

Cardinal-Hickory Creek 345-kV Transmission Line Project Scoping Report

Volume I

Prepared for

**U.S. Department of Agriculture
Rural Utilities Service**



Committed to the future of rural communities.

Prepared by

SWCA Environmental Consultants

May 2017

**CARDINAL-HICKORY CREEK 345-KV
TRANSMISSION LINE PROJECT**

SCOPING REPORT

VOLUME I

Prepared for

**U.S. Department of Agriculture
Rural Utilities Service**

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Acronyms and Abbreviations

ACA	Alternatives Crossing Analysis
AES	Alternative Evaluation Study
ATC	American Transmission Company LLC
AVERT	<i>Avoided Emissions and Generation Tool</i>
CFR	Code of Federal Regulations
C-HC Project	Cardinal-Hickory Creek 345-kV Transmission Line
Dairyland	Dairyland Power Cooperative
EIS	Environmental Impact Statement
EMF	Electric and magnetic field
FAQs	frequently asked questions
IATA	Ice Age Trail Alliance
ITC	ITC Midwest LLC
kV	kilowatt(s)
MCS	Macro-Corridor Study
MFL	Managed Forest Law
MISO	Midcontinent Independent Transmission System Operator
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NPS	National Park Service
NST	National Scenic Trail
QA/QC	quality assurance/quality control
Refuge	Upper Mississippi National Wildlife and Fish Refuge
ROW	right-of-way
RUS	Rural Utilities Service
SWCA	SWCA Environmental Consultants
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service

1 Introduction

1.1 Project Background

This report describes the scoping process implemented for the Cardinal-Hickory Creek 345-kilovolt (kV) Transmission Line (C-HC Project) Environmental Impact Statement (EIS) between October 10, 2016, and January 6, 2017. The U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) has selected SWCA Environmental Consultants (SWCA) to prepare, under the direction of RUS, an EIS in compliance with the National Environmental Policy Act (NEPA) under guidance provided by RUS's *Environmental Policies and Procedures* (7 Code of Federal Regulations [CFR] 1970 *et. seq.*). The purposes of the public scoping process are to identify the potential environmental issues associated with the C-HC Project, ensure that all interested and affected parties are aware of the C-HC Project, and provide the public with an opportunity to participate in and provide input into the NEPA process.

The U.S. Fish and Wildlife Service (USFWS) and U.S. Army Corps of Engineers (USACE) are serving as cooperating agencies in the environmental review process.

This report also describes the proposed C-HC Project and activities associated with the public and agency during the scoping period. Agency and public comments received during the scoping period are summarized. In addition, this report includes nine appendices with supplementary information related to the scoping process and public meetings:

- Appendix A: Notices of Intent
- Appendix B: Public Meeting Materials
- Appendix C: Agency Scoping Letters and Mailing List
- Appendix D: Tribal Scoping Letters and Mailing List
- Appendix E: Local Government Scoping Letters and Mailing List
- Appendix F: Comment Coding Structure
- Appendix G: List of Commenters
- Appendix H: Comment Summary Table
- Appendix I: Form Master (Blank)

1.2 Project Overview

The C-HC Project is proposed by three utility and transmission line organizations that include Dairyland Power Cooperative (Dairyland), American Transmission Company LLC (ATC), and ITC Midwest LLC (ITC), collectively hereafter referred to as the “Utilities” or “Utility.” The four Utility-stated purposes for the C-HC Project are to improve electric system reliability, increase transfer capability needed to respond to the nation’s changing energy mix, provide economic benefits to utilities and electric consumers, and expand the electric infrastructure to support public policy for greater use of renewable energy. As part of their initial investigation three corridor siting documents were prepared by the Utilities in early to mid-2016, prior to the RUS scoping period: the Alternative Crossings Analysis (ACA), the Alternatives Evaluation Study (AES), and the Macro-Corridor Study (MCS). The project description provided below is primarily adapted from these three initial Utility reports. The Utility reports can be found on the RUS project website:

<https://www.rd.usda.gov/publications/environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line>

The C-HC Project would be approximately 125 miles long, depending on the final authorized route. It would require a transmission system interconnection at the existing Cardinal Substation in the Town of Middleton, Wisconsin, a new intermediate substation near the Village of Montfort, Wisconsin, and a final interconnection at the existing Hickory Creek Substation northwest of Dubuque, Iowa. More specifically, the 345-kV transmission line and associated facilities would include the following components:

- A new 345-kV terminal for the existing Cardinal Substation in the Town of Middleton in Dane County, Wisconsin
- A new 45- to 60-mile (depending on the final route) 345-kV transmission line between the existing Cardinal Substation and a new intermediate substation near the Village of Montfort in Grant or Iowa County
- A new intermediate substation near the Village of Montfort in Grant or Iowa County, Wisconsin, to accommodate two new 345-kV transmission line terminals
- A new 45- to 65-mile (depending on the final route) 345-kV transmission line between the intermediate substation and the Hickory Creek Substation in Dubuque County, Iowa
- A rebuild of the Mississippi River crossing at Cassville to accommodate a section of the 345-kV transmission line between Hickory Creek and the intermediate substation and a rebuild of the 161-kV transmission line with the 345-kV line in a double-circuit configuration
- A short, less than 1-mile, 69-kV line in Iowa to enable the removal of the 69-kV transmission line that crosses the Mississippi River at Cassville
- Facility reinforcements (such as adding circuit breakers, replacing conductors, and possible structural improvements at existing substations) in Iowa and Wisconsin due to the addition of the Hickory Creek Substation/Cardinal Substation 345-kV transmission line and the removal of the existing Mississippi River crossing at Cassville
- A rebuild of the Turkey River Substation in Dubuque County, Iowa with two 161/69-kV transformers, four 161-kV circuit breakers, and three 69-kV circuit breakers
- A new 345-kV terminal within the existing Hickory Creek Substation in Dubuque County, Iowa

The estimated cost for the proposed C-HC Project is \$500 million (in 2023 dollars). If approved, the in-service date is scheduled for 2023.

1.3 Proposed Corridors

As a result of their initial investigations, the Utilities narrowed down the initial broad study area between the Cardinal and Hickory Creek Substations to several proposed corridors, as shown in Figure 1.1. These corridors were presented to the public during the RUS scoping meetings held in October, November, and December 2016. Details about the public scoping meetings are provided in Section 2.7.

As a result of the scoping process, including comments received from the public, RUS worked with the Utilities to define additional corridors to be analyzed as part of the NEPA process (Figure 1.2). The corridors are presented below from east to west for four major segments of the proposed alignment: 1) Cardinal Substation to the Montfort Substation Siting Area, 2) Montfort Substation Siting Area to the Mississippi River crossing near Cassville, Wisconsin, 3) the Mississippi River crossing, and 4) Mississippi River to the Hickory Creek Substation.

1.3.1 *Cardinal Substation to the Montfort Substation Siting Area*

The alternative corridors in the Cardinal Substation to the Montfort Siting Area segment would connect the C-HC Project from the Cardinal Substation in the east to the midpoint Montfort Substation Siting Area near Montfort, Wisconsin. The alternative corridor within the Cardinal Substation to Montfort Substation Siting Area would be approximately 45 to 50 circuit miles long and, depending on the route chosen, it

could pass through or near the municipalities of Blue Mounds, Barneveld, Ridgeway, Dodgeville, and Cobb (see Figure 1.1 and Figure 1.2).

This proposed C-HC Project corridor begins by heading west from the Cardinal Substation with 1,000- to 2,000-foot-wide corridors along an existing transmission line, railroad, and highway. The proposed corridors split at the general area south of Cross Plains, and the corridors head either west or south and then further west to the Montfort Substation Siting Area.

The proposed C-HC Project northern corridor then follows a westerly path generally along new undeveloped cross-country segments, county highways, and an existing 138-kV transmission line to the Montfort Substation Siting Area. Generally, the proposed corridors along the existing transmission lines are 1,000 feet wide, while those following county highways are approximately 1,500 feet wide, and the cross-country segments in this area are approximately 1 mile wide.

The proposed corridors that head south to the Mount Horeb area generally follow an existing 69-kV transmission line and a few cross-country segments. The corridors along the existing transmission line are 1,000 feet wide, while the cross-country segments are generally 3,000 feet wide. There are two proposed alternative corridor segments being carried forward for analysis in the EIS, both east of Mount Horeb, as shown in Figure 1.2.

The proposed corridors that head west from Mount Horeb to Dodgeville and then to the Montfort Substation Siting Area generally follow U.S. Highway 18/151, existing 69-kV transmission lines, and county highways. The segments along U.S. Highway 18/151 range in width from 1,000 to 2,000 feet, while those along county highways range from 2,000 to 3,000 feet. The corridors that follow existing transmission lines are generally 1,000 feet wide. The area immediately east of the Montfort Substation Siting Area is wider to provide additional siting flexibility because the exact location of the proposed new substation is uncertain.

1.3.2 Montfort Substation Siting Area to the Mississippi River

The alternative corridors in this section would connect the C-HC Project from the Montfort Substation Siting Area in the east to the Mississippi River crossing near Cassville, Wisconsin. The alternative corridor within the Montfort Substation Siting Area to the Mississippi River crossing would be approximately 30 to 50 circuit miles long and, depending on the route chosen, it could pass through or near Livingston, Rewey, Lancaster, Platteville, and Cassville (see Figure 1.1 and Figure 1.2).

The Montfort Substation Siting Area to the Mississippi River crossing begins with two alternative corridors that exit the Montfort Substation Siting Area directly to the southwest or to the south towards Platteville. The corridor heading southwest follows an existing 138-kV transmission line all the way to the Mississippi River and is 1,000 feet wide.

The corridor that exits the Montfort Substation Siting Area to the south generally follows an existing 69-kV transmission line and a few cross-country segments. The segments that follow the existing transmission line are also 1,000 feet wide, while the cross-country segments are generally 3,000 feet wide. In the Livingston area, the proposed corridors carried forward for analysis in the EIS would occur on both the west and east sides of the community, as shown in Figure 1.2. In the Platteville area, a number of segments follow U.S. Highway 151, existing 138- and 69-kV transmission lines, and cross-country segments on the east and south sides of the community (see Figure 1.2). In this area, corridors along existing transmission lines are generally 1,000 feet wide, while the corridors following U.S. Highway 151 and cross-country segments are generally 3,000 feet wide. An area directly east of Platteville is wider to allow engineering and routing flexibility. From Platteville, a 1,000-foot-wide corridor follows an existing 138-kV transmission line west to the Cassville area. In the Cassville area, several corridor segments are all 1,000 feet wide and follow existing transmission lines to the proposed Mississippi River crossing.

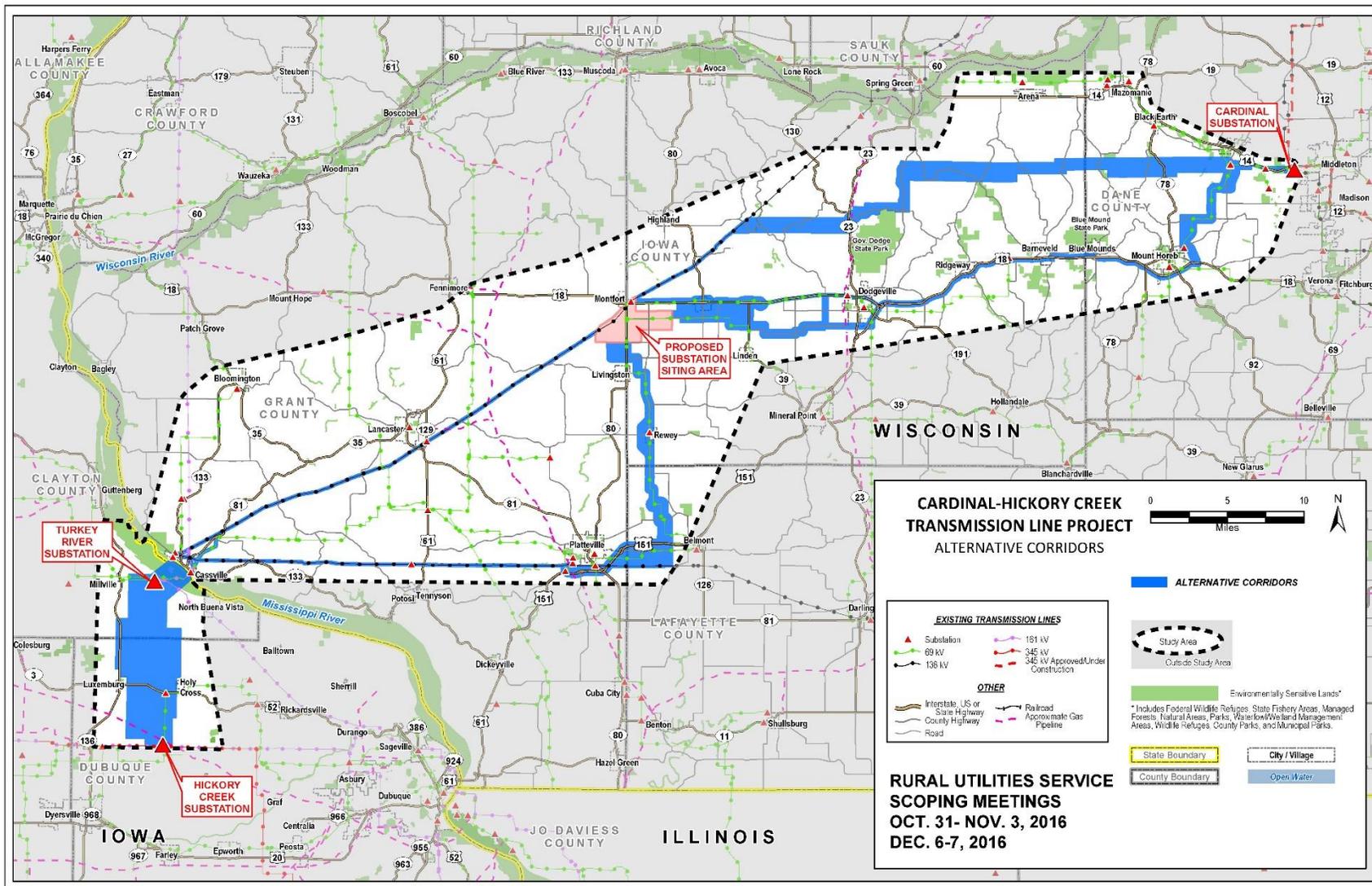


Figure 1.1. C-HC Project Utility-Proposed Corridors Map Presented at RUS Scoping Meetings

1.3.3 Mississippi River Crossing

The C-HC Project between the intermediate Montfort Substation Siting Area and the Hickory Creek Substation requires a crossing of the Mississippi River where the USFWS-managed Upper Mississippi River National Wildlife and Fish Refuge (Refuge) exists. Based on thorough analyses contained in the previous ACA report, developed in coordination with the USFWS and USACE, the Utilities have proposed two potential crossing locations within the Refuge, the Stoneman and Nelson Dewey locations. The Stoneman crossing is a segment of the existing 161- and 69-kV transmission line corridor between Cassville, Wisconsin, and Millville, Iowa. Just south of the Stoneman crossing is the Stoneman Station, a 40-megawatt biofuels plant that was retired in late 2015. The Nelson Dewey crossing is located in the vicinity of the retired coal-fired Nelson Dewey Generating Station in Wisconsin and Oak Road in Iowa (see Figure 1.1 and Figure 1.2).

As part of either the Stoneman or Nelson Dewey crossing alternatives, the Utilities' intend to replace the existing 161/69-kV double-circuit configuration at the Stoneman crossing with a new 161/345-kV double circuit. The result is the number of transmission circuits in the Refuge after construction of the C-HC Project would remain unchanged at two. Both locations offer the opportunity to consolidate the C-HC Project with existing transmission facilities and maintain a single transmission corridor across the Refuge.

To have a single transmission corridor if the Nelson Dewey crossing is selected, the Stoneman 161/69-kV double-circuit crossing would require removal. This would also affect the physical structure of the Stoneman Substation, which would result in a modification to the Stoneman Substation.

While the current utility system needs are for the existing 161-kV line and the proposed C-HC 345-kV transmission line, the Utilities' are proposing a double-circuit design with 345/345-kV specifications within the Refuge. Therefore, the transmission line at the Mississippi River crossing would be constructed to 345/345-kV specifications, but initially would be energized at 161/345-kV until the need arises to increase the voltage of the 161-kV line to 345-kV. The designed increased voltage capacity of the second circuit would avoid potential impacts to the Refuge if another future 345-kV transmission line is needed between Wisconsin and Iowa, because the line would already be constructed to carry additional voltage with no new construction required within the Refuge. Thus, this double-circuit configuration initially would be operated at 161/345-kV, but would be capable of operating at 345/345-kV if future system requirements warranted it. Regardless of the voltage configuration on the double-circuit transmission line, there would only be one structure crossing the Mississippi River.

Both the Stoneman and Nelson Dewey river crossings would require increased structure size and height. One transition structure in the Refuge would be 90 feet tall with the structures on the banks of the Mississippi River being 196 feet tall. The C-HC Project double-circuit transmission line within the Refuge would also be designed so that all conductors are on the same horizontal plane and the shield wire would be marked with avian flight diverters. The existing 161/69-kV line at Stoneman is not marked with avian flight diverters. The larger transmission structures and markers would be more visible to the public and to avian species. The reduced span length (when compared to the existing 161/69-kV line at Stoneman) and the use of flight diverters would assist in decreasing avian interactions. The design presented for the Nelson Dewey ACA route would also reduce the total structures within Refuge lands from 30 structures to 10.

1.3.4 Mississippi River to the Hickory Creek Substation

The Mississippi River to Hickory Creek Substation study area in Iowa is approximately 10.7 to 12 miles long and 2.5 to 4 miles wide, because the Utilities have not yet defined discrete corridors for the C-HC Project in Iowa to the same level of detail provided for the Wisconsin corridors. This is due to a difference in the Iowa Utilities Board process when compared to the Public Service Commission of Wisconsin certification process. The Iowa study area is mostly in the Town of Millville, generally east of State Route 136 and the City of Luxemburg. A small portion is in the northern part of the Township of New Wine, and

a portion in the western part of the Township of Concord, west of the City of Holy Cross. A portion of the study area is also located in the Township of Buena Vista.

1.4 Proposed Right-of-Way Width and Structures

Although wider corridors are proposed, the typical right-of-way (ROW) width for the C-HC Project would be 150 feet in Wisconsin and 200 feet in Iowa. Other unique ROW widths may be used in some areas to mitigate potential impacts to sensitive resources, such as avian species at the Refuge crossing location.

For most of the C-HC Project, the Utilities propose to use monopole steel structures that would typically be approximately 150 feet tall. A typical 345-kV single-circuit structure is shown in Figure 1.3. Typical double-circuit structures are shown in Figure 1.4 for 345/69-kV and in Figure 1.5 for 345/138-kV. The structures would support the C-HC Project 345-kV transmission line three-phase aluminum conductors in addition to two overhead shield wires, for lightning protection and protective relay communications. Alternative structure designs might be used at some locations along the route to reduce potential impacts. For example, depending on the final route, the C-HC Project 345-kV line might be collocated with existing transmission lines. Typical spans would be 500 to 1,200 feet between transmission line structures.

The co-located 161/345-kV structures for the Mississippi River crossing are proposed as low-profile structures with a design height of approximately 75 feet to minimize the likelihood of avian collisions. This lower, wider profile would require a 260-foot-wide ROW (Figure 1.6). The structures would be horizontal-symmetrical H-frame structures on concrete foundations with a typical span length of approximately 500 to 600 feet and would consist primarily of tubular steel H-frame structures. To raise the height of the conductor to cross the Mississippi River, one transition structure in the Refuge would be required between the low-profile structures in the Refuge and the river crossing structure. This transition structure would have a proposed height of approximately 80 to 90 feet, and the span length would be 500 to 600 feet, similar to the remainder of the line in this area. The crossing structures on the banks of the Mississippi River would be tubular steel H-frame structures and would be constructed to an approximate height of 196 feet.

The crossing structure heights and conductor tensioning/sag will be designed to meet or exceed the minimum clearances required above the navigable river channel, as defined by U.S. Coast Guard requirements. The Utilities would work closely with the USFWS to identify the final design of the C-HC Project and to determine the most appropriate structure design to minimize wildlife and aesthetic impacts in the Refuge.

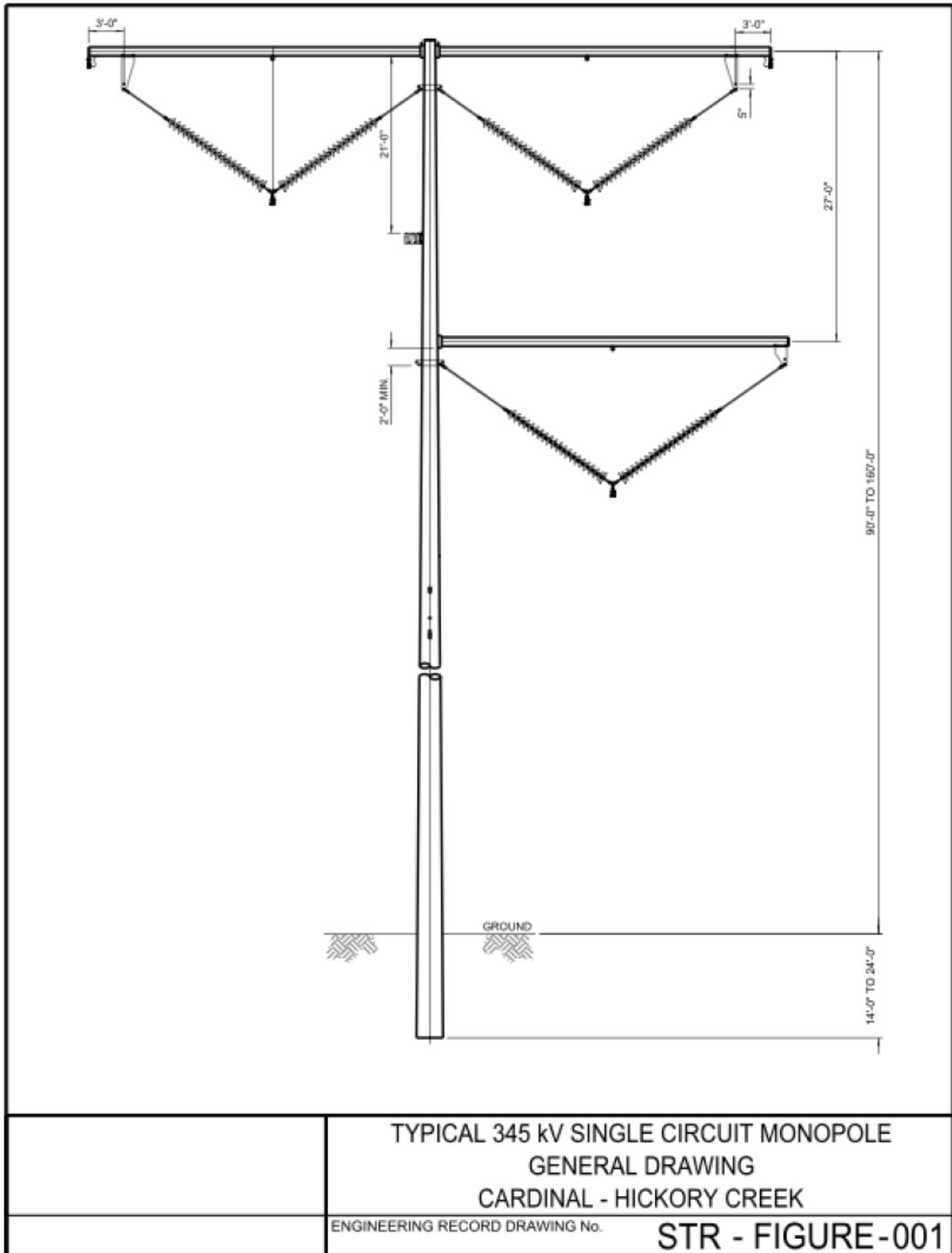


Figure 1.3. Typical 345-kV Single-Circuit Monopole Structure

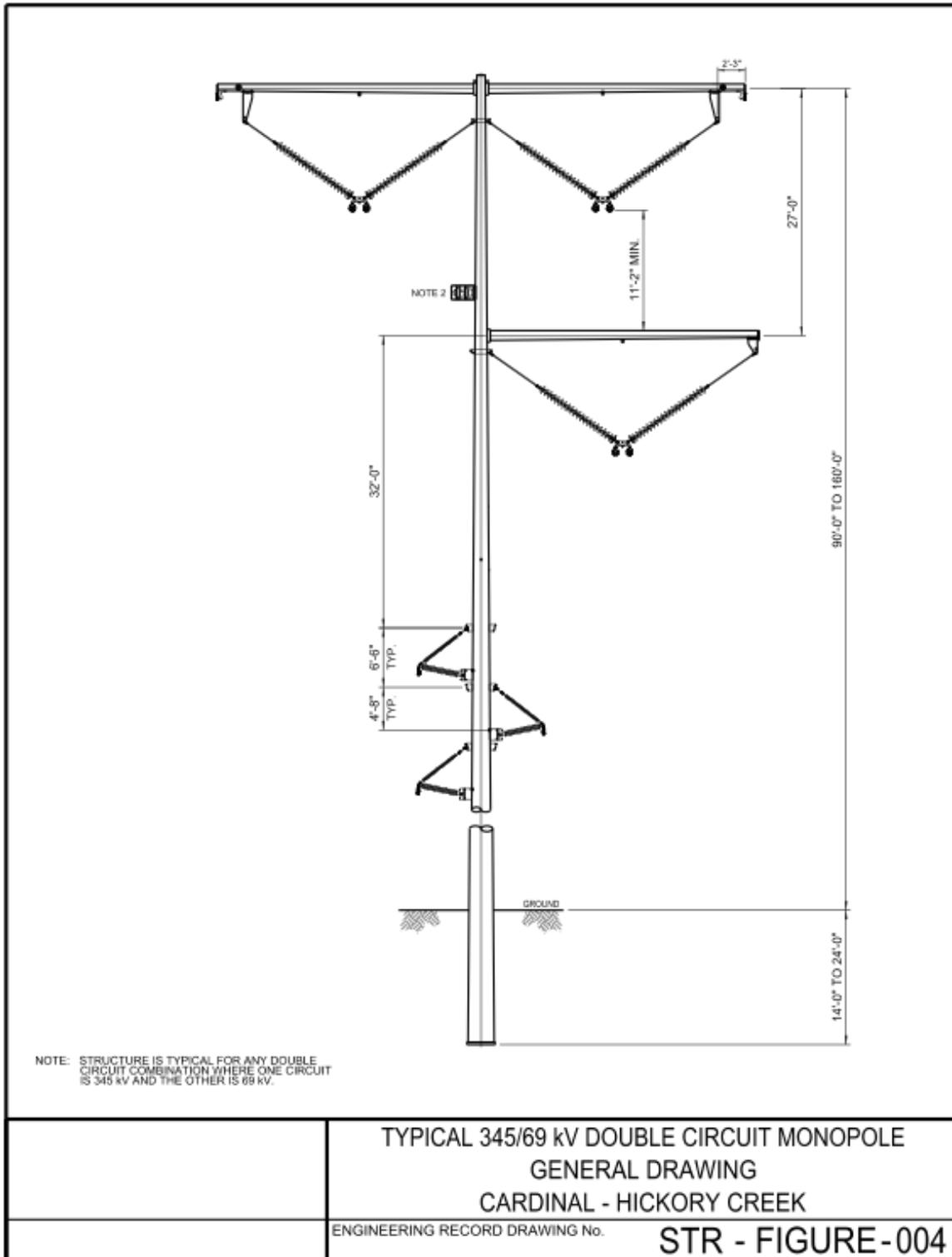


Figure 1.4. Typical 345/69-kV Double-Circuit Monopole

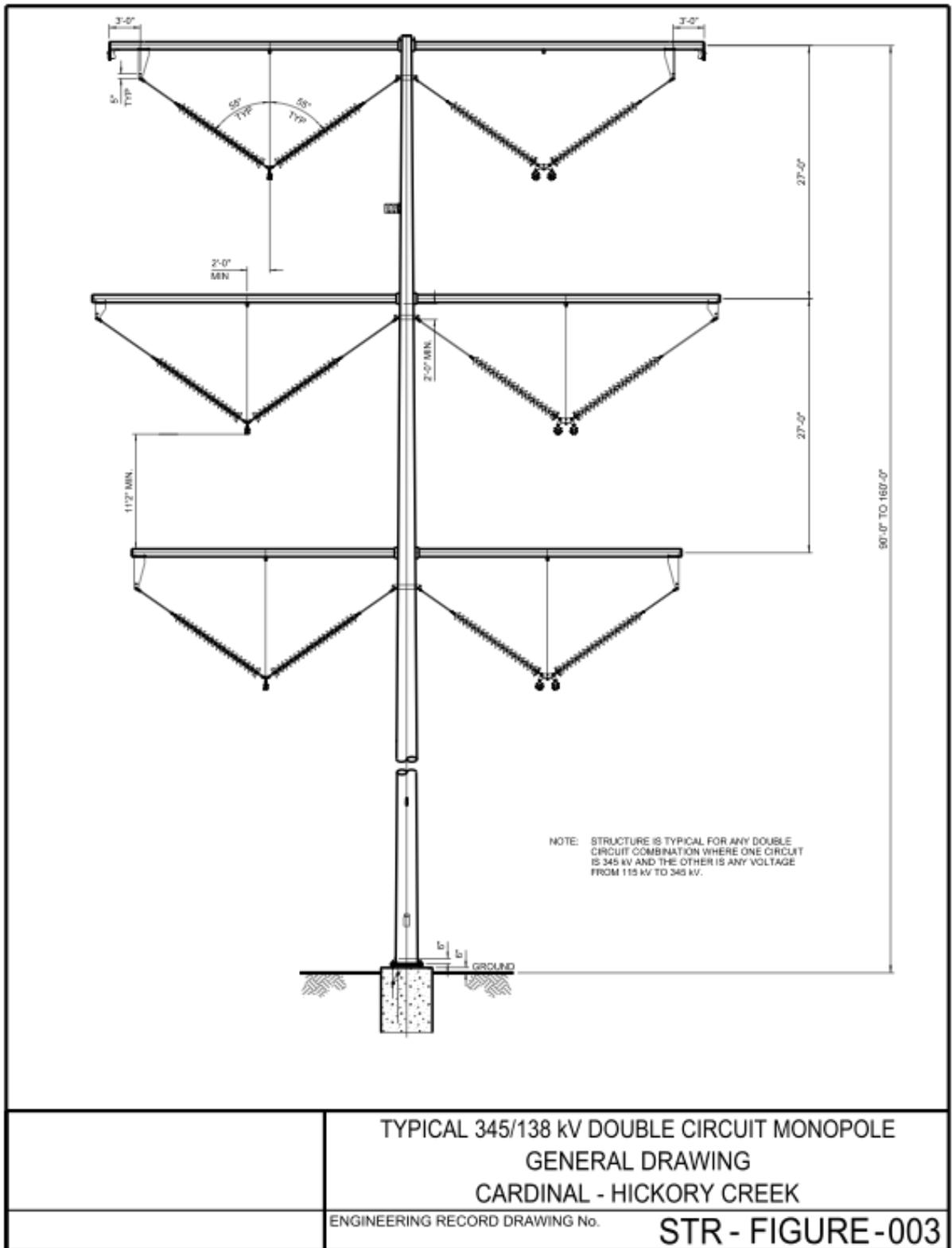


Figure 1.5 Typical Double-Circuit Monopole for 345/138-kV up to 345/345 kV

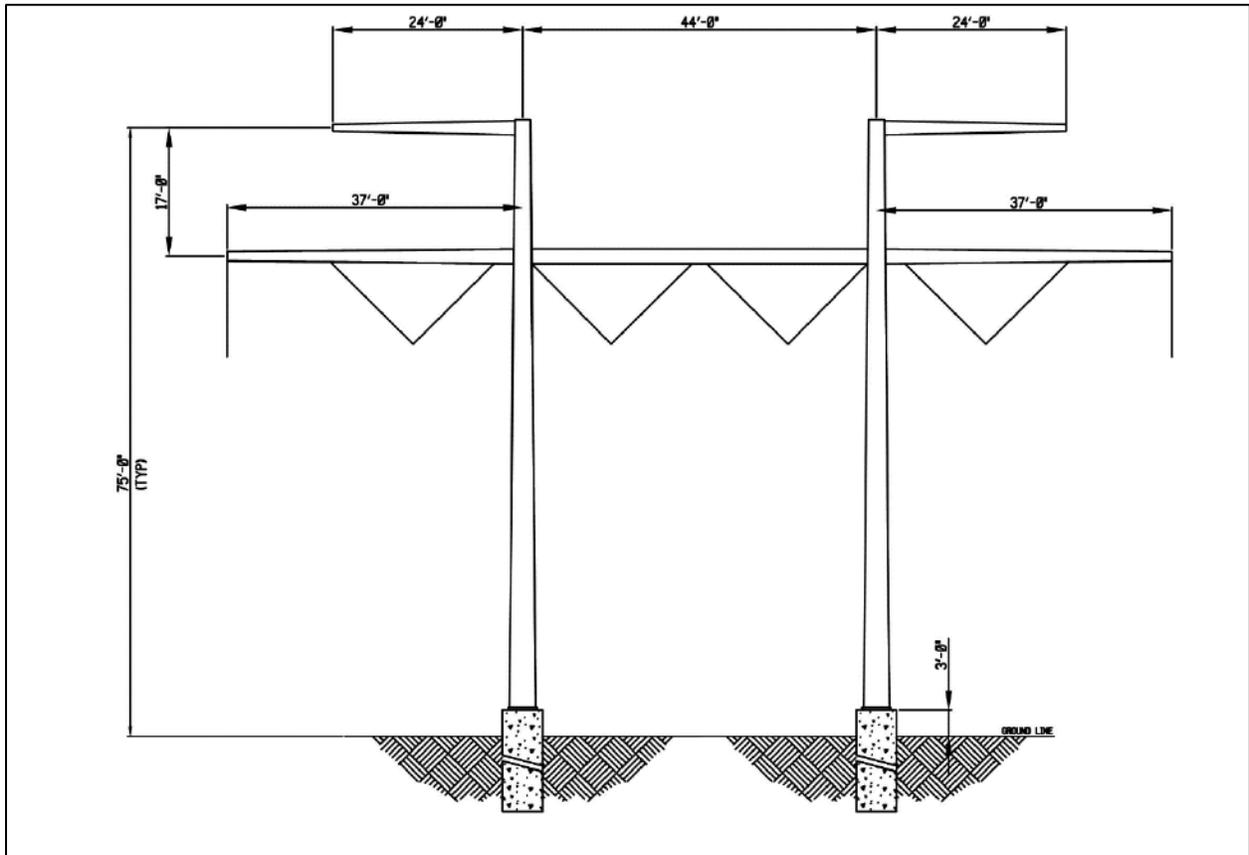


Figure 1.6. Low profile 345/345-kV Double-Circuit Structure for the Mississippi River Crossing

2 Public Scoping Process

RUS and SWCA developed a public scoping strategy to educate the public and interested parties about the C-HC Project, receive their input, and identify public concerns. Information provided by the public during the scoping phase of the C-HC Project helps to develop the content and analysis in the EIS. The following mechanisms helped RUS provide opportunities for public education and input during the scoping process.

2.1 Mailing Address

Through all project notifications and at the public scoping meetings, interested parties and participants were encouraged to send written comments to RUS and the SWCA Team. The mailing address provided was:

SWCA Environmental Consultants
Attn: Cardinal-Hickory Creek EIS
200 Bursca Drive, Suite 207
Bridgeville, PA 15017

2.2 Email

SWCA established a project-specific email address for submittal of electronic scoping comments, comments@CardinalHickoryCreekEIS.us. RUS also collected scoping comments through the Project Manager's email address, dennis.rankin@wdc.usda.gov. These email addresses were provided in the Notice of Intent (NOI) and all other project notifications for submittal of project-related comments.

2.3 Notice of Intent

The first NOI was published in the *Federal Register* on October 18, 2016. The NOI serves as the official public announcement of the intent to prepare an EIS and hold public meetings. The NOI published on October 18, 2016, initiated the 30-day public scoping period, which ultimately was extended to 81 days ending on January 6, 2017. The announcement included a brief overview about the Proposed Action and alternatives, potential resource concerns, opportunities to provide input and attend meetings, and RUS project contacts (Appendix A).

On November 22, 2016, RUS published a second NOI, which announced the second round of public scoping meetings held on December 6 and 7, 2016 (see Appendix A).

2.4 Media Notifications

A combination of legal announcements, display ads, and press releases were provided to newspapers, television stations, and radio stations during the public scoping period to notify the public about scoping meeting details, the scoping period deadline, and basic details about the project within the project vicinity.

2.4.1 Newspapers

Legal notices were placed in local newspapers on October 10 and 17, 2016, and on November 14 and 28, 2016 (Table 2.1). The legal notices (see Appendix A) identified the public scoping meeting dates and times. The announcements also included information regarding the designated scoping comment period.

Table 2.1. Newspapers Where Legal Notices Were Placed

Newspapers	
Dodgeville Chronicle	Mount Horeb Mail
Dubuque Telegraph-Herald	Platteville Journal
Grant County Herald Independent	Wisconsin State Journal
Middleton Times Tribune	

Newspaper display ads were placed the week of November 21, 2016, to provide additional notice of the second set of public scoping meetings. An example display ad is provided in Appendix B.

Press releases (see Appendix B) were prepared by the SWCA Team and sent to the print or online news outlets listed in Table 2.2 during the weeks of October 10, 17, and 24, 2016, for the first set of public scoping meetings and from November 7 through 28, 2016, for the second set of public scoping meetings. Press releases also were sent to the newspapers listed in Table 2.1 above.

Table 2.2. Print or Online News Outlets Where Press Releases Were Distributed

Newspapers	
<i>Agri-View</i>	<i>News-Sickle-Arrow</i> (Cross Plains-Black Earth and Mazomanie, WI)
<i>Exponent, University of Wisconsin-Platteville</i>	<i>Republican Journal</i>
<i>Fennimore Times</i>	<i>The Country Today</i>
<i>Living Lake Country Reporter</i>	<i>Tri-County Press</i>
<i>Mineral Point Democrat Tribune</i>	<i>Wisconsin Public Radio - Online</i>

2.4.2 Television Stations

Press releases were sent to the six television stations listed in Table 2.3.

Table 2.3. Television Stations Where Press Releases Were Distributed

Television Stations	Location
WHA-TV (Wisconsin Public Television)	Madison, WI
WISC-TV	Madison, WI
WKOW-TV 27 News at 10	Madison, WI
WMTV-TV	Madison, WI
WHLA-TV (Wisconsin Public Television)	La Crosse, WI
KFXB-TV	Dubuque, IA

2.4.3 Radio Stations

Press releases were sent to the 24 radio stations listed in Table 2.4.

Table 2.4. Radio Stations Where Press Releases Were Distributed

Radio Stations	
W215AQ 90.9 FM (Middleton and West Madison, WI)	97 FM (Platteville, WI)
WERN 88.7 FM (Madison, WI)	106.1 FM (Platteville, WI)
92.1 FM (Madison/Middleton, WI)	107.1 FM (Platteville, WI)
96.3 FM (Madison/Middleton, WI)	QueenB Radio (Platteville, WI)
1070 AM (Madison/Middleton, WI)	WSSW 89.1 FM (Platteville, WI)
WIBA 101.5 FM (Madison/Middleton, WI)	WSUP 91 FM (Platteville, WI)
WIBA 1310 AM (Madison/Middleton, WI)	97.3 FM (Dubuque, IA)
Z-104 (Madison/Middleton, WI)	101.1 FM The River (Dubuque, IA)
Wisconsin Radio Network	KAT 92.9 FM (Dubuque, IA)
WNWC 102.5 FM and AM, Life	KDTH 1370 AM (Dubuque, IA)
WDMP 810 AM/99.3 FM (Dodgeville)	KNSY 89.7 FM (Dubuque, IA)
WHHI 91.3 FM (Dodgeville, WI)	Q107/5 FM (Dubuque, IA)

2.5 Direct Mailings

On October 14, 2016, letters were sent to 38 federal and state agencies inviting them to participate in public and agency scoping meetings (Appendix C) concurrently with the public scoping meetings in October and November 2016. Agency scoping meetings were also scheduled to provide updates and answer questions. Iowa agencies were invited to attend a meeting in Peosta, Iowa, on October 31, 2016. Wisconsin agencies were invited to attend a meeting in Middleton, Wisconsin, on November 3, 2016. More information about the agency scoping meetings is provided in Section 2.7.

On November 17, 2016, letters were mailed to a slightly expanded list of 46 federal and state agencies notifying them of the second round of public scoping meetings held on December 6 and 7, 2016. The federal and state agency contact list was expanded as a result of the initial agency scoping meetings held in October and November 2016, which provided additional agency contacts. Appendix C contains example agency letters, as well as the mailing list.

RUS and the SWCA Team began notifying federally recognized Native American tribes with interest in the project area about the EIS process with letters sent via registered mail on October 17, 2016, for the first set of public scoping meetings and on November 17, 2016, for the second set of public scoping meetings. Appendix D contains an example tribal letter and the mailing list for these letters. The letters mailed in October and November 2016 invited the tribes to participate in the National Historic Preservation Act Section 106 review process, attend public meetings, and provide relevant information for inclusion in the EIS. RUS and the SWCA Team will continue to coordinate and document activities and input received during the Section 106 review process for inclusion in the EIS. However, the team will limit information included in the administrative record of the EIS to that which is not considered sensitive by the tribes.

In response to feedback provided to RUS after the first set of public scoping meetings in October and November 2016, RUS provided a direct mailing to 66 local government contacts on November 17, 2016, to notify them of the second round of public scoping meetings held on December 6 and 7, 2016. Appendix E contains an example local government letter and mailing list.

2.6 Information Available via the Internet

RUS developed a project website to provide information available to the public. The web address for the RUS website is as follows:

<https://www.rd.usda.gov/publications/environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line>

The website includes project information in an easily accessible format (e.g., Section 508-compliant PDF). It also includes an email address for submitting electronic comments. Scoping documents available on the websites include:

- Utility-prepared studies (MCS, ACA, and AES)
- NOIs
- Scoping meeting documents (e.g., frequently asked questions [FAQs], handouts, presentation materials, and display boards)
- Scoping comment forms
- Utility-prepared project corridor maps
- Wisconsin Public Service Commission and Iowa Utilities Board state permitting process overviews
- A link to the Utilities' project website (available at <http://www.cardinal-hickorycreek.com/>)

- Scoping report
- Scoping comments received during the scoping period
- Other appropriate information

2.7 Public Scoping Meetings¹

RUS held two sets of public scoping meetings to provide information about the C-HC Project, present the RUS NEPA process and timelines, and to answer questions and receive comments regarding the C-HC Project. These meetings occurred at least 15 days before the end of the scoping period, with the latest meeting occurring on December 7, 2016. The meetings held in December were in response to public concerns expressed to RUS early in the scoping period that not enough notice was provided for the scoping meetings held in October and November. Table 2.5 summarizes the meeting dates, times, locations, and estimated public attendance based on the meeting sign-in sheets. These five meetings were held near the proposed alternative transmission line corridors.

Table 2.5. First Public Scoping Meeting Dates, Times, and Locations

Date	Time	Location/Venue	Public Attendance
October 31, 2016	3:00–6:00 p.m.	Peosta Community Center 7896 Burds Road Peosta, IA 53068	7
November 1, 2016	4:00–7:00 p.m.	Cassville Middle School Cafeteria 715 E. Amelia Street Cassville, WI 53806	23
November 2, 2016	4:00–7:00 p.m.	Dodgeville Middle School Cafeteria 951 Chapel Street Dodgeville, WI 53533	142
November 3, 2016	4:00–7:00 p.m.	Madison Marriott West 1313 John Q Hammons Drive Middleton, WI 53562	66
December 6, 2016	4:00–7:00 p.m.	Peosta Community Center 7896 Burds Road Peosta, IA 53068	17
December 7, 2016	4:00–7:00 p.m.	Deer Valley Lodge 401 West Industrial Drive Barneveld, WI 53507	110

2.7.1 Meeting Handouts/Materials

Handouts were made available to each participant at the sign-in table as background information. All meeting materials distributed by RUS are contained in Appendix B. Meeting handouts included:

- Sign-in sheets
- Comment forms
- FAQ handout, covering the following topics:
 - RUS NEPA process
 - Tentative schedule for the NEPA process
 - Potential resource issues
 - How to comment
 - Wisconsin Public Service Commission and Iowa Utility Board certification processes
 - Project area map

¹ The Utilities have conducted their own meetings outside of the federal scoping process. Those meetings are summarized in Section 5.4 of the MCS.

2.7.2 Meeting Stations

The public scoping meetings were held using an open house format. Informational stations were set up prior to the meeting, covering the topics identified in Table 2.6. RUS and SWCA staff were assigned to each station and answered questions posed by the public for the duration of each meeting. Project overview maps were also available for public review. Copies of each informational station poster are provided in Appendix B.

Table 2.6. Public Open House Scoping Meeting Stations

Station/Poster	Description
Welcome poster	<ul style="list-style-type: none"> Located outside venue room with directions to room
Welcome/sign-in table	<ul style="list-style-type: none"> Sign-in sheets, comment cards, FAQ
RUS NEPA process and schedule	<ul style="list-style-type: none"> Poster describing RUS NEPA process and schedule overview Handouts were provided that describe the Iowa Utilities Board and Public Services Commission of Wisconsin permitting processes
Resources/issues	<ul style="list-style-type: none"> Poster providing list of potential resources to be analyzed in the EIS
Ways to provide comments	<ul style="list-style-type: none"> Comment station with comment cards encouraging people to submit written comments

2.8 Agency Scoping Meetings

The USACE and USFWS have agreed to collaborate with RUS as cooperating agencies during the NEPA process. An initial cooperating agency coordination meeting was held with the USACE and the USFWS on September 21, 2016, in Marquette, Iowa. These agencies also participated in the agency scoping meetings. These agencies will have the opportunity to review and provide comments on preliminary draft documents and participate in project meetings with RUS concerning those issues relating to their jurisdictions and special expertise.

On October 14, 2016, a letter was sent to 38 federal and state agencies inviting them to participate in public and agency scoping meetings (see Appendix C). In addition to the public scoping meetings described in Section 2.7, agency scoping meetings were also scheduled to provide updates and answer questions. Iowa agencies were invited to attend a meeting in Peosta, Iowa, on October 31, 2016. Wisconsin agencies were invited to attend a meeting in Middleton, Wisconsin, on November 3, 2016 (Table 2.7). Sign in sheets for the agency scoping meetings are provided in Appendix C.

Table 2.7. Federal and State Agency Scoping Meeting Dates, Times, and Locations

Date and Time	Location	Agency Attendance
October 31, 2016 10:00 a.m.–noon	Peosta Community Center 7896 Burds Road Peosta, IA 53068	9
November 3, 2016 10:00 a.m.–noon	Madison Marriott West Greenway Room 1313 John Q Hammons Drive Middleton, WI 53562	12

Agenda items and issues discussed at the agency scoping meetings included:

- Welcome – Dennis Rankin (RUS)
- Proposed Project and Corridors – Utilities
- NEPA Compliance – SWCA Team
- Agency Round-table Discussion – Dennis Rankin (RUS)
- Summary of the Meeting and Action Items – SWCA Team
- Concluding Remarks – Dennis Rankin (RUS)

RUS is continuing outreach with all relevant federal, state, and local agencies throughout the NEPA process by providing notices of all opportunities for participation and then meeting with those agencies.

2.9 RUS Meetings with Wisconsin Public Interest Groups

In November 2016, RUS received a meeting request from a group of Wisconsin municipal entities and organizations to discuss the proposed C-HC Project. Table 2.8 identifies the Wisconsin public interest groups. Two meetings were held in Washington, D.C., on November 18 and 30, 2016. A follow-up meeting was held in Barneveld, Wisconsin, in the afternoon before the public scoping meeting on December 7, 2016. All meetings followed a similar format, which included an open discussion between RUS staff and members of the Wisconsin public interest groups. The meeting on December 7 was also attended by an SWCA Team member. The Wisconsin public interest groups submitted three separate comment letters during the public scoping period, which summarize the topics discussed during the meetings plus additional questions and concerns held by the groups. The letters submitted by the Wisconsin public interest groups are included in this scoping report in the same manner as all other public comments received.

Table 2.8. Wisconsin Public Interest Groups

Members	
Driftless Area Land Conservancy	Town of Vermont, WI
Town of Stark Energy Planning & Information Committee	Town of Lima, WI
Town of Vermont Powerline Action Committee	Town of Wyoming, WI
Town of Vermont, Energy Planning Committee	Town of Arena, WI

3 Methods for Comment Collection and Analysis

All comments received through January 9, 2017, have been reviewed by RUS and are summarized in this report. All comment letters in their original form can be viewed on the RUS website (<https://www.rd.usda.gov/publications/environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line>). RUS will continue to review and consider comments received from the public throughout the duration of the EIS preparation.

The SWCA Team collected comments using three methods. First, comments were collected using forms distributed at the public scoping meetings, and the form was also posted on RUS's project website. A copy of the comment form is provided in Appendix B. Second, comment forms or original letters were encouraged to be mailed to the following address:

SWCA Environmental Consultants
Attn: Cardinal-Hickory Creek EIS
200 Bursca Drive, Suite 207
Bridgeville, PA 15017

Third, comments were collected using the email address comments@CardinalHickoryCreekEIS.us. RUS also collected hardcopy and email comments from the public and agencies. All comments received by RUS were forwarded to the SWCA Team for tracking and coding. As comments were received, throughout the scoping period, the SWCA Team followed a comment handling and processing protocol to ensure all comments were accurately reflected in the EIS comment database and this report.

All hardcopy comment letters and forms mailed to the SWCA Team were date-stamped, scanned, and then saved into a project-specific electronic folder. Letters requesting additional information, a comment period extension, requests for additional public meetings, or a letter expressing safety or security concerns were flagged for immediate attention by the SWCA Project Manager.

Emailed comments were treated in a similar fashion. One difference is that the C-HC Project email account was periodically monitored throughout the scoping period and all emailed comment letters and attachments were entered into the comment database immediately after the close of the public scoping period.

After all comments were saved in an electronic format, each commenter's contact information was entered into the database to update the project mailing list. Each letter submitted by an individual was also manually entered into the database and related to the commenter's contact information. For example, one commenter may have submitted several different comments. Within the comment database, all comments submitted by one individual are linked together. As comments were entered into the database, each letter was then saved as a portable document format file (pdf) and renamed using the following naming convention, "Letter_[number]_[last name]." Letters with attachments were entered into the database following the same method listed above and the attachments were saved in a folder for review and consideration when the EIS is drafted.

Public feedback forms (not developed by RUS) were also entered into the database, following the same process described for the comment letters. Public feedback forms were saved as a pdf and renamed using the following naming convention, "Form_instance_[number]_[last name]."

After all letters, emails, and comment forms were entered into the comment database, SWCA personnel coded all comments contained within each entry. It is important to note that one comment letter can contain a number of comments that relate to different topics, concerns, or issues. The coding structure provided in Appendix F illustrates how the various comment letters were organized. The comment coding structure is relied upon in the remaining sections of this report to explain the number and types of comments received during the C-HC Project public scoping period. At the completion of comment coding,

the database was used to create reports that categorized the various comment types and to synthesize the submitted information presented within this report.

Throughout the comment entry and coding process, quality assurance/quality control (QA/QC) checks were completed by SWCA to ensure all comments were entered correctly and accurately. QA/QC was also used to ensure comment coding was consistent with the previously described coding structure.

Electronic copies of all comment letters and forms were provided to RUS for review upon close of the public scoping period.

4 Comments Received

This Scoping Report is intended to be a high level summary of the public scoping comment received, and is not an exhaustive summary of each comment. Sections 4.2 and 4.3 of this report are organized by comment topic. Representative scoping comments are identified in each subsection to provide context for the types of comments received in each category.

4.1 Summary of Written Submissions

In total, 379 comment letters from 352 commenters were received during the scoping period beginning on October 18, 2016, and ending on January 6, 2017, and the January 9 coding cutoff date. Public comments were submitted using comment forms, letters, and emails. Government entities and organizations submitting comments are listed in Table 4.1. All other commenters were individuals. Appendix G includes a complete list of all commenters, including those comments received after the January 9 coding cutoff date. RUS will continue to review and consider comments received from the public throughout the duration of the EIS preparation.

Table 4.1. Government Entities and Organizations that Submitted Comments

Government Entities and Organizations	
Miami Tribe of Oklahoma	U.S. House Representative (Wisconsin 2 nd Congressional District)
U.S. Senator	U.S. Army Corps of Engineers
Iowa State Historic Preservation Office	National Park Service
Iowa Department of Natural Resources	City of Dubuque, IA
Iowa Department of Cultural Affairs	Town of Stark, WI Energy Planning Information Committee (EPIC)
Iowa Environmental Council	City of Platteville, WI
Environmental Law & Policy Center	Town of Vermont, WI
Iowa Chapter of the Sierra Club	Town of Springdale, WI
Center for Rural Affairs	Village of Mt. Horeb, WI
Vermont Citizens Powerline Action Committee	Town of Arena, WI Planning Commission
Driftless Area Land Conservancy	Town of Belmont, WI
Minnesota Center for Environmental Advocacy	Platteville Township, WI
The Prairie Enthusiasts	Black Earth Creek Watershed Association
Trout Unlimited	Ice Age Trail Alliance
Wisconsin COUNTS (Citizens Opposed to Unnecessary Transmission Lines)	Wisconsin Nature Conservancy

The SWCA Team identified 1,736 individual comments contained within the 379 comment letters. A summary of the public comments received and organized by concern, issue, or resource topic is presented in Table 4.2, in order of the greatest number of comments received to the least number of comments received. It is possible that comments addressed multiple topics; therefore, comments may be included in multiple topics below. The result is 2,330 comment topics from 1,736 individual comments provided in 379 comment letters from 352 individual commenters. Appendix H provides a table of all public comments received, including each comment that was considered under each of the categories described below.

Table 4.2. Summary of Public Scoping Comments Received, by Topic

Topic	Number of Comments
Socioeconomics	552
NEPA Process	481
Wildlife	262
Land Use	169
Visual Resources	162
Recreation and Natural Areas	116
Water Resources	112
Vegetation	112
Public Health and Safety	71
Decision Process	61
Impact Analyses	51
Cultural Resources	39
Air Quality	30
Public Involvement	29
Geology	28
Soils	19
Transportation	16
Noise	14
Communications Infrastructure	5
Paleontology	1
Total	2,330

In addition, there were 15 comments requesting additional information/maps, 13 comments that referenced other projects, 12 comments that cited literature that should be reviewed for the C-HC Project EIS, 10 comments that required no further response, and one request for a comment period extension.

4.1.1 Public Feedback Forms

In addition to the 379 comment letters, public scoping comment forms, and emails discussed above, the SWCA Team also received 102 public feedback forms that were not developed by RUS. An example of the public feedback form is provided in Appendix I. Table 4.3 shows the tally of key concerns captured in the checked boxes from the public feedback forms.

Table 4.3. Summary of Public Feedback Form Scoping Comments Received, by Topic

Topic	No. of Comments	Topic	No. of Comments
Property Value	73	Rare and Endangered Plants	59
Business Income	36	Raptors and Waterfowl	60
Personal Health	58	Surface and Groundwater	0
Others' Health	53	Tourism Related Business	56
Livestock	27	Rising Energy Costs	62
Electric and magnetic Fields, Noise	63	Energy Self-Reliance	56
Environmental Assets	70	Local Economy	56
Rare and Endangered Habitats	73	Cultural Assets	58
Rare and Endangered Animals	62	Religious, Personal Values, or Cultural Assets	49

The public feedback form also contained blank boxes where commenters could express their concerns in detail. In total, 383 individual comments were identified. These comments were coded in the same manner as described above in Section 3. The comments contained in the public feedback forms were similar in content to the concerns expressed in the comment letters, which are described in detail below in Sections 4.2 and 4.3. Table 4.4 summarizes the key concerns contained in the text boxes from the public feedback forms.

Table 4.4. Summary of Comments Received via Public Feedback Forms, by Topic

Topic	Number of Comments
Socioeconomics	92
Wildlife	71
Public Health and Safety	38
Land Use	35
Recreation and Natural Areas	32
Vegetation	29
Water Resources	26
NEPA Process	23
Visual Resources	22
Cultural Resources	8
Geology	2
Noise	2
Soils	1
Air Quality	1
Decision Process	1
Total	383

4.2 Comments Related to the NEPA Process

4.2.1 NEPA Process

Four hundred and eighty-one comments were received regarding the NEPA process, which included the subcategories presented in Table 4.5. This is the second largest category of comments compiled during the scoping period. Many of the comments received questioned the need for the C-HC Project. One representative comment cites the decline in electricity demand in the Madison area and other Midwest cities. This letter also suggested “the proposed ‘open access’ transmission line would draw electricity from any or all energy suppliers that pay highest for access to the line. Besides wind and nuclear, that will include out-of-state coal-fired power plants.” Additionally, one representative comment questioned whether the proposed C-HC Project could help Wisconsin meet its Renewable Portfolio Standards since the State of Wisconsin’s standard is largely satisfied.

Table 4.5. Summary of NEPA Process Comments

Subcategory	Number of Comments
Purpose and Need	191
Alternatives	180
Range of Alternatives	60
Proposed Action	36
New Alternative Proposed	7
NEPA Process - General	6
Connected Action	1
Total	481

One commenter provided supporting information for the C-HC Project’s need citing that the C-HC Project “will allow needed wind projects like those currently in [Midcontinent Independent Transmission System Operator’s] MISO’s queue to move forward and will increase the amount of wind energy available for states to meet existing [renewable energy standards]. Without the Cardinal Hickory Creek line, alternative transmission upgrades would be needed to accommodate the interconnection of the growing amount of new renewables that are in the MISO queue.”

Several other commenters expressed concern that the EIS would not meet NEPA requirements if only the proposed C-HC Project is analyzed. Specifically, one commenter noted that limiting the analysis of alternatives to considering only different corridors violates NEPA and cited *Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 667 (7th Cir. 1997). Many commenters urged RUS to consider other alternatives in the EIS in addition to the proposed C-HC transmission line. These other alternatives could include non-transmission alternatives and low-voltage alternatives. Additionally, commenters requested

that the total cost of the C-HC Project be calculated using all lifecycle costs, including construction, financing, operation, maintenance, security hardening costs, and the interconnection projects in order to equally compare the costs and benefits among the proposed C-HC transmission line, new non-transmission alternatives, and new low-voltage alternatives.

Several commenters provided preferences for different corridors identified during the public scoping meetings. A few commenters suggested alternative routes to the Utilities-proposed corridors presented during scoping and in Figure 1.1. For example, one commenter suggested that “the lines could run due east along Highway 11 and then northward along Hwy 69/PB corridor toward Middleton. This route consists mostly of large corporate farms on relatively flat land. It’s much less beautiful, less natural, and not used nearly as much by tourists.” Another alternative suggested includes using the proposed C-HC transmission line to carry fiber optic cables to provide local benefits within the proposed project area.

4.2.2 Decision Process

Sixty-one comments were received regarding the decision process, which includes the subcategories presented in Table 4.6. Many commenters were concerned that the C-HC Project would not be in compliance with Wisconsin siting laws and/or that the project would be in conflict with local land use planning (e.g., the Town of Springdale Land Use Plan). A few commenters expressed concerns about the proposed C-HC Project crossing environmentally sensitive areas that Wisconsin law may require to be avoided.

Table 4.6. Summary of Decision Process Comments

Subcategory	Number of Comments
State Laws, Policies	22
Federal Laws	11
County, Municipal Policies	7
Decision Process - General	5
Cooperating Agency Involvement	5
Laws, Policies, Courts	3
Objections - General	3
Case Law	4
Court decisions	1
Total	61

A letter was submitted by the Iowa Department of Natural Resources and explained the conditions for which a sovereign lands construction permit would be required. A letter was submitted by the USACE, which is a cooperating agency for the C-HC Project. A letter was submitted by the Iowa State Historic Preservation Officer and outlined the formal review process for historic properties.

A comment packet was submitted by the City of Dubuque, Iowa, that included a resolution passed on June 15, 2015, and signed by the City of Dubuque’s mayor. The resolution cites the City of Dubuque Code of Ordinances, Chapter 11-6, which establishes the process for licensing electric transmission lines within the city. The resolution also states that the application for such a license would not be permissible under the city’s Code of Ordinances, and proceeding with the process required by Chapter 11-6 would not be in the public interest.

4.2.3 Impact Analyses

Fifty-one comments were received regarding the impact analyses, which include the subcategories presented in Table 4.7. Many commenters reiterated the need for comprehensive environmental impact analyses in the EIS, which is consistent with the resource topics presented in Section 4.3. Other commenters recommended specific projects be included in the EIS cumulative impacts analysis. For example, one commenter suggested that developers might consider following the C-HC transmission line corridor when siting subsequent new underground oil and gas pipelines. Another commenter recommended that the EIS consider the Badger-Coulee transmission line, the planned conversion of 28

miles of U.S. Highway 18/151 to a freeway, and the new Vortex Optics industrial park in Barneveld as part of the EIS cumulative impacts analysis.

Table 4.7. Summary of Impact Analyses Comments

Subcategory	Number of Comments
Impact Analyses - General	20
Cumulative Impact Analysis	15
Mitigation	8
Disclosure of Impacts	4
Technical, Editorial	4
Total	51

Related to disclosure of impacts, one commenter questioned “whether SWCA Environmental Consultants are an entity completely separate from interests of the transmission companies.”

Another commenter questioned whether the C-HC Project intermediate substation proposed for the Montfort area would be used for other, new transmission lines that might be added to the area in the future because of the presence of the large C-HC Montfort substation.

A commenter recommended that the EIS consider the direct benefits to human health and the environment due to the reduction in greenhouse gas and harmful air emissions that would result from the proposed C-HC Project, as well as the economic benefits that would flow from those emission reductions.

4.2.4 Public Involvement

Twenty-nine comments were received regarding the public involvement process, which include the subcategories presented in Table 4.8. Many commenters were concerned that the C-HC Project scoping effort was inadequate, lacked direct outreach to stakeholders including landowners and municipal governments, was at times conducted without enough advance notice to the public, and was at times scheduled in conflict with other important public meetings (i.e., one commenter noted that the November 2 meeting in Dodgeville conflicted with a related meeting held by ATC in Pewaukee). Commenters also suggested that the C-HC Project public scoping effort be expanded going forward to give the public ample opportunity to participate and comment on important topics before they are finalized. Specifically, one commenter noted concern that based on the current process, the public will not have adequate opportunity to address routing before a route is selected by RUS.

Additionally, a commenter asked that RUS work with the Wisconsin Department of Natural Resources to acquire a complete list of Landowner Incentive Program projects so that the properties participating in this program can be considered.

Table 4.8. Summary of Public Involvement Comments

Subcategory	Number of Comments
Collaboration, Meetings	15
Government-to-government consultation	10
Public Involvement - General	3
Comment Period	1
Total	29

4.3 Comments Related to Resource Issues or Concerns

This section is organized to describe comments as they relate to technical resources and impact sections to be presented in the Draft EIS. Subsections are arranged in order from the category that received the greatest number of comments to the category receiving the least number of comments.

4.3.1 Socioeconomics

Five hundred and fifty-two comments were received regarding socioeconomics, which include the subcategories presented in Table 4.9. This category received the highest number of comments compared to all topics, with many commenters expressing concerns for potential decreases in property values resulting from the proposed C-HC Project. Comments also included the potential adverse economic impacts resulting from loss of tourism, retirement housing, and business revenue in the area. For example, one commenter stated, “The transmission line could be routed to pass through areas that have a broad range of uses that could be impacted. The EIS should therefore consider the full economic impact of the line on ratepayers, tourism and recreation, farm and other business operations and property values.”

Table 4.9. Summary of Socioeconomics Comments

Subcategory	Number of Comments
Local Economics	142
Cost/Benefit Outcome	159
Market Values	107
Social - Other	107
Resource Value	13
Jobs	12
Socioeconomics - General	8
Environmental Justice	3
Nonmarket Values	1
Total	552

Several commenters requested that RUS complete a cost-benefit analysis to compare the proposed C-HC Project to non-transmission alternatives. A commenter requested that the EIS include a “comprehensive, cost-benefit analysis of non-transmission alternatives using the same budget that all electric customers would assume over 40 years to pay for the construction, financing, operation, maintenance, and depreciation of the high voltage transmission option.” Furthermore, another commenter suggested that the following impacts be incorporated into the cost-benefit analysis:

- Impacts on property values and the local tax base over 40 years.
- Impacts on the development of new residences and businesses within sight of the potential transmission facility over 40 years with special attention given to housing built or remodeled for retirement relocation.
- Impacts on businesses patronized by tourists and others visiting the area due, in part, to attractive natural assets of the area. Estimate over a 40-year period.
- Impacts on the average cost of residential and commercial electric service over 40 years.

One representative comment requested the following: “Please consider that the EIS include a cost-benefit analysis of non-transmission alternatives. These being: 1.Energy efficiency 2.Load management 3.Developing local power. We feel that comparable dollar investment in local power generation, combined with the growing efficiency of energy use in our society and local load management could result in a substantial dollar savings for individuals served.”

Other commenters supported the proposed C-HC Project and the expansion of wind generation in the footprint of MISO. One representative comment explained, “Iowa has an abundant wind energy resource and accessing this resource is a major option to improve the economy and environment in Iowa, including much of rural Iowa. We recognize that utilizing Iowa’s wind resource will require the development of high voltage transmission lines. We appreciate the substantial economic and environmental benefits that wind energy offers and recognize that additional transmission lines will enable more wind and more of these benefits. We believe there must be a balance between the environmental benefits of wind generation and the environmental impacts of needed transmission lines. With a proactive and inclusive transmission planning, siting, routing, and mitigation process, we can achieve this balance.”

Other representative comments related to socioeconomics include:

- One commenter suggested that the EIS use tools developed by the federal government to quantify the economic benefits of emissions reductions of the proposed C-HC Project, such as the federal *Social Cost of Carbon* and the U.S. Environmental Protection Agency’s *Avoided Emissions and Generation Tool (AVERT)*.
- Another suggesting that the EIS consider the financial hardship placed on organizations during the C-HC Project review period. Legal fees, staff time, mileage, stress and uncertainty of land management were all cited as costs that organizations must pay to participate in the project review process.
- Another comment stated, “We believe that the proposed power line would lessen the appeal of the Military Ridge State Trail as a destination. This, in turn, is likely to have a negative economic impact on the communities along the Trail, all of which serve Trail visitors with shopping, restaurants, lodging, and other services.”
- One commenter provided another potential socioeconomic impact from the proposed C-HC Project: “Logging Wisconsin’s Managed Forest Law (MFL) allows for rural landowners with eligible forestland to substantially reduce their property tax payments in exchange for managing their land in accordance with Wisconsin’s forestland management objectives. A high-voltage powerline running through these properties will negatively impact a landowner’s ability to participate in the MFL program and may result in substantial property tax increases ... Wisconsin’s forestlands provide a stable and sustainable source of income for both landowners and logging employees for generations to come. Removing acreage from productive forestland threatens the economic benefits of logging in southwest Wisconsin. [RUS] should provide an estimate of how many jobs will be lost and how much revenue forgone over the next several generations.”
- Another commenter stated, “According to several economic studies, Wisconsin’s largest outdoor activity economic generator is bird-watching, bringing the state of Wisconsin over \$1 billion per year in revenue ... high-voltage power lines will impact the migratory routes of birds and eventually impact the ability of these birdwatchers to catch the sight of rare and/or endangered species. Further, the powerline may impact nesting, mating and feeding of local resident bird populations. The high-voltage power line will only harm the experience of these bird-watchers and, thus, the economic generation they bring.”

4.3.2 *Wildlife*

Two hundred sixty-two comments were received regarding wildlife, which include the subcategories presented in Table 4.10. Most commenters were concerned with potential adverse impacts the proposed C-HC Project could have on wildlife, including threatened and endangered species and species considered unique to the Driftless Area. Commenters expressed concerns about degradation of habitat (e.g., trout streams), fragmentation of habitat, the potential to introduce invasive species, and potential impacts to nearby state parks, preserves, and other conservation-focused lands that support wildlife.

Table 4.10. Summary of Wildlife Comments

Subcategory	Number of Comments
Wildlife – General Animal Species	92
Migratory Birds	64
Threatened and Endangered Species	52
Wildlife	46
Habitat Fragmentation	8
Total	262

Other concerns raised related to potential adverse impacts to properties involved in the Wisconsin Department of Natural Resources Landowner Incentive Program. Several letters indicated landowners are concerned that the proposed C-HC Project would adversely affect private property efforts implemented under the Landowner Incentive Program with the goal of restoring natural habitat and managing that habitat for species considered rare or declining.

One commenter noted several mine shafts in the C-HC Project area potentially supporting listed bat species and, another commenter mentioned concerns regarding potential impacts to currently non-listed bat species that may already be at risk due to White Nose Syndrome.

4.3.3 Land Use

One hundred and sixty-nine comments were received regarding land use, which include the subcategories presented in Table 4.11. Most commenters were concerned with the adverse impacts the proposed C-HC Project would have on their current land use. Commenters expressed concerns about how the proposed transmission line would affect existing agricultural lands and businesses, livestock grazing, and residential land uses. Commenters also expressed concerns about impacts to nearby state parks, preserves, and other conservation-focused lands.

Table 4.11. Summary of Land Use Comments

Subcategory	Number of Comments
Agriculture	66
Livestock/Range	37
Residential	32
Land Use - General	18
Conservation Easement	8
Commercial	3
Mining	3
Special Designations	2
Total	169

Representative comments related to land use include:

- The proposed C-HC Project is near a forest tract used for scientific research by the University of Wisconsin to monitor mosquito species and how they may be vectors for infection for animals and humans.
- The Town of Springdale’s existing Land Use Plan, which has goals and objectives that may conflict with the C-HC Project.
- There are old mines and mine shafts located throughout the project area. Some of these mine shafts are bat hibernacula.
- Another commenter recommended that the EIS analyze impacts on conservation easements and property included in the Wisconsin Department of Natural Resources Landowner Incentive Program, as well as properties associated with USDA conservation programs.
- Another commenter stated, “Transmission towers and lines can interfere with farming operations by limiting movement of farm vehicles and irrigation equipment, preventing or limiting the use of planes for spraying, interfering with rotational grazing, and by causing the removal of wind breaks. The actual erection of the towers and placement of the line requires the use of heavy machinery, which can compact dirt, leave ruts in fields, and introduce contaminated soils. The spraying of chemicals to manage a transmission line corridor can interfere with nearby organic farming operations. Some local organic farmers have expressed concerns that this spraying could potentially result in loss of their organic certification.”

4.3.4 Visual Resources

One hundred and sixty-two comments were received regarding visual resources. No subcategories were used to code comments for this resource topic. Many of the comments received about visual resources expressed concern for potential adverse impacts to the Driftless Area landscape from the transmission line towers and cleared vegetation within the ROW. Specific areas that were mentioned in the comments included, but were not limited to, the Ice Age National Scenic Trail, the Platteville “M,” Governor Dodge State Park, and the overall scenic, rural vistas of the Driftless Area.

Representative comments related to visual resources include:

- “The Land Use Plan for the Town of Springdale includes specific provisions to protect the visual landscape ... Given our varied topography, characterized by rolling hills, forests, wetlands, and rich farmland, a 345 kV transmission line would directly conflict with the Town’s Land Use Plan. A high-voltage line would be visible for miles from many vantage points—hardly blending in with the landscape as our Land Use Plan requires of new structures. Previous Environmental Impact Studies we have seen define “affected households” as those that are within either 150 feet or 300 feet of the proposed transmission line. We encourage you to consider the fact that the visual impact of transmission towers and lines extends significantly beyond that distance in environmentally rich, rural areas such as the Town of Springdale, where our topography includes rolling hills, forests, wetlands, and rich farmland. Neither 150 feet nor 300 feet seem to be adequate measures for capturing the impact on our visual landscape.”
- “Our tenant has indicated that they will not likely renew our lease if the line is built due to the line destroying the reason he moved here--namely, the rural, unblemished views of the Driftless Area. When they leave it will hurt not only me on the lost rent, but also all the many small local businesses he and his family use. Extrapolate that effect on many folks leaving and study that as well.”
- “The harmful visual impacts are magnified in the Driftless Area where many people choose to live, buy properties, recreate, and visit in part because of the scenic landscape views ... The proposed huge new transmission line and very tall towers will disrupt the scenic landscapes and park areas that attract visitors to the special Driftless Area. The proposed transmission line would be especially visible if it is built along a ridge, as is indicated in one of the proposed corridors.”
- “If the northern alternative is chosen, the NPS also encourages burying transmission lines underground within the viewshed of the trail ... The proposed southern alternative to Mt. Horeb could also visually impact both the Complex and Ice Age [National Scenic Trail] NST. NPS and [Ice Age Trail Alliance] IATA staff has completed field reconnaissance of this area. If this alternative is chosen, the NPS requests a formal viewshed analysis of this route to determine the visual impacts to the Complex and Ice Age NST, and identify mitigation measures that would minimize those effects.”

4.3.5 Recreation and Natural Areas

One hundred and sixteen comments were received regarding recreation, which include the subcategories presented in Table 4.12. Commenters cited the diversity of recreation activities within the proposed C-HC Project area including, but not limited to, hunting, bicycling, boating, motorized travel (i.e., car tours, motorcycle riding, four-wheeling, and snowmobiling), and angling. Overall, commenters expressed concern for potential adverse impacts to these recreation activities from the proposed C-HC Project.

Commenters identified many natural areas that occur within the proposed C-HC Project area, such as the Upper Mississippi River National Wildlife and Fish Refuge, Ice Age National Scenic Trail, Governor Dodge State Park, Blue Mound State Park, Military Ridge State Trail, prairie heritage areas, and state natural areas. Comments associated with the natural areas expressed concern for potential disturbances

within these areas or indirect impacts to these areas, such as visual impacts or introduction of non-native vegetation.

Table 4.12. Summary of Recreation and Natural Areas Comments

Subcategory	Number of Comments
Recreation – General	45
State Natural Areas/State Trails	35
Hunting/Fishing	17
Upper Mississippi National Wildlife Refuge	10
Historic Trails	9
Total	116

Representative comments related to recreation and natural areas include:

- “Thousands of bicyclists, canoers, kayakers, hikers, nature lovers, tourists in general, visit the Driftless Area. Construction of the [C-HC Project] would discourage visitors who are important cultural and economic assets.”
- “Putting a 100-150 foot high power line down the Military Ridge bike path or ... near Governor Dodge State Park will negatively impact tourism and the local social fabric of folks who live here to enjoy the use of the park and trail(s).”
- “Black Earth Creek is a major tourist draw for the area bringing in anglers from the Midwest, Montana, California, Pennsylvania, and New York.”
- “The [National Park Service] NPS is concerned that the proposed alternatives for the transmission lines would have visual and auditory impacts on the scenic and recreational resources of the Ice Age National Scenic Trail and Trail Complex.”
- “The proposed Cardinal-Hickory Creek transmission line and tall towers would also disrupt and harm a large section of the Upper Mississippi River National Wildlife and Fish Refuge, which is ‘unmatched’ for its scenic and wildlife value ... the EIS should consider whether the existing line that the Cardinal-Hickory Creek transmission line would ‘replace’ would be decommissioned soon anyway. The U.S. Fish and Wildlife Service, a consulting agency for this EIS, should act not only [to] maintain the status quo, but also to ‘conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.’”

4.3.6 Water Resources

One hundred and twelve comments were received regarding water resources, which include the subcategories presented in Table 4.13. Many commenters were concerned about potential adverse impacts to springs, groundwater, and wells, all of which could affect their community’s drinking water supply. Most common concerns included degradation to these resources as a result of herbicides use, construction materials, and construction activity. Likewise, many commenters expressed related concerns regarding degradation to trout streams and wetlands as a result of the C-HC Project.

Table 4.13. Summary of Water Resources Comments

Subcategory	Number of Comments
Surface Water/Groundwater	41
Riparian Areas/Wetlands	23
Water Quantity/Quality	19
Water/Watershed Management	14
Mississippi River	6
Watershed Condition	6
Floodplain/Meadow	3
Total	112

One representative comment described potential conservation of resources resulting from wind energy facilities that may indirectly result from construction of the proposed C-HC Project. This letter included a note encouraging RUS and SWCA to include an analysis of the potential benefits to the human environment as a result of renewable energy facilities supported by the project.

4.3.7 Vegetation

One hundred and twelve comments were received regarding vegetation, which include the subcategories presented in Table 4.14. Most commenters expressed concerns with potential adverse impacts the proposed C-HC Project could have on the unique and ecologically rich habitats of the Driftless Area, including pine relicts, oak savannas, dry mesic prairies, and wet sedge meadows. Commenters indicated their concern that the C-HC Project would adversely affect numerous rare and listed plant species in the region, through alteration or degradation of habitat (e.g., herbicide runoff and introduction of invasive species).

Table 4.14. Summary of Vegetation Comments

Subcategory	Number of Comments
Vegetation	57
Noxious Weeds	21
General Vegetation	19
Threatened and Endangered Plant Species	15
Total	112

One commenter indicated that many forests in the C-HC Project area are enrolled in the Wisconsin Department of Natural Resources Managed Forest Law program and that removal of such areas would be a significant cost to both landowners and the agency.

4.3.8 Public Health and Safety

Seventy-one comments were received regarding public health and safety. Approximately half of the comments provided about public health and safety expressed concerns that high-voltage power lines and electric and magnetic fields (EMFs) could cause negative health effects. Many commenters expressed concerns about stray voltage from the transmission line and the harm it could cause to humans and animals (including livestock) within proximity. Commenters also noted the potential for an increased risk of lightning strikes from having nearby transmission line towers.

4.3.9 Cultural Resources

Thirty-nine comments were received regarding cultural resources, which include the subcategories presented in Table 4.15. General comments discussed potential impacts from the C-HC Project on culturally important areas such as the Frank Lloyd Wright residence and Taliesin, local cemeteries, and churches. Commenters expressed concerns about potential adverse impacts from the C-HC Project on Native American effigy mounds, burial mounds, and native rock art sites located near or within the transmission line corridor. Other commenters were concerned with adverse impacts on historic buildings, monuments, landmarks, and century farms.

One commenter noted that there are more than 20 burial mounds within 50 yards of the proposed C-HC transmission line corridor, and that there are undocumented mounds and artifacts from settlements of prehistoric humans scattered all along the proposed northern route from Cassville to Lancaster.

Another commenter noted that the C-HC Project would traverse the Platteville Mound, which displays the largest letter “M” in the world and is a community gathering place and symbol.

Table 4.15. Summary of Cultural Resources Comments

Subcategory	Number of Comments
Native American	15
Cultural Resources/Section 106	13
Historical Site (Non-Native American)	11
Total	39

4.3.10 Air Quality

Thirty comments were received regarding air quality, which include the subcategories presented in Table 4.16. Comments in this category expressed both support and opposition for the C-HC Project due to the amount of renewable energy that might be supported by the proposed project. A few commenters also expressed concerns for impacts to local air quality as a result of construction of the proposed transmission line.

Table 4.16. Summary of Air Quality Comments

Subcategory	Number of Comments
Climate Change	14
Air quality - General	11
Air – Equipment Emissions	5
Total	30

Representative comments related to air quality include:

- Once commenter asked if the EIS will consider climate change, increased flooding, and potential damage to the transmission line infrastructure near waterways, specifically where the transmission line would cross the Mississippi River.
- “The EIS should consider the direct benefits to human health and the environment due to the reduction in greenhouse gas and harmful air emissions that will result from the Project; and the EIS should also consider the economic benefits that flow from these emission reductions.”
- “The EIS must include a cradle-to-grave analysis of the greenhouse gas emissions from the construction of the proposed Cardinal-Hickory Creek transmission line, from mining the iron ore to make the steel to make the towers, to clearing the rights-of-way corridors, to erecting the towers, to manufacturing and installing the transmission line, to operation and maintenance, to eventual decommission... the EIS must analyze the greenhouse gas emissions related to the electricity generation mix carried on the line and ways in which the proposed line would impact the electricity market... RUS must consider the resiliency of the proposed action in comparison to the resiliency offered by reasonable alternatives.” The commenter suggested that such reasonable alternatives include “investments in energy efficiency, smart grid technologies, storage, and distributed generation can contribute to enhanced resiliency and reduced pollution, as well as provide operational flexibility for grid operators.”
- Another commenter asked, “What are the carbon emission impacts of this project?”

4.3.11 Geology

Twenty-eight comments were received regarding geology. No subcategories were used to code comments for this resource topic. The comments in this category cited the unique geologic features associated with the Driftless Area of Wisconsin and Iowa. Many commenters expressed concerns for potential adverse impacts to the unique geologic features from the proposed C-HC transmission line.

One commenter stated, “The county land inside the proposed corridor of the transmission line sits in the Driftless Area, one of the nation’s most unique geologic treasures, found only in Wisconsin, parts of Iowa

and Minnesota. The Driftless Area land is called the Paleozoic Plateau. It is characterized by caves, cave systems, disappearing streams, sinkholes and springs. Disappearing streams occur where surface water sinks down into the earth through fractured bedrock or a sinkhole, either joining an aquifer or becoming an underground stream. Disappearing streams can reemerge as large cold springs.”

Another commenter cited a report by the Wisconsin Department of Natural Resources, *Ecological Landscapes of Wisconsin*, that indicates that special surveys are still needed to locate and identify the unmapped, unique slopes and cliffs in the Driftless Area.

Another commenter expressed the concern that the proposed C-HC Project would disturb and suppress vegetation growth through the use of herbicides, which could runoff into nearby valleys and karst landscapes.

4.3.12 Soils

Nineteen comments were received regarding soils, which include the subcategories presented in Table 4.17. Most commenters expressed concern with soil erosion, including resulting degraded aquatic habitat, soil compaction and damage to field tiles, and introduction of invasive species as a result of soil alteration. In addition, commenters expressed concerns regarding a loss in agricultural productivity as a result of altering currently rich soils in the Driftless Area.

Table 4.17. Summary of Soils Comments

Subcategory	Number of Comments
Disturbance, Erosion, etc.	11
Compaction from Project	3
Soil Health/Organic Matter	3
Soils - General	2
Total	19

4.3.13 Transportation

Sixteen comments were received regarding transportation, which include the subcategories presented in Table 4.18. Most commenters were concerned with the potential adverse impacts the proposed C-HC Project would have on aviation, including municipal and private landing strips. Two commenters provided specific information regarding the locations of a helipad and a private airport that are used for agricultural businesses. These would potentially be impacted by the transmission line. Commenters also expressed concerns about how construction of the proposed transmission line would increase wear and tear on local roads.

Table 4.18. Summary of Transportation Comments

Subcategory	Number of Comments
Aviation	9
Transportation System General	3
Road Reconstruction	2
Public Access	1
Increased Traffic	1
Total	16

4.3.14 Noise

Fourteen comments were received regarding noise. Commenters were concerned about the adverse impacts of noise from the transmission line on residents, livestock, wildlife, and visitors to the area.

4.3.15 *Communications*

Five comments were received regarding the communications infrastructure. Commenters expressed concerns about the transmission line causing interference with the functioning of cellular phones, televisions, and radios.

4.3.16 *Paleontology*

One comment was received regarding paleontology. The commenter was concerned about the effects on Paleozoic fossils in Platteville Township and indicated that geology maps show that Platteville Township is in a prime location to find fossil-bearing sedimentary rock.

5 Summary

The public and agencies provided 379 comment letters with a total of 2,330 comments about the C-HC Project, with definite primary themes including concerns about potential socioeconomic impacts (552 comments), the NEPA process (481 comments), and potential impacts to wildlife (262 comments), land use (169 comments), visual resources (162 comments), recreation and natural areas (116 comments), water resources (112 comments), and vegetation (112 comments). Comments provided about the NEPA process include 191 comments about the purpose and need for the C-HC Project, and 283 comments were received about alternatives to be evaluated in the EIS. Obtaining these comments during the scoping process is a very important part of the NEPA process and resulted in bringing to light information about potential alternative route options, site-specific resources and potential impacts, and additional information and studies that can be used in preparing the Draft EIS.

The purpose of this scoping report is to not only report the quantity and nature of written and verbal comments received during the C-HC Project public scoping period, but to also organize all comments for functional use during the development of the Draft EIS. The comments have been organized for efficient review, consideration, and potential reference by all authors and contributors during the development of the EIS.

RUS and SWCA will prepare the Draft EIS and anticipate distribution in late 2017. A public review period and public meetings will occur after the Draft EIS is released. Additionally, RUS will engage in necessary agency consultation and coordination regarding potential impacts to resources throughout the NEPA process. A Final EIS will be prepared and distributed in the summer of 2018 and a Record of Decision is anticipated to be published in the fall of 2018.

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