

AGRICULTURAL
IMPACT
STATEMENT



**Spring Valley to North Lake Geneva
138 kV Transmission Line Project
Walworth and Kenosha Counties**

Published October 26, 2015

**Wisconsin Department of Agriculture,
Trade and Consumer Protection
DATCP #3981**



Agricultural Impact Statement

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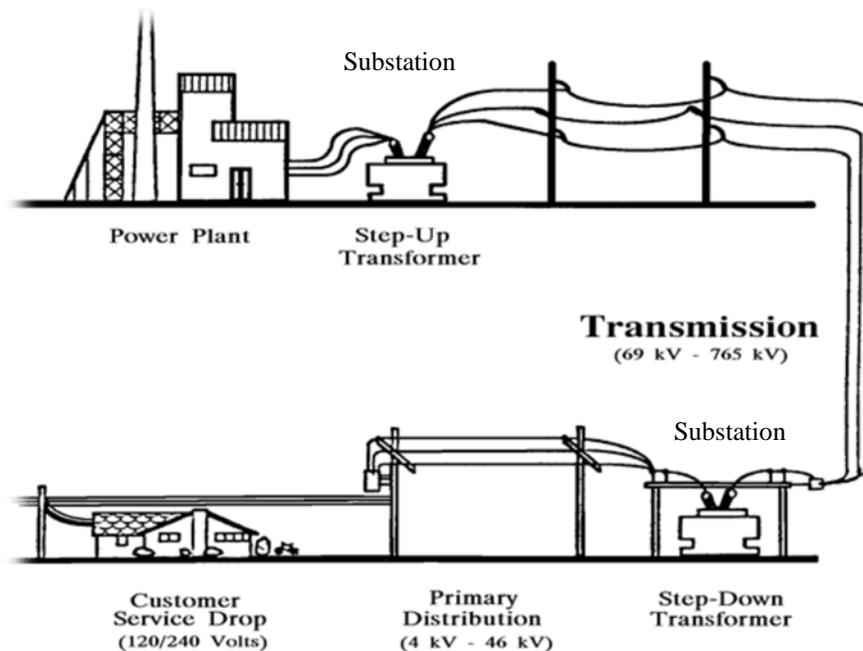
Acronyms

AIS	Agricultural Impact Statement
AEA	Agricultural Enterprise Area
ATC	American Transmission Company
BPA	Bonneville Power Administration
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
EMF	Electric and Magnetic Field
FERC	Federal Energy Regulatory Commission
FPP	Farmland Preservation Program
FSA	Farm Service Agency
GIS	Geographic Information System
MFL	Managed Forest Law
NCCPI	National Commodity Crop Productivity Index
NEV	Neutral to Earth Voltage
NRCS	Natural Resources Conservation Service
OPGW	Optical Ground Wire
PSCW	Public Service Commission of Wisconsin
REPS	Rural Electric Power Service
ROW	Right-of-Way
USDA	U.S. Department of Agriculture
WDNR	Wisconsin Department of Natural Resources

Terms

Angle structure: A type of transmission line structure that is used where conductors change direction. These structures are designed to withstand the forces placed on them by the change in direction of the transmission line.

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 simplified example is shown in the figure below. A typical transmission circuit consists of three phases, with each phase on a separate set of conductors.



Co-locate: Two or more utilities sharing all or part of the same right-of-way. For example, a transmission line right-of-way sharing right-of-way with other transmission lines, roads or highways, pipelines, and/or railroad corridors. This is sometimes also referred to as corridor sharing.

Conductor: A wire composed of multiple aluminum strands supported by 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.

Current: The movement or flow of electricity.

Dead-end structure: A type of transmission line structure that is used where conductors turn at a wide angle or end. These structures are designed to resist the full tension that would occur if all conductors were removed from one face of the structure.

Double-circuit: Electric lines with two sets of three conductors, totaling six conductors on one structure. These two circuits are independent of one another. A transmission line may be double circuited with another transmission line or with a distribution line.

Electric distribution: An interconnected group of lines and associated equipment for the local delivery of low voltage electricity between the transmission network and end users. Distribution lines deliver electricity for household use.

Electric transmission: An interconnected group of lines and equipment for transporting electric energy on a high voltage power line between power plants and substations. Transmission is considered at an end where the transmission line connects to a distribution station.

Kilovolt (kV): A unit of electricity equal to 1,000 volts.

Laydown yards: Temporary equipment staging and storage areas.

Neutral-to-earth voltage: A difference in potential between a locally grounded object and the grounded return conductor, or neutral, of an electrical system.

Right-of-way: The geographic boundaries of the physical path that linear infrastructure, such as a power line or pipeline, follows.

Shield wire: A wire connected to the top of the structure to protect the conductors from lightning strikes, minimizing the risk of power outages. The shield wire may also contain fiber optic communication cables.

Single-circuit: Electric lines with one set of three conductors.

Span: Distance between structures.

Stray voltage: The occurrence of electrical potential between two objects that ideally should not have any voltage difference between them.

Substation: Interface between different voltage transmission lines and the distribution system. Substations monitor and control electrical power flows, use high voltage circuit breakers to protect power lines, and transform voltage levels for safe and reliable delivery of electricity.

Support structures: Towers or poles that support transmission lines. Structures can be constructed of wood or steel and can be single-poled, multi-poled, H-frame, or lattice.

Tangent structure: A type of transmission line structure that is used on relatively straight portions of the transmission line. These structures are characterized by vertical insulators which support and insulate the conductors and transfer wind and weight loads to the structure.

Tap structure: A type of transmission line structure used to connect a new transmission line to

an existing transmission line by tapping into the existing transmission line feed.

Transformers: Devices, located within substations, which change voltage levels. Transformers decrease voltages from the high voltage transmission lines to low voltage distribution lines. Transformers located along distribution lines further step down the voltage for safe household use.

Underbuild: To place a lower voltage distribution circuit underneath a higher voltage transmission circuit, thereby using a single structure for both transmission and distribution lines.

Voltage: The pressure that drives the electrical charge through a circuit. Higher voltage transmission lines carry power longer distances. Voltage is typically measured in volts (V) or kV.

Agricultural Impact Statement

**Spring Valley to North Lake Geneva 138 kV Transmission Line
Walworth and Kenosha Counties
American Transmission Company LLC
PSC Docket #137-CE-167**

1. Introduction

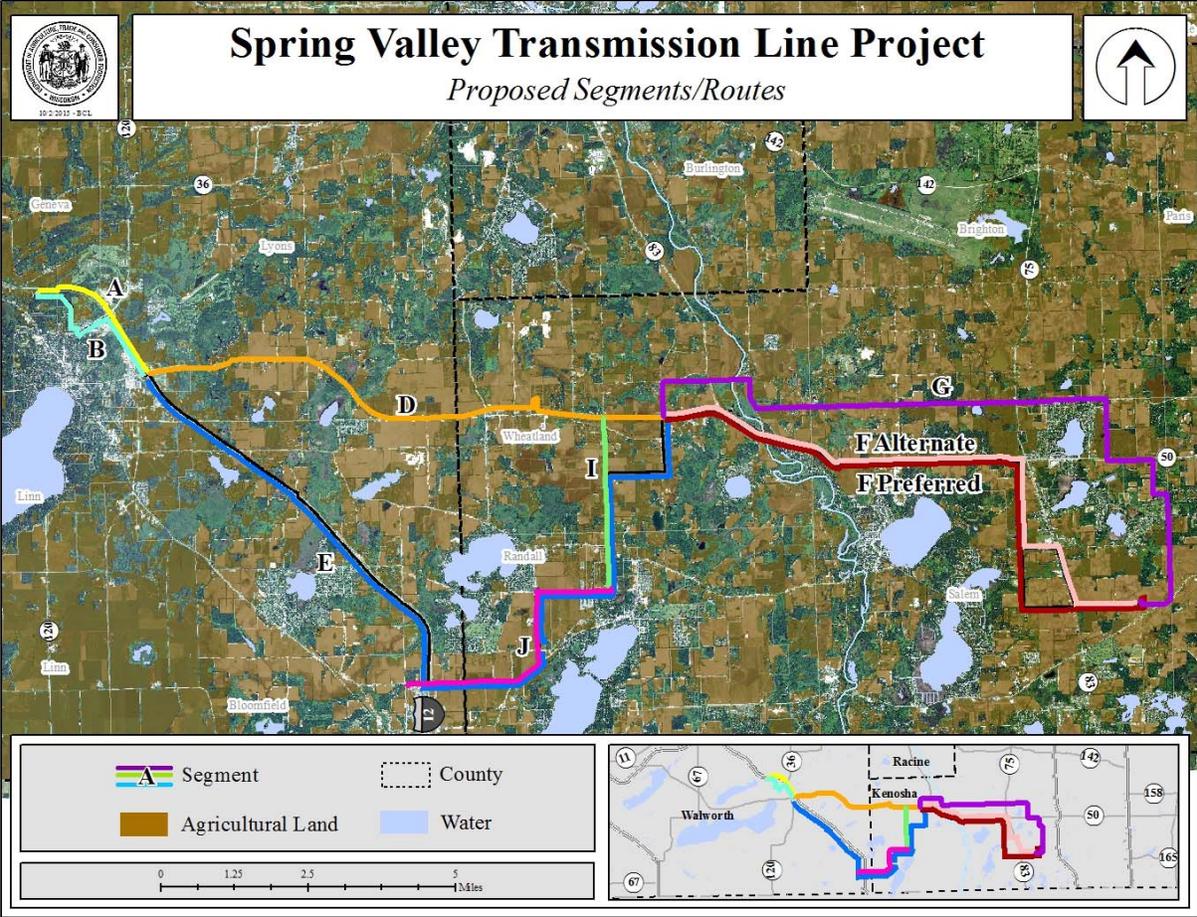
The Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) has prepared this Agricultural Impact Statement (AIS) in accordance with *Wisconsin Statute* §32.035. DATCP is required to prepare an AIS when the actual or potential exercise of eminent domain powers involves an acquisition of interest in more than 5 acres of land from any farm operation. The term farm 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. DATCP may choose to prepare an AIS if an acquisition of 5 or fewer acres will have a significant impact on a farm operation.

The AIS is an informational and advisory document that describes and analyzes the potential effects of the proposed project on farm operations and agricultural resources. The AIS provides information that may help affected landowners understand the potential effects of a proposed project on their property and understand their rights in the review and construction processes. The AIS also aids the Public Service Commission of Wisconsin (PSCW) in making decisions regarding project approval and route alternatives by identifying the potential impacts and the concerns of landowners affected by the proposed project; offers the project initiator practices and techniques to avoid or mitigate damages to farmland and farmland operations; and gives the general public a better understanding of the impacts the proposed project could have on agriculture and the rural economy.

DATCP is not a regulatory agency in this instance: it can take no action against a utility or a proposed project. DATCP is also not involved in determining who receives condemnation authority or the amount of compensation to be paid for the acquisition of any property.

The project initiator may not negotiate with or make a jurisdictional offer to a landowner until 30 days after the AIS is published (*Wisconsin Statute* §32.035).

Figure 1. Project Overview and Location Map



2. Description of the Project

2.1 Project Description

American Transmission Company LLC (ATC) proposes to construct a new 138 kilovolt (kV) transmission line from the Spring Valley Substation in the town of Salem T1N-R20E, Kenosha County, to the North Lake Geneva Substation in the town of Geneva T2N-R17E, Walworth County. The new line will be named X104 and X105. The project could also pass through the towns of Randall T1N-R19E and Wheatland T1,2N-R19E in Kenosha County, and the towns of Bloomfield T1N-R18E, Lyons T2N-R18E, and Linn T1N-R17E in Walworth County depending on the final route selected. ATC has proposed two route options (Route 1 and Route 2) for the proposed project. The PSCW has identified three variations on each of ATC's routes for a total of six potential routes being evaluated for the proposed project. Refer to Figure 1, the Project Location Map for a visual representation of the proposed routes. In addition to the new 138 kV line, the proposed project will also include the following:

- Constructing a new mid-point 138/69 kV Substation
 - With Route 1, this substation will be named the Balsam Substation
 - With Route 2, this substation will be an expansion from 69 kV to 138/69 kV of the existing Richmond Road Substation
- Constructing a new transmission line to Twin Lakes Substation (Line Y102 extension)
 - With Route 1, this will include construction of a new 69 kV transmission line between the new Balsam Substation and the Twin Lakes Substation
 - With Route 2, this will include construction of a new 138 kV transmission line from the Richmond Road Substation to the Twin Lakes Substation (continuing on to the Spring Valley Substation), converting the Twin Lakes Substation to 138 KV, and connecting the Twin Lakes Substation via a switch to the new 138 kV transmission line.
- Expanding the Spring Valley Substation and add terminal facilities to the North Lake Geneva Substation
- Rebuilding the Katzenberg – Twin Lakes 69 kV transmission line (Line Y102)
 - With Route 1, the entire Line Y102 will be rebuilt
 - With Route 2, the existing segment of Line Y102 between the Katzenberg Substation and the Richmond Road Substation will be rebuilt and between the Richmond Road Substation and the Twin Lakes Substation Line Y102 will be retired.
- Upgrading the Bain – Spring Valley 138 kV line (Line 63141)

For more details about the proposed facilities, refer to the *Joint Application for PSCW Certificate of Public Convenience and Necessity and WDNR Utility Permit*. This document and many others related to this project are available on line at the Public Service Commission of Wisconsin's website. Got to <http://psc.wi.gov/>. Click on ERF – Electronic Regulatory Filing. Then click on Search ERF. Enter 137 CE 167 in the boxes next to Utility/Docket, choose your preferences from the drop-down menus, and click GO. This will bring up a list of documents related to this project that have been filed with the PSCW.

Before the project can be constructed, it must be approved by the PSCW. The commissioners of the PSCW will determine whether or not the project is approved and, if approved, the route it would follow. If approved, construction is expected to begin in the summer of 2017 and the project would be placed into service in the spring of 2018.

2.2 Project Need

ATC has indicated that the proposed project is designed to address several existing system deficiencies:

- (1) Load back-up is unreliable for three radially-served distribution substations during summer months;
- (2) Maintenance outages necessary to perform transformer maintenance at the North Lake Geneva and Brick Church Substations are difficult to obtain;
- (3) Line Y51-ALE experiences thermal overloads under contingency conditions; and
- (4) Line Y102 should be replaced.

2.3 Alternative Routes

ATC has proposed two route alternatives for the proposed project, Route 1 and Route 2. Each route has three variations, depending on the right-of-way (ROW) corridor selected for the eastern portion of the project. The following table summarizes the amount of agricultural land that would be affected by each route and summarizes these impacts in terms of new and existing ROW. Existing ROW is any ROW that overlaps the ROW for another transmission line, distribution line, road, highway, or other public corridor. New ROW does not overlap any existing public corridor.

Table 1. Overall Impacts of the Potential Routes on Agriculture and Agricultural Land

Routes	Route 1 Variations			Route 2 Variations		
	A, D, I, J, F, FA	A, D, I, J, F, FB	A, D, I, J, G	B, E, F, FA	B, E, F, FB	B, E, G
New Ag ROW Acres	38.15	36.18	57.01	53.58	51.61	72.44
Existing Ag ROW Acres	16.14	16.20	19.63	14.86	14.92	18.35
Total Ag ROW Acres	54.29	52.38	76.64	68.44	66.53	90.79

Route 1:

Route 1 follows Segments A, D, I, and J in the western part of the project area. This includes following Highway 50 for much of its length. South of the village of Paddock Lake, one of three alternatives would be followed, Segments F and FA (also called F Preferred), Segments F and FB (also called F Alternate), or Segment G. The 138 kV transmission line would tie into a new 138/69 kV substation, the Balsam Substation, along Highway 50 in the town of Wheatland. This line would be designated as Line X104 between the North Lake Geneva Substation and the Balsam Substation, and Line X105 between the Spring Valley Substation and the Balsam Substation.

The new 69 kV line between the Balsam and Twin Lakes Substations, about 4 miles long, follows Highway 50 and County Highway O. This new line would be designated Y102 and would extend from a new switch structure at the Twin Lakes Substation to the new Balsam Substation on newly acquired ROW. It would be double-circuited with Line X104 for 1.2 miles from the Balsam Substation and then single-circuited for 3.1 miles to the Twin Lakes Substation. This line will become an extension of the existing 69 kV Line Y102 from Katzenberg to Twin Lakes, which will be rebuilt.

The rebuild of the existing 69 kV line between the Katzenberg, Richmond Road, and Twin Lakes Substations follows County Highways B, O, P, and Z for 5 miles. This portion of Line Y102 is 5 miles long and would be rebuilt on existing ROW regardless of the route chosen.

Route 2:

Route 2 follows Segments B and E in the western part of the project area including a portion along Highway 12 for roughly a third of its length. Like Route 1, Route 2 would follow Segments F and FA, Segments F and FB, or Segment G in the eastern part of the project area. Some sections are cross-country, not following any existing corridor. This new line would tie into the Richmond Road and Twin Lakes Substations. Instead of constructing a new substation, the Richmond Road Substation would be expanded. It would be constructed on newly acquired ROW. This new line would be designated X104 between the North Lake Geneva and Richmond Road substations and X105 between the Spring Valley and Richmond Road substations.

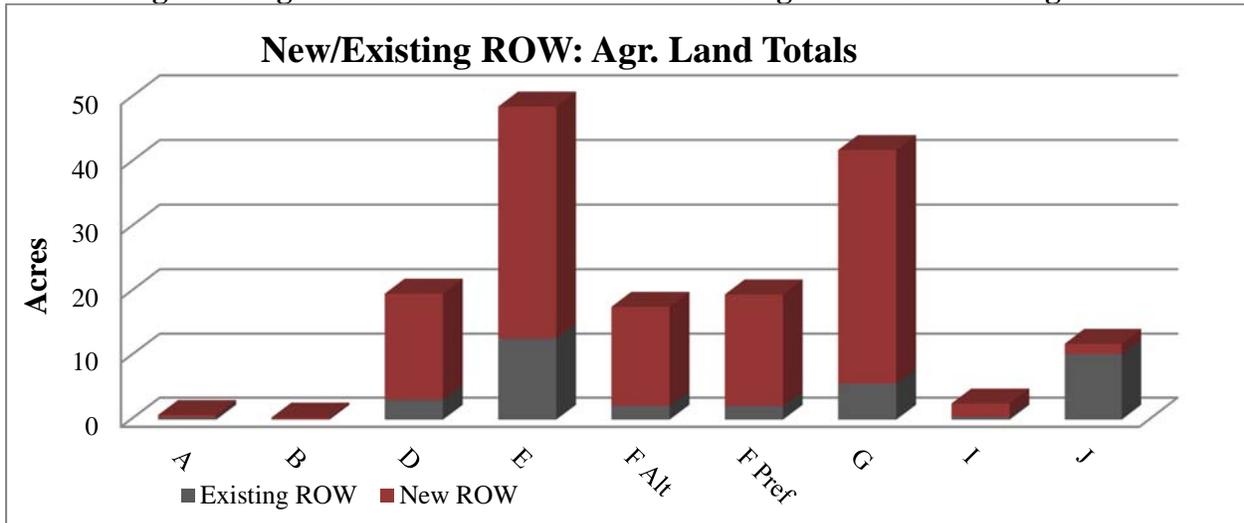
The existing 69 kV line (Y102) would be rebuilt between the Katzenberg and Richmond Road Substations following County Highways B, O, and P. It is 2.6 miles long and would terminate at the Richmond Road Substation. This portion of Y102 would be double-circuited with the new 138 kV line. Between the Richmond Road and Twin Lakes Substations (2.4 miles long), Line Y102 would be removed.

The Twin Lakes Substation would be converted to 138 kV. In addition, the Richmond Road Substation would be expanded to add a 138 kV bus and a 138/69 kV autotransformer for the new 138 kV transmission line.

Table 2. New and Existing ROW by Segment on Agricultural Land

Segment	Existing ROW (Acres)	New ROW (Acres)	Total (Acres)
A	0.33	0.40	0.73
B	0.08	0.24	0.33
D	3.09	16.56	19.65
E	12.67	35.93	48.60
F + FB (also F Alt.)	2.17	15.44	17.61
F + FA (also F Pref.)	2.11	17.41	19.52
G	5.60	36.27	41.87
I	0.40	2.13	2.52
J	10.21	1.65	11.86

Figure 2. Agricultural Land on New and Existing ROW for Each Segment



2.4 Laydown Yards

ATC has identified four potential laydown yards for the each of the potential routes. The locations are described below.

Route 1 Staging Areas:

The first laydown yard is located at the new Balsam Substation property, in the town of Wheatland, just north of HWY 50, between Lake Geneva and Paddock Lake. This approximately 80-acre site is owned by ATC and was previously a tree farm. Waterways and wetlands are not present on this site. The laydown yard will be approximately 1,020 feet by 880 feet.

The second and third laydown yards are located at the existing Richmond Road and Spring Valley substation sites, within the towns of Randall and Salem, respectively. Temporary workspace at these sites will be for incidental material staging and construction equipment parking. The approximate size for these sites are 100 feet by 200 feet. No delineated wetlands are within these substation sites. Waterways and wetlands are not present at these sites.

The fourth laydown yard is located at Payne and Dolan Quarry, located near the city of Lake Geneva, northwest of intersection of STH 12 and STH 120. Waterways and wetlands are not present at this site. The approximate size for this site is 600 feet by 600 feet.

These areas were chosen because of site conditions and their proximity to the Project ROW. Use of multiple laydown areas will reduce the amount of construction traffic on local roads over long distances. If additional laydown areas or temporary workspaces are required, ATC will notify the

PSCW of these new construction locations and will submit the necessary information to the PSCW prior to establishing any such areas in accordance with Wis. Admin. Code § PSC 112.073.

Route 2 Staging Areas:

The first site is located at the Thelen rock quarry, N191 Lange Rd., Genoa City, WI, south of the intersection of Lange Road and County Highway B. Waterways and wetlands are not present on this site. The laydown yard will be approximate 600 feet by 600 feet. This yard will include construction employee parking, field offices, material and tool storage containers, waste dumpsters, port-o-lets, construction equipment parking and material staging areas.

The second and third laydown yards are located at the existing Richmond Road and Spring Valley substation sites, within the towns of Randall and Salem, respectively. Temporary workspace at these sites will be for incidental material staging and construction equipment parking. The approximate size for these sites are 100 feet by 200 feet. Waterways and wetlands are not present at these sites.

The fourth laydown yard is located at the Payne and Dolan Quarry, located near the city of Lake Geneva, northwest of intersection of STH 12 and STH 120. Waterways and wetlands are not present at this site. The approximate size for this site is 600 feet by 600 feet.

ATC chose these sites because of site conditions and their proximity to the Project ROW. Use of multiple laydown areas will reduce the amount of construction traffic on local roads over long distances. If additional laydown areas or temporary workspaces are required, ATC will notify the PSCW of these new construction locations and will submit the necessary information to the PSCW prior to establishing any such areas in accordance with Wis. Admin. Code § PSC 112.073.

3. Agricultural Setting

The information provided in this section is intended to describe the existing agricultural sector of Walworth and Kenosha Counties in general terms. Later in this report, in Section 4 – Agricultural Impacts, individual farm operations are described.

3.1 Agricultural Productivity

Walworth County ranked sixth in soybean production in 2014. Kenosha County ranked eighteenth in the production of winter wheat in that same year. (USDA NASS Annual Wisconsin Agricultural Statistics Bulletin)

Harvested acres of selected crops in Walworth and Kenosha Counties from 2010 to 2014 are displayed in Table 3. The decline in the production of corn for silage in Kenosha County likely correlates with a decline in milk production. Complete figures for the production of corn for silage in Walworth County were not available (USDA NASS Annual Wisconsin Agricultural Statistics Bulletin). Some of the changes in the acres of crops harvested may also be linked to the volatility of the market price paid for those crops.

Table 3. Acres of Selected Crops from 2010 to 2014

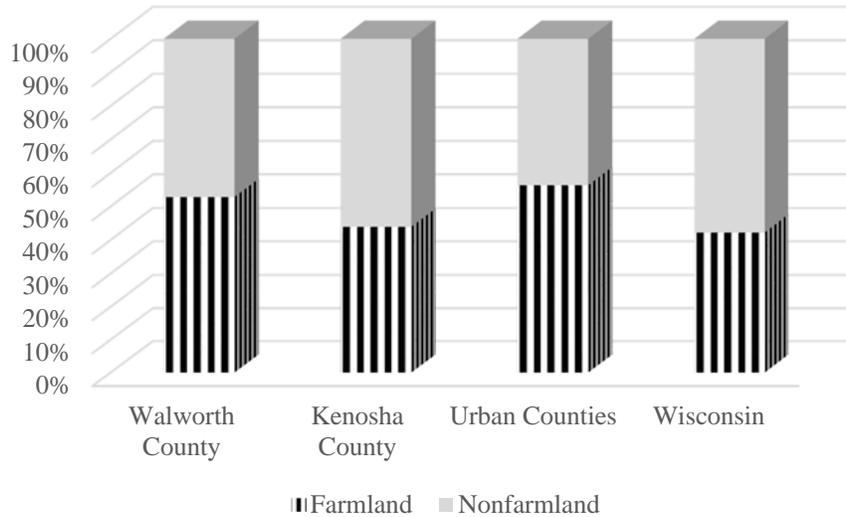
Crops	Acres Harvested				
	2010	2011	2012	2013	2014
Walworth County					
Corn for Grain	96,500	103,000	100,000	88,700	102,900
Soybeans	49,600	47,100	50,200	50,000	55,300
Winter Wheat	6,800	12,100	8,000	10,800	4,700
Kenosha County					
Corn for Grain	27,400	29,100	29,700	28,200	27,900
Corn for Silage	4,200	2,500	4,000	3,600	4,890
Soybeans	23,500	22,100	21,800	22,400	24,200
Winter Wheat	4,500	6,500	5,800	6,650	4,800

3.2 Land in Farms

Walworth and Kenosha Counties are classified as urban counties, which are defined as having an average of more than 100 residents per square mile. According to the 2012 Census of Agriculture, Walworth County has 187,711 acres of land in farms, which represents 52.8 percent of the total land area, and Kenosha County has 76,632 acres of land in farms, representing 43.9 percent of the county (Figure 3). Land in farms consists primarily of agricultural land used for crops, pasture, or grazing. It also includes woodland and wasteland not actually under cultivation or used for pasture or grazing, providing it was part of the farm operator’s total operation. The average acreage of land in farms for urban counties is 188,648 acres or 56.3 percent of the total county land area.

These can be compared to the average of 202,346 acres or 42.2 percent of land in farms among all Wisconsin counties.

Figure 3. Percentage of Land in Farms



According to the 2012 Census of Agriculture, the acreage in farms decreased by 13.7 percent in Walworth County from 2007 to 2012 and it declined by 9.1 percent in Kenosha County during the same period. In Wisconsin as a whole, the amount of land in farms declined from 15.2 to 14.6 million acres (a 4 percent loss) during this time (Table 4). These changes in land use are likely the result of commercial and residential development on land that was formerly agricultural rather than due to idling of formerly productive farmland. The proposed project may contribute to this trend.

Table 4. Change in the Acres of Farmland, 2007 to 2012

	Land in Farms, 2012 (acres)	Land in Farms, 2007 (acres)	Change in Acres	Percentage Change
Walworth County	187,711	217,593	-29,882	-13.7
Kenosha County	76,632	84,345	-7,713	-9.1
Wisconsin	14,568,926	15,190,804	-621,878	-4.1

3.3 Number of Farms

According to the 2012 Census of Agriculture, Walworth County lost 130 farms (a 13 percent decrease) between 2007 and 2012 as the total number dropped from 1,000 to 870. There were 101 fewer farms in Kenosha County as the number of farms there dropped from 460 to 359 during the same period, a 22 percent decline. Wisconsin as a whole lost 11.1 percent of its farms as the total number of farms in the state dropped from 78,463 in 2007 to 69,754 in 2012 (Table 5). As the amount of farmland declines, increasing pressure is placed on farmers who want to remain in agricultural production. When this and other pressures on a farm operation become strong enough,

a farmer may be forced to downsize his/her operation; change the type of his/her operation, such as switching from livestock to cash grain; or closing the farm business and renting the farmland to another operator or developing the land.

Table 5. Change in the Number of Farms, 2007 to 2012

	Number of Farms, 2012	Number of Farms, 2007	Change in the Number of Farms	Percentage Change in the Number of Farms
Walworth County	870	1,000	-130	-13.0
Kenosha County	359	460	-101	-22.0
Wisconsin	69,754	78,463	-8,709	-11.1

3.4 Size of Farms

The average size of farms fell 0.9 percent from 2007 to 2012 in Walworth County, and rose 16.4 percent in Kenosha County and 7.7 percent in Wisconsin as a whole (Table 6; 2012 Census of Agriculture).

Table 6. Change in the Average Size of Farms, 2007 to 2012

	Average Size of Farms, 2012 (acres)	Average Size of Farms, 2007, (acres)	Change in Average Size of Farms (acres)	Percentage Change in Size of Farms
Walworth County	216	218	-2	-0.9
Kenosha County	213	183	+30	+16.4
Wisconsin	209	194	+15	+7.7

The number of farms in each size category in 2012 for Walworth County, Kenosha County, and Wisconsin is shown below in Table 7 (2012 Census of Agriculture). Proportionately, Walworth County and Kenosha County have more farms that are less than 50 acres or larger than 500 acres compared to the averages for Wisconsin.

Table 7. Number of Farms per Size Category in 2012

	0 to 49 Acres		50 to 179 Acres		180 to 499 Acres		500 or More Acres	
	Number	%	Number	%	Number	%	Number	%
Walworth County	394	45.3	248	28.5	131	15.1	97	11.1
Kenosha County	185	51.5	93	25.9	41	11.4	40	11.2
Wisconsin	22,428	32.1	25,502	36.6	15,688	22.5	6,136	8.8

3.5 Property Taxes and Values

The figures in the following table offer indications about the health of the local economy, especially compared to other urban counties. They identify the average property tax, assessed value, and sale price per acre of farmland.

The 2013 average property tax, assessed value, and sale price per acre of agricultural land in Walworth County, Kenosha County, urban counties, and in Wisconsin can be found in Table 8. The assessed values and property taxes are based on the “use value” of agricultural land. Wisconsin Statutes §70.32(2)(c)1g. define agricultural land as “land, exclusive of buildings and improvements, that is devoted primarily to agricultural use.”

Table 8. Farmland Taxes and Value

	Dollars per Acre of Farmland 2014		
	Average Tax	Assessed Value	Sale Value
Walworth County	\$4.03	\$234	\$6,722
Kenosha County	\$4.79	\$235	\$7,184
Urban Counties	\$3.70	\$200	\$6,725
Wisconsin	\$3.32	\$171	\$4,002

In 2013, average property taxes on Walworth County farmland were 8.9 percent higher than the average for urban counties and 21.4 percent higher than the average for Wisconsin. Kenosha County taxes on farmland were 29.5 percent higher than the average tax on farmland in urban counties and 44.3 percent higher than the average tax per acre on all Wisconsin farmland. (Wisconsin Department of Revenue).

On average, the assessed value of farmland in Walworth County was 17.0 percent higher than the average for urban counties and 36.8 percent higher than the average for Wisconsin. The assessed value of Kenosha County farmland was 17.5 percent higher than the average assessed value of farmland in urban counties and 37.4 percent higher than the average assessed value for all Wisconsin farmland. (Wisconsin Department of Revenue).

The average sale price of farmland in Walworth County was equal to the average for urban counties and 68 percent higher than the average for Wisconsin. In Kenosha County, the average price of farmland per acre was 7 percent higher than the average for urban counties and 80 percent higher than the average for Wisconsin as a whole. (USDA NASS 2014 Wisconsin Agricultural Land Sales). These values do not include farmland sold and converted to nonfarm use and do not include agricultural land with buildings or improvements.

4. Agricultural Impacts

This section summarizes DATCP's analysis of the agricultural land within the route alternative ROW's. This analysis is based on the materials provided by ATC, the most current available GIS data, and aerial imagery.

4.1 Farm Programs and Conservation Easements within the Project Area

4.1.1 Farmland Preservation

The state of Wisconsin Farmland Preservation Program (FPP) provides counties, towns, and landowners with tools to aid in protecting agricultural land for continued agricultural use and to promote activities that support the larger agricultural economy. Through this program, counties adopt state-certified Farmland Preservation Plans, which map areas identified as important for farmland preservation and agricultural development.

Kenosha County's Farmland Preservation Plan was certified by DATCP in 1982 and recertified in 2013. Walworth County's Plan was certified in 1978 and recertified in 2012. The plans identify farmland preservation areas in the counties and provide tax credit eligibility to farmers who wish to participate in the FPP. Land that is identified in a county's Farmland Preservation Plan is eligible to participate in other aspects of the FPP, described in the following paragraphs.

Within these farmland preservation areas, local governments and owners of farmland can petition for designation by the state as an Agricultural Enterprise Area (AEA). This designation highlights the importance of the area for agriculture and further supports local farmland preservation and agricultural development goals. Designation as an AEA also enables eligible landowners to enter into farmland preservation agreements. Through an agreement, a landowner voluntarily restricts the use of his/her land for agriculture for fifteen years and follows the state's soil and water conservation standards to protect water quality and soil health. The land that could be acquired for this project is not part of an AEA.

Local governments may also choose to adopt a farmland preservation zoning ordinance to ensure that land covered by the ordinance is eligible for farmland preservation tax credits. Farmland preservation zoning standards restrict non-farm development in farmland preservation zoning districts, which fall under FPP. The towns of Salem and Wheatland in Kenosha County and the towns of Geneva, Linn, and Lyons in Walworth County have adopted their County's Exclusive Agricultural Zoning Ordinance.

4.1.2 Drainage Districts

Drainage districts are local governmental units that establish and maintain drainage ditches to improve the productivity of land for agricultural use. Landowners who are part of a drainage district must contribute to the cost of constructing, maintaining, and repairing the district's drains. Drainage districts are organized under Chapter 88 of the Wisconsin Statutes and are governed by county drainage boards. Approximately 176 active districts exist within 31 Wisconsin counties.

None of the potential Spring Valley to North Lake Geneva Project routes pass through any drainage districts.

4.1.3 Conservation Reserve Enhancement Program (CREP)

CREP is a joint effort between the Federal, State, and County governments that pays landowners who currently till or graze land along a stream, lake, or wetland to set aside small strips of adjacent land for soil conservation and water quality protection. Land eligible for CREP is located in one of 50 designated CREP counties, has a history of crops or pasture, and is within 150 feet of a stream, lake, or wetland. The typical CREP site consists of buffers ranging from 30 to 150 feet wide along a stream and covers an area of about 10 acres or a wetland less than 40 acres. Conservation practice options in CREP include filter strips, riparian buffers, grassed waterways, wetland restorations, marginal pastureland habitat buffers, permanent introduced grasses, permanent native grasses, grass prairie ecosystem restorations, and established legumes and grasses. None of the farmland owners who responded to DATCP's questionnaire identified any CREP agreements in the project area. Each county FSA office has a complete list of the CREP Agreements in that county.

Currently, there are approximately 400 Perpetual Easements and 3,500 15 year Agreements, enrolling approximately 40,000 acres into CREP statewide. Landowners with land enrolled in CREP agree to install and maintain the conservation practice for the duration of the CREP contract.

Under a CREP agreement with grass filter strips, it is permissible for transmission lines to cross over enrolled land, but transmission line structures cannot be placed on this land. The 15 year CREP agreements require a partial buyout of areas where a structure would be placed within the CREP area. Temporary access routes are allowed in CREP areas during maintenance or construction of utilities with the landowner being responsible for re-establishing the conservation practice to the disturbed area when the utility work is completed.

Any requests for additional information should be directed to the FSA, the CREP program's administrator.

4.1.4 Managed Forest Law (MFL)

Many of the state's farmers also own forested land that may be enrolled in the Wisconsin Department of Natural Resources (WDNR) MFL program, a program that offers tax incentives to landowners who manage their forests using sound practices. Transmission line ROWs that pass through areas enrolled in the MFL program would likely require the removal of a portion of these parcels from the program. In addition, if the remaining wooded parcel is too small to meet the minimum requirements for the program, the entire parcel might have to be removed from the program.

ATC should pay any penalties that are assessed on parcels that must be removed from the program. More detailed information about this program can be obtained from the WDNR.

4.1.5 Removing Enrolled Farmland from Farm Programs or Conservation Easements

A repayment of money previously received by the landowner, damages, and/or interest on enrolled

farmland in any of the programs listed above may be required. This could happen if land enrolled in one of these programs becomes ineligible due to the project construction. Additionally, if a program requires the presence of trees, such as Conservation Reserve Program (CRP) or CREP, and trees within this land need to be removed for the transmission line, this deforested land would need to be removed from the contract. This removal of trees could possibly trigger the need for repayments by the landowner, or it could require the landowner to change to a non-conflicting conservation practice at the cost of the landowner.

DATCP recommends that affected landowners consult with the farm program’s agency or provider to determine the implications of the project on their participation in any of these programs. DATCP recommends that ATC work with all affected landowners currently enrolled in all farm conservation programs or easements and compensate them additionally if the landowner is charged any fees or penalties for the removal from a program or alteration of their land to maintain compliance with a program.

4.2 Soils

The Natural Resources Conservation Service (NRCS) *Soil Survey of Kenosha and Racine Counties* and the *Soil Survey of Walworth County* identified multiple soil types that occur within the project ROW. Seventy nine different soil types exist within the project ROW. Refer to Appendix B for a complete list of soils by segment on farmland that could be affected by the proposed project.

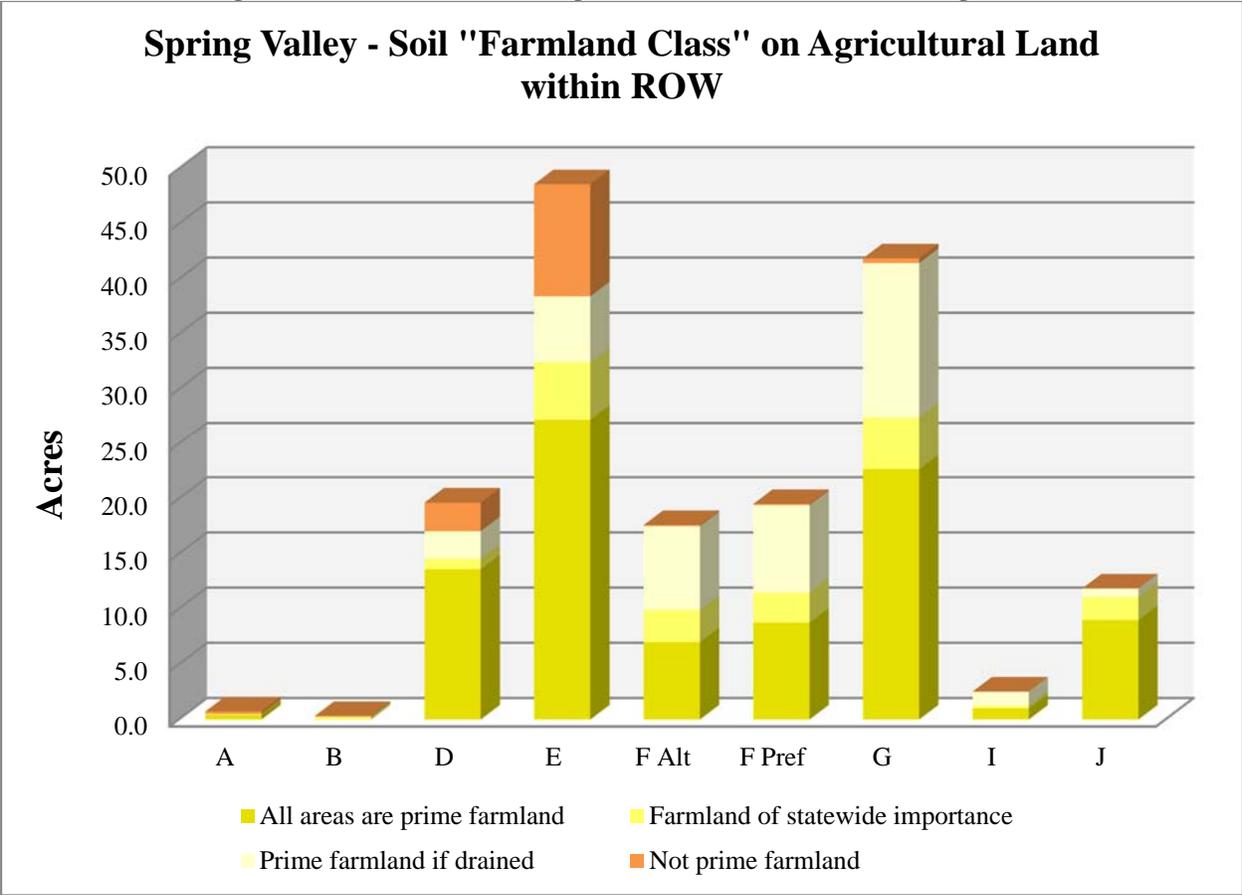
4.2.1 Farmland Soil Classification

The NRCS farmland soil classification system rates the major physical and chemical soil properties affecting agricultural use. Almost 80 percent of the soils within the potential ROW of all the route alternatives are characterized as prime farmland or prime farmland where drained, meaning it has the best combination of physical and chemical characteristics for the production of crops (Table 9). Please refer to Appendix C for a more detailed description of the farmland soil classification system.

Table 9. NRCS Soil Classification by Segment (Acres)

Soil Class	A	B	D	E	F Alt	F Pref	G	I	J
All areas are prime farmland	0.4	0.0	13.6	27.2	7.0	8.8	22.7	1.0	9.0
Farmland of statewide importance	0.1	0.2	1.0	5.2	2.9	2.7	4.8	0.2	2.1
Prime farmland if drained	0.0	0.0	2.5	6.0	7.6	7.9	14.0	1.3	0.8
Not prime farmland	0.2	0.1	2.6	10.2	0.1	0.1	0.4	0.0	0.0
Totals	0.7	0.3	19.7	48.6	17.6	19.5	41.9	2.5	11.9

Figure 4. Soil Classes for Agricultural Land on Each Segment



4.2.2 Drainage Classification

Several agricultural soils within the project ROW for all six of the route alternatives are characterized as poorly drained and contain a shallow water table. Wet soils can be more susceptible to soil compaction and require mitigation measures to protect them, particularly if construction work occurs on wet agricultural soils. Agricultural drainage tiles may also be present in these wetter soils. The potential impacts associated with construction activities in wet soils is discussed further in Section 6.

5. Agricultural Landowner Concerns

5.1 Summary of Landowner Responses

To gather additional information on how the project could impact farmland and farm operations, DATCP surveyed agricultural landowners in the project area by mail. DATCP identified owners of agricultural land in the potential ROW of the project. Agricultural land includes cropland, hay land, pasture, land used to grow specialty crops, and old fields (land that appears to have been recently farmed). DATCP sent questionnaires to landowners who could have 1 or more acres of agricultural land acquired for the project. Of the 67 questionnaires mailed, 36 were returned for a response rate of 54 percent. Individual landowner survey comments are provided in Appendix A.

The questionnaire asked landowners to indicate areas of concern that the transmission line project would have on their farming operations. The results were compiled by route and presented in Table 10. Concerns with the largest responses were field operations, pole locations and construction impacts. The levels of concern were similar for both route alternatives. Drainage, replacement land availability, aerial spraying / seeding and the ability to find and keep tenants were also important issues along both routes.

Table 10. Landowner Concerns Identified in DATCP Survey

Concern	Route 1 Responses	Route 2 Responses	Total Responses
Questionnaires Returned	15	21	36
Drainage	9	9	18
Grassed Waterways	5	6	11
Proximity to Farm Buildings	5	8	13
Irrigation	1	0	1
Construction Impacts – Compaction / Rutting	9	12	21
Replacement Land Availability	9	11	20
Field Access	6	12	18
Location of Pole	10	14	24
Parcel Severance	4	7	11
Firewood / Lumber	2	2	4
Organic Certification	1	2	3
Aerial Spraying / Seeding	7	8	15
Manure / Fertilizer Application	4	6	10
Field Operations – Planting, Tillage, Harvesting	10	15	25
Ability to Find & Keep Tenants	8	10	18

Six respondents along Route 1 indicated that there were buildings within 300 feet of the proposed line. This included three residences, storage buildings and a chicken coop. Seven respondents along Route 2 indicated there were buildings within 300 feet of the proposed power line, including four residences and storage buildings. There were four livestock facilities including a dairy farm and beef cattle operations along Route 2.

5.2 Acquisition Process

None of the information provided below is intended as legal advice or as a substitute for legal advice. Landowners seeking legal advice should make sure that any attorney they hire has expertise and experience in the eminent domain process.

If the proposed project is approved by the PSCW, ATC will obtain the needed ROW by purchasing easements on the private land that is crossed by the approved route. An easement is a contract between a landowner and the entity purchasing one or more rights to that land. It specifies the rights and restrictions on both the acquiring entity, in this case ATC, and the landowner. The contract is binding upon both parties and their heirs until the contract is dissolved. A sample ATC easement is included in Appendix E.

Permanent easements restrict certain activities on the ROW and allow the utilities access for construction, repairs, and maintenance of the line. Temporary easements may also be needed for access routes to reach the ROW during initial construction of the line, as well as for the use of the selected laydown yard(s) during construction. Neither the permanent nor the temporary easements grant access rights to the general public to use the ROW.

The easements can be customized to address some of the concerns or preferences of the landowner. Any specific items or stipulations agreed upon between ATC and the landowner, such as specific clearing or restoration obligations, notifications, timing of activities, or payment should be documented in the easement or another appropriate type of legal document. The easement will also specify the number, height, and type of structures in the ROW, the length and width of the ROW, the minimum height of the conductors above the ground, and the number and maximum voltage of the line. Landowners can negotiate with ATC regarding pole placement within their fields at this point in time as well.

The amount of compensation for the easement is established during the negotiation process between the utility and individual landowner. The utility's original offer of compensation is based on a market analysis. Landowners have the right to obtain their own appraisal of their property. They will be compensated for the cost of this appraisal if the following conditions are met.

1. The appraisal must be submitted to WisDOT within 60 days after the landowner receives WisDOT's appraisal.
2. The appraisal fee must be reasonable.
3. The appraisal must be complete.

Landowners have the option to negotiate more favorable easement conditions and compensation. Although most crops can be grown under transmission lines, other land uses and activities may be

restricted such as constructing buildings or growing trees on the ROW. Part of the compensation provided is intended to compensate the landowner for the lost opportunities associated with these restrictions. Landowners should also be aware of the rights they have under the “Landowners’ Bill of Rights” *Wisconsin Statute* §182.017. A copy of this statute is included in Appendix F.

The utility is required to provide landowners with information about their rights in this process before negotiations begin.

According to *Wisconsin Statute* §32.09 (6r), for transmission lines 100 kV or greater and at least 1 mile in length, where the easement area is within land zoned or used for agricultural purposes, the utility’s compensation offer must be in one of two forms: a one-time lump sum payment or an annual payment. The landowner has the right to choose which form of compensation he or she prefers. If annual payments are chosen, the payments will continue only as long as the easement land remains in agricultural use (PSCW 2014).

5.3 Eminent Domain Law

If a landowner is unwilling to engage in the easement negotiation, or other impediments make negotiation not possible, ATC can seek condemnation of the needed property. Condemnation is possible through eminent domain. Eminent domain is the government’s ability, under Chapter 32 of the *Wisconsin Statutes*, to condemn or take private property for public use.

If property rights are acquired through condemnation, the court assigns the legal obligations for the condemner and the condemnee. Under a court ordered condemnation settlement, ATC may not have the capability or flexibility to address individual landowner concerns. If condemnation is used, it does not result in an easement contract, but a court order. Please consult *Wisconsin Statutes* Chapter 32 for more information pertaining to eminent domain, property acquisitions, and compensation.

5.4 Landowner Bill of Rights

Wisconsin Statutes §182.017, also referred to as the “Landowners’ Bill of Rights,” describes the rights that landowners have, and the requirements the utility must adhere to, when a transmission line will be constructed on private property. ATC must comply, and require its contractors to comply, with all aspects of this statute. ATC may request landowners to waive some of their rights during the negotiation process, but landowners are not required to do so. DATCP recommends that each affected landowner review the Landowners Bill of Rights in its entirety prior to the start of easement negotiations.

6. Agricultural Impacts and Mitigation

Transmission line impacts to farmland can be categorized as temporary or permanent. Temporary impacts could become permanent if mitigating practices are not followed. This section discusses the potential temporary and permanent impacts to agricultural land associated with transmission line construction and the potential mitigation practices ATC should use to lessen those impacts.

It is important for ATC and its contractors to maintain respectful and cooperative working relationships with property owners and renters. Good communication between ATC and each affected landowner throughout the duration of the project can help to avoid problems and misunderstandings.

ATC has indicated that upon receipt of the Commission's Order, they will coordinate with each agricultural landowner to obtain detailed information about each agricultural operation. This information may include, but not limited to, the existence and location of irrigation systems, drainage tiling, livestock, farm level bio-security plans, certified organic farms and those in the process of becoming certified, and landowner concerns. ATC will also identify locations for potential access routes. If the Project is approved, ATC will send an Agriculture Inventory Questionnaire prior to the start of easement negotiations to all impacted agricultural landowners. This is how ATC will begin to collect information on each farm operation and this information will be used to identify concerns farmland owners have and potential ways to mitigate for those concerns. **The completion of ATC's Agriculture Inventory Questionnaire is voluntary, but DATCP strongly recommends that each affected farmland owner complete the questionnaire so his or her concerns can be specifically addressed.**

DATCP also recommends that any landowner concerned about the potential impacts on their agricultural land should keep records of the conditions of the ROW before, during, and after construction. Records could include crop yields and photographs taken every season. These measures can all help a landowner document damages caused by project construction.

If landowners observe work that is not acceptable, or violates the terms of their easement contracts, they should immediately bring this to ATC's attention by contacting ATC's land agent or other ATC representative. It is generally easier to have the corrections made while the contractor is still in the immediate vicinity. However, the damage may not be able to be corrected at that time and will need to be scheduled in the future. An example would be not being able to correct soil compaction until after construction is completed and no more heavy traffic is expected on that part of the corridor. Even if repairs cannot be made at the time that the damage occurs, it is still important to report the damage to ATC as soon as possible and to document the conditions with photos.

6.1 Temporary Impacts and Mitigation

6.1.1 Soil Compaction

Equipment used to construct transmission lines has the potential to compact soil and thereby reduce soil productivity on the farmland traversed during construction. Soil compaction reduces

pore space between soil particles, restricting the movement of water and gases through the soil. This can affect the rooting depth of crops and the uptake of nutrients and water. In addition, soil compaction can decrease soil temperature, decomposition of organic matter, and a plant's ability to access required nutrients found lower in the rooting zone. It can also increase the likelihood of water erosion on farm fields.

Several factors influence whether a 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. The expected compaction depth increases as the axle load increases and as soil moisture content increases.

To mitigate the potential for soil compaction, ATC is required, under the "Landowners' Bill of Rights" (*Wisconsin Statute §182.017 (7c)*) to schedule any construction work in agricultural land at times when the ground is frozen, to the extent practicable and at the landowner's request.

DATCP recommends that ATC and its construction contractors implement the following mitigation measures to reduce the potential for soil compaction: use low-ground pressure and/or wide tracked equipment to reduce the amount of axle weight applied to soils; use construction mats to spread out ground pressure; whenever possible, conduct all work during the winter when the ground is frozen; and avoid working on recently saturated soils.

It is ATC's practice to acknowledge that compaction is likely to have occurred on cropland that is part of the project ROW. Typically, ATC compensates landowners with cropland in the ROW to perform the necessary decompaction work on their land or hire a contractor to perform that work. It is important to remember that not all farmland owners possess the kind of equipment that is needed to properly decompact soils. DATCP recommends that ATC assist landowners who request help in finding a reputable contractor who has the expertise and experience to successfully decompact the affected soils.

6.1.2 Soil Rutting

Rutting can occur when soils become saturated or in areas with soils sensitive to rutting. Although the amount of damage to soils from rutting depends on the depth of the ruts, rutting can lead to the inability of farm equipment to traverse the ROW and increase chances for soil mixing, erosion of topsoil during rain events, and compaction of soils. Rutting can create an erosion problem, because silty soils in the project ROW are very susceptible to sheet flow water when rutted. Rutting can also mix the topsoil with the subsoil, resulting in a less productive topsoil layer.

DATCP recommends that ATC and its construction contractors implement the following mitigation measures to reduce the potential for soil rutting: use low-ground pressure and/or wide tracked equipment to distribute the axle weight applied to soils; use construction mats to spread out ground pressure; whenever possible, conduct all work during the winter when the ground is frozen; and avoid working on recently saturated soils. Any ruts that occur should be given sufficient amount of time to dry before they are fixed, or additional damage to the soil may result.

Ruts should be backbladed as soon as site conditions allow so they do not impede the movement of farm equipment.

6.1.3 Soil Mixing

Soils have the potential to be mixed during excavation for the structure foundations and where deep ruts occur. Spoils from excavation sites should never be spread on the surface of the ROW where the ROW is used for cropland or pasture.

ATC is required under the “Landowners’ Bill of Rights” to strip the topsoil around a structure foundation hole, pile it, and replace the topsoil upon completion of excavation. The soil piles, or spoils, should be placed in an area designated by the landowner. ATC typically prefers the landowner waive this right, and in its place, ATC would import clean topsoil, where needed, during the restoration phase. The landowner does not have to waive this right, but if they choose to do so, ATC’s obligation to import clean topsoil should be recorded in the easement contract. Any of the excavated soils, besides the topsoil, should be spread in a location designated by the landowner or the soils should be hauled off-site.

DATCP recommends that ATC and its construction contractors implement the following mitigation measures to reduce the potential for soil mixing:

- use low-ground pressure and/or wide tracked equipment to distribute the axel weight applied to soils;
- use construction mats to spread out ground pressure;
- avoid working on recently saturated soils;
- segregate and stockpile any removed topsoil; and
- never spread excavated spoil material, excluding topsoil, on cropland or pasture.

6.1.4 Drainage

Proper field drainage is vital to a successful farm operation. Construction of a transmission line can disrupt improvements such as drainage tiles, grassed waterways, and drainage ditches that regulate the drainage of farm fields. If drainage is impaired, water can settle in fields and cause substantial damage, such as harming or killing crops and other vegetation, concentrating mineral salts, flooding farm buildings, or causing hoof rot and other diseases that affect livestock.

If the project is approved, ATC will consult with individual landowners to determine whether drainage structures exist within the ROW and document existing drainage problems that could affect the construction easement area. ATC is required, under the “Landowners’ Bill of Rights,” to repair any drainage tile lines within the ROW that are damaged during construction or maintenance of the transmission line.

DATCP recommends that landowners with wetter soils or with drainage tiling discuss specific mitigation measures with ATC during the easement negotiations process to ensure protection of these soils during construction activities, if the project is approved.

DATCP recommends that any affected landowners with a map of their drainage tiles share it with ATC representatives during the easement negotiations. During construction, DATCP recommends

that ATC's construction contractors use low-ground pressure and/or wide tracked equipment to reduce the potential for damaging subsurface drainage structures; use construction mats to spread out ground pressure; and whenever possible, conduct all work during the winter when the ground is frozen.

6.1.5 Damage to Sloped Areas

Farmland owners often install or shape conservation practices to protect soil and water quality and reduce erosion of their farmland. ATC is required, under the "Landowners' Bill of Rights," to restore any slope, terrace, or waterway to its original condition if it is damaged during construction or maintenance of the transmission line.

DATCP recommends that landowners with conservation practices, such as grassed waterways or terraces, discuss specific mitigation measures with ATC during the easement negotiations process to ensure protection of these practices during construction activities, if the Project is approved.

6.1.6 Fencing and Livestock

Before construction begins, one of the issues that ATC should ask landowners about is whether there are animals on their farm operations and the type of operation (i.e. feedlot, managed grazing, etc.).

Construction access to a confined animal area could be needed by ATC. ATC should notify these landowners when access will be needed to their confined area so the animals can be moved elsewhere. If transmission line construction divides a pasture, access between the divided parcels could be restricted. ATC will need to work with the farmer to either develop an access plan for the livestock or compensate the farmer for the cost related to restrictions on grazing. ATC should fence off the construction area to prevent livestock from wandering onto the ROW.

Existing fences within the ROW may need to be removed or cut to allow full access to the ROW during construction. If ATC needs to cut any fences during construction, it will see that a temporary gate is installed, per required in the "Landowners' Bill of Rights." Such gates may be left in place at the request of the landowner. All damaged fences will be replaced with a fence of equal or greater quality once construction is complete. Following initial construction of the line, fences are allowed within the ROW.

6.1.7 Manure and Nutrient Management

During the real estate acquisition process, ATC or its representatives should consult with farmland owners on their manure and nutrient application practices and timing to ensure these crop management activities are not negatively impacted by the project. Additionally, landowners anticipating the loss of spreadable acreage due to poles in fields that reduce the amount of workable land should include that cost in their discussions with ATC regarding compensation. To avoid the movement of manure from one farm to another by construction equipment, it is recommended that manure not be spread on the ROW from the time that tree clearing begins until restoration is completed. This will aide in minimizing the spread of manure-born diseases from one farm to another.

6.1.8 Crop Damage

ATC is required, under the “Landowners’ Bill of Rights” to pay for any damage to crops caused during any phase of initial construction from clearing to restoration, and/or during repairs or routine maintenance of the transmission line. Further questions about crop damage payments should be addressed to the ATC real estate representative during easement negotiations.

6.1.9 Access to the ROW

No matter which route would be selected, access to the project ROW would generally start from public roadways. This would occur where public roads intersect the ROW.

Other access to the ROW might be considered if it minimizes cost, environmental impacts, or landowner impacts. These would be off-ROW, temporary roads that would be created to access the ROW from private roadways or across private land. In these cases, the landowner would be notified and could choose to grant or deny permission for access outside of the ROW. Any access or use beyond the easement area will require the written consent of the landowner, usually in the form of a temporary easement. ATC is responsible to the affected landowner for damage incurred within the temporary access route.

6.1.10 Surveying and Staking the ROW

Surveying and staking would be used throughout the duration of the project for marking areas such as the ROW, boundaries of environmentally sensitive areas, structure locations, property lines, and underground utilities.

If surveying or construction crews leave wire surveying flags, equipment, or other debris behind after their work is completed, these items can pose a hazard to livestock. When livestock ingest such material, they can develop what is known as "hardware disease". Ingested wires or other objects can damage the animal’s viscera and may lead to death. ATC should be sure to remove all construction debris and litter after each stage of construction, especially those areas that may be accessed by livestock.

6.1.11 Noise and Dust during Construction

Dust and noise due to transmission line construction can affect landowners and farm animals. Fur animals and poultry are particularly sensitive to noise. Any livestock owners who are concerned about the potential for this impact should discuss their concerns with ATC real estate representatives during the easement negotiation process.

Typical steps to minimize noise include being conscious of landowner requests, working between the preferred hours of 7:00 am and 6:00 p.m. Monday through Friday, and turning equipment off when it is not in use. ATC may also take steps to minimize the amount of dust and dirt where possible, including cleaning off roads daily where mud has been tracked from equipment, using tracking pads at frequently used access points, wet sweeping of roads, and having a water truck on site to spray the ROW and laydown yards with water.

6.1.12 Dewatering of the Foundation Hole

In areas where the groundwater is close to the ground surface, dewatering facilities may need to be used during the excavation and installation of the structure foundations. Proper dewatering of the foundation hole requires pre-construction identification by ATC's contractors of low areas and saturated soils that are likely to collect water during construction.

Depending on site conditions, the water may be de-silted and discharged to an upland area where it is allowed to infiltrate, or it may be removed from the site via a tank truck. Dewatering will proceed in accordance with applicable regulations and permit requirements. Discharge locations must be well-vegetated areas that prevent the water from returning to the ROW, be as far from backfilling activities as possible, and avoid deposition of gravel or sediment onto fields, pastures, or watercourses.

When dewatering activities cause damage that cannot be avoided, ATC should reasonably compensate the landowner for such damages and restore the land and crops to pre-construction conditions.

6.2 Permanent Impacts and Mitigation

6.2.1 Organic Farms

Construction of a transmission line can jeopardize a farm's organic certification if prohibited chemicals used on neighboring non-organic farms drift onto certified organic land from the loss of a windbreak or from construction equipment entering organic farmland. Construction machinery can leak hydraulic fluid and could be contaminated with soil borne diseases, endangering certification of organic farmland.

There is at least one certified organic operation that could be affected by the project. It is on Segment E, Luna LLC, which produces organic beef on 140 acres.

ATC and its contractors should work with organic farm operators within the project's ROW to determine the most effective techniques to minimize the impact to those farms and maintain their certification. Potential mitigation techniques could include offsetting structures to preserve windbreaks separating organic and non-organic farms, cleaning construction vehicles prior to entering organic land, prohibiting the application of herbicide in organic ROW when the landowner has not consented to it, and displaying signs within the ROW at the boundaries of organic farms to help visually alert oncoming construction crews and vehicles of the presence of an organic farm operation.

6.2.2 Specialty Crop Production

There is at least one farm operation within the project area that could be considered a specialty operation. It is on Segment F and is owned by Randy Ebertowski and Andrea Delaune. Mr. Ebertowski and Ms. Delaune operate 94 acres and are planning to create an agricultural tourism business with bison, heritage farm animals, and locally grown produce.

6.2.3 Aerial Spraying

The location of transmission line structures in cropland can restrict aerial application of chemicals or seed and can increase the danger of making applications. When agricultural pilots have to maneuver to avoid transmission lines, uneven or imprecise aerial spraying may result in: 1) cropped areas being missed, resulting in weed growth and or pest infestations that reduce yields; 2) increased cost from hand application of pesticides in non-applied areas; and 3) increased risk of liability from pesticide drift on neighboring properties.

ATC is required, under the “Landowners’ Bill of Rights,” to include compensation for the inability to adequately aerial spray or seed. DATCP recommends that ATC and its contractors work with farm operators to determine the most effective techniques to minimize the impact to their aerial spraying applications. Potential mitigation measures could include minimizing structure heights where feasible and installing markers on shield wires where aerial seeding and spraying occur.

The following landowners are concerned about impacts on their ability to conduct aerial application of chemicals and/or seed on their operations:

Segment	Landowners
F	Randy Ebertowski & Andrea Delaune
FA	Fred Brown
F & FB	Heath/Hart/Fortner residence
FA & FB	R&C Hawkins Farms
D	Dan Meyerhofer
E	Roger & Jean Meyerhofer Rodell & Delores Schenning John Glennon (TJKK Farms LLC) Richard & Sandra Deidrich
G	James & Susan Rogers Paddock Lake Village, Tim Popanda, Administrator Wayne & Alice Everts

6.2.4 Irrigation

Center pivot systems located along the project route could be significantly affected by placement of the proposed transmission line structures if the new line bisects the field rather than following a field edge. Existing and planned underground piping for central pivot and nutrient application and transfer could also be affected. Depending on the placement of the transmission structures

within the irrigation path, a farmland operator could potentially not be able to use or build an irrigation system.

DATCP recommends that ATC work with the operators of irrigation systems in the project's ROW to avoid impacts on the operation of their systems to the extent practicable. If structure locations cannot be moved where they would not impact the irrigation system, the landowner should be compensated accordingly for the loss of the use of the irrigation system.

No one responding to DATCP's survey identified any existing irrigation systems along the proposed routes.

6.2.5 Woodlands and Windbreaks

If the transmission line is approved, the initial construction of the line will require the removal of all trees and most other vegetation from the entire width of the ROW to allow crews and equipment safe access. Vegetation removal is required to stay in compliance with Federal Energy Regulatory Commission (FERC) safety standards. FERC is an independent agency that regulates the interstate transmission of electricity, oil, and natural gas.

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. The entire width of the ROW will be cleared to take into account such factors as line sagging and blowing. Line sagging occurs when the conductor droops closer to the ground due to increased heat from carrying extra electric load or during periods of high air temperatures. Dead, dying, diseased, or leaning trees (hazard trees) outside ROW may need to be cut or trimmed due to the risk of them falling within the ROW.

ATC real estate representatives will discuss the necessary vegetation management work with each affected landowner during the easement negotiation process. At that time, a Tree Disposition Report will be completed, stating the necessary vegetation removal and site clean-up. After the easement has been acquired, ATC's vegetation removal contractor will contact the landowner when tree removal is scheduled to begin. If hazard trees found during the initial ROW clearing were not previously identified in the Tree Disposition Report, they will be discussed with the landowner followed by the removal of the hazard tree per the terms of the easement.

During easement negotiations, ATC real estate representatives will also discuss the use of herbicides on the cleared ROW. ATC's vegetation management program commonly uses selective herbicides following the initial tree clearing to discourage the re-growth of tall-growing tree and shrub species. The "Landowners' Bill of Rights" requires that permission from each landowner be granted prior to the use of any herbicides on the ROW. If the landowner does not grant permission, ATC must refrain from the use of herbicides on their property within the ROW. If the landowner grants permission, he or she will sign ATC's agreement for the use of herbicide on the easement area. **During the easement negotiations, the landowner can request a one-time payment for the use of herbicides.**

Affected forest landowners will maintain ownership of any trees that need to be cut as a result of the project, as stated in the “Landowners’ Bill of Rights.” The manner in which these trees are handled should be negotiated between ATC and the affected landowner before clearing begins. Typically, any timber or saw logs are stacked on the edge of the ROW in upland locations for the landowner’s disposition. Smaller diameter trees and limbs, often referred to as slash, are usually chipped and disposed of according to the landowner’s wishes: spread on the ROW, piled on the edge of the ROW for the landowner’s use, or disposed of according to other agreed-upon arrangements. Slash may also be disposed of by burning, but local permits may be required for this.

A hazard to livestock that can occur during ROW clearing or maintenance is the disturbance of black walnut trees. The roots of these trees produce a toxin known as juglone that causes an allergic reaction in horses and may also affect other livestock. Care should be taken when clearing any black walnut trees to make sure that all roots, wood, bark, leaves, hulls, and sawdust are removed from any area to which livestock may have access. Even the ash from trees that have been burned may still contain the toxin. Relatively small amounts of juglone are also found in Persian (English or Carpathian) walnut trees as well as butternut, pecan, and hickory trees.

Windbreaks are linear plantations of trees that help to maintain soil quality by providing a barrier on the windward side of a field, which reduces erosion from the wind. If trees that are part of a windbreak are removed because of the project, the adjacent soils could be more susceptible to erosion. Depending on soil conditions and supporting practices, a single row of trees protects for a distance downwind of approximately 10 to 12 times the height of the windbreak.

DATCP recommends that the PSCW require ATC to avoid windbreaks as much as possible.

After the line has been constructed, the deforested land could now be used for farming, if the tree stumps are removed. Landowners who wish to farm the cleared land or incorporate that area into their residential yard should discuss tree stump removal with ATC real estate representatives during the easement negotiation process. When the landowner chooses not to incorporate the cleared area into their farm operation or yard, ATC will continue to conduct their vegetation management program to maintain the cleared ROW free of trees and other woody plants for the life of the transmission line. The vegetation management will typically be conducted on a 5 year maintenance cycle and affected landowners will be notified before any planned maintenance activities occur. If any crop damage occurs as a result of the line maintenance activities, the landowner will be compensated. For more detailed information on ATC line vegetation maintenance activities, consult the ATC real estate representative during easement negotiations.

6.2.6 Biosecurity

Farm biosecurity is the implementation of measures designed to protect a farm operation from the entry and spread of diseases and pests. DATCP recommends that ATC work with farmers to develop biosecurity protocols specific to a landowner's farm operation. These protocols could include cleaning the equipment between parcels; avoid spreading manure in the ROW prior to construction; avoiding contact with livestock and manure during construction; and collecting information about individual farm activities (planting, tillage, crop rotations, etc.) so construction

methods and timing can be adapted to the timing of crop work. Please consult DATCP's Division of Animal Health for more information on biosecurity, located here: http://datcp.wi.gov/Programs/Animal_Health/index.aspx.

6.2.7 Stray Voltage

Electrical systems, including those on farms and electric distribution systems, are grounded to the earth to ensure safety and reliability. Because they are grounded to the earth, some current flows through the earth at each point where the electrical system is grounded, developing a small voltage called neutral-to-earth voltage (NEV).

When an animal comes into contact with NEV charged objects, a current referred to as stray voltage will flow through the animal. The PSCW defines stray voltage as a natural phenomenon that can be found at low levels between two contact points in an animal confinement area where electricity is used.

Stray voltage often goes unnoticed by humans, but can affect animals on farms. Small stray voltage shocks are created when an animal makes contact between an energized point, such as a feeder, and the earth or concrete floor at a different voltage. Animals can show changes in behavior or milk production if a level of stray voltage above a few volts is present. An animal may experience a variety of effects, depending on the level of stray voltage.

NEV is only associated with the electrical distribution system; the transmission system does not connect directly to farms and residences. However, if a transmission line parallels or crosses a distribution line, the transmission line can affect the amount of NEV on the distribution system, thus contributing to potential stray voltage problems (Black 2015).

DATCP and the PSCW Rural Electrical Power Service (REPS) program suggest that all livestock farms routinely (every year or two) have their electrical systems tested for NEV and other electrical safety concerns. According to the PSCW docket 05-EI-106 (the case that defines stray voltage), the response level for stray voltage is 1.0 volt at animal contact from all sources. This level of stray voltage is considered to be below the level at which most animals would react. If an investigation determines that the utility is contributing 0.5 volts or more to the animal contact voltage, the utility will take immediate action to lower its contribution.

Free investigative services are available to landowners who have dairy operations. These tests are available through their electric distribution service provider. Farmers with dairy operations in the vicinity of the proposed power line can request their electricity provider test for NEV before the project is constructed and then repeat the test after project construction is complete and the transmission line is energized. It is important to perform both rounds of testing, to ensure that the final post-construction test result has a baseline NEV level to compare to the before-construction test. This will create the documentation to begin to address any problems that were created by the project. Landowners can request ATC's assistance in arranging these tests.

DATCP recommends that after a route is selected, at a minimum, ATC should consult with all dairy operators with dairy facilities within 300 feet of the line to offer assistance in scheduling pre-

construction and post-energizing NEV testing on those farms.

Only one dairy farmer responded to DATCP’s survey. That was Richard and Sandra Deidrich on Segment E. They have 130 milk cows and 120 heifers.

6.2.8 Structure Locations in Fields

Structures constructed in cropland will act as obstacles to fieldwork and affect more cropland than just the area used for the structure foundation. The impact will be different for each farm operation and potentially for each field crossed by the project. The following table lists the number of poles that would be placed on agricultural land for each rout alternative.

Table 11. Number of Poles on Agricultural Land

Routes	Route 1 Variations			Route 2 Variations		
Segments	A, D, I, J, F, FA	A, D, I, J, F, FB	A, D, I, J, G	B, E, F, FA	B, E, F, FB	B, E, G
New Ag ROW Poles	36	37	38	43	44	45
Existing Ag ROW Poles	57	58	57	54	55	54
Total Ag ROW Poles	93	95	95	97	99	99

The difference between the routes with the most and least poles on agricultural land is only six poles. In contrast, the difference between the most and least amount of agricultural land potentially affected by the project is almost double. The Route 2 variation consisting of Segments B, E, and G would affect 91 acres of agricultural land, while the Route 1 variation made up of Segments A, D, I, J, F, and FA would affect 54 acres of farmland and the route consisting of Segments A, D, I, J, F, and FB would affect 52 acres of farmland. The primary reason for this is the construction of a new 69 kV transmission line between the new Balsam Substation and the Twin Lakes Substation, which is part of the Route 1 alternatives. This 69 kV line would require a narrower ROW corridor, but would use smaller poles with a shorter span between the poles.

Maneuvering around transmission line structures can be difficult, particularly when larger farm equipment is used. Farmers may attempt to reduce the area that cannot be cropped around the structure by planting as close as possible to the transmission line structure; however, doing so increases the likelihood of hitting the structure with farm implements. It is unlikely that the transmission line structures proposed for this project would be damaged in such a collision. However, the farm implements may be damaged significantly, requiring expensive repairs and delayed field operations during planting and harvesting when time is most critical.

The farmer will also lose additional land adjacent to the foundation because farm machinery will not be able to work the land immediately adjacent to the structures. The actual amount of farmland lost due to inaccessibility will vary depending on the location of the support structure in the field, the size and maneuverability of the equipment the farmer operates, and the distance the farmer is willing to leave between farm equipment and support structures when moving around them. This inaccessible area can also become a haven for weeds and other pests that can spread to adjacent croplands. These weeds can crowd out desired crops and potentially reduce yields and/or necessitate the application of additional pesticides.

DATCP recommends that ATC work with farmers to determine optimal structure locations on their property, and make minor location adjustments where feasible. Potential location adjustments could include locating the structure along fence or field lines, using longer spans to clear fields, or orienting the structures with the plowing pattern.

6.2.9 Safety Issues when Farming Near Transmission Lines

Many safety issues exist related to the location of farm fields, buildings, and the use of farm equipment near and/or under transmission lines. Safety concerns that landowners should be particularly aware of include:

Direct Contact and Arcing

The most significant risk of injury from a transmission line is the danger of electrical contact. Unlike the wiring in a home, the conductors of overhead transmission lines are not enclosed by an insulating material. Electrical contact between an object on the ground and an energized conductor can occur even if the two do not actually touch. In the case of high voltage lines, electricity will arc across an air gap if the object on the ground comes close enough to a conductor. The distance between an object and a transmission line needed for arcing varies with the voltage at which the line is operated.

In general, the arcing distance for a 345 kV line is two to three feet and for a 115 kV line it is one to one and one half feet. However, it is recommended that objects on the ground not be raised more than 14 feet above the ground in the vicinity of any power line. In some instances, it can be exceeded without causing problems. Farmers should contact ATC if they need to deviate from this recommendation to be sure that their situation is safe for anticipated farming activities.

Farmers must be careful where transmission lines sag due to high air temperatures or high use. In areas where the soil shifts significantly with wind, the resulting dunes can elevate the earth under a line. If the safety limit needs to be exceeded or equipment close to the height limit is routinely used under a line (such as bale wagons, bale elevators, grain augers, cranes, large combines, or antennas on equipment), farmers should check with ATC to confirm the necessary clearance requirements. This may include confirming that the earth-to-line distances have not changed since the line was constructed.

Injuries are more likely to occur with lower voltage power lines (12.5 kV to 115 kV) than with higher voltage lines because contact with the lower voltage lines is more likely. The electrical conductors for lower voltage lines are closer to the ground, and they are smaller and less noticeable. An injury from contact with a 12.5 kV line can be just as serious as that from a 345 kV line. Some general safety tips for farmers working near any power line include the following:

- Always lower portable augers or elevators to their lowest possible level (under 14 feet) before moving or transporting and be aware of your surroundings when raising them.
- When moving large equipment or high loads near a power line, always use a spotter, someone to help make certain that no contact will be made with a power line.

- Be aware of increased height when loading and transporting larger modern tractors with longer antennas.
- Never attempt to raise or move a power line to help clear a path.
- Never raise ladders, pipes, or rods near power lines. Remember that nonmetallic material such as lumber, tree limbs, and hay can conduct electricity depending on moisture and dirt contamination.

Transmission circuits are built to automatically de-energize upon contact with the ground or if phase conductors are severed. Therefore, the danger of electric shock from a downed transmission line is minimal.

Farm Electrical Safety Resources

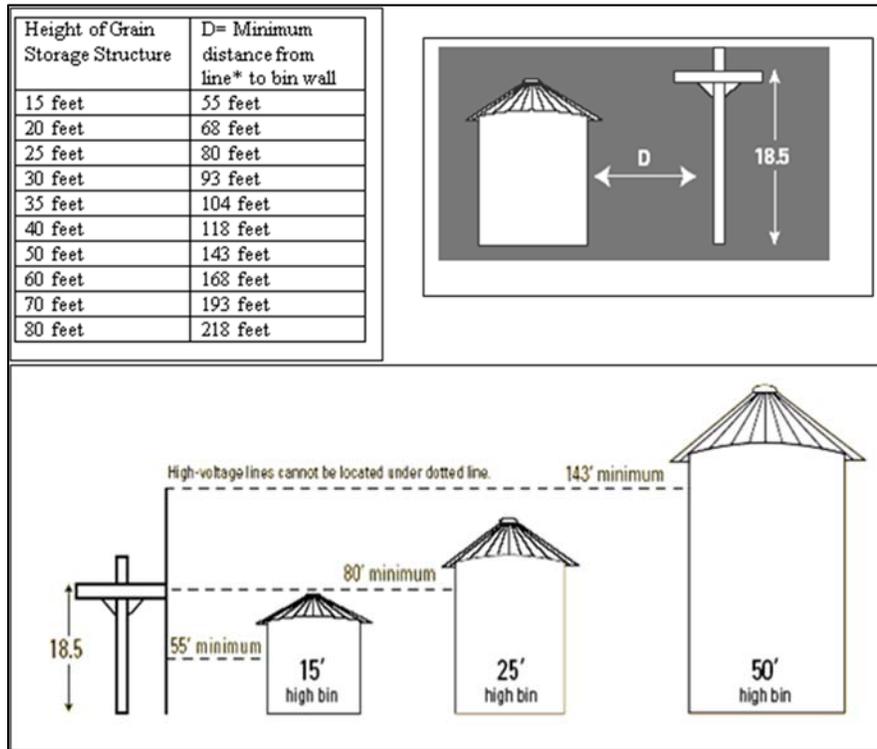
The following websites provide additional information about electrical safety on farms.

- Wisconsin Public Service Corporation's Brochures and Fact Sheets webpage http://www.wisconsinpublicservice.com/business/farm_brochures.aspx
- Safe Electricity, an Illinois project <http://www.safeelectricity.org/>
- Living and Working Safely around High-Voltage Power Lines, a publication of Bonneville Power Administration <http://www.bpa.gov/news/pubs/GeneralPublications/lusi-Living-and-working-safely-around-high-voltage-power-lines.pdf>

Power Line Proximity to Grain Bins

The National Electric Safety Code requires power lines to be at least 19 feet above the highest point on any grain bin with portable augers and other portable filling equipment. The recommended distances that grain bins should be from transmission lines is illustrated in Figure 5. A 19 foot clearance should be maintained from the grain bin's highest fill port and the transmission line.

Figure 5. Minimum Distances between Grain Bins and Transmission Lines



Irrigation Systems Proximity to Power Lines

According to the Bonneville Power Administration (BPA) located in the northwestern United States, irrigation systems can be operated safely on a power line ROW. However, irrigators should avoid spraying a solid stream of water on a conductor. Caution should also be used when storing and handling irrigation piping. It should be moved in a horizontal position relative to the ground when passing under or near all power lines to keep away from overhead conductors. BPA also contends that center-pivot systems near transmission lines can develop hazardous shock potentials during operation and maintenance. Farmers should ground the pivot point to avoid these hazards. In addition, they should not touch the sprinkler pipe or its supporting structures when the system is operating near a transmission line and should only repair the system when the sprinkler pipe is perpendicular to the transmission line.

Refueling Near Power Lines

Although there has been no report of the accidental ignition of fuel caused by spark discharges induced from transmission line fields, it is recommended that vehicles be refueled at least fifty feet from the centerline of a transmission line corridor that is 345 kV or greater.

Static Discharge

Under certain conditions, a perceptible electrostatic voltage can be induced on such objects as large vehicles, permanent and temporary fences, metal buildings, shade cloth support structures used in ginseng gardens, or irrigation systems. This can happen when the object is near a high-voltage transmission line and is insulated from the ground. When a person or animal touches the object, a shock will be felt similar to what you may receive when you cross

a carpet and then touch a doorknob. The static discharge is momentary, but can be painful. The magnitude of the static discharge depends on the voltage of the transmission line, distance from the conductors, size, or length of the object, its orientation to the line, and the extent of grounding of the object to the earth.

This condition can be corrected by effectively grounding the object to the earth. Sometimes this can simply be done by dragging a chain behind a tractor. Irrigation systems, metal buildings, and long wire fences may require additional assistance from ATC to remove the nuisance static discharges if they are close to the ROW.

Induced Voltage

Electric and magnetic fields (EMF) are produced when an electric current runs through any wire and are dependent on the voltage and current carried by a transmission line. An internal electric voltage and current is induced in any conductive object such as a metal building or equipment that is within an EMF.

Some of the many factors that influence the induced current densities are the strength of the electric field, the shape of the body in the field, the cross-sectional areas at any point between the line and the earth, the extent of grounding of the object to earth, and the nature of the internal structures of the object.

Induction and its potential impacts can be mitigated through implementation of appropriate design measures and techniques, including:

- Arranging transmission line conductors and shield wires to lower electric and magnetic field levels.
- Increasing the distance between the transmission line and other conductors or conductive objects.
- Grounding of non-energized conductors or conductive objects.
- Burying distribution lines underground.

6.2.10 Removal of Old Structures

There may be instances where the construction of a new transmission line will replace an existing aging transmission line and thus the old line's structures will need to be removed. When these old support structures are removed from farmland, it is important that the structure be removed to a depth that will not interfere with normal farming activities such as tilling. Any farmland owners that will also have old structures removed should consult with ATC real estate representatives during the easement negotiation process to determine the procedure and timing for their removal. DATCP recommends that any old structures be removed at a minimum of four feet below the ground surface to be below the normal plow level. DATCP also recommends that clean topsoil be imported and placed within the hole left by the removed structure to the level of the ground.

6.3 Role of the Agricultural Specialist and Environmental Monitor

Some key staff roles that are important to the protection of agricultural lands from pre-construction through post-construction phases are the agricultural specialist and environmental monitor. A description of their roles and responsibilities follows.

6.3.1 Agricultural Specialist

The agricultural specialist is an independent individual, hired by and reporting to ATC, to serve as a liaison between ATC and farmland owners. If employed, the agricultural specialist would be involved from the time real estate acquisitions begin through construction of the transmission line and restoration of the ROW. The need for an agricultural specialist is determined by ATC on a project-by-project basis, and is made based on the amount of agricultural land involved, the questions and concerns raised through ATC's Agriculture Inventory Questionnaire, and recommendations made by DATCP staff.

If the proposed project is approved by the PSCW, DATCP recommends that ATC employ an agricultural specialist. If an agricultural specialist is employed for this project, the specialist's services will be offered to each farmland owner during easement negotiations. The specialist does not routinely participate in the negotiations, but can be brought in upon request by the landowner or ATC real estate staff to respond to any specific agricultural questions or concerns. DATCP recommends that any impacted farmland owner with specific agricultural questions or concerns request to meet with the agricultural specialist prior to signing the easement contract.

Following easement acquisitions, the agricultural specialist will still be available to: assist ATC staff, construction contractors, and landowners with questions or concerns; attend the weekly construction meetings; observe construction activities; assist with matters that arise during construction of the transmission line and restoration of the ROW; and assist ATC real estate representatives in settling final damage payments to agricultural landowners.

6.3.2 Environmental Monitor

The environmental monitor is an individual, or set of individuals, hired by ATC, to conduct daily inspections of the construction activities to ensure compliance with all environmental permits issued for the project, site-specific construction and mitigation plans, site restoration standards, and PSCW order points. The environmental monitor will monitor construction activities on farmland as well as environmentally sensitive areas such as waterways, wetlands, uplands, endangered species habitat areas, and invasive species locations.

6.3.3 Independent Environmental Monitor (IEM)

Like the environmental monitor, the IEM monitors construction and restoration activities to ensure they are consistent with the PSCW's order and any DNR permits that were issued for the project. An IEM only works on a project if the position is included in the PSCW's order for the project. The IEM would be hired by the PSCW with input from the DNR and DATCP, and the IEM would report to those agencies on the project's progress, any problems that arose from construction or restoration, and how those problems would be dealt with. DATCP recommends that an IEM be approved and hired for this project.

6.4 Restoration of the ROW

Upon completion of construction, cleanup and site restoration of the ROW will occur. During this phase, soils will be graded to pre-existing conditions, rutting will be repaired, spoils will be put back in place, new topsoil will be brought in and spread where it was lost or mixed with the subsoil, decompaction will occur, fences will be repaired, all construction matting and temporary bridges will be removed, seedbed preparation and seeding will occur, all material and debris will be removed from the ROW, and payments for any outstanding damages will be made. Any outstanding issues that could not be repaired at the time they occurred, due to site or ground conditions or because work was still actively occurring, will be completed during this phase. Typical equipment for restoration activities includes mat trucks, bobcats, pickup trucks, and other light duty vehicles. The environmental monitor will continue to inspect restoration activities during this phase to ensure stabilization and revegetation has been completed.

7. Summary and Recommendations

7.1 Summary

The following table summarizes the potential acquisitions of easements on farmland within the project area.

Table 12. Overall Impacts of the Potential Routes on Agriculture and Agricultural Land

Routes	Route 1 Variations			Route 2 Variations		
Segments	A, D, I, J, F, FA	A, D, I, J, F, FB	A, D, I, J, G	B, E, F, FA	B, E, F, FB	B, E, G
New Ag ROW Acres	38.15	36.18	57.01	53.58	51.61	72.44
Existing Ag ROW Acres	16.14	16.20	19.63	14.86	14.92	18.35
Total Ag ROW Acres	54.29	52.38	76.64	68.44	66.53	90.79
Cropland Acres	48.89	46.98	71.20	64.35	62.44	86.66
Pasture and Hay Acres	0.78	0.78	0.70	4.10	4.10	4.02
Specialty Ag Land Acres	4.63	4.63	4.74	0.00	0.00	0.11
Prime Farmland Acres	32.8	31.0	46.7	36.0	34.2	49.9
Prime Farmland if Drained Acres	12.5	12.2	18.6	13.9	13.6	20.0
Farmland of Statewide Importance Acres	6.1	6.3	8.2	8.1	8.3	10.2
Not Prime Farmland Acres	2.9	2.9	3.2	10.4	10.4	10.7

Overall, the Route 2 alternative that follows Segments B, E, and G would affect the largest number of acres of agricultural land, including the most new ROW, the most cropland, and the most prime farmland acreage impacted. Either of the Route 1 alternatives that include Segments FA or FB would affect the least amount of agricultural land, including the least new ROW, cropland, and prime farmland acreage.

7.2 Recommendations

If the project is approved, DATCP recommends the following as ways to avoid, minimize, or mitigate the impacts the proposed project would have on farmland and farm operations. The first six recommendations are directed toward potentially affected farmland owners.

1. All landowners should review Wis. Stat. §182.017, also known as the “Landowners’ Bill of Rights,” to be fully versed on their rights prior to the start of easement negotiations.

2. Concerned landowners should testify at the PSCW's public hearings for the proposed project. Please consult the PSCW website (<http://www.psc.wi.gov/>) for further information on public involvement and the schedule for hearings.
3. 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, ATC should compensate the landowner that fee.
4. Farmland owners should complete the Agriculture Inventory Questionnaire sent by ATC following the PSCW order to inform ATC and construction contractors of specific concerns and information about their farm operation so specific mitigation measures can be put into place.
5. Landowners should keep records of the condition of their land within the ROW before, during, and after construction to document any impacts or damage that occurs due to the proposed project. Records could include crop yield records and photographs taken every season.
6. Farmers with dairy operation within 300 feet of the approved transmission line centerline should work with ATC to make sure their farm is tested for NEV before construction begins and after the new line is energized.

The following thirteen recommendations are directed toward the Commissioners of the PSCW to include them in the order for the project if it is approved and they are directed toward ATC.

1. The applicant shall hire an agricultural specialist that would work for and report to the applicant.
2. The applicant shall give advance notice of acquisition and construction schedules so that farm activities can be adjusted accordingly and farm or field damage or disruption can be minimized.
3. Landowners, especially those with livestock, should be notified in advance when helicopters will be used in their area, including a range of dates and times when the use of a helicopter is expected.
4. The applicant shall provide telephone and e-mail contact information for landowners to contact the applicant if impacts from the project arise or continue after project completion.
5. The applicant shall consult with all affected farmland owners and operators to determine, to the extent practicable, the least damaging locations for transmission support structures.
6. The applicant and its contractors shall work with farm operators to determine the most effective techniques to minimize the impact to their aerial spraying applications. Potential mitigation measures could include minimizing structure heights where feasible and installing markers on shield wires where aerial seeding and spraying occur.

7. The applicant shall work with operators of organic farms to determine the most effective techniques for minimizing the likelihood of injury to crops or loss of organic certification from herbicide application by the applicant.
8. If transmission line construction divides a pasture, thus restricting access between the divided parcels, the applicant should work with the farmer to develop an access plan for the livestock or compensate the farmer for the cost related to grazing restrictions.
9. The applicant shall work with the operators of irrigation, underground drainage, and aerial seeding/spraying systems and operations to avoid impacts to their systems and operations to the extent practicable. If structure locations cannot be moved to eliminate impacting the operation or system, the landowner shall be compensated accordingly for the loss of the use of or damage to their system or operation.
10. The applicant shall conduct pre-construction farm interviews and combine the results with the landowner response section of the AIS to make the project bid packages and line lists fit farm situations more accurately.
11. The applicant shall 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.
12. If the applicant removes any existing power line support structures within or immediately adjacent to cropland, the old structure shall be removed to at least four feet below the ground surface to be below the normal plow layer. Clean topsoil shall be imported and placed within the hole left by the removed structure to the level of the ground.
13. The applicant shall do post-construction monitoring to ensure that no long term damage to agricultural fields along the project has occurred, for a minimum of two years after construction is completed. The applicant shall inform DATCP AIS staff of all results and associated reporting.

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APPENDIX A
Landowner Responses to DATCP Questionnaire

Name Segment	Landowner Responses Route 1
Hawkins F	Concerned with location of line in regards to house on the property.
Heath F	We have a sewer system installed for a future subdivision. The lines and drains will interfere with pole locations. The sewer lines were installed over ten years ago at a cost of \$300,000.
Ebertowski F	Our business plan prior to purchasing the property in 2014 was to create an Ag tourism business with bison, heritage farm animals, and locally grown produce for sale direct to consumers. We have grave concerns that the high voltage power lines running the length of our property will adversely affect our business. Notably, published research does not definitively rule out health hazards to animals (and humans). Secondly, our Ag tourism business is based on creating an old fashioned "Wisconsin farm experience" for our paying customers. This will be difficult to achieve with visitors needing to drive under high voltage power lines, past 100' steel towers in order to access our 160+ year old farm, first settled in the 1840s. To summarize, the proposed project will greatly affect our current business plan, our investment, our livelihood, and our retirement plans.
Brown Fa preferred	Affects the value of the land. Affects the agricultural operation of the land for crop production.
Iden D	Send copy of results to: Thomas V. Powell 3860 W 95th St Evergreen Park, IL 60805 708-203-7670 Co owner
Stohr D Also R2 E	Has land in route 1 and route 2 Other livestock = 3 llama and 3 donkeys
Esperson F	Thanks for your concern and help.

Name	Landowner Responses Route 2
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Segment	
Petrie E	The entire length of the proposed route along Hwy 12 we have planted hundreds of trees to beautify & enhance the property as well as block noise & sight of the highway. I would not want to see those trees removed or damaged to put up transmission lines. It may also interfere with our access driveway & easement to get in and out of our property. Having major transmission lines along the property would certainly devalue the property. Mr. and Mrs. Petrie purchased their property with the intention of developing a gated community. Currently, there are 14 platted lots. To prepare this land for development, the Petries planted hundreds of trees, created five ponds, and brought in truckloads of soil for landscaping. Roads have been created up to the point where they just need to be blacktopped. They were waiting for the housing market to turn around. Mr. Petrie has since passed away. Mrs. Petrie is very concerned that the construction of a transmission line will make it very difficult to sell any of these residential lots. This property also includes 55 acres of farmland that is rented to a neighbor.
Rogers G	Please see enclosed photos. I've tried to document our concerns about our practices used in growing our crops. Concerns about impact and safety in these operations and impact on future yields. It's important to have full access to all areas of the fields to evenly apply all items used for crop production.
Meyerhofer E	Hwy 12 bisected my farmland in the 1960s and significantly affected our family's ability to farm the land. This would further negatively affect the ability to use this as farmland.
Terracina E	We have two outdoor advertising signs on the side of proposed route 2 (138KV) transmission lines. The income from these advertising signs are very important in keeping this land as a "farm". This land has been in our family since 1950 Roland Terracina
Lininger E	If you get the (ROW) they will have to be responsible for my cattle and property damage they might do for the life of the (ROW), and opening and closing the gates.

Maggio
E

Our farm is officially certified organic by MOSA. Our farm is located on the proposed power line route 2, segment E.

The proposed power line would run through the middle of our farm. Of all the 359 farms in Kenosha County, this is the ONLY certified organic farm of this scope and size. Our farm is a valuable natural resource for Kenosha County and is NON-FUNGIBLE with any other farms in the county. Not only do we provide certified organic food to the community, our farming methods sequester carbon dioxide, which is an offset to emitters like electric power plants. Our farming enterprise raises organic grass fed beef, which is marketed, directly to customers. We hold food events at the farmstead where “city folks” can get a farm experience. Moreover, our business practices support our community and having the Kenosha County KD Sustainable Park as one of our neighbors, (adjacent to and directly south of our farm) will show case sustainability in the Wheatland area. Economic impact • The proposed transmission line will cut right through the middle of our farm and close to our farmhouse and buildings. • We have a perimeter electric fence and internal fences for our rotational grazing program. The easement would destroy this system that has been installed. Also, the portable watering systems that are used for our livestock will be rendered useless, as they would be conductors of electricity. • We are the only certified organic farm in Kenosha County of this size. The transmission line and the continued easement clearings will negatively affect our sustainable organic practices and certification. In the end it will cause significant economic hardship, potentially causing us to lose our certification. • Our beef cows graze the entire farm and are susceptible to the high voltage and stray voltage. These lines will negatively affect the production from the animals. • Our livestock consist of large animals, up to 2000 lbs., roaming the entire farming area. We also have breeding bulls interspersed in the herd. This is unsafe for ATC workers entering the farm for maintenance, which increase liability for those in the proposed easement area. • Our clients visit the farm to see the product and purity of the farm products they buy from us. It is an absolute that clients viewing the proposed high voltage transmission lines in the middle of the farm and which runs alongside the main driveway entrance to the farm, will negatively impact our clients’ perception of our farm and it will adversely affect their opinion of our entire operation. This will undoubtedly lower our sales. • Including our neighbor’s farms, there is a high concentration of livestock operations in this area. The proposals running segments through any of these livestock operations will negatively impact the local economy in the Wheatland community. Environmental Impact • Our farm

	<p>land is part of the Kenosha County, Wisconsin Farm Land Preservation Act, and the installation of any transmission line will immediately degrade this land and compact the impacted soils. We use new techniques and conservation practices to reduce our fossil fuel usage and better protect our soil and water from any such intrusions. Installing these proposed transmission lines in our location produces the opposite effect. • The trucks, workers and equipment will bring foreign materials into our closed farming system. These foreign materials can introduce substances that could harm our crops and animals. • The section of our farm where the power line is planned to be installed is part of the USDA's Highly Erodible Land Conservation program (HELIC). Installing the line in this location will have a negative environmental impact on our farm. • We participate in the USDA's Environmental Quality Incentive Program. We have wetlands close to the proposed power line. • The Kenosha County KD Park that borders our farm is a "Sustainable Park" as set forth in the KD Parklands Master Plan. The proposed transmission line located in this area will negatively affect this Kenosha County resource and its pristine environment. Health impact • The CONSTANT electrical field is dangerous to our family, our animals and visitors. • The line will run close to our home and farm buildings. Please find another route that does not have such a large impact on a small area. At a very minimum, the lines should follow public roads and not encroach on or run through private property, especially those lands that support livestock. We ask you to please not run the power line through our land as it will negatively impact our farming operations and organic methods that benefit the community and clients we serve. Thank you for taking the time to review our concerns and objections. Paul Maggio Luna LLC 7500 352nd Ave Burlington, WI 53105</p>
Cornog G	Alternative 1 is by far the best option. Hwy 50 is already commercial and more developed. Southeast Wisconsin Planning Board notes that Alternative 2 is planned Agriculture and Residential. Please do not mess up the future for our children.
Diedrich E	concerned about stray voltage to livestock that will be near power lines.
Olep G	The area in question is being used for the best use of truck farming by my renter, Myer Family Farms. In 1988, 5 acres of this land was taken for the HWY 50 widening project reducing the prime land for farming. This is my concern. Walt Olep 8/5/15

Everts G	There is a long reported Indian burial ground area on our land and the adjacent gun club / conservation club adjacent to the proposed route 2. It has been worked around and preserved by generations of farmers and landowners. This area needs respect and preservation. W P Everts
Popanda G	Village of Paddock Lake
Lois E	Section 4 - other (specify) cattle will be impacted.
Schenning E	Segment "E" on map not "E" on another map? Question concern Route "2" when the majority of land for Route "1" will run along HWY 50 No questions so far!
Messutta G	This property was slated for complete redevelopment into residential and commercial uses until 2008. Because of the recession, modifications to the Village's master plan have been deferred. This proposed Route (2 - Segment "G") would literally sever the farm and significantly hamper both ongoing operations as well as development plans on file with the Village. It would in particular increase the cost of farming operations and/or reduce rental. It could no longer be offered as a unified farm property and could no longer be offered as a potential organic farm. There are also elevation changes that are severe along the proposed route, as well as at least one pond; any changes required to accommodate the proposed project could have significant additional impact to the farm, its current operations and future development. As to radiation issues, farmers remain skeptical as to long term effects and this may also impact marketability. In terms of future development, for which the property was slated, this will have a significant impact on planning for infrastructure and net land value

APPENDIX B
List of Affected Soils By Segment

Segment	Map Symbol	Soil Name	Texture	Soil Class	Drainage Class	ACRES
A	CeC2	Casco loam, 6 to 12 percent slopes, eroded	L	Not prime farmland	Well drained	0.21
A	CeD2	Casco loam, 12 to 20 percent slopes, eroded	L	Not prime farmland	Well drained	0.01
A	MgA	Martinton silt loam, 1 to 3 percent slopes	SIL	All areas are prime farmland	Somewhat poorly drained	0.12
A	MpB2	McHenry silt loam, 2 to 6 percent slopes, eroded	SIL	All areas are prime farmland	Well drained	0.30
A	MpC2	McHenry silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Well drained	0.08
B	CeC2	Casco loam, 6 to 12 percent slopes, eroded	L	Not prime farmland	Well drained	0.07
B	MpB2	McHenry silt loam, 2 to 6 percent slopes, eroded	SIL	All areas are prime farmland	Well drained	0.02
B	MpC2	McHenry silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Well drained	0.03
B	MxC2	Miami loam, sandy loam substratum, 6 to 12 percent slopes, eroded	L	Farmland of statewide importance	Well drained	0.21
D	AzB	Aztalan loam, 2 to 6 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.04
D	CeB2	Casco loam, 2 to 6 percent slopes, eroded	L	Farmland of statewide importance	Well drained	0.55
D	CeC2	Casco loam, 6 to 12 percent slopes, eroded	L	Not prime farmland	Well drained	1.05
D	CeD2	Casco loam, 12 to 20 percent slopes, eroded	L	Not prime farmland	Well drained	0.36
D	CfD3	Casco soils, 12 to 20 percent slopes, severely eroded	L	Not prime farmland	Well drained	0.07
D	CkD2	Casco-Fox loams, 12 to 20 percent slopes, eroded	L	Not prime farmland	Well drained	0.25
D	ClC2	Casco-Fox silt loams, 6 to 12 percent slopes, eroded	SIL	Not prime farmland	Well drained	0.72
D	CrD2	Casco-Rodman complex, 12 to 20 percent slopes, eroded	SIL	Not prime farmland	Well drained	0.06
D	CrE	Casco-Rodman complex, 20 to 35 percent slopes	L	Not prime farmland	Well drained	0.06
D	DrA	Dresden loam, 1 to 3 percent slopes	L	All areas are prime farmland	Well drained	0.40
D	Dt	Drummer silt loam, gravelly substratum	SIL	Prime farmland if drained	Poorly drained	0.50
D	FaA	Fabius loam, 1 to 3 percent slopes	L	Farmland of statewide importance	Somewhat poorly drained	0.07
D	FoC2	Fox loam, 6 to 12 percent slopes, eroded	L	Farmland of statewide importance	Well drained	0.05
D	FsA	Fox silt loam, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	0.52
D	FsB	Fox silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	5.08
D	FsC2	Fox silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Well drained	0.16
D	Ht	Houghton muck	MUCK	Farmland of statewide importance	Very poorly drained	0.12
D	KaA	Kane loam, 1 to 3 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.45

Segment	Map Symbol	Soil Name	Texture	Soil Class	Drainage Class	ACRES
D	MkA	Matherton loam, 1 to 3 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.90
D	MxB	Miami loam, sandy loam substratum, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.05
D	Ph	Pella silt loam	SIL	Prime farmland if drained	Poorly drained	0.44
D	RaA	Radford silt loam, 0 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	0.03
D	SeA	St. Charles silt loam, gravelly substratum, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	7.56
D	SeB	St. Charles silt loam, gravelly substratum, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	0.01
D	Sm	Sebewa silt loam	SIL	Prime farmland if drained	Poorly drained	0.12
E	Ac	Adrian muck	MUCK	Not prime farmland	Very poorly drained	0.63
E	AzB	Aztalan loam, 2 to 6 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.15
E	BP	Borrow pit		Not prime farmland		0.33
E	CcC2	Casco sandy loam, 6 to 12 percent slopes, eroded	SL	Not prime farmland	Well drained	0.20
E	CeB	Casco loam, 2 to 6 percent slopes	L	Farmland of statewide importance	Well drained	1.45
E	CeB2	Casco loam, 2 to 6 percent slopes, eroded	L	Farmland of statewide importance	Well drained	1.18
E	CeC2	Casco loam, 6 to 12 percent slopes, eroded	L	Not prime farmland	Well drained	3.01
E	CeD2	Casco loam, 12 to 20 percent slopes, eroded	L	Not prime farmland	Well drained	0.28
E	CfD3	Casco soils, 12 to 20 percent slopes, severely eroded	L	Not prime farmland	Well drained	0.18
E	CkD2	Casco-Fox loams, 12 to 20 percent slopes, eroded	L	Not prime farmland	Well drained	0.37
E	CrD2	Casco-Rodman complex, 12 to 20 percent slopes, eroded	SIL	Not prime farmland	Well drained	0.04
E	CrE2	Casco-Rodman complex, 20 to 30 percent slopes, eroded	SIL	Not prime farmland	Well drained	0.07
E	DdB	Dodge silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	0.00
E	DrA	Dresden loam, 1 to 3 percent slopes	L	All areas are prime farmland	Well drained	1.49
E	Dt	Drummer silt loam, gravelly substratum	SIL	Prime farmland if drained	Poorly drained	0.66
E	FoB	Fox loam, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.37
E	FoC2	Fox loam, 6 to 12 percent slopes, eroded	L	Farmland of statewide importance	Well drained	0.82
E	FsA	Fox silt loam, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	5.34
E	FsB	Fox silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	5.29
E	Ht	Houghton muck	MUCK	Not prime farmland	Very poorly drained	4.08

Segment	Map Symbol	Soil Name	Texture	Soil Class	Drainage Class	ACRES
E	KaA	Kane loam, 1 to 3 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	1.03
E	LyB	Lorenzo loam, 2 to 6 percent slopes	L	Farmland of statewide importance	Well drained	1.26
E	MkA	Matherton loam, 1 to 3 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.69
E	MmA	Matherton silt loam, 1 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	1.82
E	MpB	McHenry silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	0.10
E	MpC2	McHenry silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Well drained	0.33
E	MwC2	Miami loam, 6 to 12 percent slopes, eroded	L	Farmland of statewide importance	Well drained	0.05
E	MxB	Miami loam, sandy loam substratum, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.27
E	MxC2	Miami loam, sandy loam substratum, 6 to 12 percent slopes, eroded	L	Farmland of statewide importance	Well drained	0.05
E	Na	Navan silt loam	SIL	Prime farmland if drained	Poorly drained	0.57
E	Pa	Palms muck	MUCK	Not prime farmland	Very poorly drained	1.07
E	Ph	Pella silt loam	SIL	Prime farmland if drained	Poorly drained	0.63
E	PsB	Plano silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	0.39
E	Pt	Plano silt loam, gravelly substratum	SIL	All areas are prime farmland	Well drained	3.79
E	PtA	Plano silt loam, gravelly substratum, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	1.36
E	RaA	Radford silt loam, 0 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	0.07
E	SeA	St. Charles silt loam, gravelly substratum, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	0.61
E	SeB	St. Charles silt loam, gravelly substratum, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	0.81
E	Sm	Sebewa silt loam	SIL	Prime farmland if drained	Poorly drained	0.34
E	TxA	Troxel silt loam, 0 to 3 percent slopes	SIL	All areas are prime farmland	Moderately well drained	0.15
E	WhA	Warsaw silt loam, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	3.93
E	WhB	Warsaw silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	3.35
F Alt	Ac	Adrian muck	MUCK	Not prime farmland	Very poorly drained	0.07
F Alt	AtA	Ashkum silty clay loam, 0 to 2 percent slopes	SICL	Prime farmland if drained	Poorly drained	2.46
F Alt	AzA	Aztalan loam, 0 to 2 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.70

Segment	Map Symbol	Soil Name	Texture	Soil Class	Drainage Class	ACRES
F Alt	AzB	Aztalan loam, 2 to 6 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.03
F Alt	BcA	Beecher silt loam, 1 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	1.19
F Alt	BIA	Blount silt loam, 1 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	0.24
F Alt	CcC2	Casco sandy loam, 6 to 12 percent slopes, eroded	SL	Not prime farmland	Well drained	0.03
F Alt	CeB	Casco loam, 2 to 6 percent slopes	L	Farmland of statewide importance	Well drained	0.13
F Alt	CoC	Casco-Miami loams, 6 to 12 percent slopes	L	Farmland of statewide importance	Well drained	0.24
F Alt	EtB	Elliott silty clay loam, 2 to 6 percent slopes	SICL	Prime farmland if drained	Somewhat poorly drained	0.38
F Alt	FmB	Fox sandy loam, 1 to 6 percent slopes	SL	All areas are prime farmland	Well drained	0.05
F Alt	FoB	Fox loam, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.57
F Alt	FsB	Fox silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	3.24
F Alt	HeA	Hebron loam, 0 to 2 percent slopes	L	All areas are prime farmland	Well drained	0.09
F Alt	HeB2	Hebron loam, 2 to 6 percent slopes, eroded	L	All areas are prime farmland	Well drained	0.17
F Alt	Ht	Houghton muck	MUCK	Farmland of statewide importance	Very poorly drained	1.50
F Alt	MeB	Markham silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Moderately well drained	1.29
F Alt	MxB	Miami loam, sandy loam substratum, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.23
F Alt	MyC2	Miami silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Well drained	0.05
F Alt	MzdB	Morley silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Moderately well drained	2.49
F Alt	MzdB2	Morley silt loam, 2 to 6 percent slopes, eroded	SIL	All areas are prime farmland	Moderately well drained	0.12
F Alt	MzdC2	Morley silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Moderately well drained	1.01
F Alt	Na	Navan silt loam	SIL	Prime farmland if drained	Poorly drained	1.56
F Alt	Ph	Pella silt loam	SIL	Prime farmland if drained	Poorly drained	0.78
F Alt	RaA	Radford silt loam, 0 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	0.25
F Alt	WeB	Warsaw loam, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.97
F Alt	WhA	Warsaw silt loam, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	1.02

Segment	Map Symbol	Soil Name	Texture	Soil Class	Drainage Class	ACRES
F Pref	Ac	Adrian muck	MUCK	Not prime farmland	Very poorly drained	0.07
F Pref	AtA	Ashkum silty clay loam, 0 to 2 percent slopes	SICL	Prime farmland if drained	Poorly drained	2.06
F Pref	AzA	Aztalan loam, 0 to 2 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.70
F Pref	AzB	Aztalan loam, 2 to 6 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.03
F Pref	BcA	Beecher silt loam, 1 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	1.32
F Pref	BIA	Blount silt loam, 1 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	0.24
F Pref	CcC2	Casco sandy loam, 6 to 12 percent slopes, eroded	SL	Not prime farmland	Well drained	0.03
F Pref	CeB	Casco loam, 2 to 6 percent slopes	L	Farmland of statewide importance	Well drained	0.13
F Pref	CoC	Casco-Miami loams, 6 to 12 percent slopes	L	Farmland of statewide importance	Well drained	0.24
F Pref	EtB	Elliott silty clay loam, 2 to 6 percent slopes	SICL	Prime farmland if drained	Somewhat poorly drained	1.02
F Pref	FmB	Fox sandy loam, 1 to 6 percent slopes	SL	All areas are prime farmland	Well drained	0.05
F Pref	FoB	Fox loam, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.57
F Pref	FsB	Fox silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	3.24
F Pref	HeA	Hebron loam, 0 to 2 percent slopes	L	All areas are prime farmland	Well drained	0.09
F Pref	HeB2	Hebron loam, 2 to 6 percent slopes, eroded	L	All areas are prime farmland	Well drained	0.17
F Pref	Ht	Houghton muck	MUCK	Farmland of statewide importance	Very poorly drained	1.50
F Pref	MeB	Markham silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Moderately well drained	1.49
F Pref	MxB	Miami loam, sandy loam substratum, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.23
F Pref	MyC2	Miami silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Well drained	0.05
F Pref	MzdB	Morley silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Moderately well drained	4.06
F Pref	MzdB2	Morley silt loam, 2 to 6 percent slopes, eroded	SIL	All areas are prime farmland	Moderately well drained	0.12
F Pref	MzdC2	Morley silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Moderately well drained	0.81
F Pref	Na	Navan silt loam	SIL	Prime farmland if drained	Poorly drained	1.55
F Pref	Ph	Pella silt loam	SIL	Prime farmland if drained	Poorly drained	0.78

Segment	Map Symbol	Soil Name	Texture	Soil Class	Drainage Class	ACRES
F Pref	RaA	Radford silt loam, 0 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	0.25
F Pref	WeB	Warsaw loam, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.97
F Pref	WhA	Warsaw silt loam, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	1.02
G	AtA	Ashkum silty clay loam, 0 to 2 percent slopes	SICL	Prime farmland if drained	Poorly drained	1.56
G	AzA	Aztalan loam, 0 to 2 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.41
G	AzB	Aztalan loam, 2 to 6 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	1.55
G	BcA	Beecher silt loam, 1 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	6.37
G	BIA	Blount silt loam, 1 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	0.48
G	BmC2	Boyer loamy sand, 6 to 12 percent slopes, eroded	LS	Farmland of statewide importance	poorly drained	0.24
G	BnB	Boyer sandy loam, 2 to 6 percent slopes	SL	All areas are prime farmland	Well drained	0.10
G	CcB	Casco sandy loam, 2 to 6 percent slopes	SL	Farmland of statewide importance	Well drained	0.83
G	CcC2	Casco sandy loam, 6 to 12 percent slopes, eroded	SL	Not prime farmland	Well drained	0.18
G	CoD	Casco-Miami loams, 12 to 20 percent slopes	L	Not prime farmland	Well drained	0.03
G	CrE	Casco-Rodman complex, 20 to 35 percent slopes	L	Not prime farmland	Well drained	0.02
G	Dt	Drummer silt loam, gravelly substratum	SIL	Prime farmland if drained	Poorly drained	0.41
G	ErB	Elliott silty clay loam, 2 to 6 percent slopes	SICL	Prime farmland if drained	Somewhat poorly drained	0.52
G	FmB	Fox sandy loam, 1 to 6 percent slopes	SL	All areas are prime farmland	Well drained	0.53
G	FmC2	Fox sandy loam, 6 to 12 percent slopes, eroded	SL	Farmland of statewide importance	Well drained	0.10
G	FoB	Fox loam, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	2.64
G	HbB	Hebron sandy loam, 2 to 6 percent slopes	SL	All areas are prime farmland	Well drained	4.11
G	HeB2	Hebron loam, 2 to 6 percent slopes, eroded	L	All areas are prime farmland	Well drained	0.93
G	Ht	Houghton muck	MUCK	Farmland of statewide importance	Very poorly drained	0.96
G	MeB	Markham silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Moderately well drained	3.11
G	MgA	Martinton silt loam, 1 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	0.10

Segment	Map Symbol	Soil Name	Texture	Soil Class	Drainage Class	ACRES
G	MkA	Matherton loam, 1 to 3 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.14
G	MpC2	McHenry silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Well drained	0.52
G	MwC2	Miami loam, 6 to 12 percent slopes, eroded	L	Farmland of statewide importance	Well drained	0.09
G	MwD2	Miami loam, 12 to 20 percent slopes, eroded	L	Not prime farmland	Well drained	0.00
G	MyB	Miami silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	0.34
G	MzdB	Morley silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Moderately well drained	3.57
G	MzdB2	Morley silt loam, 2 to 6 percent slopes, eroded	SIL	All areas are prime farmland	Moderately well drained	5.46
G	MzdC	Morley silt loam, 6 to 12 percent slopes	SIL	Farmland of statewide importance	Moderately well drained	0.03
G	MzdC2	Morley silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Moderately well drained	2.01
G	MzdD	Morley silt loam, 12 to 20 percent slopes	SIL	Not prime farmland	Moderately well drained	0.16
G	MzdD2	Morley silt loam, 12 to 20 percent slopes, eroded	SIL	Not prime farmland	Moderately well drained	0.01
G	MzeD3	Morley soils, 12 to 20 percent slopes, severely eroded	SIL	Not prime farmland	Moderately well drained	0.03
G	Na	Navan silt loam	SIL	Prime farmland if drained	Poorly drained	0.69
G	Ph	Pella silt loam	SIL	Prime farmland if drained	Poorly drained	0.11
G	RaA	Radford silt loam, 0 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	0.18
G	Sm	Sebewa silt loam	SIL	Prime farmland if drained	Poorly drained	0.92
G	So	Sebewa silt loam, clayey substratum	SIL	Prime farmland if drained	Poorly drained	0.46
G	VaB	Varna silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	1.04
G	Wa	Walkill silt loam	SIL	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season	Very poorly drained	0.09
G	WgB	Warsaw loam, clayey substratum, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.18
G	WhA	Warsaw silt loam, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	0.65
I	DrA	Dresden loam, 1 to 3 percent slopes	L	All areas are prime farmland	Well drained	0.09
I	FoC2	Fox loam, 6 to 12 percent slopes, eroded	L	Farmland of statewide importance	Well drained	0.08

Segment	Map Symbol	Soil Name	Texture	Soil Class	Drainage Class	ACRES
I	FsA	Fox silt loam, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	0.32
I	FsB	Fox silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	0.60
I	MkA	Matherton loam, 1 to 3 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.42
I	MwC2	Miami loam, 6 to 12 percent slopes, eroded	L	Farmland of statewide importance	Well drained	0.05
I	Na	Navan silt loam	SIL	Prime farmland if drained	Poorly drained	0.57
I	Pa	Palms muck	MUCK	Farmland of statewide importance	Very poorly drained	0.10
I	RaA	Radford silt loam, 0 to 3 percent slopes	SIL	Prime farmland if drained	Somewhat poorly drained	0.07
I	Sm	Sebewa silt loam	SIL	Prime farmland if drained	Poorly drained	0.22
J	CeB	Casco loam, 2 to 6 percent slopes	L	Farmland of statewide importance	Well drained	0.96
J	DrA	Dresden loam, 1 to 3 percent slopes	L	All areas are prime farmland	Well drained	0.69
J	KaA	Kane loam, 1 to 3 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.62
J	LyB	Lorenzo loam, 2 to 6 percent slopes	L	Farmland of statewide importance	Well drained	0.91
J	MkA	Matherton loam, 1 to 3 percent slopes	L	Prime farmland if drained	Somewhat poorly drained	0.15
J	MpB	McHenry silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	0.07
J	MpC2	McHenry silt loam, 6 to 12 percent slopes, eroded	SIL	Farmland of statewide importance	Well drained	0.22
J	MxB	Miami loam, sandy loam substratum, 2 to 6 percent slopes	L	All areas are prime farmland	Well drained	0.15
J	PsB	Plano silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	0.25
J	Pt	Plano silt loam, gravelly substratum	SIL	All areas are prime farmland	Well drained	2.54
J	PtA	Plano silt loam, gravelly substratum, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	0.89
J	SeA	St. Charles silt loam, gravelly substratum, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	0.16
J	TxA	Troxel silt loam, 0 to 3 percent slopes	SIL	All areas are prime farmland	Moderately well drained	0.10
J	WhA	Warsaw silt loam, 0 to 2 percent slopes	SIL	All areas are prime farmland	Well drained	1.95
J	WhB	Warsaw silt loam, 2 to 6 percent slopes	SIL	All areas are prime farmland	Well drained	2.21

APPENDIX C
NRCS Soil Classification Systems

General Criteria for the Classification of Important Farmlands

The following discussion summarizes the USDA Natural Resources Conservation Service's written criteria for classifying farmlands, greater detail can be obtained from the Natural Resources Conservation Service office located at 6515 Watts Road, Suite 200, Madison, WI 53719-2726.

Prime Farmland

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses (the land could be cropland, pastureland, rangeland, forest land, or other land, but not urban built-up land or water). It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content, and few or no rocks. They are permeable to water and air. Prime farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.

Unique Farmland

Unique farmland is land other than prime farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are citrus, tree nuts, olives, cranberries, fruit, and vegetables.

Additional Farmland of Statewide Importance

This is land, in addition to prime and unique farmland, that is of statewide importance for the production of food, feed, fiber, forage, and oilseed crops. Criteria for defining and delineating this land are to be determined by the appropriate state agency or agencies. Generally, additional farmlands of statewide importance include those that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce as high a yield as prime farmlands if conditions are favorable. In some states, additional farmlands of statewide importance may include tracts of land that have been designated for agriculture by state law.

Additional Farmland of Local Importance

In some local areas there is concern for certain additional farmland for the production of food, feed, fiber, forage, and oilseed crops, even though these lands are not identified as having national or statewide importance. Where appropriate, these lands are to be identified by the local

agency or agencies concerned. In places, additional farmlands of local importance may include tracts of land that have been designated for agriculture by local ordinance.

NRCS Soil Capability Classes

The following discussion summarizes the USDA Natural Resources Conservation Service's written criteria for land capability classification, greater detail can be obtained from the Natural Resources Conservation Service office located at 6515 Watts Road, Suite 200, Madison, WI 53719-2726.

Land suited to Cultivation and Other Uses:

Class I soils have few limitations that restrict their use.

Class II soils have some limitations that reduce the choice of plants or require moderate conservation practices.

Class III soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.

Class IV soils have very severe limitations that restrict the choice of plants , require very careful management, or both.

Land Limited in Use-Generally Not Suited to Cultivation

Class V soils have little or no erosion hazard but have other limitations impractical to remove that limit their use largely to pasture, range, woodland, or wildlife food and cover.

Class VI soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife food and cover.

Class VII soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to grazing, woodland, or wildlife.

Class VIII soils and landforms have limitations that preclude their use for commercial plant production.

Soil Capability Subclasses

A subclass is a group of capability units within a class which has the dominant soil or climatic limitations for agricultural use. Capability Class I has no subclasses. There are four subclasses, designated by letter symbols and defined as follows:

- e** Erosion susceptibility is the dominant problem or hazard. Both erosion susceptibility and past erosion damage are major soil factors for placement in this subclass.
- s** Soil limitations within the rooting zone, such as shallowness of rooting zones,

stones, low moisture-holding capacity, low fertility that is difficult to correct, and salinity or sodium, are dominant.

- w** Excess water is the dominant hazard or limitation. Poor soil drainage, wetness, high water table, and overflow are the criteria for placing soils in this subclass.
- c** Climate (temperature or lack of moisture) is the only major hazard or limitation.

APPENDIX D
Agricultural Impact Statements *Wisconsin Statute 32.035*

Agricultural Impact Statements, Wisconsin Statute §32.035

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) is required to prepare an Agricultural Impact Statement (AIS) whenever more than five acres of land from at least one farm operation will be acquired for a public project if the agency acquiring the land has the authority to use eminent domain for the acquisition(s). The DATCP has the option to prepare an AIS for projects affecting five or fewer acres from each farm. An AIS would be prepared in such a case if the proposed project would have significant effects on a farm operation. The agency proposing the acquisition(s) is required to provide the DATCP with the details of the project and acquisition(s). After receiving the needed information, DATCP has 60 days to analyze the project's effects on farm operations, make recommendations about it and publish the AIS. DATCP will provide copies of the AIS to affected farmland owners, various state and local officials, local media and libraries, and any other individual or group who requests a copy. Thirty days after the date of publication, the proposing agency may begin negotiating with the landowner(s) for the property.

Section 32.035 of the Wisconsin Statutes: Agricultural impact statement.

(1) Definitions. In this section:

(a) "Department" means department of agriculture, trade and consumer protection.

(b) "Farm operation" means any activity conducted solely or primarily for the production of one or more agricultural commodities resulting from an agricultural use, as defined in s. 91.01 (1), for sale and home use, and customarily producing the commodities in sufficient quantity to be capable of contributing materially to the operator's support.

(2) EXCEPTION. This section shall not apply if an environmental impact statement under s. 1.11 is prepared for the proposed project and if the department submits the information required under this section as part of such statement or if the condemnation is for an easement for the purpose of constructing or operating an electric transmission line, except a high voltage transmission line as defined in s. 196.491(1)(f).

(3) PROCEDURE. The condemnor shall notify the department of any project involving the actual or potential exercise of the powers of eminent domain affecting a farm operation. If the condemnor is the department of natural resources, the notice required by this subsection shall be given at the time that permission of the senate and assembly committees on natural resources is sought under s. 23.09(2)(d) or 27.01(2)(a). To prepare an agricultural impact statement under this section, the department may require the condemnor to compile and submit information about an affected farm operation. The department shall charge the condemnor a fee approximating the actual costs of preparing the statement. The department may not publish the statement if the fee is not paid.

(4) IMPACT STATEMENT. (a) When an impact statement is required; permitted. The department shall prepare an agricultural impact statement for each project, except a project under ch. 81 or a project located entirely within the boundaries of a city or village, if the project involves the actual or potential exercise of the powers of eminent domain and if any interest in more than 5 acres from any farm operation may be taken. The department may prepare an agricultural impact statement on a project located entirely within the boundaries of a city or village or involving any interest in 5 or fewer acres of any farm operation if the condemnation would have a significant effect on any farm operation as a whole.

(b) *Contents.* The agricultural impact statement shall include:

1. A list of the acreage and description of all land lost to agricultural production and all other land with reduced productive capacity, whether or not the land is taken.

2. The department's analyses, conclusions and recommendations concerning the agricultural impact of the project.

(c) *Preparation time; publication.* The department shall prepare the impact statement within 60 days of receiving the information requested from the condemnor under sub. (3). The department shall publish the statement upon receipt of the fee required under sub. (3).

(d) *Waiting period.* The condemnor may not negotiate with an owner or make a jurisdictional offer under this subchapter until 30 days after the impact statement is published.

(5) PUBLICATION. Upon completing the impact statement, the department shall distribute the impact statement to the following:

(a) The governor's office.

(b) The senate and assembly committees on agriculture and transportation.

(c) All local and regional units of government which have jurisdiction over the area affected by the project. The department shall request that each unit post the statement at the place normally used for public notice.

(d) Local and regional news media in the area affected.

(e) Public libraries in the area affected.

(f) Any individual, group, club or committee which has demonstrated an interest and has requested receipt of such information.

(g) The condemnor.

APPENDIX E
Sample Easement (ATC)

The following is a sample easement, generally showing what the final easement could look like. However, items in it may be different from what is in the offer packet that would be given to the individual landowner.

**ELECTRIC TRANSMISSION LINE EASEMENT
CERTIFICATE OF COMPENSATION
NOTICE OF RIGHT OF APPEAL
Wis. Stat. Sec. 182.017(7)**

Document Number

The undersigned grantor(s), _____ for themselves and their respective heirs, successors and assigns (**hereinafter cumulatively referred to as "Grantor"**), in consideration of the sum of one dollar (\$1.00) and other good and valuable consideration, receipt of which is hereby acknowledged, does hereby grant, convey and warrant unto **American Transmission Company LLC, a Wisconsin limited liability company, and its manager ATC Management Inc., a Wisconsin Corporation (hereinafter jointly referred to as "Grantee")**, the perpetual right and easement to construct, install, operate, maintain, repair, replace, rebuild, remove, relocate, inspect and patrol a line of structures, comprised of wood, concrete, steel or of such material as Grantee may select, and wires, including associated appurtenances for the transmission of electric current, communication facilities and signals appurtenant thereto (hereinafter referred to as the Electric Transmission Facilities), upon, in, over and across property owned by the Grantor in the _____ of _____, **County of _____, State of Wisconsin, described as follows:**

A parcel of land being part of 1/4 section town range or lot/block etc.

The legal description and location of the Perpetual Easement Strip is as shown on the Exhibit B, attached hereto and incorporated by reference in this easement document.

The perpetual easement has the following specifications:

PERPETUAL EASEMENT STRIP:

Length: Approximately _____ feet

Width: Approximately _____ feet

TRANSMISSION STRUCTURES:

Type: _____

Number: ____

Maximum height above existing ground level: _____ feet

TRANSMISSION LINES:

Maximum nominal voltage: _____ volts

Number of circuits: ____

Number of conductors: ____

Number of static wires: ____

Minimum height above existing landscape (ground level): _____ feet

The Grantee is also granted the associated perpetual and necessary rights to:

- 1) Enter upon the Perpetual Easement Strip for the purposes of fully exercising and enjoying the rights conferred by this perpetual easement; and
- 2) Trim, cut down and remove any or all brush, trees and overhanging branches now or hereafter existing in, on and over the Perpetual Easement Strip; and
- 3) Cut down and remove such dead, dying, diseased, decayed, leaning trees or tree parts now or hereafter existing on the property of the Grantor located outside of said Perpetual Easement Strip that in Grantee's judgment, may interfere with Grantee's full use of the Perpetual Easement Strip for the purposes stated herein or that pose a threat to the safe and reliable operation of the Electric Transmission Facilities; together with the right, permission and authority to enter in a reasonable manner upon the property of the Grantor adjacent to said Perpetual Easement Strip for such purpose.

The Grantee shall pay a reasonable sum for all damages to property, crops, fences, livestock, lawns, roads, fields and field tile (other than brush, trees and overhanging branches trimmed or cut down and removed from the Perpetual Easement Strip), caused by the construction, installation, operation, maintenance, repair, replacement rebuilding, relocation, inspection, patrol or removal of said Electric Transmission Facilities.

Recording Area

Name and Return Address

Parcel Identification Number(s)

Within the Perpetual Easement Strip, and without first securing the prior written consent of the Grantee, **Grantor** agrees that they will not:

- 1) Locate any dwelling or mobile home intended for residential occupancy; or
- 2) Construct, install or erect any structures or fixtures, including but not limited to swimming pools; or
- 3) Construct any non-residential type building; or
- 4) Store flammable goods or products; or
- 5) Plant trees or shrubs; or
- 6) Place water, sewer or drainage facilities; or
- 7) Change the grade more than one (1) foot.

The parties hereto do hereby agree to the terms and conditions set forth in Exhibit "A", "B" and "C", attached hereto and incorporated by reference herein. The term "utility" in Exhibit "A" shall mean Grantee.

This perpetual easement agreement is binding, in its entirety, upon the heirs, successors and assigns of the parties hereto, and shall run with the lands described herein.

As provided by PSC 113, the Grantor shall have a minimum period of five days to examine materials approved or provided by the Public Service Commission of Wisconsin describing the Grantor's rights and options in the easement negotiating process. The Grantor hereby voluntarily waives the five-day review period, or acknowledges that they have had at least five (5) days to review such materials.

Grantor warrants and represents that Grantor has good title to the property described herein, free and clear from all liens and encumbrances, except: _____

The Grantor hereby accepts a lump sum payment in consideration of the grant of this perpetual easement.

WITNESS the signature(s) of the Grantor this _____ day of _____, 20____.

_____(SEAL)
Signature

_____(SEAL)
Signature

Printed Name

Printed Name

_____(SEAL)
Signature

_____(SEAL)
Signature

Printed Name

Printed Name

Grantor

ACKNOWLEDGEMENT

STATE OF WISCONSIN)
) SS
COUNTY OF)

Personally came before me this _____ day of _____, 20____, the above named _____ to me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

Signature of Notary

Printed Name of Notary

Notary Public, State of Wisconsin

My Commission expires (is) _____

This instrument was drafted by _____ on behalf of American Transmission Company, PO Box 47, Waukesha, WI 53187-0047.

EXHIBIT "A"
[WI Sta. 182.017(7)]

1. In constructing and maintaining high-voltage transmission lines on the property covered by the easement, the utility shall:
 - a) If excavation is necessary, ensure that the topsoil is stripped, piled and replaced upon completion of the operation.
 - b) Restore to its original condition any slope, terrace, or waterway, which is disturbed by the construction or maintenance.
 - c) Insofar as is practicable and when the Grantor requests, schedule any construction work in an area used for agricultural production at times when the ground is frozen in order to prevent or reduce soil compaction.
 - d) Clear all debris and remove all stones and rocks resulting from construction activity upon completion of construction.
 - e) Satisfactorily repair to its original condition any fence damaged as a result of construction or maintenance operations. If cutting a fence is necessary, a temporary gate shall be installed. Any such gate shall be left in place at the Grantor's request.
 - f) Repair any drainage tile line within the easement damaged by such construction or maintenance.
 - g) Pay for any crop damage caused by such construction or maintenance.
 - h) Supply and install any necessary grounding of a Grantor's fences, machinery or buildings.
2. The utility shall control weeds and brush around the transmission line facilities. No herbicidal chemicals may be used for weed and brush control without the express written consent of the Grantor. If weed and brush control is undertaken by the Grantor under an agreement with the utility, the Grantor shall receive from the utility a reasonable amount for such services.
3. The Grantor shall be afforded a reasonable time prior to commencement of construction to harvest any trees located within the easement boundaries, and if the Grantor fails to do so, the Grantor shall nevertheless retain title to all trees cut by the utility.
4. The Grantor shall not be responsible for any injury to persons or property caused by the design, construction or upkeep of the high-voltage transmission lines or towers.
5. The utility shall employ all reasonable measures to ensure that the Grantor's television and radio reception is not adversely affected by the high-voltage transmission lines.
6. The utility may not use any lands beyond the boundaries of the easement for any purpose, including ingress to and egress from the right-of-way, without the written consent of the Grantor.

EXHIBIT "C"

CERTIFICATE OF COMPENSATION

SECTION 32.06 (2a) WISCONSIN STATS.

DATED THIS _____ DAY OF _____, 20____.

Pursuant to Section 32.06(2a) notice is hereby given of the acquisition of a certain Perpetual Easement attached hereto and made a part hereof by this reference. The names of all persons or parties having an interest of record in the property affected by such Perpetual Easement immediately prior to the acquisition of the Perpetual Easement are the following:

Grantor: _____

Mortgagee(s): _____

Land Contract Vendor(s): _____

Others: _____

Such Perpetual Easement grants unto Grantee, its successors and assigns, licensees and manager the right, permission and authority to construct, install, operate, maintain, repair, replace, rebuild, remove, relocate, inspect and patrol (an) electric transmission line(s) for the purpose of transmitting electric energy, communications and signals upon, in, over and across the Perpetual Easement Strip as described on the instrument to which this exhibit is attached.

The total consideration paid for such Perpetual Easement was \$ _____.

NOTICE OF RIGHT OF APPEAL

In accordance with Section 32.06(2a) Wisconsin Stats., any of the above named persons or parties shall have six (6) months from the date of the recording of this certificate to appeal the amount of compensation herein stated by filing a petition with the Judge of the Circuit Court of _____ County, Wisconsin, who shall assign the matter to the Chairperson of the County Condemnation Commissioners for hearing under Sec. 32.06(8). Notification of such petition shall be made to all persons or parties having an interest of record in the above property, and the procedures prescribed under Secs. 32.06(9)(a) and (b), 32.06(10), 32.06(12); and Chs. 808 and 809 shall govern such appeals.

APPENDIX F
“Landowners’ Bill of Rights” *Wisconsin Statute §182.017*

“Landowners’ Bill of Rights”: Wisconsin Statute §182.017

This statute is sometimes referred to as the “Landowners’ Bill of Rights.” It describes a utility’s responsibilities and obligations as well as a landowner’s rights when a transmission line is constructed on that landowner’s property.

182.017 Transmission lines; privileges; damages.

(1g) DEFINITIONS. In this section:

(a) "Commission" means the public service commission.

(b) "Company" means any of the following:

1. A corporation, limited liability company, partnership, or other business entity organized to furnish telegraph or telecommunications service or transmit heat, power, or electric current to the public or for public purposes.

2. An independent system operator, as defined in s. [196.485 \(1\) \(d\)](#).

3. An independent transmission owner, as defined in s. [196.485 \(1\) \(dm\)](#).

4. A cooperative association organized under ch. [185](#) or [193](#) to furnish telegraph or telecommunications service.

5. A cooperative association organized under ch. [185](#) to transmit heat, power, or electric current to its members.

6. An interim cable operator, as defined in s. [66.0420 \(2\) \(n\)](#).

7. A video service provider, as defined in s. [66.0420 \(2\) \(zg\)](#).

(bm) "Municipal regulation" means any contract, ordinance, resolution, order, or other regulation entered into, enacted, or issued by a municipality before, on, or after July 2, 2013.

(c) "Municipality" means a city, village, or town.

(cq) "Telecommunications service" means the offering for sale of the conveyance of voice, data, or other information, including the sale of service for collection, storage, forwarding, switching, and delivery incidental to such communication regardless of the technology or mode used to make such offering.

(ct) "Urban rail transit system" means a system, either publicly or privately owned, which provides transportation by rail in a municipality to the public on a regular and continuing basis and which begins service on or after July 2, 2013.

(d) "Video service network" has the meaning given in s. [66.0420 \(2\) \(zb\)](#).

(1r) RIGHT-OF-WAY FOR. Any company may, subject to ss. [30.44 \(3m\)](#), [30.45](#), [86.16](#), and [196.491 \(3\) \(d\) 3m](#), and to reasonable regulations made by any municipality through which its transmission lines or systems may pass, construct and maintain such lines or systems with all necessary appurtenances in, across or beneath any public highway or bridge or any stream or body of water, or upon any lands of any owner consenting thereto, and for such purpose may acquire lands or the necessary easements; and may connect and operate its lines or system with other lines or systems devoted to like business, within or without this state, and charge reasonable rates for the transmission and delivery of messages or the furnishing of heat, power, or electric light.

(2) NOT TO OBSTRUCT PUBLIC USE. But no such line or system or any appurtenance thereto shall at any time obstruct or incommode the public use of any highway, bridge, stream or body of water.

(3) ABANDONED LINES REMOVED. The commission after a public hearing as provided in s. [196.26](#), and subject to the right of review as provided in ch. [227](#), may declare any line to have been abandoned or discontinued, if the facts warrant such finding. Whenever such a finding shall have been made the company shall remove such line, and on failure for 3 months after such finding of abandonment or discontinuance, any person owning land over, through or upon which such line shall pass, may remove the same, or the supervisors of any town within which said lines may be situated, may remove the said lines from the limits of its highways, and such person or supervisors shall be entitled to recover from the company owning the lines the expense for labor involved in removing the property.

(4) LOCATION OF POLES. In case of dispute as to the location of poles, pipes or conduits, the commissioners appointed in condemnation proceedings under ch. [32](#) may determine the location. In no case, except where the owner consents, shall poles be set in front of or upon any residence property, or in front of a building occupied for business purposes, unless the commissioners find that the same is necessary and the court may review the finding.

(5) TREE TRIMMING. Any company which shall in any manner destroy, trim or injure any shade or ornamental trees along any such lines or systems, or, in the course of tree trimming or removal, cause any damage to buildings, fences, crops, livestock or other property, except by the consent of the owner, or after the right so to do has been acquired, shall be liable to the person aggrieved in 3 times the actual damage sustained, besides costs.

(6) MUNICIPAL FRANCHISE REQUIRED. No lighting or heating corporation or lighting or heating cooperative association shall have any right hereunder in any municipality until it has obtained a franchise or written consent for the erection or installation of its lines from such municipality.

(7) HIGH-VOLTAGE TRANSMISSION LINES. Any easement for rights-of-way for high-voltage transmission lines as defined under s. [196.491 \(1\) \(f\)](#) shall be subject to the conditions and limitations specified in this subsection.

(a) The conveyance under ch. [706](#) and, if applicable, the petition under s. [32.06 \(7\)](#), shall describe the interest transferred by specifying, in addition to the length and width of the right-of-way, the number, type and maximum height of all structures to be erected thereon, the minimum height of the transmission lines above the landscape, and the number and maximum voltage of the lines to be constructed and operated thereon.

(b) In determining just compensation for the interest under s. [32.09](#), damages shall include losses caused by placement of the line and associated facilities near fences or natural barriers such that lands not taken are rendered less readily accessible to vehicles, agricultural implements and aircraft used in crop work, as well as damages resulting from ozone effects and other physical phenomena associated with such lines, including but not limited to interference with telephone, television and radio communication.

(c) In constructing and maintaining high-voltage transmission lines on the property covered by the easement the utility shall:

1. If excavation is necessary, ensure that the top soil is stripped, piled and replaced upon completion of the operation.

2. Restore to its original condition any slope, terrace, or waterway which is disturbed by the construction or maintenance.

3. Insofar as is practicable and when the landowner requests, schedule any construction work in an area used for agricultural production at times when the ground is frozen in order to prevent or reduce soil compaction.

4. Clear all debris and remove all stones and rocks resulting from construction activity upon completion of construction.

5. Satisfactorily repair to its original condition any fence damaged as a result of construction or maintenance operations. If cutting a fence is necessary, a temporary gate shall be installed. Any such gate shall be left in place at the landowner's request.

6. Repair any drainage tile line within the easement damaged by such construction or maintenance.

7. Pay for any crop damage caused by such construction or maintenance.

8. Supply and install any necessary grounding of a landowner's fences, machinery or buildings.

(d) The utility shall control weeds and brush around the transmission line facilities. No herbicidal chemicals may be used for weed and brush control without the express written consent of the landowner. If weed and brush control is undertaken by the landowner under an agreement with the utility, the landowner shall receive from the utility a reasonable amount for such services.

(e) The landowner shall be afforded a reasonable time prior to commencement of construction to harvest any trees located within the easement boundaries, and if the landowner fails to do so, the landowner shall nevertheless retain title to all trees cut by the utility.

(f) The landowner shall not be responsible for any injury to persons or property caused by the design, construction or upkeep of the high-voltage transmission lines or towers.

(g) The utility shall employ all reasonable measures to ensure that the landowner's television and radio reception is not adversely affected by the high-voltage transmission lines.

(h) The utility may not use any lands beyond the boundaries of the easement for any purpose, including ingress to and egress from the right-of-way, without the written consent of the landowner.

(i) The rights conferred under pars. (c) to (h) may be specifically waived by the landowner in an easement conveyance which contains such paragraphs verbatim.

(8) COMMISSION REVIEW.

(a) Upon complaint by a company that a regulation by a municipality under sub. (1r) is unreasonable, the commission shall set a hearing and, if the commission finds that the regulation is unreasonable, the regulation shall be void. Subject to pars. (am) to (c), if the commission determines that a municipal regulation that was in effect on January 1, 2007, and immediately prior to January 9, 2008, or that a community standard, as demonstrated through consistent practice and custom in the municipality, that was in effect on January 1, 2007, and immediately prior to January 9, 2008, is substantially the same as the municipal regulation complained of, there is a rebuttable presumption that the latter regulation is reasonable.

(am) A municipal regulation is unreasonable if it has the effect of creating a moratorium on the placement of company lines or systems under sub. (1r) or on the entrance into the municipality of a video service provider, as defined in s. 66.0420 (2) (zg), or is inconsistent with the purposes of s. 66.0420.

(as) Notwithstanding sub. (2), a municipal regulation is unreasonable if it requires a company to pay any part of the cost to modify or relocate the company's facilities to accommodate an urban rail transit system.

(b) A municipal regulation is unreasonable if it requires a company to pay more than the actual cost of functions undertaken by the municipality to manage company access to and use of municipal rights-of-way. These management functions include all of the following:

1. Registering companies, including the gathering and recording of information necessary to conduct business with a company.

2. Except as provided in provided in par. (c), issuing, processing, and verifying excavation or other company permit applications, including supplemental applications.

3. Inspecting company job sites and restoration projects.

4. Maintaining, supporting, protecting, or moving company equipment during work in municipal rights-of-way.

5. Undertaking restoration work inadequately performed by a company after providing notice and the opportunity to correct the work.

6. Revoking company permits.

7. Maintenance of databases.

8. Scheduling and coordinating highway, street, and right-of-way work relevant to a company permit.

(c) A municipal regulation is unreasonable if it requires a company to be responsible for fees under s. 182.0175 (1m) (bm) that may be assessed to a municipality as a member of the one-call system under s. 182.0175.

(d) It is reasonable for a municipal regulation to provide for the recovery of costs incurred under par. (b) 1., 2., 3., and 7. through a preexcavation permit fee.

(e) It is reasonable for a municipal regulation to provide for the recovery of costs incurred under par. (b) 4., 5., and 6. only from the company that is responsible for causing the municipality to incur the costs.

(9) TIME LIMIT FOR PERMITS. If a municipality establishes a permit process under sub. (1r), the municipality shall approve or deny a permit application no later than 60 days after receipt of the application, and, if the municipality fails to do so, the municipality shall be considered to have approved the application and granted the permit. If a municipality denies a permit application, the municipality

shall provide the applicant a written explanation of the reasons for the denial at the time that the municipality denies the application.

History: [1971 c. 40](#); [1975 c. 68](#), [199](#); [1979 c. 34](#), [323](#); [1985 a. 297 s. 76](#); [1989 a. 31](#); [1993 a. 213](#), [246](#), [371](#); [1997 a. 204](#); [2005 a. 441](#); [2007 a. 42](#); [2011 a. 22](#); [2013 a. 20 s. 1564m](#), [1978d](#) to [1978t](#).

Sub. (2) is a safety statute, the violation of which constitutes negligence per se. An allegation that a power pole located within 4 feet of the traveled portion of a roadway violated this provision stated a cause of action. *Weiss v. Holman*, [58 Wis. 2d 608](#), [207 N.W.2d 660](#) (1973).

Sub. (5) is limited to damages arising from the construction, maintenance, or abandonment of facilities within a right-of-way. *Vogel v. Grant-Lafayette Electric Cooperative*, [195 Wis. 2d 198](#), [536 N.W.2d 140](#) (Ct. App. 1995), [94-0822](#).

Sub. (7) (a) governs what must be specified in a conveyance of an easement. Because the easements here were conveyed prior to the enactment of the statute, the conveyances were not subject to the statute's requirements. The circuit court's conclusion that the utility was required to obtain new easements complying with sub. (7) (a) was premised on its erroneous conclusion that the utility's easement rights were limited by the easements' current use. *Wisconsin Public Service Corporation v. Andrews*, [2009 WI App 30](#), [316 Wis. 2d 734](#), [766 N](#)

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