FINDING OF NO SIGNIFICANT IMPACT

Cardinal-Hickory Creek 345-kV Transmission Line Project Proposals for Nine Route Modifications and Land Exchange

RURAL UTILITES SERVICE United States Department of Agriculture

Dairyland Power Cooperative

Prepared under the direction of: Engineering and Environmental Staff Rural Utilities Service

October 2023

CONTENTS

1.0. Introduction	, 1
2.0. Project Description	. 2
3.0. Purpose and Need	. 4
3.1. Agency Purpose and Need	. 4
3.2. Applicant Purpose and Need	. 4
4.0. Alternatives Evaluated	. 5
4.1. No Action Alternative	. 5
4.2. Route Modifications	
4.2.1. Route Modifications in Wisconsin	
4.2.2. Proposed Route Modifications in Iowa	
4.3. Alternatives Considered and Dismissed from Detailed Analysis	
4.3.1. Non-Refuge Alternatives for Crossing the Mississippi River	
4.3.2. Crossing the Refuge using Existing Utility Easements	12
5.0. Summary of Environmental Effects	13
6.0. Public and Agency Involvement	17
6.1. Public Participation for the Draft EA dated June 24, 2021	17
6.2. Public Participation for the Draft SEA dated September 8, 2023	17
6.3. Consultation Under Section 7 of the Endangered Species Act	17
6.4. Consultation Under Section 106 of the National Historic Preservation Act	17
7.0. Finding of No Significant Impact	18
8.0. RUS Loan Review and Right of Administrative Review	18
Approval	18
Contact information	19
Literature Cited	20

Appendices

Appendix A. Environmental Commitments

Tables

Table 1. Summary of Six Proposed Route Modifications in Wisconsin	8
Table 2. Summary of Proposed Route Modifications TR-1 and N-9A in Iowa	9
Table 3. Summary of Proposed Route Modification B-IA3 for Crossing the Upper Mississippi	
River National Wildlife and Fish Refuge in Iowa	9
Table 4. Acreage Breakdown of Proposed Route Modification B-IA3	10
Table 5. Acres of the C-HC Project Area within the Upper Mississippi River National Wildlife and	
Fish Refuge	11
Table 6. Summary of the Impact Analysis for Proposed Route Modifications in Wisconsin	14
Table 7. Summary of the Impact Analysis for Proposed Route Modifications in Iowa	15

1.0. INTRODUCTION

The National Environmental Policy Act (NEPA) process was initiated for the Cardinal-Hickory Creek 345-kilovolt (kV) Transmission Line Project (C-HC Project) with the publication of the notice of intent to prepare an environmental impact statement (EIS) on October 18, 2016. The U.S. Department of Agriculture (USDA) Rural Utilities Service (RUS) is the lead federal agency for the NEPA process.

On January 16, 2020, the record of decision (ROD) was signed by RUS, U.S. Fish and Wildlife Service (USFWS), and U.S. Army Corps of Engineers (USACE) for the C-HC Project. The ROD approved the C- HC Project route between the Cardinal substation in Dane County, Wisconsin, and the Hickory Creek substation in Dubuque County, Iowa, including the new Hill Valley substation near Montfort, Wisconsin, and several substation improvements (RUS et al. 2020, incorporated herein by reference). The selected C- HC Project route (Selected Route) was presented as Alternative 6 in the 2019 Final Environmental Impact Statement (FEIS) for the C-HC Project (RUS 2019, incorporated herein by reference).

The three Federal agencies that signed the ROD in January 2020, RUS, USFWS, and USACE, approved various components of the C-HC Project. RUS, the lead Federal agency, provided approval of the environmental review, conditioned on completion of the National Historic Preservation Act (NHPA) process which enabled the C-HC Project to proceed to the RUS loan review and engineering review processes. The USACE granted the Easement for Electric Power or Communication Facility (DACW25-2-20-4030) to ITC Midwest LLC (ITC Midwest) and Dairyland Power Cooperative (Dairyland), dated September 23, 2020, for crossing USACE fee-title lands managed as part of the Upper Mississippi River National Wildlife and Fish Refuge (Refuge). On September 8, 2020, the USFWS granted a right-of-way (ROW) easement to ITC Midwest and Dairyland for the crossing of USFWS fee-title lands in the Refuge. On August 27, 2021, the USFWS revoked the ROW easement and rescinded the compatibility determination within the Refuge after learning that analysis supporting those actions was based on a factual error using an incorrect easement. Permits required by Section 10 and Section 408 of the Rivers and Harbors Act and Section 404 of the Clean Water Act (CWA) were attached to the ROD signed in January 2020.

Between September 2020 and January 2022, Dairyland, American Transmission Company LLC (ATC), and ITC Midwest, together referred to as "the Utilities," submitted a series of nine proposed route modifications to RUS, USFWS, and USACE for the C-HC Project (see draft supplemental Environmental Assessment [SEA] Table 1 and Table 2; Figure 1). Using proposed route modification B-IA3, on March 1, 2021, Dairyland and ITC Midwest submitted an application for an amended ROW to USFWS for a revised crossing of USFWS fee-title lands in the Refuge.

RUS and USFWS made the determination that the route modifications, including the application for an amended ROW in Iowa, were of such a nature that additional review was appropriate per 40 Code of Federal Regulations (CFR) §1502.9 to assess whether there was new information or changed circumstances that would be considered significant. An environmental assessment (EA) for the C-HC Project route modifications was completed in accordance with Rural Development Instruction 1970-C for these proposals, focusing the analysis on whether 40 CFR §1502.9(d)(1) has been triggered. On June 24, 2021, the notice of availability (NOA) of an EA to evaluate the route modification proposals was published with a 30-day public comment period, which closed on July 24, 2021.

On July 29, 2021, the Utilities made a proposal to the Refuge for an expedited consideration of an exchange of lands as an alternative to the pending proposal for an amended ROW to accommodate the C-HC Project crossing of the Refuge. The Utilities supplemented this proposal by letter dated July 25, 2023. SEA Appendix A provides the Utilities' July 25, 2023 land exchange proposal, which includes the

Statement of Proposed Land Exchange/Purchase between USFWS and ITC Midwest/Dairyland, the vegetation management plan for the Refuge, and the *Updated Restoration Plan for the Upper Mississippi River National Wildlife and Fish Refuge near Turkey River, Iowa.*

In January 2022, Dairyland identified a need to make a minor route modification to the proposed transmission tap line in Iowa, referred to as the N-9 tap line. Dairyland proposed the minor route modification to accommodate a landowner objection.

These new events have triggered analysis under 40 CFR §1502.9 (2019) to assess whether this new information and changed circumstances would be considered significant. RUS developed the SEA to update the information and alternatives considered in the EA dated June 24, 2021, particularly as a result of the revocation of the ROW easement on USFWS fee-title lands in the Refuge due to an administrative error and the proposal of a land exchange in lieu of a ROW amendment. Further, the SEA was prepared to disclose the potential environmental impacts associated with the construction, operation, maintenance, and decommissioning of the proposed route modifications.

Portions of the nine proposed route modifications would occur outside of the analysis area previously reviewed in the FEIS (RUS 2019) and ROD (RUS et al. 2020). Together, the decision whether to approve the proposed route modifications and the associated administrative action necessary to facilitate the C-HC Project to cross the Refuge is a major Federal action requiring compliance with NEPA (42 United States Code [USC] 4321).

2.0. PROJECT DESCRIPTION

As noted above, the Utilities proposed nine route modifications and a land exchange. Six of the nine proposed route modifications are a result of final design of the C-HC Project and landowner negotiations for crossing private land in Wisconsin. One proposed route modification, N-9A, is a result of the revised alignment for Dairyland's N-9 tap line that would connect the N-9 transmission line to the Turkey River substation in Iowa. The eighth modification is at the Turkey River substation in Iowa to accommodate the termination of Dairyland's N-9 transmission line at the substation.

The ninth proposal for a route modification, referred to as the B-IA3 route, follows the same route evaluated in the EA dated June 24, 2021. This route modification would remove the C-HC Project from 14.3 acres of private land and 9.93 acres of Refuge land, and would instead cross 6.78 acres of private land and 0.15 acre of additional Refuge land not previously analyzed in the FEIS on a more direct route to the Turkey River substation. This route modification would eliminate the need for three transmission line structures within the Refuge (#70–72) and three outside the Refuge (#67–69) that had been previously approved as part of the 2020 Selected Route, for a total reduction of six previously approved structures. As proposed by the Utilities on July 29, 2021, route modification B-IA3 now includes a proposed land exchange instead of a ROW across 19.84 acres of USFWS fee-title lands within the Refuge. This land exchange would include the transfer of the 35.69-acre Wagner Tract (herein rounded to 36 acres in this draft SEA), currently owned by the Utilities, to the USFWS in exchange for a 19-acre corridor along portions of Oak Road that was evaluated as a proposed ROW in the FEIS (see SEA Figure 2). SEA Appendix A provides the statement of proposed land exchange between the USFWS and ITC Midwest/Dairyland. The Utilities have made the following commitments:

- to manage the transferred corridor lands in full accord with the vegetation management protocols and access parameters previously identified and requested by USFWS and USACE;
- to report any cultural resources that may be discovered in the corridor during construction; and

• to coordinate with the USFWS Migratory Bird Program to limit potential impacts to bald eagles (*Haliaeetus leucocephalus*) if work occurs between February and July.

The Utilities would also restore the Wagner Tract and abandon and restore the existing 69-kV and 161-kV ROWs that currently cross the Refuge in accordance with the *Updated Restoration Plan for the Upper Mississippi River National Wildlife and Fish Refuge near Turkey River, Iowa* (SEA Appendix A). These commitments would be enforceable through restrictions in the deed for the divested parcel.

The originally proposed route modification B-IA3 is a result of ongoing consultation under the Programmatic Agreement (PA) that is being implemented for National Historic Preservation Act (NHPA) Section 106 compliance for the C-HC Project (RUS et al. 2020:Appendix D). In July 2020, consulting parties requested that a new route segment, B-IA3, be adopted to reduce impacts to cultural resources.

This new route segment was previously eliminated from consideration in the FEIS. The parcel which contains cultural resources is subject to a conservation easement on the private property that was initially thought to prohibit the placement of transmission poles. Consequently, the landowner and the Iowa Natural Heritage Foundation (INHF) would not agree to this routing of the transmission line and informed the landowner that a powerline would not be permitted on the INHF easement. Following the request from the consulting/participating Tribes, the Iowa SHPO, and the OSA, a site visit was conducted in November 2020 with the Utilities, Tribal members, an OSA staff member, and the private landowner.

During the site visits in 2020 and in subsequent meetings, the group engaged in discussions with INHF and the property owner of the affected private parcel that contains the cultural resources. As the Section 106 consultation process was carried out and the input from the consulting parties was received, the INHF reviewed the language of the easement and concluded that there was some flexibility that would allow for modification of the easement, which allowed the route modification to be a viable option. As a result of those efforts, and a request directly from the participating Tribes to the property owner to agree to the use of proposed route modification B-IA3, the INHF agreed to consent to the alignment along B-IA3 and the property owner agreed to grant a second easement across the private property that would enable construction of the C-HC Project along B-IA3.

Another site visit was conducted in December 2022 and was attended by the Iowa SHPO, OSA, RUS, the Ho-Chunk Nation Tribal Historic Preservation Officer (THPO), the landowner, and the Utilities. The Ho-Chunk THPO reaffirmed that B-IA3 was indeed the appropriate alignment due to the fact that it would remove an existing 161-kV line from crossing over existing cultural resources and would also allow for the removal of the N-9 line. The route modification would allow for the removal of two existing electrical transmission lines across the bluff area and the Refuge.

In addition to reducing impacts to cultural resources, this route modification allows for a more direct approach into the Refuge, reducing the footprint overall. Use of B-IA3 would allow the Utilities to abandon plans to use 9.44 acres of USFWS fee-title land and 0.48 acres of USACE fee-title land along the railroad tracks, resulting in a net reduction in the Refuge of approximately 9.9 acres.

The route modifications are described in detail in Section 4.2 of this decision document.

3.0. PURPOSE AND NEED

3.1. Agency Purpose and Need

The Rural Electrification Act of 1936, as amended (7 USC 901 et seq.), generally authorizes the Secretary of Agriculture to make rural electrification and telecommunication loans, and specifies eligible borrowers, references, purposes, terms and conditions, and security requirements. RUS is authorized to make loans and loan guarantees to finance the construction of electric distribution, transmission, and generation facilities including system improvements and replacements required to furnish and improve electric service in rural areas, as well as demand-side management, electricity conservation programs, and on- and off-grid renewable electricity systems.

It is anticipated that Dairyland will be requesting financing assistance from RUS for its participation as a partial owner of the C-HC Project. Dairyland would be the sole owner of the 161-kV transmission line that would be rebuilt as part of the 345-kV Mississippi River crossing and any equipment replaced in the Stoneman substation. Dairyland also would be a partial owner of the Turkey River substation. RUS's proposed Federal action is to decide, upon receipt of a loan application, whether to provide financial assistance for Dairyland's participation as a partial owner of the C-HC Project.

As part of its review, RUS is required to complete the NEPA process, along with other technical and financial considerations of the C-HC Project. In the ROD signed in January 2020, RUS determined that the NEPA review for the C-HC Project was complete and met its environmental requirements for financing assistance for Dairyland. RUS is now evaluating the nine proposed route modifications and land exchange to determine if the proposed changes would result in any new significant impacts not already disclosed in the 2019 FEIS and 2020 ROD.

3.2. Applicant Purpose and Need

In many areas of the Midwest, the electricity transmission backbone system primarily consists of 345-kV lines (RUS 2019:Figure 1.4-1). There are limited connection points to the existing regional grid and 345- kV transmission lines in the area from northeast Iowa and southwestern and south-central Wisconsin. As described in the FEIS, the Midcontinent Independent System Operator (MISO) concluded that bolstering the connection between these areas was required to improve the capacity of the regional grid. MISO subsequently designed the C-HC Project 345-kV transmission line to interconnect with 345-kV network facilities in northwest Iowa and south-central Wisconsin as part of a portfolio of multivalue projects (MVPs). The C-HC Project is the southern portion of MISO's MVP #5 project (MISO 2012). The proposal includes a new intermediate substation near Montfort, Wisconsin, which would provide connectivity to the regional 345-kV network.

The C-HC Project, including the proposed route modifications, would increase the capacity of the regional transmission system to meet the following needs:

- 1. Address reliability issues on the regional bulk transmission system and ensure a stable and continuous supply of electricity is available to be delivered where it is needed, even when facilities (e.g., transmission lines or generation resources) are out of service.
- 2. Alleviate congestion that occurs in certain parts of the transmission system and thereby remove constraints that limit the delivery of power from where it is generated to where it is needed to satisfy end-user demand.

- 3. Expand the access of the transmission system to additional resources, including 1) lower-cost generation from a larger and more competitive market that would reduce the overall cost of delivering electricity, and 2) renewable energy generation needed to meet state renewable portfolio standards and support the nation's changing electricity mix.
- 4. Increase the transfer capability of the electrical system between Iowa and Wisconsin.
- 5. Reduce the losses in transferring power and increase the efficiency of the transmission system and thereby allow electricity to be moved across the grid and delivered to end-users more cost-effectively.
- 6. Respond to public policy objectives aimed at enhancing the nation's transmission system and to support the changing generation mix by gaining access to additional resources such as renewable energy or natural gas-fired generation facilities.

For more information about the purpose and need for the C-HC Project, refer to Chapter 1 of the FEIS (RUS 2019:4–22). RUS based its analysis of these components on various reports from the regional grid planning entity, MISO, including the 2011 MVP Portfolio Detailed Business Case (MISO 2011), Multi Value Project Portfolio Results and Analyses (MISO 2012), the MISO Transmission Expansion Plan (MTEP) 2014 Multi Value Project Triennial Review (MISO 2014), the MTEP 2017 Multi Value Project Triennial Review (MISO 2017), and others.

4.0. ALTERNATIVES EVALUATED

4.1. No Action Alternative

The No Action Alternative "provides a benchmark, enabling decision-makers to compare the magnitude of environmental effects of the action alternatives" (CEQ 1981:Question 3) (40 CFR 1502.14). The No Action Alternative provides the environmental baseline against which the other alternatives are compared (7 CFR 1970.6 (a)). This No Action Alternative is specific to the nine proposed route modifications and the land exchange associated with proposed route modification B-IA3. The No Action Alternative for all proposed route modifications is based on the 2020 Selected Route as described in the 2020 ROD as Alternative 6 (RUS et al. 2020:19–23).

Permitting conditions have changed within the C-HC Project area since the ROD was signed by RUS, USFWS, and USACE in January 2020. The changed conditions include the following:

- Approximately 12.2 miles of the C-HC Project were constructed on private land in Iowa, pursuant to private or non-federal entity authorizations such as the Order Granting Petition for Electric Franchise and Right of Eminent Domain granted to ITC Midwest and Dairyland by the Iowa Utilities Board (IUB) on May 27, 2020.. Private construction on private land that does not implicate federal authority is expected to continue in a manner consistent with the previous environmental analysis and ROD on the C- HC project, except for those areas under analysis here. Construction is not expected in the areas under analysis in this document.
- Approximately 73 miles of the C-HC Project were constructed on non-federal land in Wisconsin, pursuant to private or non-federal authorizations such as the certificate of public convenience and necessity (CPCN) granted by the Public Service Commission of Wisconsin (PSCW) on September 26, 2019. The Hill Valley Substation grading is substantially completed, all the foundations are constructed, and the majority of station equipment installed.

- USACE authorizations have been issued in Wisconsin for the route modifications RUS evaluated in the SEA and applications are pending in Iowa. USACE authorizations are based on the 2019 FEIS and Clean Water Act (CWA) and Rivers and Harbors Act (RHA) permit applications.
- On August 27, 2021, the USFWS revoked the ROW permit within the Refuge that was issued in September 2020 after it made a determination that its issuance was based on an erroneous interpretation of existing easements.
- The existing 69-kV and 161-kV transmission line ROWs that cross the Refuge are still valid due to the revocation of the USFWS ROW previously approved as part of the 2020 ROD.

Considering these changed conditions, the No Action Alternative includes the following assumptions for the purpose of establishing the environmental baseline:

- In Iowa, the C-HC Project would be constructed on non-federal land where consistent with the IUB Order Granting Petition for Electric Franchise and Right of Eminent Domain issued to ITC Midwest and Dairyland for the C-HC Project on May 27, 2020.
- In Wisconsin, the C-HC Project would be constructed according to the Utilities' PSCW authorization.
- RUS would not provide funding for Dairyland's portion of the C-HC Project.
- The USFWS would not grant the land exchange and/or any regulatory permits necessary for the C-HC Project to cross the Refuge. The existing two ROWs would remain in place with full operational capacity.
- The USACE Easement for Electric Power or Communication Facility (DACW25-2-20-4030) would remain unused if USFWS does not approve the land exchange or ROW according to the B-IA3 route along Oak Road.
- The Hill Valley Substation would be completed and placed into service in the near term. The new 345-kV line from the Cardinal Substation to the Hill Valley Substation would be placed into service, as would the 138-kV circuits that connect to the Hill Valley Substation.
- The built portion of the C-HC Project from the Hill Valley Substation to the Hickory Creek Substation would be stranded and unable to connect operational transmission infrastructure.
- The existing 69-kV and 161-kV transmission lines that cross the Refuge would remain in service until they are relocated or replaced.

As discussed in detail in FEIS Chapter 1, the wind generation currently developed, under construction, or proposed west of Wisconsin would not be adequately served with increased transmission capacity to population centers in the east under the No Action Alternative until the C-HC Project is constructed and energized. As of January 12, 2023, 115 renewable generation projects in MISO's planning documents with a combined capacity of 17,369 MW are waiting for completion of the C-HC Project to go into service or to be able to operate at full capacity. These generators and regional grid operators are depending on completion of the C-HC Project no later than the end of 2023 (Wheeler, Van Sickle, and Anderson, S.C. 2021). All of the transmission studies that MISO has conducted since 2011 have assumed that the C-HC Project is not built, MISO would need to restudy all of the generators that have interconnected since 2011 to determine what additional transmission upgrades are needed for those generators.

Also under the No Action Alternative, operating guides would need to stay in place to help mitigate the risk of cascading outages in southwestern and south-central Wisconsin. Other transmission system improvements could be necessary to solve the reliability problems that would otherwise be solved by the C-HC Project.

4.2. Route Modifications

Under the Proposed Action, the Selected Route of the C-HC Project and the 2020 CWA permits issued by USACE would continue as described in the 2020 ROD (RUS et al. 2020), with the nine proposed route modifications listed below. The 2020 Selected Route is described in the 2020 ROD as Alternative 6 (RUS et al. 2020:19–23).

On September 16, 2020, ATC submitted a request to RUS to evaluate six locations along the approved C- HC Project route in Wisconsin that may need to be modified as a result of final design currently underway by the Utilities.

On October 28, 2020, Dairyland submitted a request to RUS to evaluate the proposed expansion of the Turkey River substation in Iowa. The proposed substation expansion is needed as a result of the termination of Dairyland's N-9 transmission line at the substation. On January 17, 2022, Dairyland submitted a request to RUS to evaluate a route modification for the proposed N-9 tap line, which is needed to accommodate a landowner objection. FEIS Section 2.4.5 describes the retirement of the N-9 transmission line and construction of the new 69-kV tap line to connect the remaining portion of the N-9 transmission line with the Turkey River substation (RUS 2019:117–120).

On November 13, 2020, ITC Midwest submitted a request to RUS to evaluate one proposed route modification in Iowa that may be a viable option for reducing impacts to cultural resources. This proposed route modification (B-IA3) has been identified by parties working under the PA.

The following sections describe the nine proposed route modifications in Wisconsin and Iowa, collectively referred to as the Proposed Action.

Appendix A of this decision document contains the environmental commitments that are being implemented by the Utilities during the construction and operation of the C-HC Project. These environmental commitments are required by the 2020 ROD and the easement issued by USACE (USACE 2020), and are included in, and thereby enforced by, applicable permits, authorizations, and orders issued by Federal and state agencies.

The Utilities are planning to construct the proposed route modifications prior to the proposed in-service date of June 28, 2024, as the remainder of the C-HC Project is being built. The construction of the route modifications on the eastern half of the project—from the Hill Valley Substation to the Cardinal Substation—is expected to be completed in December 2023, which will allow that section of the line to be placed in service this year. The Utilities are planning for construction on the western half of the project—from the Hill Valley Substation—to be completed in service in June 2024.

4.2.1. Route Modifications in Wisconsin

SEA Figure 3 through Figure 8 show the locations of the six proposed route modifications in Wisconsin. Table 1 (below) summarizes the size of each proposed route modification, as calculated by the area the proposed route modification would diverge from the analysis area used to assess impacts in the FEIS (RUS 2019). Table 1 also provides the rationale for each route modification.

The six route modifications in Wisconsin total approximately 2.3 miles of transmission line and 6.5 acres of transmission line ROW occurring outside of the analysis area used to identify impacts in the FEIS. The proposed route modifications would not result in a net increase in impacts compared to those disclosed in the FEIS, but would change the spatial location of the direct and indirect impacts in the six discrete areas for the proposed route modifications by the acreages shown in Table 1.

Proposed Route Modification	Divergence from FEIS Analysis Area	Rationale for Proposed Route Modification				
N-1	0.2 acre to the west; 11 square feet to the east 0.2 mile of transmission line	This proposed route modification occurs on lands owned by ATC and accommodates a shift of the footprint of the Hill Valley substation to reduce grading.				
Q-1	0.7 acre to the south 0.3 mile of transmission line	This proposed route modification is an adjustment to the Utilities' proposed route, ordered by the PSCW as a result of landowner negotiations addressed in the PSCW Order under Point 9 (PSCW 2019).				
S-1	0.3 acre to the northwest 0.5 mile of transmission line	This proposed route modification accommodates the Wisconsin Department of Transportation (WisDOT) as-built location of the recently constructed Ridgeway Interchange on U.S. Highway 18/151.				
S-2	0.3 acre to the south 0.7 mile of transmission line	This proposed route modification accommodates the future road construction plans by WisDOT for the intersection of County Trunk Highway T and U.S. Highway 18/151.				
X-1	4.5 acres to the west0.3 mile of transmission line	This proposed route modification is needed to account for existing and future mining operations at the Capital Sand and Gravel Company property on Stagecoach Road. All landowners have approved this adjustment (via affidavit) and a Minor Route Adjustment was approved by the PSCW on December 4,2020.				
Y-1	0.5 acre to the north 0.2 mile of transmission line	This proposed route modification occurs on land owned by ATC and moves the C-HC Project closer to existing ATC facilities at the Cardinal substation.				
Total	6.5 acres 2.3 miles of transmission line					

4.2.2. Proposed Route Modifications in Iowa

The 2020 Selected Route is described in the ROD as Alternative 6 (RUS et al. 2020:19–23). Specific to the Refuge, the Selected Route is described in the ROD as Segment B-IA2 (RUS et al. 2020:20).

Three proposed route modifications are located in Iowa: the expansion of the Turkey River substation (TR- 1); modification of the N-9 tap line (N-9A); and proposed route modification B-IA3, which includes a proposed land exchange between the USFWS and ITC Midwest/Dairyland (see SEA Appendix A).

4.2.2.1. PROPOSED EXPANSION OF THE TURKEY RIVER SUBSTATION (TR-1) AND MODIFICATION OF THE N-9 TAP LINE (N-9A)

The Selected Route of the C-HC Project approved in the ROD did not include an expansion of the existing Turkey River substation in Iowa (proposed modification TR-1). TR-1 is the proposed expansion of ITC Midwest's existing Turkey River substation by 1.8 acres (Table 2; SEA Figure 9). The expansion of the Turkey River substation is necessary for the decommissioning of approximately 2.8 miles of the existing N-9 transmission line (69-kV), starting at the Stoneman substation in Cassville, Wisconsin, then crossing the Mississippi River and ending approximately 0.2 mile north of the Turkey River substation in Clayton County, Iowa. The Turkey River substation expansion (TR-1) would alter the hydrology within

1.8 acres of the Bluebell Creek Floodplain and would require a Floodplain Development Permit by the Iowa Department of Natural Resources.

Route modification N-9A is a new 0.2-mile-long segment of the N-9 transmission line (referred to as a tap line) would be built to connect the existing N-9 transmission line with the Turkey River substation. Proposed route modification N-9A reflects a modification to the N-9 tap line that was analyzed in the FEIS. The N-9A tap line would consist of approximately 2.5 acres of surface disturbance for construction of the new tap line connecting the N-9 transmission line with the Turkey River substation. Approximately 1 acre of route modification N-9A includes decommissioning and removal of existing poles and conductors along the existing N-9 line. FEIS Section 2.4.5 includes more information about the retirement of the N-9 tap line (RUS 2019:117–120).

Table 2. Summary of Proposed Route Modifications TR-1 and N-9A in Iowa

Proposed Route Divergence from Rat Modification FEIS Analysis Area Rat		Rationale for Proposed Route Modification		
TR-1	1.8 acres to the south of the existing substation	The proposed substation expansion is needed as a result of the termination of Dairyland's N-9 transmission line at the substation. FEIS Section 2.4.5 includes a description of the N-9 transmission line retirement and construction of a new 69-kV tap line to connect the remaining portion of the N-9 transmission line with the Turkey River substation.		
N-9A	3.5 acres to the west of the existing substation	This proposed route modification is needed to accommodate a landowner objection. Proposed route modification N-9A reflects a modification to the proposed N-9 tap line that was analyzed in the FEIS. This route modification would connect the existing N-9 transmission line with the Turkey River substation.		

4.2.2.2. PROPOSED ROUTE MODIFICATION B-IA3

Route modification B-IA3 is shown in SEA Figures 11 and 12 and would require 6.8 acres of surface disturbance not previously analyzed in the FEIS (Table 3).

Table 3. Summary of Proposed Route Modification B-IA3 for Crossing the Upper Mississippi River	
National Wildlife and Fish Refuge in Iowa	

Proposed RouteDivergence from FEIS Analysis AreaRationale for Proposed Route		Rationale for Proposed Route Modification
B-IA3	6.8 acres to the west	This proposed route modification has been identified as a reasonable alternative for reducing impacts to cultural resources along the approved C-HC Project. This proposed route modification has been identified by parties working under the PA that is being implemented for NHPA Section 106 compliance. The proposed route modification would reduce the impact to the Refuge by reducing the footprint of the transmission line on USFWS fee-title land.

Route modification B-IA3 is a result of ongoing consultation under the PA that is being implemented for NHPA Section 106 compliance for the C-HC Project (RUS et al. 2020:Appendix D). Consulting parties required that Federal agencies consider the proposed route modification B-IA3 to reduce impacts to cultural resources along the Selected Route. The proposed route modification B-IA3 was not considered viable during the NEPA process for the EIS due to an INHF conservation easement. However, since the ROD was issued in January 2020, the INHF easement was modified in a way that facilitates the proposed B-IA3 alignment.

The route modification B-IA3 would continue to use the west-east section of the 2020 Selected Route through the Refuge and would provide a more direct route connecting the adjacent private land south of the Refuge boundary to the existing USACE Easement for Electric Power or Communication Facility (DACW25-2-20-4030) (see SEA Figure 11). Route modification B-IA3 would reduce the impact to the Refuge by reducing the footprint of the transmission line impacts by approximately 9.9 acres. This route modification would remove the C-HC Project from 14.3 acres of private land and 9.9 acres of Refuge land and would instead cross 6.78 acres of private land and an additional 0.15 acre of Refuge land not previously analyzed in the FEIS. Route modification B-IA3 would eliminate the need for three transmission line structures in the Refuge and three outside of the Refuge that had been previously approved as part of the 2020 Selected Route, for a total reduction of six previously approved structures.¹ In total, this route modification would result in 11 transmission structures being located on lands within or exchanged from (formerly within) the Refuge, which is a reduction from the 14 transmission structures that would be located within the Refuge under the 2020 Selected Route; all 11 of these structures were studies as part of the FEIS. Route modification B-IA3 would also result in the removal of 30 transmission structures from the Utilities' existing transmission ROW within the Refuge, resulting in a net reduction of 19 transmission structures in the Refuge.

The SEA analyzed the impacts of the entire B-IA3 route modification, which totals 26.7 acres (6.8 acres on private land and 19.84 acres within the Refuge). All but 0.15 acre of the C-HC Project footprint within the Refuge was previously analyzed in the FEIS and ROD as Segment B-IA2 (see SEA Figure 11) (RUS et al. 2020:20). However, the previously analyzed segment for crossing the Refuge was for a proposed ROW easement. Since this draft SEA is considering a proposed land exchange of the same area, the total 19.84 acres of USFWS fee-title land associated with proposed route modification B-IA3 is analyzed in this draft SEA (Table 4).

Ownership	Size (acres)	Notes
Private	6.8	This area was not previously analyzed in the FEIS.
USFWS	19.69	This area was previously analyzed in the FEIS as a portion of Segment B-IA2.
USFWS	0.15	This area was not previously analyzed in the FEIS, but was analyzed in the EA dated June 24, 2021.
Total	26.64	

Table 4. Acreage Breakdown of Proposed Route Modification B-IA3

4.2.2.3. PROPOSED LAND EXCHANGE FOR ROUTE MODIFICATION B-IA3

To facilitate a connection to the existing USACE Easement for Electric Power or Communication Facility (DACW25-2-20-4030) issued in 2020, and to avoid the need to expand within the existing 161-kV and 69-kV ROWs crossing the Refuge, the Utilities have proposed a land exchange. As described in SEA Appendix A, the land exchange would allow the USFWS to divest 19.84 acres of USFWS fee-title land in exchange for 36 acres of land in Wisconsin, referred to as the Wagner Tract, located approximately 2 miles east of the town of Cassville, Wisconsin. This land has been purchased by the Utilities and would be restored and conveyed to the USFWS for incorporation into the Refuge. Included in the land exchange

¹ The proposal described in the Utilities' application for an amended ROW, as incorporated in the EA dated June 24, 2021, also proposed removing structure #73 in the Refuge. However, the Utilities have decided to keep structure #73 as part of this Proposed Action to ensure that no part of the transmission line in or adjacent to the Refuge would exceed 200 feet above ground level and require marking in accordance with Federal Aviation Administration standards.

is 9.2 acres of the Wagner Tract, which is sufficient to meet the USACE mitigation requirements outlined in the Federal mitigation plan provided in Appendix B of the ROD (RUS et al. 2020). The Utilities would also abandon approximately 28.1 acres of their existing rights-of-way within the Refuge, which are used for an existing 161-kV and 69-kV transmission line; the Utilities would decommission these lines (resulting in the removal of 30 transmission structures from the Refuge), restore and revegetate the existing ROW in accordance a previously approved restoration plan, and release the two existing easements to the United States after Project construction is complete. Table 5 summarizes the proposed land exchange compared to the 2020 Selected Route.

Table 5. Acres of the C-HC Project Area within the Upper Mississippi River National Wildlife andFish Refuge

Alternative	USFWS Fee-title Lands in Refuge (acres)	USACE Fee-title Lands in Refuge (acres)	Total in Refuge (acres)	
2020 Selected Route	29.28	9.7	38.9	
Proposed Route Modification B-IA3 with USFWS Land Exchange	None*	9.2	9.2**	
Wagner Tract to USFWS	36+	None	36+	

* USFWS would divest 19.84 acres of Refuge lands to the Utilities. See SEA Appendix A

** As noted, the ROW for the Project will occupy approximately 9.22 acres of land within the Refuge that is owned in fee by USACE, which previously issued a outgrant for the C-HC Project. Under the proposed land exchange, USFWS would convey to the Utilities approximately 19.84 acres of land along an existing road and railroad within the Refuge. Thus, in combination with the USACE ROW, the Utilities' proposed land exchange would result in the Project occupying an approximately 29.06-acre ROW on lands within or exchanged from (formerly within) the Refuge.

⁺ USFWS would gain 35.69 acres from the Wager Tract. The Utilities would also abandon, restore, revegetate, and convey to the United States approximately 28.1 acres of their existing rights-of-way within the Refuge, resulting in the removal of 30 transmission structures from the Refuge. See SEA Appendix A.

The Wagner Tract is split into two separate parcels: a western parcel that is approximately 28.5 acres and an eastern parcel measuring approximately 7.5 acres. The Wagner Tract is mostly wooded except for two areas in the western parcel covered with reed canarygrass (*Phalaris arundinacea*) that is periodically mowed. ITC Midwest would use these two grassy areas for tree planting for habitat mitigation activities (Burns & McDonnell 2020). Both tracts would be used for purposes of preservation with no construction activities taking place in these areas.

The Utilities commit to managing the 19.84 acres of transferred corridor lands in full accord with the vegetation management protocols and access parameters previously identified and requested by USFWS and USACE. The Utilities also commit to comply with the post-review discovery plan as described in *Section VIII. Post-Review Unanticipated Discoveries* of the PA (RUS et al. 2020:Appendix D) if any cultural resources are discovered in the corridor during construction and will coordinate with the USFWS Migratory Bird Program to limit potential impacts to bald eagles if work occurs between February and July.

The Utilities would also restore the Wagner Tract and abandon and restore the existing 69-kV and 161-kV ROWs in accordance with the *Updated Restoration Plan for the Upper Mississippi River National Wildlife and Fish Refuge near Turkey River, Iowa*, dated December 6, 2021 (see SEA Appendix A). Restoration efforts in the Wagner Tract would be focused on approximately 6 acres of open fields as follows:

- Pre-restoration site assessment and documentation
- Removal of reed canarygrass for initial site preparation which could include use of prescribed fire, mowing, haying or a combination of these methods

- Application of USFWS-approved herbicide in accordance with the *Region 3 National Wildlife Refuge System Pesticide Use Policy and Guidance*
- Disking of soil and broadcast application of native seed mix
- Container tree plantings of species as available from regional nurseries
- Continued monitoring and adaptive restoration measures

These commitments would be enforceable through restrictions in the deed for the divested parcel. For these reasons, expanded or additional uses by the Utilities are not reasonably foreseeable.

The land exchange would comply with 16 USC §668dd(b)(3) as well as the Refuge's *Comprehensive Conservation Plan*, which highlights the desirability of land exchanges as a tool to adjust land ownership in and around the Refuge for the benefit of the Refuge (USFWS 2006:13). The land exchange would also require a net benefit analysis as confirmed in the recently issued M-Opinion on this topic (U.S. Department of Interior 2023:2). The net benefit analysis is under development by USFWS.

This FONSI does not reflect a decision by the USFWS. USFWS has not yet reached the decision point in its land exchange process.

4.3. Alternatives Considered and Dismissed from Detailed Analysis

The purpose of considering alternatives to a proposed action is to explore and evaluate whether there may be reasonable alternatives to that action that may have fewer or less significant negative environmental impacts (RUS regulation 7 CFR 1970.13). Those alternatives with greater adverse resource impacts are not considered for this analysis.

4.3.1. Non-Refuge Alternatives for Crossing the Mississippi River

The Alternatives Crossing Analysis documents the Utilities' investigation and assessment of potential Mississippi River crossing locations for the proposed C-HC Project and identifies the Utilities' preferred crossing alternatives in the Refuge (Burns & McDonnell 2016). Beyond the two Mississippi River crossing locations analyzed in detail in the FEIS, the five alternative corridors identified for crossing the Mississippi River were dismissed from detailed analysis, as described in FEIS Section 2.2.1.2 (RUS 2019:53–58).

4.3.2. Crossing the Refuge using Existing Utility Easements

One alternative considered and dismissed from detailed analysis is the use of Dairyland's existing 69-kV (approximately 80-foot-wide) and ITC Midwest's 161-kV (150-foot-wide) transmission line ROWs that currently cross the Refuge to enter the Refuge along the southern Refuge boundary using the same entry point as the 2020 Selected Route (shown in yellow in Figure 13). This alternative would not require any action by USFWS. Under this dismissed alternative, the C-HC Utilities could plan to construct the C-HC Project within the existing ROW easements, using additional and taller structures (up to 200 feet tall) to stay within the confines of the existing ROWs. This alternative has been dismissed from detailed analysis for the following reasons:

• The taller transmission structures would have greater adverse impacts to migration corridors and bird species when compared to the low-profile H-frame structures (75 feet tall) proposed for crossing the Refuge and the corridor along Oak Road under the Proposed Action. The installation of these transmission structures in this location would also have significant additional impacts to wetlands within these existing ROWs.

- The transmission structures would cross over 19 sensitive receptors in the Village of Cassville, as disclosed in the FEIS under Alternatives 2, 3, and 4 (RUS 2019:469–472). These adverse impacts to the local community would be greater than the Proposed Action.
- The transmission structures would come into closer proximity (approximately 2,000 feet) to the Cassville Municipal Airport, as disclosed in the FEIS under Alternatives 2, 3, and 4 (RUS 019:280). These adverse impacts to the airport would be greater than the Proposed Action.
- The transmission structures would be built within a sensitive cultural resource located south of the Refuge on private land in Iowa. Per discussions with PA consulting parties, this alternative would result in significant adverse impacts to the cultural resource.

A second alternative considered and dismissed from detailed analysis would use Dairyland's existing 80-foot-wide 69- kV ROW to enter the Refuge and across part of Lot 1 and then connect with ITC Midwest's 161-kV transmission line ROW (shown in red in Figure 13). This alternative would avoid the sensitive cultural resources located on private land just south of the Refuge in Iowa by following Dairyland's existing 69-kV transmission ROW that parallels the railroad tracks on the western edge of the Refuge and connects to ITC Midwest's 161-kV transmission line ROW also within the Refuge. Under this dismissed alternative, the C-HC Utilities could plan to construct the C-HC Project within the existing ROW easements, using additional and taller structures (up to 200 feet tall) to stay within the confines of the existing ROWs. This alternative has been dismissed from detailed analysis for the following reasons:

- This alternative is technically infeasible as the 80-foot ROW across Lot 1 within the Refuge and private land immediately west of the Refuge is inadequate to accommodate the 345-kV transmission line and structures for the C-HC Project and the easement would not support widening the occupied strip in this location.
- ITC Midwest reviewed the estimated tree heights based on mature growth potential in the Refuge at approximately 100 feet tall. Given this height, ITC Midwest has determined that, for the C-HC Project, a minimum of 150 feet of ROW is required to safely and reliably operate the C-HC Project in accordance with Northern American Electric Reliability requirements (ITC Midwest and Dairyland Power Cooperative 2021).

5.0. SUMMARY OF ENVIRONMENTAL EFFECTS

Table 6 and Table 7 present a summary comparison of potential impacts to resources analyzed in the Draft SEA for each proposed route modification.

Resource	No Action	N-1	Q-1	S-1	S-2	X-1	Y-1
Geology and Soils	No new impact	0.2 acre of prime farmland	0.4 acre of prime farmland; 0.3 acre of farmland of statewide importance; 0.3 acre of severe erosion potential	0.3 acre of prime farmland	0.3 acre of prime farmland; 0.1 acre of farmland of statewide importance; 0.1 acre of severe erosion potential	3.8 acres of prime farmland; 0.7 acre of farmland of statewide importance; 0.7 acre of severe erosion potential	0.1 acre of farmland of statewide importance; 0.5 acre of severe erosion potential
Vegetation	No new impact	0.2 acre of minor adverse vegetation impacts	0.7 acre of minor adverse vegetation impacts	0.3 acre of minor adverse vegetation impacts	0.3 acre of minor adverse vegetation impacts	4.5 acres of minor adverse vegetation impacts	0.5 acre of minor adverse vegetation impacts
Wildlife, including Special Status Species	No new impact	0.2 acre of minor adverse wildlife habitat impacts	0.7 acre of minor adverse wildlife habitat impacts	0.3 acre of minor adverse wildlife habitat impacts	0.3 acre of minor adverse wildlife habitat impacts	4.5 acres of minor adverse wildlife habitat impacts;3.7 acres in RPBB high potential zone	0.5 acre of minor adverse wildlife habitat impacts; 0.5 acre in RPBB high potential zone
Water Resources and Quality	No new impact	No new impacts	No new impacts	No new impacts	No new impacts	No new impacts	No new impacts
Air Quality and Climate Change	No new impact	No new impacts	No new impacts	No new impacts	No new impacts	No new impacts	No new impacts
Noise	No new impact	No new impacts	No new impacts	No new impacts	No new impacts	2 residences would be closer to the C-HC Project	No new impacts
Transportation	No new impact	No new impact	No new impact	Reduced conflict for 0.3 acre	Reduced conflict for 0.3 acre	No new impact	No new impact
Cultural and Historic Resources	No new impact	No new impact	No new impact	No new impact	No new impact	No new impact	No new impact
Land Use, including Agriculture and Recreation	No new impact	0.2 acre of agricultural land use impacted	0.3 acre of agricultural land use impacted; 0.2 acre of grassland land cover impacted	0.3 acre of grassland land cover impacted	0.3 acre of grassland land cover impacted	0.6 acre of agricultural land use impacted; 3.9 acres of grassland land cover impacted	0.5 acre of grassland land cover impacted
Visual Quality and Aesthetics	No new impact	No new impact	No new impact	No new impact	No new impact	2 residences would be closer to the C-HC Project	No new impact
Socioeconomics and Environmental Justice	No new impact	No new impact	No new impact	No new impact	No new impact	2 residences would be closer to the C-HC Project	No new impact

Resource	No Action	N-1	Q-1	S-1	S-2	X-1	Y-1
Public Health and Safety	No new impact	2 residences would be closer to the C- HC Project	No new impact				
Upper Mississippi River National Wildlife and Fish Refuge	No new impact	No impact	No impact	No impact	No impact	No impact	No impact

Table 7. Summary of the Impact Analysis for Proposed Route Modifications in Iowa

Resource	No Action	N-9A	TR-1	B-IA3
Geology and Soils	No new impact	3.4 acres of prime farmland, 0.1 acre of steep slopes, 0.1 acre of severe erosion potential, 0.7 acre of wet soils.	Additional 1.8 acres of prime farmland	19.8 acres of prime farmland; 5.3 acres of farmland of statewide importance; 1.1 acres of steep slopes; 5.3 acres of severe erosion potential; 19.8 acres of wet soils; 36 acres of geology and soils would be conserved; 28.1 acres would be restored
Vegetation	No new impact	1.5 acres of adverse vegetation impacts	1.8 acres of new surface disturbance and vegetation impacts	26.6 acres of adverse vegetation impacts; 36 acres of vegetation would be conserved; 28.1 acres would be restored
Wetlands and Special Status Plants	No new impact	No new impact	0.09 acre of wetland impacts; No special status plants present	18 acres of wetland impacts; no special status plants present; 36 acres including wetlands would be conserved; 28.1 acres would be restored
Wildlife, including Special Status Species	No new impact	3.5 acres of adverse wildlife habitat impacts	1.8 acres of minor adverse wildlife habitat impacts	26.6 acres of minor adverse wildlife habitat impacts; 36 acres of wildlife habitat would be conserved; 28.1 acres would be restored
Water Resources and Quality	No new impact	2.9 acres of floodplain would be crossed	1.8 acres of indirect impacts to nearby waterbodies; 1.6 acres of floodplain would be crossed	20 acres of floodplain would be crossed; 36 acres including floodplain would be conserved; 28.1 acres would be restored
Air Quality and Climate Change	No new impact	No new impact	No new impact	No new impact
Noise	No new impact	No new impact	Increased noise disturbance over 8-month construction period	No new impact
Transportation	No new impact	No new impact	No new impact	No new impact
Cultural and Historic Resources	Continued adverse impacts to previously recorded cultural resources	No new impact	No new impact	Reduced impacts to cultural resources compared to 2020 Selected Route and No Action Alternative

Resource	No Action	N-9A	TR-1	B-IA3
Land Use, including Agriculture and Recreation	No new impact	3.5 acres of impact to agricultural land, grassland, forest, urban land, and open water.	1.8 acres of impact to agricultural land, grassland, forest, and wetlands.	26.6 acres of impact to agricultural land, forest, grassland, urban/barren land, and wetlands; beneficial impacts to 36 acres including forest, grassland, and wetlands, which would be conserved; ; 28.1 acres would be restored; route modification reduces 3 transmission line structures within the Refuge and 3 transmission line structures on private lands for a total reduction of 6 structures; abandonment of existing ROW would remove 30 structures within the Refuge
Visual Quality and Aesthetics	No new impact	No new impact	Additional visual elements added to existing substation	Similar long-term adverse impacts as disclosed in FEIS with beneficial impacts from abandonment and restoration of 28.1 acres of existing ROW within the Refuge; minor beneficial impact from restoration activities in Wagner Tract; restoration of 28.1 acres
Socioeconomics and Environmental Justice	No new impact	No new impact	No new impact	Beneficial impacts to tourism and recreation access from incorporation of 36-acre Wagner Tract into Refuge land base
Public Health and Safety	No new impact	No new impact	No new impact	No new impact
Upper Mississippi River National Wildlife and Fish Refuge	No new impact	No impact	No impact	Beneficial impacts include avoidance of impacts to 9.9 acres; 19.84 acres of lower ecological value area would be divested and 36 acres of higher value ecological area would be added to the Refuge land base; 28.1 acres of existing ROW would be abandoned and restored; route modification would reduce 3 transmission line structures within the Refuge and 3 transmission line structures on private lands for a total reduction of 6 structures; abandonment of existing ROW would remove 30 structures within the Refuge

6.0. PUBLIC AND AGENCY INVOLVEMENT

6.1. Public Participation for the Draft EA dated June 24, 2021

RUS made available to the public the original EA to evaluate the significance of proposals for eight route modifications through issuance of an NOA on June 24, 2021. The 30-day comment period associated with this announcement closed on July 24, 2021. Legal notices were placed in local newspapers for 1 week in late June (the week of June 21, 2021) announcing the NOA and EA. The legal notices identified locations where hard copies of the EA were available and information on how to provide comment. In response to the NOA, RUS received 94 comment letters which encompassed 262 individual comments. Comments were received from one Federal agency, two non-governmental organizations, and 91 members of the public. The Draft EA did not include the proposed land exchange or the proposed route modification N-9A, as they were identified after the issuance of the NOA.

6.2. Public Participation for the Draft SEA dated September 8, 2023

The draft SEA was made available for a 14-day public review period between September 8 to September 22, 2023, which was announced in local Wisconsin and Iowa newspapers and on USDA Rural Development's website. RUS collected electronic public comments during the 14-day review period and revised the SEA, as needed, to address substantive public comments. RUS received 40 comment letters which encompassed 209 individual comments. Comments were received from three representatives of non-governmental organizations, and 37 members of the public.

Appendix C summarizes the public comments received on the Draft SEA and the agency responses.

6.3. Consultation Under Section 7 of the Endangered Species Act

Through formal consultation, the USFWS has twice amended the Incidental Take Statement for the C-HC Project, issued on June 3, 2021, and on June 9, 2022, to address the proposed route modifications that cross rusty patched bumble bee habitat in Wisconsin (see SEA Appendix C). ESA consultation documents between RUS and USFWS for the proposed route modifications is provided in SEA Appendix C.

6.4. Consultation Under Section 106 of the National Historic Preservation Act

The PA for the C-HC Project was signed and executed with the Advisory Council on Historic Preservation on October 10, 2019. Contractors to the Utilities conducted cultural resources surveys within the physical Area of Potential Effects for the route modifications and RUS submitted the cultural resources reports to the consulting parties for review in accordance with 36 CFR Part 800.4(b)(2) and 36 CFR Part 800.5(a)(3), and pursuant to the PA. After any comments from consulting parties were received and addressed, RUS issued a finding of no adverse effect for eight of the nine route modifications. Consultation is still ongoing for proposed route modification B-IA3.

7.0. FINDING OF NO SIGNIFICANT IMPACT

Based on its EA, RUS has concluded that the nine proposed route modifications for the C-HC Project would not result in significant changed circumstances or new significant impacts to geology and soils; vegetation, including wetlands; wildlife; historic properties listed or eligible for listing on the National Register of Historic Places; federally listed threatened and endangered species, candidate species, or federally designated critical habitat; water resources and quality; 100-year floodplains; air quality and climate change; noise; land use; transportation; visual resources; or human health and safety. The proposed project would not disproportionately affect minority or low-income populations.

In accordance with the NEPA, as amended (42 U.S. Code 4321 et seq.), the CEQ regulations (40 CFR 1500–1508), and RUS's Environmental Policies and Procedures (7 CFR Part 1970), RUS has determined that the environmental effects of the route modifications have been adequately addressed and that no significant impacts to the quality of the human environment would result from construction and operation of the route modifications. Any final action by RUS related to the route modifications will be subject to, and contingent upon, compliance with all relevant federal and state environmental laws and regulations. Because RUS's action will not result in significant impacts to the quality of the human environment, an Environmental Impact Statement will not be prepared for the route modifications.

This FONSI does not reflect a decision by the USFWS. USFWS has not yet reached the decision point in its land exchange process.

8.0. RUS LOAN REVIEW AND RIGHT OF ADMINISTRATIVE REVIEW

This FONSI is not a decision on a loan application and therefore not an approval of the expenditure of federal funds. Issuance of the FONSI and its notices concludes RUS's environmental review process in accordance with NEPA and RUS's Environmental Policies and Procedures (7 CFR Part 1970). The ultimate decision as to loan approval depends upon conclusion of this environmental review process in addition to financial and engineering reviews. Issuance of the FONSI and publication of notices will allow for these reviews to proceed. The decision to provide financial assistance is also subject to the availability of loan funds for the designated purpose in RUS's budget. There are no provisions to appeal this decision (i.e., issuance of a FONSI). Legal challenges to the FONSI may be filed in federal district court under the Administrative Procedures Act.

APPROVAL

This Finding of No Significant Impact is effective on signature.

Dated:

ANDREW BERKE Date: 2023.10.06 08:26:20 -04'00'

Andy Berke, Administrator Rural Utilities Service

CONTACT INFORMATION

For additional information on this FONSI and SEA, please contact USDA, Rural Utilities Service, Environmental and Historic Preservation Division, 1400 Independence Avenue, SW., Stop 1570, Washington DC 20250-1570, CardinaltoHickoryCreekEIS@usda.gov.

LITERATURE CITED

- Burns & McDonnell. 2020. Cardinal to Hickory Creek Transmission Line Project Updated Restoration Plan for the Upper Mississippi River Refuge Near Turkey River, Iowa. August 5. Available in project file.
- Midcontinent Independent System Operator (MISO). 2011. Multi Value Project Portfolio, Detailed Business Case. Available in project file.
- . 2012. Multi Value Project Portfolio: Results and Analyses. January 10.
- . 2014. *MTEP14 MVP Triennial Review*. September.
- . 2017. *MTEP 2017 Multi Value Project Triennial Review*. September.
- Rural Utilities Service (RUS). 2019. Final Environmental Impact Statement for the Cardinal-Hickory Creek 345-kV Transmission Line Project. Available at: https://www.rd.usda.gov/resources/ environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmissionline. Accessed October 6, 2020.
- RUS, USFWS, and USACE. 2020. Record of Decision for the Cardinal-Hickory Creek 345-kV Transmission Line Project. Available at: https://www.rd.usda.gov/resources/environmentalstudies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line. Accessed October 6, 2020.
- U.S. Department of the Interior. 2023. National Wildlife Refuge Land Exchanges Memorandum. May 31. Available at: https://www.doi.gov/sites/doi.gov/files/m-37078-national-wildlife-refuge-landexchanges-5.31.23-508-compliant.pdf. Accessed August 2023.
- U.S. Fish and Wildlife Service (USFWS). 2006. Upper Mississippi River National Wildlife and Fish Refuge Comprehensive Conservation Plan. Available at: https://www.fws.gov/midwest/planning/uppermiss/. Accessed May 2018.
- Wheeler, Van Sickle, and Anderson, S.C. 2021. Letter from C-HC Utilities (Dairyland, ATC, ITC Midwest) to USFWS Upper Mississippi River National Wildlife and Fish Refuge regarding consideration of exchange of lands. Dated July 29, 2021. Available in project file.

APPENDIX A

Environmental Commitments

Resource	Environmental Commitment			
General	 Regulatory agencies may require independent third-party environmental monitors related to permitted aspects of the C-HC Project. 			
	• The Utilities use trained staff members or contractors as monitors for special resource conditions as a standard practice. The Utilities will hire environmental monitors who will be present during construction of the C-HC Project, and the environmental monitors will ensure the environmental commitments required by Federal and state agencies are followed.			
Geology and Soils	 An erosion control plan, coordinated with the lowa Department of Natural Resources (IDNR) and WDNR, will be prepared once a route is approved, and BMPs will be employed near aquatic features (wetlands, streams, waterbodies) to minimize the potential for erosion and to prevent any sediments from entering aquatic features. 			
	 Erosion controls will be regularly inspected and maintained throughout the construction phase of a project until exposed soil has been adequately stabilized. 			
Vegetation, including Wetlands and Special Status Plants	 General Vegetation During restoration, erosion and sediment control measures, including measures for stabilization of disturbed areas during and at the completion of construction, will be implemented as defined in the Stormwater Pollution Prevention Plan (SWPPP) developed for the C-HC Project. Areas where ground disturbance occurs will be monitored until 70% revegetation has been established. 			
	 In non-agricultural areas where ground disturbance occurs, the area will be monitored until ground cover is reestablished to at least 70% of the vegetation type, density, and distributior that was documented in the area prior to construction. 			
	 In areas that were previously forested, disturbed areas will be revegetated consistent with non-invasive herbaceous vegetation that occurs in the area. 			
	Algific Talus Slopes			
	 Upon final route selection and after landowner permission is obtained, additional habitat assessments and algific talus slope surveys will be completed along the final route selected in lowa. 			
	 Geotechnical surveys at the proposed pole locations will be completed along the final route selected in lowa to determine whether caves or cavities exist in bedrock that could be connected to algific talus slopes within or adjacent to the analysis area. 			
	 Should any algific talus slopes be identified during habitat assessments, or any caves or cavities be detected in the bedrock during geotechnical surveys, they will be avoided by construction. 			
	 Pole locations and construction access roads will be adjusted to avoid algific talus slopes, if present. 			
	 If algific talus slopes are identified, vegetation removal on steep slopes will be minimized to only the amount necessary to maintain conductor clearances. 			
	 Broadcast spraying of herbicides will be avoided and careful spot spraying will be used in suitable algific talus slope habitat areas. 			
	Woodlands			
	 To minimize the spread of oak wilt, the cutting or pruning of oak trees between April 15 and July 1 for maintenance will be conducted in accordance with Wisconsin Administrative Code (WAC) Public Service Commission 113.051. 			
	 In Iowa, oak trees may be removed during maintenance activities but pruning oak trees will only occur during dormant periods. 			
	• Practices that minimize the spread of emerald ash borer will be employed, which include avoiding movement of ash wood products (i.e., logs, posts, pulpwood, bark and bark products, and slash and chipped wood from tree clearing) and hardwood firewood from emerald ash borer quarantine areas to nonquarantine areas (WAC Agriculture, Trade, and Consumer Protection 21.17). Where ash wood products cannot be left on-site, alternative plans will be developed to meet the requirements.			
	 Standard practices used in the quarantine area to avoid the spread of spongy moth damage include inspections by trained staff and avoiding movement of wood products (i.e., logs, posts, pulpwood, bark and bark products, firewood, and slash and chipped wood from tree clearing) from spongy moth quarantine areas to nonquarantine areas, according to WAC Agriculture, Trade, and Consumer Protection 21.10 			

Table A.1. Environmental Commitments for the C-HC Project

Resource	Environmental Commitment Wetlands			
	 Impacts to wetlands will be minimized by one or more of the following measures: Conducting construction activities when wetland soils and water are frozen or stable and vegetation is dormant. 			
	 Use of equipment with low ground-pressure tires or tracks. 			
	 Placement of construction matting to help minimize soil and vegetation disturbances and distribute axle loads over a larger surface area, thereby reducing the bearing pressure on wetland soils. 			
	Access roads through wetlands will not require permanent fill.			
	 Erosion control BMPs will be installed where needed to prevent soil erosion into and within wetlands. 			
	 Any spoils will be removed from wetlands to non-sensitive upland areas or other approved locations. Cleaning of construction equipment and mats will occur per the Wisconsin Council on Forestry's "Invasive Species Best Management Practices: Rights-of-Way" guidance to mitigate the spread of invasive species (RUS 2019:Appendix D). Where necessary to ameliorate minor impacts, such as rutting and vegetation disturbance due to equipment operation and mat placement in wetlands, site restoration activities will be implemented, the site monitored, and remedial measures applied until established restoration goals are achieved, as required by regulatory permits obtained for the C-HC Project. 			
	Invasive Species			
	 The Utilities will follow the Wisconsin Council on Forestry's "Invasive Species Best Management Practices: Rights-of-Way" guidance to mitigate the spread of invasive species (RUS 2019:Appendix D). 			
	 Work below the ordinary high-water mark (OHWM) of waterways will be avoided to the exten practicable; the most likely activity would be withdrawing water to stabilize excavations. 			
	 Before moving construction equipment and material between waterway construction locations where equipment or materials are placed below the OHWM of a waterway, standard inspection and disinfection procedures will be incorporated into construction methods as applicable (WAC Natural Resources 329.04(5)). 			
	 All natural areas, such as wetlands, forests, and prairies, will be surveyed for invasive species following construction and site revegetation. If new infestations of invasive species due to construction of the C-HC Project are discovered, measures should be taken to control the infestation. 			
	 The WDNR or IDNR, as applicable, will be consulted to determine the best methods for control of encountered invasive species. 			
	• The Utilities will employ a Certified Pesticide Applicator for all herbicide applications within the C-HC Project. The Certified Pesticide Applicator will only use herbicides registered and labeled by the USEPA and will follow all herbicide product label requirements. Herbicides approved for use in wetland and aquatic environments will be used in accordance with label requirements, as conditions warrant.			
Wildlife, including Special Status Species	 In accordance with WDNR avoidance and minimization measures, reptile exclusion fencing wi be installed in areas during the appropriate season where habitat is likely to support rare turtles, snakes, or salamanders. 			
	 The Utilities will follow the project-specific Avian Protection Plan for the C-HC Project. An eagle management plan is included as part of the Avian Protection Plan. 			
	 Bird flight diverters will be installed on shield wires when overhead transmission lines are built in areas heavily used by rare birds or large concentrations of birds or in specific areas within known migratory flyways. 			
	 Design standards for this project will meet avian-safe guidelines as outlined by the Avian Power Line Interaction Committee for minimizing potential avian electrocution risk. 			
	 The Utilities will identify locations, in coordination with USFWS, IDNR, and WDNR, where the installation of bird flight diverters will be recommended to minimize the potential for avian collisions. If an eagle nest occurs near the ROW/corridor, the Utilities will coordinate with the USFWS to determine if and where bird flight diverters are needed to minimize collision risk. 			
	 The Utilities will coordinate with the USFWS, IDNR, and WDNR on eagle nest surveys to occu before construction activities to identify eagle nests within 0.5 mile on either side of the ROW/corridor. The surveys will occur preferably in the winter or spring before leaf-on when nests are the most visible, and survey data will be provided to the agencies. 			

Resource	Environmental Commitment		
	 The Utilities will coordinate with the USFWS if an eagle nest occurs within 660 feet of the edge of the ROW/corridor to determine if and which permits are recommended or if mitigation measures are appropriate to minimize impacts. 		
	 The Utilities will work with the IDNR and the WDNR to determine locations where state-listed bird species habitat is present, and implement appropriate measures to avoid and/or minimize impacts to those species. 		
	 Prior to tree clearing during migratory bird nesting season, the Utilities will complete a field review of the final ROW/corridor to identify existing stick nests. Tree-clearing crews will also b trained to stop work and notify environmental staff if they encounter an unanticipated nest. 		
	 Vegetation clearing within threatened and endangered avian species habitat will be avoided during migratory bird nesting season. 		
	Iowa Pleistocene Snail (Discus macclintocki)		
	 Upon final route selection and after landowner permission is obtained, additional habitat assessments and algific talus slope surveys will be completed along the final route selected in lowa. 		
	 Geotechnical surveys at the proposed pole locations will be completed along the final route selected in lowa to determine whether caves or cavities exist in bedrock that could be connected to algific talus slopes within or adjacent to the ROW. 		
	 Should any algific talus slopes be identified during habitat assessments or any caves or cavities be detected in the bedrock during geotechnical surveys, they will be avoided by construction. 		
	 Pole locations and construction access roads will be adjusted to avoid algific talus slopes, if present. 		
	 Vegetation removal that occurs on steep slopes along the proposed ROW in lowa will be the minimum amount necessary to maintain conductor clearances. 		
	 All seed mixes used for restoration and revegetation in areas of algific talus slope habitat will be free of neonicotinoids. 		
	 The use of BMPs during construction and vegetation management activities to prevent the spread of invasive species will help to maintain greater plant diversity along the cleared transmission corridors. 		
	Northern Long-eared Bat (Myotis septentrionalis) and Tricolored Bat (Perimyotis subflavus)		
	 Tree cutting, or other means of knocking down, bringing down, topping, or trimming will only occur between November 15 and March 31. to avoid potential direct impacts to bats. 		
	 Northern long-eared bat surveys will be performed between the two proposed corridors within the Refuge per the USFWS's most recent <i>Range-wide Indiana Bat/Northern Long-eared Bat</i> <i>Survey Guidelines</i> (USFWS 2023a). Northern long-eared bat surveys were completed within the Refuge near the proposed land exchange (Burns & McDonnell 2020). 		
	 Northern long-eared bat and tri-colored bat surveys may be performed along other portions of project segments per the most recent survey guidelines to determine northern long-eared bat presence or probable absence. Areas having survey results of probable absence will not be subject to tree removal restrictions during the pup season. 		
	Rusty Patched Bumble Bee (Bombus affinis)		
	 Prior to construction, areas within High Potential Zones preliminarily screened as low-quality habitat or questionable habitat will be evaluated and documented using the Rusty Patched Bumble Bee Habitat: Assessment Form and Guide (Xerces Society for Invertebrate Conservation 2017). 		
	 Prior to initiation of vegetation clearing in High Potential Zones, the limits of equipment, vehicle traffic and staging, and methods used will be reported to the Service to ensure that Project activities will not exceed the Incidental Take Statement limits. The Service will be notified of the actual start dates, completion of the C-HC Project, and verification that the habitat acres listed in the 2019 revised Opinion (pp. 9–10) were not exceeded and all conservation measures were followed. An annual report detailing this information will be provided each yea until construction is complete. 		
	 Seed mixes containing a diversity of native flowering plants will be used to reseed existing suitable habitat areas that require revegetation/restoration within High Potential Zones, as we as opportunity areas for expanding suitable habitat within known High Potential Zones. 		
	The second DMD - device a second s		

• The use of BMPs during construction and vegetation management activities to prevent the spread of invasive species will help to maintain greater plant diversity along the cleared transmission corridors.

Resource	 Environmental Commitment Herbicide application where used for vegetation management purposes in suitable habitat within High Potential Zones will be targeted to limit the effects of the herbicide beyond the targeted species.
	 To avoid or minimize impacts in areas documented by surveys to be occupied by rusty patched bumble bee, activities within occupied habitat will be sequenced with seasonal time frames as much as is feasible (i.e., late spring/summer work in woodlands to avoid overwintering queens, late fall/winter work in open areas to avoid foraging and nesting sites).
	 The USFWS believes the following reasonable and prudent measures are necessary and appropriate to minimize take of the rusty patched bumble bee:
	 Minimize preconstruction vegetation clearing and ground disturbance.
	 Use native species in restoration activities.
	 Maintain suitable habitat within the permanent ROW/corridor.
	 Document and report to the USFWS the timing and extent of disturbances within suitable habitat for rusty patched bumble bee to help inform future consultations.
	• To implement the reasonable and prudent measures listed above, the Utilities must comply with the following terms and conditions:
	 Minimize clearing, grading, and vegetation removal within suitable habitat areas in the High Potential Zones.
	 Reseed all construction ROW/corridor suitable habitat areas (temporary and permanen within the High Potential Zones with pollinator-friendly native seed mixes consistent with recommendations provided by the USFWS. When possible, include species preferred by the rusty patched bumble bee and ensure that some plants are in bloom through the season when the rusty patched bumble bee may be present. The USFWS provides a lis of plants favored by the species (USFWS 2019a).
	 Provide a written summary of the suitable habitat impacted, the timing of impact as it pertains to the rusty patched bumble bee active and inactive seasons, and the estimate percentage of disturbed ground at completion of transmission line construction and othe associated activities.
Water Resources and Water Quality	 An erosion control plan, coordinated with the IDNR and WDNR, will be prepared once a route is ordered/approved, and BMPs will be employed near aquatic features (wetlands, streams, waterbodies) to minimize the potential for erosion and to prevent any sediments from entering the aquatic features.
	 Erosion controls will be regularly inspected and maintained throughout the construction phase of a project until exposed soil has been adequately stabilized.
	 Waterway crossings will require a temporary clear span bridge (TCSB) to avoid the necessity of driving construction equipment through streams. Each TCSB will consist of construction mats, steel I-beam frames, or other similar material placed above the OHWM on either side to span the stream bank. If there are waterways that are too wide to clear span, a temporary bridge with in-stream support will be designed and constructed.
	 The use of TCSBs will be minimized where possible by accessing the ROW from either side of the stream or by using existing public crossings to the extent practical. The Utilities will work with private landowners to identify alternative access routes to further reduce the use of stream crossings, if possible.
	 For those streams that will not be crossed by construction vehicles and where stream-crossin permits have not been acquired, wire will be pulled across those waterways by boat, by helicopter, or by a person traversing across the waterway. Wire stringing activity may require that waterways be temporarily closed to navigation.
	No structures will be located below the OHWM.
	 Any dewatering within the C-HC Project ROW during construction will be discharged to a non sensitive upland site to facilitate re-infiltration to the aquifer.
	 Nearby waterways could be used as a water source during project construction. The Utilities will attempt to avoid water withdrawals during spawning seasons. The Utilities will coordinate water withdrawals with the IDNR and WDNR.
	 The Utilities will follow these requirements when working in proximity to the Refuse Hideaway Landfill site and contaminated groundwater plume:
	 Once a route for the C-HC Project is selected and final design is underway, the Utilities will develop a geotechnical investigation plan, which will include an environmental sampling plan for collection of groundwater and soil samples.

Resource	Environmental Commitment		
	 The environmental sampling plan will be provided to the WDNR case manager for WDNR review and input prior to start of the geotechnical investigations. 		
	 Environmental sampling results will be shared with WDNR. 		
	 The Utilities will then draft a contaminated soil and groundwater management plan for the C-HC Project in the vicinity of the Refuse Hideaway Landfill site, and WDNR will review the plan. If WDNR requires a formal approval process, an approval process consistent with the WAC NR 700–754 will be followed. The contaminated soil and groundwater management plan will identify appropriate disposal methods for any contaminated soil and groundwater intercepted during construction of the C-HC Project. 		
	 The Utilities will follow Occupational Safety and Health Administration requirements associated with working with potentially contaminated soil and groundwater. 		
	• The Utilities will develop a spill prevention, control, and countermeasures plan for the construction of the Hill Valley substation if the amount of oil stored at the Hill Valley substation meets the requirements of the Oil Pollution Prevention regulation at 40 CFR 112. The Hill Valley substation will be designed to include secondary containment for releases of hazardous materials during operation.		
	 The Utilities will require all construction contractors to submit a spill prevention and response plan that identifies mitigation measures for spills within the ROW of the C-HC Project. 		
Air Quality	 The Utilities will review the construction emission control checklist with transmission line and substation construction contractors to identify appropriate emission reduction techniques for constructing the C-HC Project (RUS 2019:Appendix D). 		
	 Contractors will clean up any dirt or mud that may be tracked onto the road by equipment daily. 		
	 Tracking pads may be constructed at frequently used access points to minimize mud being tracked onto public roads. Road sweeping will be used as needed to minimize dust. 		
	 A water truck will be available on-site to spray areas of the laydown yards and ROW/corridor that are creating excessive dust. 		
Noise	 When undertaking construction activities around residences, the Utilities and their contractors will be cognizant of the residents and will limit work hours in that area, specifically during the early morning hours. 		
	 If helicopters are used on the C-HC Project, the Utilities will use various forms of outreach to notify the affected communities and landowners regarding when the helicopters will be in operation. 		
	• The Utilities and their contractors plan to generally work during daylight hours Monday through Friday, with an average workday to be approximately 11 hours.		
Transportation	• Traffic control plans will be developed and implemented during construction to minimize traffic impacts and comply with permit requirements.		
	 The Utilities will minimize the number of vehicles and the amount of time they are parked on the roads. 		
	 If a driveway is needed to access the ROW, the driveways may be protected using composite mats or other low-profile protection systems. Commercial or industrial driveways will be evaluated prior to use as surface protection may not be required. 		
	 Any damage caused by construction access will be repaired as needed. 		
	 The Utilities and their contractors will not block any residence driveways with equipment unless agreed upon with the landowner or resident. 		
	 During final design, the Utilities will attempt to locate structures so that they are directly adjacent to the crossing with either Rustic Road 70 or Rustic Road 75. 		
	 The Utilities will adhere to Wisconsin Department of Transportation (WisDOT) guidance on defining clear zones in its Facilities Development Manual Section 11-15, Attachment 1.9 (WisDOT 2019a). 		

Resource	Environmental Commitment		
Cultural and Historic Resources	 Consultation between the Iowa and/or Wisconsin SHPOs, RUS, the Utilities, and affected Tribal groups, among others, will be required under Section 106 of the NHPA. This consultation must be completed prior to financing or license issuance. For the C-HC Project, Section 106 compliance will be completed using a PA (RUS et al. 2020:Appendix D). 		
	• A Post-Review Discovery Plan is section VII in the PA developed by the consulting parties (RUS et al. 2020:Appendix D). This plan details the process for addressing the identification of previously unidentified potential historic properties such as archaeological sites, historic features, or unidentified human remains during the course of construction. The plan includes steps for preventing further harm to previously unidentified sites and notifying consulting parties in order to address impacts to potential historic properties.		
	 If unanticipated archaeological resources or human remains are discovered during construction, the Utilities shall stop work at that location and shall immediately report the find to the Utilities' construction manager and environmental monitor. Work shall not commence in that location until the Wisconsin or Iowa SHPO and PSCW are notified and direction sought from the Wisconsin or Iowa SHPO. Interested Tribes will also be notified during this time. Construction may resume after the direction is followed and the qualified archaeologist's reports, if any, are received and approved by the Wisconsin or Iowa SHPO. 		
Land Use, including Agriculture and Recreation	 Where possible, siting in agricultural areas will be along fence lines or between fields or along public road ROW so that the proposed structures will be located along the edge of the land area used for agricultural purposes. If conflicts occur, landowners will be consulted during the real estate acquisition process to accommodate landowner needs to the extent practicable. 		
	• During the final design process, landowner input will be obtained to place structures such that impacts to drain tiles will be minimized to the extent practicable.		
	 During construction, matting may be used to more evenly distribute the weight of heavy equipment, and low ground-pressure construction equipment may also be used. 		
	 After construction, damaged drain tiles will be repaired to preconstruction conditions. 		
	• Where appropriate, minimization techniques, such as topsoil replacement and deep tilling, may be used.		
	• Construction vehicles may be cleaned before entering the organic farm parcels, in accordance with input from the landowner.		
	• During the easement negotiation, landowners can decline the use of herbicides for vegetation management activities once the line is in operation. Therefore, no herbicide will be applied within portions of the ROW on which the landowner wishes not to introduce it.		
	 If construction activity occurs during wet conditions and soils are rutted, the ruts will be repaired as soon as conditions allow, to reduce the potential for impacts. 		
	 To minimize soil compaction during construction in agricultural lands, low-lying areas, saturated soils, or sensitive soils, low-impact machinery with wide tracks could be used. 		
	 Prior to and during construction, the Utilities will coordinate with land managers regarding public notification about construction activities and temporary closures of public areas. 		
	• See more detailed BMPs for agricultural lands in FEIS Appendix D.		
Visual Quality and Aesthetics	• Steel monopoles with a weathered finish will be used at visually sensitive locations to minimize the visual impacts to the landscape.		
Socioeconomics and Environmental Justice	 Short-term impacts to agricultural lands will be mitigated by providing compensation to producers and by restoring agricultural lands to the extent practicable. 		
Public Health and Safety	• If the proposed transmission lines parallel or cross distribution lines, appropriate measures can be taken to address any induced voltages.		

Resource	Environmental Commitment
Upper Mississippi River National Wildlife and Fish Refuge	• For the portion of the C-HC Project within the Refuge and the parcel proposed to be divested, preliminary low-profile structures are proposed with a design height to match the existing tree cover within the corridor along Oak Road and the USACE easement (approximately 75 feet tall) to reduce the potential of avian collisions.
	 The structures will be horizontal-symmetrical H-frame structures on concrete foundations with a typical span length of approximately 500 feet and will consist primarily of tubular steel H-frame structures.
	 All conductors on these low-profile structures will be placed on one horizontal plane and the shield wire will be marked with avian flight diverters.
	 Construction on the USACE easement and divested corridor along Oak Road will occur outside the eagle nesting season (typically January 15 to June 15) or outside a 660-foot exclusion zone to avoid disturbance to nesting adult, chick, and fledgling eagles.
	 For the Selected Route and proposed route modification B-IA3, the revegetation plan and habitat replacement plan would be retained as follows:
	 The Utilities propose to compensate for adverse impacts to forest resources in the USACE easement through restoration and enhancement of forest resources both within and off Refuge lands. A restoration plan was developed in consultation with the USFWS and USACE. The restoration plan supplemented existing USFWS efforts to restore bottomland hardwood forest within the Refuge, specifically on the floodplain of the Turkey River. The Utilities would exchange the approximately 36-acre Wagner Tract, which is composed primarily of mature floodplain forest, for approximately 19 acres of USFWS fee-title land along Oak Road required for the B-IA3 route.
	Revegetation within the USACE easement and within the corridor along Oak Road would be conducted in concert with USFWS and USACE review and direction and in compliance with applicable North American Electric Reliability Corporation vegetation standards. The Utilities have prepared, coordinated, and received approval for a revegetation plan for the Selected Route (see SEA Appendix A). As with the design of the project, the Utilities worked closely with the USACE and USFWS to identify the location, type, and overall revegetation plan that would be appropriate for the project and this specific location of the Refuge. The revegetation plan approved for the Selected Route would be retained for the proposed route modification B-IA3 (see SEA Appendix A).
	In addition to the environmental commitments outlined above and other habitat replacement planned with the USFWS and USACE, as part of the USACE and USFWS permit application processes, the Utilities have developed a project-specific mitigation plan. The habitat restoration/replacement plans developed for the Selected Route have been deemed acceptable by USACE and USFWS for the proposed route modification B-IA3. ROD Appendix B contains the Federal mitigation plan for the C-HC Project. The mitigation plan in the FEIS included donating the Wagner Tract to the Service to compensate for habitat loss as well as abandoning and restoring the 69-kV and 161-kV ROWs. The plan developed for the Selected Route would be retained for the proposed route modification B-IA3, with one change. The mitigation plan would no longer include donation of the Wagner Tract to ensure no net loss of habitat quantity and quality for the USFWS ROW because that ROW has been revoked. Instead, USFWS would acquire the Wagner Tract through the land exchange. Included in the exchange is 9.2 acres of the Wagner Tract that will cover the mitigation requirements for the USACE ROW. The Utilities will honor all commitments made under the ROW proposal on the divested lands granted to them via the land exchange.