disrupt and/or mix soil profiles within the Project ROW as well as the surrounding area. Construction activities may affect the existing surface and subsurface (i.e. drain tile) drainage patterns of agricultural fields if drainage tile lines are broken or if the topography of grassed waterways, known water flowlines or erosion control structures are altered. Agricultural landowner feedback gathered by the Department indicates that there are impacted agricultural parcels that contain drainage tile that could be affected by the Project (Appendix C: Agricultural Landowner Comments). The agricultural soils impacted by the proposed Project are also widely known to be hydric or contain hydric inclusions. Hydric soils are commonly saturated, flooded or ponded for an extended period during the growing season, causing anaerobic conditions within the upper soil layer and may be associated with wetlands. It is common practice for agricultural operations to install drainage systems to mitigate the impacts of hydric soils, however drainage is most common in eastern and southern areas of the state where soils and topography preclude adequate drainage (Olson, 2020).

Prior to the start of construction, landowners should identify for the project initiator where construction activities may interfere with farm operations, farm building/facilities or farming infrastructure including but not limited to drain tiles, wells, watering systems, drainage ditches, drainage tile, culverts, amongst others.

The movement of heavy equipment through the Project ROW may also compact soil and impede drainage. UW-Extension report A3367 states that heavy equipment with axle loads that exceed 10 tons increase the risk of soil compaction into subsoil layers that cannot be removed by conventional tillage (Wolkowski and Lowery, 2008). In addition, research has also shown that construction activities can negatively impact soil properties, soil health and crop yields for up to a decade within the ROW depending on the type and severity of construction impacts (e.g equipment axle weight, use of excavation, intermixing of soil layer etc.) (Culley and DOW 1988; Shi et al., 2014).

The project initiator has discussed construction impacts related to soils and their applicable management practices in Section 5.5 of its CPCN Application (REF#: [515940](#)) including practices like sediment and erosion control, use of composite, timber or laminated construction matting,

topsoil segregation, clean up and restoration. Specific practices to minimize or mitigate construction impacts in and around agricultural lands are discussed in Section 7.4.4 of the CPCN Application (REF#: [515940](#)). The Department recommends Xcel Energy take several mitigation efforts related to topsoil mixing, soil compaction, drainage, de-watering, and erosion control as see in Section 5.5 "Recommended Mitigation Efforts" to mitigate impacts to drainage and soil health on agricultural lands and preserve prime

## **5. AGRICULTURAL IMPACT MITIGATION**

Xcel Energy has indicated within their CPCN application and AIN, pending Project approval, they will coordinate and consult with each agricultural landowner to obtain detailed information about each agricultural operation including but not limited to: locations of farm infrastructure, animals and crops, current farm biological security practices, locations of drainage tiles, use of off-ROW access roads, and landowner concerns. Xcel Energy will use agricultural landowner feedback to identify potential project impacts to each agricultural operation along the Project route and to the extent practicable, implement measures to mitigate impacts (DATCP, 2024a; Xcel Energy, 2024a).

The Department recommends that landowners whom are concerned about potential impacts to their agricultural land should keep records of the conditions of the ROW before, during, and after construction. Records could include keeping crop yield records, beginning once the ROW is known, and photographs taken every season. These measures can help a landowner negotiate for compensation, should damages caused by Project occur.

### **5.1. Independent Environmental Monitor (IEM)**

For large-scale utility projects, the requirement for project initiators (i.e. utilities) to hire an IEM has become a standard part of a PSC approval order. When hired, an IEM works on behalf of the PSC, WisDNR, the Department or other state regulatory agency as opposed to the utility. IEMs monitor project construction activities and report on a wide range of environmental issues such as construction impacts to wetlands, waterways, protected species, archaeological sites, state and federal properties, and erosion control. The IEM is also responsible for reporting incidents and has the power to stop project work if construction activities would violate permits, approvals, PSC order conditions, or agreement with a state regulatory agency.

Given the extended linear length (potentially 80-94 miles) of the Project in Chippewa, Clark, Eau Claire, and Trempealeau Counties, there is the potential for a range of environmental impacts to soil, wetlands, woodlands, wildlife, archaeological sites, stream crossings and surface water quality. If approved by the PSC, the Department recommends Xcel Energy be required to hire an IEM for the duration of the construction of Project. The IEM should be hired in consultation with and the approval of the PSC, DATCP, and WisDNR and all reports generated by IEM should be shared with the PSC, DATCP, and WisDNR.

## **5.2. Independent Agricultural Monitor (IAM)**

When a project affects a significant amount of agricultural land an IAM may also need to be hired. IAMs monitor project construction activities and report on a wide range of agricultural issues including but not limited to construction impacts to soil health, soil erosion, crop damage, agricultural operations, irrigation and impacts to surface and subsurface drainage. Similar to an IEM, an IAM works on behalf of the PSC, WisDNR, the Department or other state regulatory agency as opposed to the utility. IAMs should also verify the project initiator is complying with any agricultural best management practices and agricultural conditions in the PSC order and any environmentally relevant construction documents approved by the PSC. While the duties of an IAM and IEM may sound similar, the IAM specializes in agricultural impacts and the IAM does not hold the power to stop the project.

The proposed Project offers two route alternatives with a high amount of impacted acres, leading to many potential agricultural impacts. Agricultural impacts from the Project may include but are not limited to crop damage, soil compaction, mixing of topsoil, soil erosion, impacts to surface and subsurface drainage, impacts to irrigation systems and stray voltage. For assistance mitigating potential environmental impacts and staying within the limits of federal, state and local permits, Xcel Energy plans to hire an experienced Environmental Inspector. Given the circumstances of the Project, which are outlined in the IEM Section above, the Department believes the magnitude of agricultural impacts constitute the need for an IAM. The Department recommends that for the duration of project construction, the Project Initiators be required to hire an Independent Environmental Monitor (IEM) and/or an Independent Agricultural Monitor (IAM), or an individual with the capacity for both an IEM and IAM, but that only has stop-work authority when acting in the capacity of the IEM.

Should the PSC require an IAM for the Project, the Department recommends the IAM complete the Department's standard Agricultural Monitoring Form for Transmission Line Projects (ARM-LWR-543) seen in Appendix F or equivalent. For the Department to maintain timely review of Project activities occurring on agricultural lands, the IAM should document daily observations of construction activities on agricultural land only. The IAM should send the Department an updated form weekly.

## **5.3. Agricultural Mitigation Measures**

Xcel Energy proposes mitigation and best management practices in agricultural areas in Section 7.4 of their CPCN application narrative ([REF# 515940](#)), though they cite that site-specific practices vary according to the characteristics of each impacted agricultural property, accounting for factors such as the type of agricultural operation, potential for compaction, the degree of construction activities occurring on the parcel and landowner/farm operator practices (Xcel Energy, 2024a).

At the time of developing this AIS, Xcel Energy does not have an Agricultural Impact Mitigation plan. This Department offers the following section for best management practices and mitigation

efforts that go beyond what was listed within Xcel Energy's CPCN application. The Department also recommends that Xcel Energy create an Agricultural Mitigation Plan due to the scale of the Project.

Xcel Energy plans to minimize Project impacts to agricultural lands through careful consideration of agricultural impacts through consideration of alignment routing & individual structure siting, such as routing along public road ROW so structures are located along the edges of land or routing along existing transmission line ROW. Xcel Energy plans to mitigate short-term construction-related impacts through compensation to producers and restoring agricultural lands to the extent practicable, incorporating mitigation techniques such as topsoil replacement and deep tilling where appropriate.

Prior to construction, Xcel Energy also proposes to consult with each agricultural landowner to understand their farm specific agricultural operation, including but not limited to: current agricultural practices, equipment, locations of farm infrastructure, animals and crops, current farm biological security practices, locations of drainage and irrigation structures, use of off-ROW access roads, and landowner concerns.

Subsequent discussion includes agricultural acquisitions and recommended additional agricultural mitigation practices beyond what Xcel Energy has proposed within their CPCN application narrative.

#### **5.4. Cleanup and Restoration**

In accordance with [Wis. Stat. § 182.017\(7\)\(c\)](#), following the completion of construction activities, Xcel Energy will restore the area to preconstruction conditions. In general, cleanup and restoration activities include the removal of construction mats, temporary clear span bridges, and any other material or debris (including stones and rocks) from the ROW. Stockpiled topsoils and subsoils removed during construction are returned, in the proper order, and graded to match the existing topography and slopes. All ruts and depressions are restored and new topsoil may be brought in where topsoil has been lost or seriously mixed with subsoils. Agricultural soils are also monitored for compaction and when required undergo decompaction efforts to return the soil structure to its original condition. In areas where crops are not present--such as roadsides, pastures, old fields or upland woods--native seed mixes (or other appropriate seed mixes approved by the landowner) may be sown.

Under Wis. Stat. § 182.017(7)(c), if drainage tiles, fencing or other agricultural features are damaged during construction, Xcel Energy is responsible to repair and/or replace the damage feature. Xcel Energy is also responsible to pay for any crop damages caused by construction or maintenance of the transmission line. Within the AIN to the Department (DATCP, 2024a), Xcel Energy stated they will work with agricultural landowners to compensate them for potential future



crop loss as a result of the Project in the following manner. The damaged area will be measured, yield determined in consultation with the farmer, and paid at the current market rates.

For any dairy farm or livestock operation impacted by the removal of feed supply within the construction workspace, Xcel Energy will compensate for increased costs associated with the purchase of forage. Other compensation measures could include Xcel Energy compensating for the cost of boarding an animal off-farm (Xcel Energy, 2024a).

The Department recommends that Xcel Energy continue to monitor the ROW for soil erosion and maintain erosion control practices until there is sufficient vegetative growth in the ROW to mitigate soil erosion. Only after restoration activities are complete and vegetation has re-established within the ROW, should temporary restoration erosion control devices, not designed to be left in place, be removed.

## **5.5. Recommended Mitigation Efforts**

### ***5.5.1. Topsoil Mixing***

Agricultural topsoil is an invaluable resource that should be preserved. Excavation activities required to create the structural foundations for electric transmission line poles have the potential to mix highly productive topsoil with underlying less productive and potentially rocky subsoils. Deep rutting also has the potential to intermix topsoil. If intermixing of topsoil occurs, the resulting soils are generally known to be less productive and in-turn reduce the agricultural productivity of the impacted area. When excavation is needed, Xcel Energy is required by [Wis. Stat. § 182.017\(7\)\(c\)](#) to segregate and stockpile topsoil from subsoil. As stated within their CPCN, Xcel Energy will store the topsoil and subsoil separately and provide topsoil replacement as appropriate (Xcel Energy 2024).

The Department recommends that Xcel Energy take the following additional steps to prevent the mixing of topsoil with subsoil layers within the Project ROW:

- 1) Do not spread mixed soils or segregated subsoils over cropland, pastures or other agricultural fields.
- 2) Prevent and monitor for erosion to keep topsoil segregated and within the ROW.
- 3) The Project Initiators should apply the mitigation techniques outlined in Section 5.5.2 "Soil Compaction".
- 4) If rutting occurs, allow sufficient time for the soil to dry before repairing the ruts.
- 5) If topsoil mixing occurs, remove the intermixed soil and replace with new topsoil.

### ***5.5.2. Soil Compaction***

Equipment used to construct electric transmission lines has the potential to compact soil and reduce soil productivity on the farmland traversed during construction. Soil compaction is widely known to have a range a potential negative impacts to the productivity of soil, including reduced crop productivity, reduced crop uptake of water and nutrients, restriction of plant rooting depth, decreased water infiltration and increased surface runoff.

Several factors influence whether soil becomes compacted. An important influence is soil moisture: the wetter the soil, the more likely it is to be compacted from traffic. The potential for compaction also depends on the soil texture. Coarser textured soils, like sand or sandy loam, are less likely to become compacted than are clay or silty clay loams. Finally, the axle weight of the construction equipment affects compaction. UW-Extension report A3367 states that heavy equipment with axle loads that exceed 10 tons increase the risk of soil compaction into subsoil layers that cannot be removed by conventional tillage (Wolkowski and Lowery, 2008). The expected compaction depth increases as the axle load and soil moisture content increases.

As stated within the Project's CPCN, Xcel Energy plans to address compaction depending on the characteristics of the site (Xcel Energy, 2024a).

The Department recommends taking the following additional steps to prevent soil compaction and rutting wherever possible. Measures to prevent soil compaction within the Project ROW include:

- 1) Using low-ground pressure and/or wide tracked equipment to reduce axel weight applied to soils.
- 2) The use of construction matting in wet areas, areas prone to rutting, or wetlands to spread out ground pressure.
- 3) When possible, conducting construction work during winter months when the ground is frozen.
- 4) Avoiding work in areas with recently saturated soils.
- 5) If rutting occurs, allowing sufficient time for the soil to dry before repairing the ruts.

After construction is complete, the ROW will be compacted to some degree. Due to the large scale of the project, the Department recommends measuring for soil compaction post-construction when it is suspected or when a landowner has filed an inquiry with Xcel Energy's land agents, and/or if hired, the IEM/IAM. If soil measurements within the Project ROW are comparatively higher, this is an indication that compaction has occurred. In areas where soil compaction occurred, the Department recommends Xcel Energy take steps to decompact the soils by conducting a sufficient amount of deep tillage (V-ripper, chisel plow, para plow or other depth appropriate tillage implement) within the ROW to help restore the soil structure to pre-construction productivity. Following decompaction, the soil should be measured again for signs of compaction to ensure

proper decompaction has occurred throughout the topsoil and subsoil profile. The Department also recommends Xcel Energy monitor soil moisture conditions post-construction throughout the Project ROW for signs of standing water. Areas with standing water may also have experienced soil compaction and should be measure for compaction.

### ***5.5.3. Drainage***

Proper field drainage is vital to a successful farm operation. Construction of an electric transmission line can disrupt improvements such as drainage tiles, grassed waterways, and drainage ditches, which regulate the flow of water on farm fields. If drainage is impaired, water can settle in fields and cause substantial damage, such as killing crops and other vegetation, concentrating mineral salts, flooding farm buildings, or causing hoof rot and other diseases that affect livestock. Construction-caused soil compaction or damaged drain tiles can lead to ponded water where none existed prior to construction. If drain tiles are damaged, Xcel Energy is required by [Wis. Stat. § 182.017\(7\)\(c\)](#) to repair or replace the damage drain tile.

Within their CPCN application, Xcel Energy states that once they are made aware of the existence of specific agricultural practices such as drainage tiles, they will work with the landowner to avoid or minimize impacts to these practices or provide monetary compensation as appropriate. (Xcel Energy, 2024a).

To help mitigate the potential for drainage impacts, the Department additionally recommends the following:

- 1) Agricultural landowners should inform Xcel Energy about the existence and location of drainage systems or planned drainage systems that could be affected by the Project.
- 2) Agricultural landowners should document field moisture conditions and the historic presence/absence of ponded water prior to the start of construction for post-construction comparisons.
- 3) Xcel Energy should consider using the techniques outlined in Section 5.5.2 "Soil Compaction" when crossing a known drain tile.
- 4) Where construction activities have created new wet areas, Xcel Energy should work with the landowner to determine the best means to return the agricultural land to pre-construction function.

### ***5.5.4. De-watering***

During excavation/auguring of the structure foundation for a transmission line pole, de-watering may be necessary. Improper de-watering can result in soil erosion, sedimentation and deposition of gravel, sand, or silt onto adjacent agricultural lands, and the inundation of crops. The discharge of

these construction waters must be in compliance with current drainage laws, local ordinances, WisDNR permit conditions, and the provisions of the Clean Water Act. Xcel Energy is required by [Wis. Stat. § 182.017\(7\)\(c\)](#) to compensate the landowner for any damage to agricultural fields caused by construction de-watering activities.

In section 5.5.5 of Xcel Energy's CPCN application, they describe dewatering methods proposed to be used for excavation activities (Xcel Energy, 2024a).

The Department recommends the following additional practices to mitigate the impacts of construction water discharge on agricultural lands:

- 1) Xcel Energy should identify prior to construction 1) excavation sites with low areas and/or hydric soils where de-watering is likely and 2) suitable upland areas for discharge.
- 2) Discharge locations should be well-vegetated areas with topography that will prevent the water from returning to the ROW, resist soil erosion, and allow for infiltration and settling of gravel and other unwanted sediments prior to entering a field, pasture, or waterbody.
- 3) Xcel Energy should consider using pre-filter bags or other filter devices, prior to discharge, in order to capture sediments, gravel and rocks.
- 4) Cropland, pasturelands and other agricultural areas selected for discharge should not be inundated for more than 24 hours, as longer durations could result in crop damage.
- 5) Xcel Energy should not directly discharge or allow construction waters from non-organic farms to enter an organic farming operation.

#### ***5.5.5. Irrigation***

Electric transmission line construction activities and the placement of transmission line poles can interfere with the operation of linear or center pivot irrigation systems used to irrigate crops. Soil compaction from construction equipment may also impact or damage underground piping that supplies irrigation systems. Any interruption to irrigation systems cause by the Project can deprive crops from needed water and nutrients resulting in decrease crop yields.

Within their CPCN application, Xcel Energy states that once they are made aware of the existence of specific agricultural practices such as irrigation systems, they will work with the landowner to avoid or minimize impacts to these practices or provide monetary compensation as appropriate. (Xcel Energy, 2024a).

The Department recommends the following additional practices to mitigate the impacts to irrigation systems:

- 1) Prior to construction, agricultural operations that use irrigation within or adjacent to the Project ROW should inform Xcel Energy of their irrigation system, how the Project may impact the system, irrigation schedules frequency of irrigation and weather conditions that may change the irrigation schedule.
- 2) Xcel Energy should consider using the techniques outlined in Section 5.5.2 "Soil Compaction" when crossing a known irrigation pipeline.
- 3) If the Project plans to disrupt an irrigation system, Xcel Energy should notify the landowner beforehand and establish a mutually acceptable amount of time that the system will be taken out-of-service.
- 4) If any part of an irrigation system is damage as a result of construction activities, Xcel Energy should pay for and repaired reported damages as soon as possible.
- 5) If an irrigation system needs to be reconfigured as a result of the Project, Xcel Energy should work with the irrigation operators to reconfigure the irrigation equipment where necessary and to compensate them for any portion of cropland where the irrigation system no longer operates.

#### ***5.5.6. Erosion and Conservation Practices***

Electric transmission line construction activities and the placement of transmission line poles can destabilize existing erosion control practices such as diversion terraces, grassed or lined waterways, outlet ditches, water and sediment control basins, vegetated filter strips, etc. The destabilization of these erosion control practices have the potential to cause soil erosion within the ROW, but also from upland fields. During wet conditions the risk of soil erosion is increased, as exposed soils, especially areas with increased slope, may more easily erode and move downslope. Wind erosion may also be of concern if existing windbreaks are removed from the ROW, especially when soils are dry. If left unchecked, significant erosion can have an adverse effect on the long-term productivity of agricultural lands. Xcel Energy is required by [Wis. Stat. § 182.017\(7\)\(c\)](#) to restore existing erosion control practices such as diversion terraces, grassed or lined waterways, outlet ditches, water and sediment control basins, vegetated filter strips, etc. that are damaged by construction activities to pre-construction condition and function.

Within their CPCN application, Xcel Energy states prior to the start of any land disturbing activity, temporary sediment and erosion control BMPs will be installed along the boundaries of the construction workspace and sensitive resources (Xcel Energy 2024). The Department recommends the following additional practices to mitigate soil erosion within the Project ROW:

- 1) Once construction is complete, pending soil decompaction, impacted agricultural lands within the ROW should be returned to cropland or seeded with the appropriate seed mix.

- 2) Xcel Energy should inspect all temporary erosion controls structures on at least a weekly basis and after significant rain events throughout construction and restoration phases and undertake erosion control structure maintenance as required to prevent soil erosion within the ROW.
- 3) Xcel Energy should avoid impacting any existing permanent erosion control structure (e.g diversion terraces, grassed or lined waterways, outlet ditches, water and sediment control basins, vegetated filter strips, etc.) that's intended to prevent soil erosion from an upland agricultural area.
- 4) Should Xcel Energy disrupt an existing permanent erosion control structure, a temporary structure should be installed until the permanent erosion control is restored.

#### ***5.5.7. Temporary Access Roads***

Xcel Energy has proposed to install temporary access roads as part of the Project, when an alternative access road does not exist, to allow personnel and construction equipment to access the Project corridor. When a temporary access road is constructed there is a range of potential negative effects to agricultural lands including the mixing of topsoil with subsoil & rocks, soil compaction, soil erosion, and interference with existing drainage & irrigation. New temporary access roads also have the potential to impact agricultural operations by severing cropland or pastures, limiting field access or limiting access to agricultural infrastructure & buildings. Any of these impacts can result in lost agricultural productivity whether from lost soil productivity, crop losses or the direct loss of agricultural revenue when access to agricultural infrastructure is limited. When the Project has completed, Xcel Energy is required by [Wis. Stat. § 182.017\(7\)\(c\)](#) to restore the land to its original condition, clear all debris and remove all stones and rocks associated with the access roads. However, if desired by the landowner and in consultation with Xcel Energy, temporary access roads may be left in place after construction.

The Department recommends the following to mitigate the impacts of access roads when they cross agricultural lands within the Project ROW:

- 1) Xcel Energy should consult with agricultural landowners before siting any temporary access roads.
- 2) Xcel Energy should strip and stockpile the topsoil for later re-use during restoration.
- 3) Access roads should also be designed to allow proper drainage and minimize soil erosion.
- 4) Xcel Energy should consider using the techniques outlined in Section 5.5.3 "Drainage" when siting an access road over drain tiles.

#### ***5.5.8. Managed Forest Law, Trees and other Woody Vegetation***

If approved, the Project will impact MFL agreements. An explanation of the state's MFL program and what that means for the woodlands enrolled within the program is provided in Section 5.5.8 "Managed Forest Law". Additional acres of unmanaged forest lands will also be impacted, but are beyond the scope of this AIS as unmanaged forest lands are not defined as an agricultural use according to [Wis. Stat. § 91.01\(2\)](#). Both managed and unmanaged woodlands can provide financial benefit to the landowner either directly through the sale of managed forest for timber, the sale of firewood, or the harvest of tree sap for sale. The removal of any trees from a property may also decrease the market value of the property.

Prior to the start of construction, Xcel Energy will remove all woody vegetation, trees and brush not already removed by the landowner from the full width of the Project ROW. Vegetation will be cut at or slightly above the ground surface using mechanized equipment or by hand. Tree stumps are generally left in place, except in areas where stump removal is necessary to facilitate the movement of construction vehicles, or required by the landowner. Once removed, trees are not permitted to regrow or be replanted in the Project ROW after construction is complete or while maintained by Xcel Energy. According to [Wis. Stat. § 182.017\(7\)\(e\)](#) affected landowners will maintain ownership of all trees removed by Xcel Energy during construction. Xcel Energy is also required to provide the landowner a reasonable amount of time, prior to construction, to harvest the trees on their own. Post construction and restoration, the deforested land could be used for farming so long as the intended crop or agricultural equipment does not interfere with transmission line facilities. Xcel Energy will manage and maintain deforested areas, including vegetation removal and management within the deforested ROW for those areas that landowners do not wish to crop or maintain.

The Department recommends the following to mitigate the impacts of tree and woody material removal from the Project ROW:

- 1) The PSC should select a route that avoids the fragmentation of major blocks of forest and prioritize the preservation of windbreaks, MFL lands and forestlands used for specialty forest products.
- 2) Xcel Energy should adjust the placement of transmission line poles to minimize the need for tree removal and prioritize the preservation of trees used for windbreaks.
- 3) Xcel Energy should compensate agricultural landowners for the construction of any additional structures that serve in the place of the harvested trees.
- 4) Xcel Energy should hire an appraiser who has experience and expertise in valuing trees.
- 5) Landowners who wish to obtain their own appraisal should also hire an appraiser who has experience and expertise in valuing trees.

- 6) Landowners who wish to farm within the deforested area should discuss tree stump removal with Xcel Energy during the easement negotiation process.

#### ***5.5.9. Fencing***

The construction process may require fences that cross the Project ROW to be severed. According to Wis. Stat. § 182.017(7)(c), if Xcel Energy is required to cut or sever a fence they are required to install a temporary gate and repair all damages to fencing. Changes to existing fence lines can interfere with grazing activities, particularly for rotational grazing operations that depend on precise, scheduled grazing in particular areas.

To mitigate the impacts to fencing, the Department recommends the following additional recommendations:

- 1) Prior to construction, Xcel Energy should consult with agricultural landowners with grazing operations in and adjacent to the Project ROW and modify construction activities and timing to mitigate impacts to livestock.
- 2) Xcel Energy and agricultural landowners should agree on the appropriate measures to prevent livestock from entering the Project ROW.
- 3) Xcel Energy should develop a plan for livestock to access pastures adjacent to the Project ROW or otherwise compensate the landowner for the costs related to restricted grazing.

#### ***5.5.10. Weed Control***

The Project may introduce noxious weeds or other invasive plants species into the Project ROW that compete with agricultural crops. Noxious weeds may also spread from parcel to parcel by construction equipment and project activities. Once weeds establish, they can interfere with agricultural harvesting equipment, attract unwanted insects, and require physical removal or chemical applications to remove.

Post construction and restoration, agricultural operations may resume normal agricultural cropping activities within the ROW so long as the crop or agricultural equipment do not interfere with transmission line facilities. After construction and during the operation of the line, Xcel Energy is required by [Wis. Stat. § 182.017\(7\)\(d\)](#) to control weeds and brush around the transmission line facilities. However, Xcel Energy shall not use herbicide for weed and brush control without the express written consent of the landowner ([Wis. Stat. § 182.017\(7\)\(d\)](#)).

The Department recommends the following to control for and manage the spread of noxious weeds within the project ROW:

- 1) Agricultural landowners should state in writing whether they do or do not give Xcel Energy their consent for herbicide to be applied within the ROW they own.



- 2) Xcel Energy should clean construction equipment and materials prior to entering an area of certification.
- 3) Xcel Energy should clean all roadways (private, county, state etc.) of construction debris, dirt and rocks.
- 4) Xcel Energy should use tracking pads at frequently used access points.
- 5) Agricultural landowners and beekeepers should consider using the free online [DriftWatch™](#) and [BeeCheck™](#) registries, operated by [FieldWatch™](#) to communicate areas containing specialty crops or beehives with pesticide applicators, in order to minimize the risk of accidental exposure. For more information on DriftWatch, please visit the [DATCP DriftWatch website](#) at the provided link or at <https://wi.driftwatch.org/>.
- 6) Xcel Energy and its contractors that are applying herbicide or pesticides should utilize the Department's Driftwatch™ [online mapping tool](#) to locate agricultural lands and operations that are susceptible to herbicide or pesticides. If the online mapping tool locates an agricultural operation on or near areas that will receive herbicide or pesticide applications, Xcel Energy should contact the operation to discuss the appropriate methods required to minimize the risk of accidental exposure.

#### ***5.5.11. Aerial Application of Seeds and Sprays***

The location of an electric transmission line on cropland can restrict the aerial application of seeds and chemicals and can increase the danger of making aerial applications. In turn, agricultural pilots have to maneuver to avoid transmission lines, which may result in uneven, imprecise or missed aerial applications. When aerial applications are restricted or prevented agricultural produces may experience 1) increased weed growth and pest infestations that reduce crop yields, 2) increased cost and labor from land based application of seeds and chemical in non-applied areas.

To mitigate the potential for impacts to aerial application, the Department recommends the following:

- 1) Agricultural landowners inform Xcel Energy if they use aerial applications.
- 2) Xcel Energy and the impacted agricultural landowners work to determine the most effective techniques to minimize the impact to their aerial applications.
- 3) Xcel Energy install colored wire shielding near fields that utilize aerial applications.

#### ***5.5.12. Construction Debris***

After construction is complete, there may be construction debris remaining on the field. If large pieces of debris or rocks are left in the field, agricultural machinery may be damaged when the landowner first works the land. Xcel Energy is required by [Wis. Stat. § 182.017\(7\)\(c\)](#) to clear all

debris and remove all stones and rocks resulting from construction activity upon completion of construction. To that end, Xcel Energy shall also clear the ROW of signage, construction mat debris, litter, and spoil piles etc.

To mitigate the potential impact of construction debris, the Department recommends the following:

- 1) Should a landowner find construction debris remaining in the field after Xcel Energy has cleared the field, the landowner should contact the IEM or IAM, or equivalent contact, to report the debris prior to operating agricultural equipment in the field.
- 2) Should Xcel Energy remove an existing power line pole from within or immediately adjacent to cropland, Xcel Energy should remove the old structure at a minimum of four feet below the ground surface.
- 3) Should the Xcel Energy create a hole within croplands during the removal of any part of the existing transmission structure, the Department recommends that Xcel Energy would preserve each layer and then backfill in soil sequence to keep it to the original soil to the degree possible, dressing with topsoil as needed. If backfilling with gravel is determined to be necessary and if it is within or immediately adjacent to cropland, then the Department suggests backfilling with gravel to a minimum of four feet from the ground surface to ensure tillage equipment would not be impacted or spread gravel throughout the soil horizons, or the Project Initiators should consult the agricultural operator for an appropriate depth depending on how deep their tillage equipment runs.

#### ***5.5.13. Crop Rotation and Dairy Operations***

The construction of an electric transmission line may disrupt a planned crop or crop rotation. Impacts to alfalfa fields and planned alfalfa seeding are especially disruptive to dairy operations as they need to maintain a proper supply of alfalfa to feed dairy cows. Any delays, yield reductions or damages to an alfalfa crop may require the dairy operation to buy haylage or hay, obtain more corn silage, and/or provide protein supplements such as soybean oil meal to make up for the lost alfalfa. With advanced notice of the Project's construction schedule, a dairy operator would be better able to adjust forage requirements and plan for any increased associated costs. If the Project is approved, the Department recommends that Xcel Energy provide any impacted dairy operations with advanced notice of the construction schedule across their operations and compensate the landowner for any increased costs associated with construction impacts to forage requirements.

#### ***5.5.14. Organic Farms & Other Areas with Certifications***

Construction and ongoing maintenance activities for the Project may jeopardize a farm's organic certification or other certifications such as *pesticide-free* (certified areas) if a prohibited chemical is used on their certified land, drifts from a neighboring field or enters their land on construction machinery, construction matting or improper de-watering. Xcel Energy and their contractors must

use caution and care where the Project ROW borders or crosses an area with certification. Wis. Admin. Code § ATCP 29.50(2) states that no pesticides (includes herbicides) may be used in a manner that results in pesticide overspray or significant pesticide drift. In addition, any oil or fuel spill on these farms could prevent or remove a farm's certification.

Xcel Energy addresses organic certified farm operations within section 7.4.4 of their CPCN application. For identified organic farms, Xcel Energy will work with landowners to minimize potential impacts to their organic farming status from the Project, including:

- offsetting transmission line structures from the property line to maintain tree lines or buffers
- cleaning construction vehicles prior to entering organic farm parcels
- not applying herbicide within portions of an easement based on landowner guidance.

The Department recommends the use of all mentioned mitigation measures for organic farms within the CPCN, as well as the following additional practices:

- 1) Agricultural landowners with organic certification or other certifications should inform the Project Initiators of their certifications, provide documentation of certification and inform the Project Initiators of prohibited and/or limited activities and the range and type of substances that are and are not permitted according to their certifications.
- 2) Agricultural landowners and beekeepers should consider using the free online [DriftWatch™](#) and [BeeCheck™](#) registries, operated by [FieldWatch™](#) to communicate areas containing specialty crops or beehives with pesticide applicators, in order to minimize the risk of accidental exposure. For more information on DriftWatch, please visit the [W DATCP DriftWatch website](#) at the provided link or at <https://wi.driftwatch.org/>.
- 3) Xcel Energy and its contractors that are applying herbicide or pesticides should utilize the Department's Driftwatch™ [online mapping tool](#) to locate agricultural lands and operations that are susceptible to herbicide or pesticides. If the online mapping tool locates an agricultural operation on or near areas that will receive herbicide or pesticide applications, Xcel Energy should contact the operation to discuss the appropriate methods required to minimize the risk of accidental exposure.
- 4) Xcel Energy should generate and distribute a list of organic farms or other certified farms and the prohibited chemicals to their construction staff and contractors.
- 5) Prior to construction, Xcel Energy and the farms with areas of certification should agree to the appropriate methods to avoid unintentional contacts or applications of prohibited chemicals from entering their farms.

- 6) Xcel Energy may wish to underlay heavily used areas of the ROW with geotextile fabric in order to limit the potential for prohibited substances from contaminating areas with certification.

#### ***5.5.15. Biosecurity***

Farm biosecurity is the implementation of measures designed to protect a farm operation from the entry and spread of diseases and pests. Construction activities can spread weeds, diseases, chemicals and genetically modified organisms (GMO's) that impact an agricultural operation. Certified organic farms and farms with other certifications such as pesticide-free are susceptible to the widest range of biosecurity impacts and may suffer greater negative impacts if their agricultural operation is exposed to a biosecurity threat. For more information on basic biosecurity protocols, please visit the Department's [Basic Biosecurity](https://datcp.wi.gov/Pages/Programs_Services/BasicBiosecurity.aspx) website at the provided link or at [https://datcp.wi.gov/Pages/Programs\\_Services/BasicBiosecurity.aspx](https://datcp.wi.gov/Pages/Programs_Services/BasicBiosecurity.aspx).

The Department recommends the following to mitigate biosecurity risks within the Project ROW:

- 1) Xcel Energy and agricultural operations within the Project ROW should develop a biosecurity plan that contains a set of protocols including but not limited to: Cleaning construction equipment between parcels; handling manure within the ROW; identifying responsible parties that can move livestock and manure within the ROW; and establishing communication channels to report construction and farm activities within the ROW.
- 2) Xcel Energy and their contractors should avoid contact with livestock and manure throughout the Project.
- 3) If livestock need to be moved, Xcel Energy should work with the livestock owner to move the livestock.

#### ***5.5.16. Stray Voltage***

Electric distribution systems are grounded to the earth to ensure safety and reliability. At the site of the grounding, electrical current enters the earth where voltage can be detected. This is generally known as Neutral to Earth Voltage (NEV). When a person, animal or object is near an NEV, the voltage may pass to them resulting in electrical contact (i.e. shock); this is generally known as stray voltage. Stray voltage often goes unnoticed by humans, but stray voltage from NEV may affect animals on farms. Animals may encounter stray voltage any time the animal makes contact with an electrified point such as a fencing, feeder, the earth or stalls. Animals affected by stray voltage may show changes in behavior or milk production.

The PSC administers Wisconsin's Stray Voltage program under [Wis. Stat. § 196.857](#) in cooperation with the Department. The PSC established the Phase II Stray Voltage Testing Protocol to fulfill its duty to create a standard stray voltage NEV testing protocol as required by Wis. Stat. § 196.857(b). Under the Phase II testing protocol, a utility is mandated to take corrective action to

resolve any electrical contact at or above 0.5 volts (Reines and Cook, 1999). The Stray Voltage program is able to review voltage testing data generated by the utility and the conclusions the utility has reached. For more information on the PSC Stray Voltage program, impacts to agricultural operations and mitigation steps, visit <https://psc.wi.gov/Pages/Programs/StrayVoltageHomePage.aspx>.

Should additional concerns for the health of a herd arise from stray voltage testing, the Department's [Herd-Based Diagnostic Program](https://datcp.wi.gov/Pages/Herd-basedDiagnostics.aspx) may be able to assist. The program provides a licensed veterinarian, free of charge, to help producers investigate concerns with milk production, milk quality, herd health, and more. For more information on the Herd-Based Diagnostic Program visit <https://datcp.wi.gov/Pages/Herd-basedDiagnostics.aspx>.

To mitigate the impacts of stray voltage, Xcel Energy stated within section 7.4.7.3 of their CPCN application that they will offer stray voltage tests before and after the construction of the Project for all CAFOS if established proximity criteria are met (Xcel Energy, 2024a).

The Department recommends the following to mitigate the impact of stray voltage within the project ROW:

- 1) Confined animal feeding operations or any operation with livestock facilities within ½-mile of the proposed power line should request Phase II Stray Voltage Testing pre- and post-transmission line energization testing from their utility provider.
- 2) Xcel Energy should inform each landowner with livestock facilities within ½-mile of the Project ROW of their ability to request Phase II Stray Voltage Testing from their local utility provider. Xcel Energy should be responsible for costs associated with Phase II Stray Voltage Testing within ½-mile of the Project corridor.
- 3) As required by PSC guidance set forth under [Wis. Stat. § 196.857](#), Xcel Energy shall take action to resolve electrical contacts at livestock feeding operations detected at or above 0.5 volts that are a result of the Project.

#### ***5.5.17. Construction Noise and Dust***

During each phase of the Project, noise and dust is likely to be generated. Landowners near the Project ROW may experience noises and dust associated with construction techniques, movement of heavy equipment, and helicopters. This noise and dust may cause dairy, beef cattle and other grazing livestock to stampede, break through fences, and escape from the farm property. Fur animals, poultry and other confined livestock may also be impacted by these sounds.

To mitigate impacts of noise and dust, the Department recommends the following:

- 1) Livestock owners & operators within the Project ROW whom are concerned about the noise potential for the Project should inform Xcel Energy or their representatives during the easement negotiation process.
- 2) Livestock owners & operators near the Project ROW who are concerned about the noise potential for the Project should inform Xcel Energy of their concerns prior to the project construction.
- 3) Xcel Energy should identify agricultural livestock operations with sensitive animals within and adjacent to the Project ROW and provide them appropriate advance warning of construction activities, including the use of helicopters, so they may take steps to safe guard their animals.
- 4) Xcel Energy should avoid loud and dusty construction activities in the early morning (before 7am) or evening (after 6pm) to the extent possible. If construction activities must occur outside of this time window, inform the agricultural operator ahead of time so they may take steps to safeguard their animals.
- 5) Xcel Energy should clean all roadways (private, county, state etc.) of debris, dirt and rocks caused by construction activities for the Project.
- 6) Xcel Energy should use tracking pads at frequently used access points.
- 7) When construction activities have the potential to generate substantial amounts of dust that could impact livestock or an agricultural operation, Xcel Energy should apply water over the dust generating areas to reduce dust output.

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DATCP Interim Administrator, Agricultural Resource Management Division – Brian Kuhn

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Department Director/County Conservationist Lynda Schweikert  
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## Interest Groups, Entities and Individuals

### Xcel Energy and Merjent

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### Agricultural Landowners

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