

AGRICULTURAL IMPACT STATEMENT



DATCP File Photo

**DATCP
#4433**

**Cambria Substation
Town of Courtland, Columbia County**



**WISCONSIN DEPARTMENT OF AGRICULTURE,
TRADE AND CONSUMER PROTECTION**
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DATCP #4433
Cambria Substation

WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION

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MISSION STATEMENT

Dear Reader,

In the 1970's, Wisconsin farmers and many local governments located between Green Bay and Milwaukee overwhelmingly opposed the planned creation of Interstate 43 (I-43). As originally planned, the I-43 project would run about 2 miles west of and parallel to Hwy-57 and be constructed primarily on farmland, as opposed to utilizing the existing Hwy-57 right of way. These farmers organized and staged protest rallies on the Wisconsin State Capitol grounds, including bringing cows to graze on the capital lawn. The strong opposition these farmers and local governments demonstrated prompted a compromise that would relocate the interstate to run along the US 141 corridor between Milwaukee and Manitowoc. This same opposition also prompted the Wisconsin legislature in 1978 to establish the Agricultural Impact Statement (AIS) statute, Wis. Stat. § 32.035, as part of Wisconsin's Eminent Domain law.

Holding onto the spirit and purpose of the farmer led protests of the 1970's, the mission of the AIS program is ***to provide agricultural landowners and operators an opportunity to be heard in matters that impact their lands and an opportunity to voice for alternatives in order to preserve farmland under the framework of Wis. Stat. § 32.035***. Through the AIS program, agricultural landowners have the opportunity to provide feedback, document impacts, and advocate for alternative solutions any time agricultural lands are significantly affected by an entity with the potential powers of eminent domain. The AIS program also provides affected landowners the time to gather information in order to make well informed decisions before the potential project begins. Lastly, the AIS program makes suggestions and recommendations to project initiators to promote project alternatives and management practices that would reduce the potential impacts to agricultural lands and operations.

The AIS program has responsibilities to both the impacted landowners and the project initiator. The AIS program serves as an advocate to the affected agricultural landowners and will contact each affected landowner and operator in order to listen, learn and document the impacts the project poses to their agricultural lands and operations. Based on this feedback, the program will also identify and recommend project alternatives, best management & oversight practices and remediation practices to the project initiator, landowner(s) and operator(s) to reduce potential agricultural impacts. The AIS program serves the needs of the project 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 project development and oversight processes in order to advocate for agricultural landowners and support 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

The figures within this document were created with a colorblind friendly palette

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SUMMARY OF AGRICULTURAL IMPACT STATEMENT

The Wisconsin Department of Agriculture, Trade and Consumer Protection (the Department) has prepared this Agricultural Impact Statement (AIS) #4433 for the proposed acquisition of land by Wisconsin Power and Light Company, a corporation also known as Alliant Energy, herein referred to as WPL, in the Town of Courtland, WI. WPL proposes to establish a new electric distribution substation on the impacted agricultural land to replace an aging facility in the Village of Cambria (Figure 1).

In 2021, WPL offered to purchase 6.255 acres of agricultural land from the Larry J. and Christine J. Braaksma Revocable Trust. WPL is a public utility vested with the right of eminent domain but has documented to the seller an intent to acquire the property through a voluntary sale (fee-simple purchase). Construction of the proposed electric distribution substation will require between three to four acres once sited, pending final design of the facility. WP & L's proposed acquisition includes all of tax parcel ID 11008-126, located in the NE ¼ NW ¼ of Section 06, Township 12 North, of Range 12 East, Town of Courtland Columbia County, at the request of the landowner. WPL reported that the balance of unused land will be leased back to the seller at no cost for continued agricultural use (DATCP, 2021a).

In accordance with [Wis. Stat. §32.035](#), WPL has provided the Department with the necessary information and materials to conduct an AIS. The Department contacted the agricultural landowners however, they elected to not submit feedback for this statement. In accordance with [Wis. Stat. §32.035\(4\)\(b\)](#), the Department has reviewed and analyzed the WP & L's materials and comments from the affected agricultural property owner to assess the agricultural impacts of WP & L's land acquisitions. Through the AIS analysis, the Department offers a set of recommendations and conclusions to the WPL and the agricultural landowner to help mitigate impacts on agricultural lands and agricultural operations at the selected parcel.

The set of recommendations are located within the AIS Recommendation Section beginning on page 3. The AIS analysis begins on page 5 with information on the project located in Section II. Information and conclusions on the agricultural setting of Columbia County and impacted areas can be found in Section III. The agricultural impacts of the project on the land, landowner and operator can be found in Section IV. Appendices for AIS #4433 contain information on the appraisal and compensation process (Appendix A), a copy of Wisconsin's agricultural impact statement statute (Appendix B) and various additional sources of related information for agricultural landowners and operators (Appendix C).

If WPL deviates from the planned voluntary acquisition, proposed use or scale of the acquired land, WPL 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.

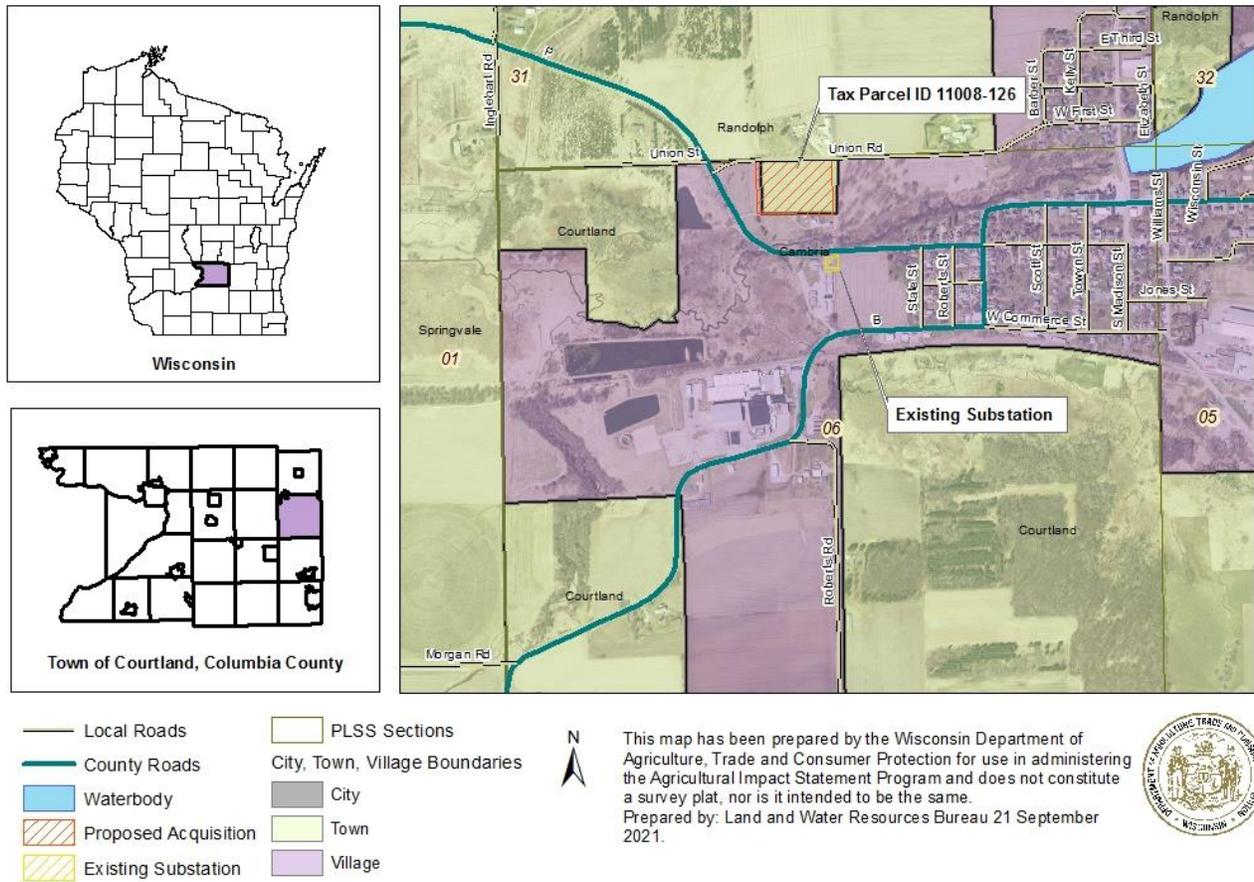


Figure 1: Location of the proposed acquisition, in the Town of Courtland (NE ¼ NW ¼ of Section 06, T12N, R12E) and existing substation facility owned by WPL in the Village of Cambria.

AGRICULTURAL IMPACT STATEMENT RECOMMENDATIONS

The Wisconsin Department of Agriculture, Trade and Consumer Protection (the Department) has reviewed and analyzed the materials provided by the Wisconsin Power and Light Company, a corporation also known as Alliant Energy, herein referred to as WPL, regarding the proposed Cambria substation land acquisition. In accordance with [Wis. Stat. §32.035\(4\)\(b\)](#), the Department provides the following recommendations to WPL and agricultural landowner to help mitigate impacts on agricultural lands and agricultural operations. WPL has reviewed the recommendations incorporated in this Impact Statement and has acknowledged that they will adopt them.

Recommendations to WPL

- WPL should consult the town zoning administrator for applicable permitting requirements to site the new substation to determine if a comprehensive plan map amendment or rezone would be required to site the facility.
- WPL should site the facility in a location that mitigates the effects of severance, access or creation of a wasteland on remnant agricultural lands to retain maximum agricultural utility.
- As part of any future agricultural rental agreements, WPL should consider requiring conservation practices such as-but not limited to-conservation tillage, cover cropping, or no-till and require the tenant operator to meet agricultural performance standards under [ATCP 50.04](#) to maintain the health of the soils and preserve the investment.
- If the remnant fields are no longer economically viable to farm and are not required for expansion of the substation facility, WPL should consult the Columbia County Land and Water Conservation Department for opportunities to enroll undeveloped lands in conservation programming to positively affect drainage or pollinators in the area.
- WPL should consult the agricultural owner and or operator to determine if it is possible to site the facility in a way that: 1) preserves as much farmland of statewide importance as feasible 2) preserves the economic viability of remnant fields.
- WPL should consult the Columbia County Planning and Zoning Department and the Land and Water Conservation Department for applicable permitting construction site erosion control and stormwater management requirements and to ensure that construction proceeds in a manner to minimize drainage issues and soil erosion for lands projected to remain in agricultural use and for the project site in general.
- If WPL conducts vegetation management activities at the substation using herbicides that have the potential to impact remnant agricultural lands, they should notify the renter.

Recommendations to Seller

- If Tax Parcel ID 11008-126 is operated by a renter, the seller should inform the renter of the sale and the availability of any remnant fields for future agricultural use.

AGRICULTURAL IMPACT STATEMENT

I. INTRODUCTION

The Wisconsin Department of Agriculture, Trade and Consumer Protection (the Department) has prepared Agricultural Impact Statement (AIS) #4433 in accordance with [Wis. Stat. §32.035](#) for the proposed purchase of agricultural land by WPL in Columbia County, WI (Figure 1). According to the Columbia County Comprehensive Plan, Alliant Energy is the largest electrical service provider servicing Columbia County, serving the majority of the central, southeast and an area along the eastern border of the county boundary. Demand for electricity continues to increase, and a reliable electric service infrastructure is integral to the county economy (Columbia County, 2013a). WPL reported the proposed project in the Town of Courtland, would include an electric transformer, bus system, control enclosure and security fencing will replace an aging substation in the nearby Village of Cambria and will support current and projected electrical service needs of the surrounding area (DATCP, 2021a).

The Public Service Commission of Wisconsin (PSC) is responsible for regulating the construction of electric public utilities and extensions of electric service in Wisconsin, which may include the construction of or modification to an existing substation. If a substation project does not meet a cost threshold it is not subject to the review of the PSC and is instead subject to applicable local permitting authorities, including the Town of Courtland, which has adopted town zoning authority for its jurisdiction. WPL reported that this project is not subject to PSC review authority (DATCP, 2021b).

While not subject to PSC authority, WPL is a Wisconsin corporation furnishing electric light or power to the public may be vested with the authority to condemn under [Wis. Stat. §32.02](#). Vested with the power of condemnation, utility projects that impact agricultural lands are also subject to Wisconsin's AIS statute Wis. Stat. §32.035 whether or not the land is taken.

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. 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.

As the voluntary contract for the fee-simple acquisition by WPL precedes, or in this case may preclude a jurisdictional offer, the 30-day waiting period for contract negotiations under Wis. Stat. §32.035(4)(d) is not applicable. If WPL plans to acquire additional new parcels of agricultural land, beyond the impacted parcels described within this AIS, the Department shall be re-notified in accordance with Wis. Stat. §32.035(3).

Should WPL ever actualize its powers of condemnation for this acquisition, information on the appraisal and compensation process under eminent domain is provided within Appendix A. The full text of [Wis. Stat. §32.035](#) is included in Appendix B. Additional references to statutes that govern eminent domain and condemnation processes and other sources of information are also included in Appendices B and C.

II. PROJECT DESCRIPTION

The Project

Wisconsin Power and Light (WPL) is planning to site a new electric substation on land currently under agricultural production. In accordance with [Wis. Stat. §32.035\(3\)](#), WPL has provided an agricultural impact notification (AIN) to the Department that serves as the main reference document for the project and the project need. The proposed substation would be located in the Town of Courtland in NE ¼ NW ¼ of Section 06, T12N, R12E and would replace an aging facility in the Village of Cambria located about one quarter mile to the south of the proposed new facility (Figure 1).

To construct the proposed substation, WPL will acquire a single 6.255 acre parcel of agricultural land (Tax Parcel ID 11008-126) shown in Figure 1, by a fee-simple acquisition (i.e to purchase full ownership and exclusive rights to the property). As proposed, the substation will be approximately three to four acres and include an electric transformer, bus system, control enclosure and security fencing. According to WPL approximately three to four acres of the 6.255 acre parcel are needed to site the new substation and the balance of unused lands will be leased back to the seller at no cost for continued agricultural use. The proposed electric substation will also be connected to an adjacent 69 kV (kilovolt) transmission line. WPL is planning to acquire the land in October 2021 with construction of the facility commencing in spring of 2023 to conclude in spring of 2024 (DATCP, 2021a).

Project Need

According to the AIN, WPL proposes to site the new electric distribution substation on this agricultural land to support the existing and future energy needs of the surrounding area. The

proposed substation, with a design life of 60 years, will replace an aging facility in the Village of Cambria.

III. AGRICULTURAL SETTING

Land in Agriculture

Columbia County is home to an estimated population of 57,134 residents. The town of Courtland has an estimated population of 532 residents and the Village of Cambria has an estimated 756 residents (DOA, 2020). Columbia County is an outlying county in the Madison Metropolitan Statistical area (DOR, 2019). Based on data from the 2010 census, the Department of Administration projects Columbia County’s total population to grow to an estimated 64,745 residents by 2025 (DOA, 2013a) with the Town of Courtland projected to be home to 600 residents and the Village of Cambria to be home to 815 residents for the same time period (DOA, 2013b). The projected population growth for Columbia County and the Village of Cambria reinforces the need for a reliable rural electric infrastructure as identified in the AIN submitted by WPL and in the Columbia County Comprehensive Plan.

Urban development pressures on agricultural lands are known to increase the rate of farmland conversion and increase agricultural land sale values (Azadi et al., 2010; Borchers et al., 2014). The following analysis will identify if agricultural lands within Columbia County are exhibiting signs of urban pressure and development. In 2017, Columbia County had 304,058 acres of land in farms or 62.1% of the county by area, which is higher than the statewide average of 41.3% (USDA, 2017a). Between 1997 and 2017, 6.7% of agricultural lands within Columbia County were converted out of agricultural use, which is 2.8% above the statewide average (3.9%)(Table 1) (USDA, 2017a). However, during this same time-period (1997 – 2017) Columbia County lost only 0.1% of its farming operations, which is almost 12 times lower than the average loss of farm operations experienced across Wisconsin for the same period (Table 2) (USDA, 2017a).

Table 1: Agricultural land in production within Columbia County and Wisconsin (USDA, 1997; USDA, 2017a).

Location	Acres of Agricultural Land (acres)		Agricultural Land Converted (%)
	1997	2017	
Columbia County	325,723	304,058	6.7%
Wisconsin	14,900,205	14,318,630	3.9%

Table 2: Change in the number of farms between 1997 and 2017 within Columbia County and Wisconsin (USDA, 1997; USDA, 2017a).

Location	Number of Farming Operations		Change in Farming Operations	Percent Change (%)
	<u>1997</u>	<u>2017</u>		
Columbia County	1,359	1,357	-2	-0.1%
Wisconsin	65,602	64,793	-809	-1.2%

Between 1997 and 2017, the county experienced a reduction of the number of farms between 50 acres and 999 acres in size and an increase in the total number of farm operations between one to 49 acres in size as well as an increase for farm operations of 1,000 acres or more (Table 3).

Table 3: Change in the number of farms by size between 1997 and 2017, Columbia County Wisconsin (USDA, 1997; USDA, 2017a).

Size of Farm (Acres)	1997	2017	Percent Change (%)
1-9	70	134	91.43
10-49	222	426	91.89
50-179	510	398	-21.96
180-499	391	230	-41.18
500-999	120	108	-10.00
1000+	46	61	32.61

As stated within the certified county Farmland Preservation Plan, Columbia County has robust access to Interstate Highway 39/90/94 and U.S. Highways 151 and 51, offers a relatively affordable cost of living compared to other areas within the Madison Metropolitan Statistical area, and appealing rural character and agricultural identity (Columbia County, 2013b). For these reasons, much of the county is subject to commuter development pressure, with Dane County serving as the second most common destination for Columbia County workers, outside of the county itself (Columbia County, 2013b). Interest in rural residences sited on smaller farm operations may be contributing to the increase of smaller farm operations between 1997 and 2017 and to the farmland conversion trend. Consolidation of agricultural operations may be contributing to the reduction in the number of midsize farming operations.

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.

Through this program, counties adopt a state-certified farmland preservation plan that maps areas identified as important for farmland preservation and agricultural development based upon reasonable and objective criteria. Based on the plan, local governments may choose to adopt a FP zoning ordinance or designate AEAs to achieve further land protections and ensure that farmland covered by the plan is eligible for farmland preservation tax credits. Such ordinances must be certified and AEAs must be designated by the Department. Landowners who are eligible in either or both AEA and FP zoning areas and claim the tax credit are required to follow the state soil and water conservation standards to protect water quality and soil health.

Farmland Preservation Planning

Columbia County's current FP plan was certified by the Department in 2013 and is set to expire in 2023 (Columbia County, 2013b). The certified farmland preservation plan area excludes the Tax Parcel ID 11008-126 where WPL is proposing to site the new substation.

Farmland Preservation Zoning

The Town of Courtland has adopted certified FP zoning through its general zoning ordinance. The certified farmland preservation zoning district for the Town of Courtland is the A-1 Agricultural and Farmland Preservation Zoning district (DATCP, 2013). This locally crafted zoning district restricts covered lands to agricultural uses and uses compatible with agriculture and is certified to be consistent with the state's Farmland Preservation Law, Chapter 91. Because Tax Parcel ID 11008-126 falls outside of Columbia County's farmland preservation plan area, it may not be zoned in the Town's A-1 zoning district per Wis. Stat. § 91.38(1)(g).

Agricultural Enterprise Areas

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 fifteen years in exchange for eligibility for the farmland preservation tax credit.

A review of the Department's AEA program shows that Columbia County contains one designated AEA (DATCP, 2021c): West Point AEA in the Town of West Point in southwest Columbia County. As the proposed WPL acquisition for the new substation is located in the Town of Courtland in the northeast quadrant of the County, the West Point AEA is not affected by the proposed acquisition and substation project.

Prior to 2009, owners of eligible farmland could sign 10 to 25-year farmland preservation agreements outside of AEA boundaries. There are no effective pre-2009 farmland preservation agreements located in the Town of Courtland, Columbia County.

Drainage Districts

Drainage districts are local governmental entities governed under Wis. Stat. Ch. 88 and organized under a county drainage board and for the primary purpose of draining of lands for agricultural use (DATCP, 2019b). 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 (DATCP, 2019b). A review of the Department's Drainage Program database indicates that Columbia County has eleven active drainage districts that are managed under the Columbia County Farm Drainage Board Commission. While the proposed project acquisition for the new substation falls outside the boundaries of any active drainage districts, it is approximately 4-miles upstream from Drainage District #32 (DATCP, 2021d).

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

Conservation Reserve Enhancement Program

The CREP program 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, 2019a). A review of the Department's CREP records indicated that the proposed WPL acquisition for the new substation would not directly impact any current CREP fields or easements.

Conservation Reserve Program

The CRP program 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.

IV. 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 them to advocate for alternatives that may reduce impacts to agricultural lands. The Department has used information provided by Wisconsin Power and Light Company (WP & L) for this AIS to analyze the potential agricultural impacts of WP & L's acquisition to site a new substation. The analysis of agricultural impacts and conclusions drawn from the analysis form the basis of the Department's recommendations within the AIS Recommendation Section above.

Farmland Acquisitions and Landowner Concerns

WP & L's new substation project will require the fee simple acquisition of 6.255 acres of agricultural lands from a single landowner. The Department attempted to contact the agricultural landowner, however, they elected to not submit feedback for this statement. The following section documents information submitted as a part of the AIN by WP & L. The information helps inform the Department's analysis of agricultural impacts to specific agricultural landowners and agricultural lands in general.

Wisconsin Power and Light (WP & L)

Within the AIN submitted to the Department, WPL stated they considered two parcels owned by the same agricultural landowner as alternative locations to site the new substation. The parcel that was not selected for purchase by WPL is located in the Village of Cambria, at Tax Parcel 11111-273.02, and is assessed at 6.71 acres. Tax Parcel 11111-273.02 is located directly east of the existing substation in the NW ¼ NE ¼ of Section 6, T12N, R12E. The selected parcel, Tax Parcel ID 11008-126, is located in the Town of Courtland. By virtue of its location, the selected parcel does not require changes to the Village of Cambria's long term land use planning through an amendment to the Village comprehensive plan or a rezone under the Village general zoning ordinance (DATCP, 2021a). According to a review of the Town of Courtland's Zoning Map at the time of this analysis, the selected parcel is zoned in the Town's AR-1 Agriculture and Low Density Residential District (Town, 2018). WPL should consult the town zoning administrator for applicable permitting requirements to site the new substation, if it has not already, to determine if a comprehensive plan map amendment or rezone would be required to site the facility. The AIN submitted by WPL reports that there are no projected adverse effects on the farm operation resulting from the separation of this farm (DATCP, 2021a). The remainder of the farm operation owned by the Larry J. and Christine J. Braaksma Lifetime Revocable trust consists of 334 acres in the Town of Randolph. The balance of tillable acreage is either cropped by the landowner or leased for cash crop production (DATCP, 2021b). The Department was not able to determine if the impacted parcel is currently operated by the owner or if it is leased for cash crop production. WPL reported that it will require between three to four acres to site the new substation facility and that any unused acreage will be leased back to the seller for continued agricultural use at no cost (DATCP, 2021a).

Larry J. and Christine J. Braaksma Lifetime Revocable Trust

The Department contacted the Larry J. and Christine J. Braaksma Lifetime Revocable Trust by phone, however, they elected to not submit feedback for this statement. WPL is projected to acquire 6.255 acres from the agricultural landowners in October of 2021 by a fee-simple acquisition (i.e. to purchase full ownership and exclusive rights to the property) (DATCP, 2021a). If Tax Parcel ID 11008-126 is operated by a renter, the seller should inform the renter of the sale and the availability of any remnant fields for future agricultural use.

Severance, Access and Wasteland

The acquisitions of agricultural property can 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 parcel impacted by the acquisition of Tax Parcel ID 11008-126.

The final site designs for the new substation have not been provided to the Department at the time of this analysis. The Department recommends that WPL site the facility in a location that mitigates the effects of severance, access or creation of a wasteland on remnant agricultural lands.

Severance

Severing an agricultural parcel to accommodate a project effectively splits the existing parcel into two or more smaller parcels. Severing an agricultural parcel may remove existing access points, create agricultural wastelands or uneconomic remnant parcels, at times divide the operation of a farm and may result in farmland conversion. Depending on the final site plan of the facility and selected location on Tax Parcel ID 11008-126 the project has the potential to sever remnant agricultural lands into two or more fields. WPL should site the facility in a location on Tax Parcel ID 11008-126 to minimize severance, maximize the utility of and promote the viability of land remaining in agricultural use.

Access

Acquisitions of farmland may remove existing points of access and entrances utilized by agricultural operations to access their remaining farmland. Based on the location of Tax Parcel ID 11008-126, it appears that an agricultural operator could potentially access remnant farmlands via Union Road or via a driveway off of County Road P through lands owned by the Village of Cambria if an access easement could be negotiated. Future access points for remnant agricultural land may depend on if the parcel is regraded to accommodate the new substation facility. WPL should site the facility in a location on Tax Parcel ID 11008-126 to ensure that there is an access point for any land intended to remain in agricultural use.

Wasteland

Acquisitions that sever farmland frequently create small remnant fields that may be difficult to access or are irregularly shaped. Small remnant fields that are irregularly shaped can make it difficult for agricultural equipment to navigate and reduce the amount of tillable acres, thus creating undeveloped land ([Wis. Stat. § 70.32\(2\)\(a\)\(5\)](#)) or what is commonly referred to as wasteland as shown in Figure 2. This in turn reduces agricultural productivity and decreases the economic viability of the land. Furthermore, as remnant fields decrease in size the proportion of wasteland (a result of narrow fields and sharp corners) increases, which further influences the fields overall productivity and economic viability. WPL should site the facility in a location on Tax Parcel ID 11008-126 to minimize the creation of wasteland on remnant fields to maximize the utility of land remaining in agricultural use. If remnant fields are no longer economically viable to farm and are not required for expansion of the substation facility, WPL should consult the Columbia County Land and Water Conservation Department or other cooperative conservation agency for

opportunities to enroll undeveloped lands in conservation programming to positively affect drainage or pollinators in the area. Pollinator habitats may be of benefit to local ecosystems, agricultural production and other natural areas (DNR, 2021) and have the potential to improve the aesthetic of electric transmission facilities. Alliant Energy is an existing collaborator with the Power-in-Pollinator Initiative, as a member of the Electric Power Research Institute, and has engaged in conservation initiatives to support habitat preservation and protect monarch butterflies as a part of its Clean Energy Blueprint for renewable energy siting (Alliant Energy, 2021).

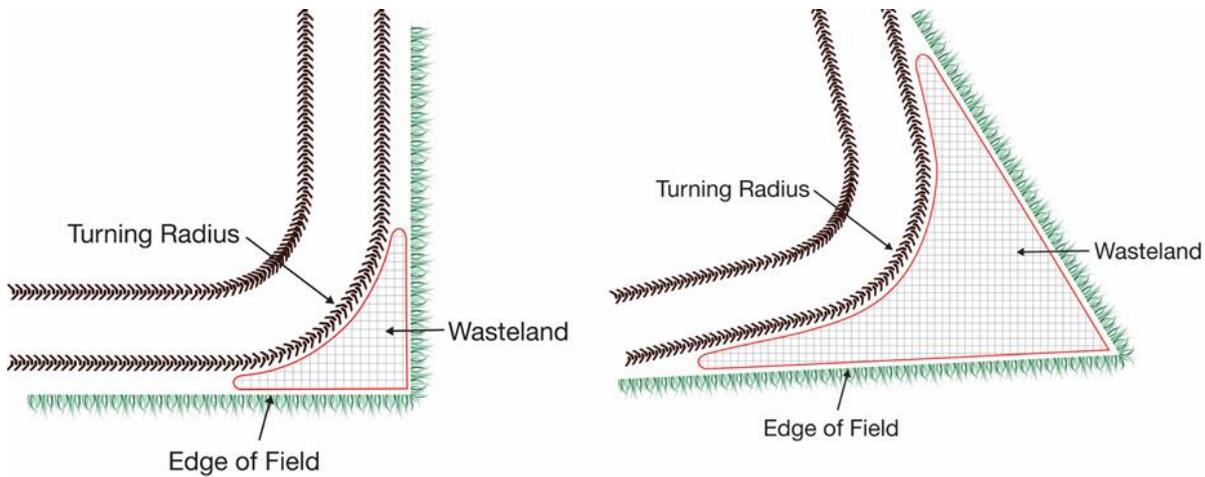


Figure A: Regular Shape

Figure B: Irregular Shape

Figure 2: Examples of agricultural wastelands created from regular shaped fields with square corners (Figure A) and irregular shaped fields with sharp or acute angles (Figure B) that may result from parcel severance.

Prime Farmland and Soils

The proposed acquisition and construction of a new substation facility will impact approximately 6.255 acres of agricultural lands and agricultural soils. The soils impacted by the proposed project were cataloged by soil map unit and soil texture using the Department’s prime farmland soils GIS layer. These soils were analyzed for impacts to soils designated as prime farmland, prime farmland if drained or farmland of statewide importance (Table 4). Table 4 reflects adjusted total GIS acres for the selected parcel rather than assessed acres or total acreage reported in WP & L’s AIN. This measurement closely correlates to a Plat of Survey provided to the Department, incorporated herein as Appendix D. Prime farmland is designated by the USDA according to section 622.3 of the National Soil Survey Handbook (USDA, 2017b) 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 importance are provided under Table 4.

Approximately 49% of the agricultural land impacted by the proposed acquisition holds some level of State priority designation. Specifically, the State of Wisconsin has designated approximately 3.17 acres of the impacted agricultural parcel as farmland of statewide importance (Table 4, Figure 3). Across the impacted agricultural parcel, the primary soil textures is silt loam of various soil

series. All of the impacted soils are silt loam soils, which 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 best suited for crop production (UW-Extension, 2005). The parcel is not uniformly divided between soils categorized as farmland of statewide importance and not prime farmland (Figure 3). The north half of the parcel is classed within the McHenry silt loam soil series and is more steeply sloped (12-20%) than the southern half of the parcel which is classed within the St. Charles silt loam soil series (6-12%). A review of the topography for Tax Parcel ID 11008-126 suggests there may be a 45 foot difference between the elevation at Union Road, which abuts the northern boundary of the parcel, and the southern parcel boundary. New substations require a stable and level ground surface (PSC, 2013). As is the case, the parcel may need to be regraded before the new substation facility is sited. If the existing topography of the parcel is not altered, final site plans may require converting to north/south tillage or planting to accommodate future agricultural use depending on what agricultural lands remain. This practice may not be practical depending on the equipment used by the farm operator or viable depending on points of access. WPL should consult the agricultural owner and or operator to determine if it is possible to site the facility in a way that: 1) preserves as much farmland of statewide importance as is feasible 2) preserves the economic viability of remnant fields. WPL should consult the Columbia County Land and Water Conservation Department to ensure that construction proceeds in a manner to minimize drainage issues and soil erosion.

This soils analysis shows that WP & L's proposed acquisition has the potential to remove both high quality soils and farmland of statewide importance from production depending on the final site design for the substation facility.

Table 4: Soils impacted by the proposed WPL acquisition for new electric substation. Adjusted total acres reflect measured GIS acres for the parcel rather than assessed acres or total acreage reported in WP & L's AIN.

Soil Texture	Prime Farmland* (acre)	Prime Farmland if Drained ^o (acre)	Farmland of Statewide Importance [‡] (acre)	Not Prime Farmland ^φ (acre)	Total (acre)
Silt Loam			3.17	3.30	6.47
<i>Project Total</i>					6.47
<p>*Prime farmland 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>^oPrime farmland if drained, indicates that if farmland is drained it would meet prime farmland criteria.</p> <p>[‡]Farmlands of statewide importance 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>^φNot Prime farmland, indicates farmland is neither prime farmland nor of designated importance.</p>					



- 2021 Parcel Boundaries
- Waterbody
- County Roads
- Local Roads
- McHenry silt loam, 12 to 20 percent slopes, eroded
- St. Charles silt loam, 6 to 12 percent slopes, eroded

N This map has been prepared by the Wisconsin Department of Agriculture, Trade and Consumer Protection for use in administering the Agricultural Impact Statement Program and does not constitute a survey plat, nor is it intended to be the same.
 Prepared by: Land and Water Resources Bureau 23 September 2021.

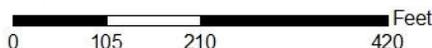


Figure 3: Soil map units and tillable land of proposed WPL acquisition, in the Town of Courtland (NE ¼ NW ¼ of Section 06, T12N, R12E).

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).

All of the impacted soils are silt loam soils, which 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 best suited for crop production (UW-Extension, 2005) An evaluation of the parcel’s topography indicated that the tilled cropland portion slopes downward from north east to south west. The existing soil series have an average slope between 6 and 20%. Normative construction

practices, such as grading and filling may result in erosion, sedimentation, and a decrease in overall soil health (NRCS, 2000).

The substation final site plan will dictate where grading and or filling may be required to establish a stable and level surface for the new substation as well as any practices that may be required to capture or mitigate runoff from gravel pads, concrete foundations and access roads. The practice of grading may require the removal of topsoil, which will affect organic matter, nutrient and water holding capacity of the land. Grading of soils to prepare a construction site may increase soil compaction which can lower the holding capacity for water, resulting in runoff and or other drainage issues if unmanaged (NRCS, 2000).

In the unincorporated areas of Columbia County, land disturbance activities are subject to the county stormwater management and erosion control ordinance, except in towns that have adopted a site erosion control and storm water management zoning ordinance under Wis. Stat. §60.627 (Columbia County, 2021). At the time of this analysis, the Department was not able to confirm if the Town of Courtland has adopted a Town construction site erosion control and stormwater management zoning ordinance. An applicable erosion control and stormwater management ordinance will enforce permitting standards related to stormwater runoff, soil erosion, siltation and sedimentation resulting from proposed development activities. WPL should consult the Columbia County Planning and Zoning Department and the Land and Water Conservation Department for applicable permitting construction site erosion control and stormwater management requirements and to ensure that construction proceeds in a manner to minimize drainage issues and soil erosion for lands projected to remain in agricultural use and for the project site in general. Remnant agricultural lands that are impacted by site development activities may require:

- restoration of topsoil or compacted subsoils
- a vegetated buffer, berm, or other control practice between any impermeable surfaces installed for the new substation and agricultural lands to reduce potential for erosion, control concentrated flow and runoff, or negative drainage impact.

If WPL conducts vegetation management activities at the substation using herbicides that have the potential to impact remnant agricultural lands, they should notify the renter.

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