

LAND EXCHANGE NET BENEFIT ANALYSIS

Acquisition Tract: ITC Midwest, LLC (TBD), Grant County, WI

Refuge Name: Upper Mississippi River National Wildlife and Fish Refuge

Background of Proposed Exchange: The Upper Mississippi River National Wildlife and Fish Refuge was established in 1924 and exists along 261 river miles over four states, Minnesota, Wisconsin, Iowa, and Illinois. Due to its size and because it covers the Mississippi River, interstate transmission lines cross the Refuge in at least 10 locations as of 2023, including lines that cross near Millville, IA and Cassville, WI.

In July 2021 and again in July 2023, ITC Midwest LLC and Dairyland Power Cooperative (referred to collectively as the Utilities), two of the co-owners of the Cardinal-Hickory Creek Transmission Line Project (CHC Project), requested that the U.S. Fish and Wildlife Service (Service) consider a potential land exchange proposal that would exchange 35.69 acres near Cassville, WI for 19.84 acres within the Turkey River Bottoms unit of the Refuge located south of Millville, IA. The CHC Project had been undergoing environmental review since 2016. The project would construct a 345-kv transmission line from Dubuque County, IA to Dane County, WI. The Utilities currently own two right-of-way easements on the Refuge near Millville, IA which host two transmission lines, a 161-kv and a 69-kv. Those easements are perpetual easements that existed prior to Service acquisition of the tract. One is 150 feet wide and the other unconfined and they lie along what is referred to as the Stoneman crossing.

Extensive environmental review has been completed for this project, including an Alternative Crossings Analysis completed in April 2016, an Environmental Impact Statement completed in September 2019, and a Supplemental Environmental Assessment completed in 2023. In-depth background, project need, and impacts are described in detail in the documents and can be found at <https://www.rd.usda.gov/resources/environmental-studies/impact-statement/cardinal-hickory-creek-transmission-line-project-iowa-wisconsin>. All the environmental reviews have led to a preferred alternative that the transmission line cross along a narrow portion of Refuge in the Turkey River Bottoms along an existing gravel road, Oak Road. This route is known as the Nelson-Dewey crossing. Oak Road is currently located on Service fee title lands and U.S. Army Corps of Engineers fee title lands, both managed as Refuge. Clayton County currently maintains the road through a Special Use Permit from the Service. The road is routinely inundated by floodwaters and creates significant management burden and fragmentation on the landscape.

In the Utilities' proposal for a land exchange, the Service would divest a 19.84-acre linear tract along Oak Road in Iowa and acquire 35.69 acres of wooded upland and wetland habitat, known as the Wagner tract, across the Mississippi River in Wisconsin. The proposal includes a Land

Exchange Agreement with protective land use limits similar to those regularly found in right-of-way permits. A copy of the proposed Land Exchange Agreement is attached to this memorandum. The Corps has already granted a right-of-way permit for the 9.22-acre portion of the Nelson-Dewey route that crosses Corps fee title lands that are managed as part of the Refuge. This proposed land exchange would also fulfil the 1:1 land area ratio mitigation for this Corps permit, as described in the Federal Mitigation Plan, FEIS Appendix B. These areas are identified in Figure 1 at the end of this document.

How will the exchange help to fulfill the refuge's purposes? The Refuge has the following purposes stated in the Upper Mississippi River National Wild Life and Fish Refuge Act, 16 U.S.C. § 723:

The refuge shall be established and maintained (a) as a refuge and breeding place for migratory birds included in the terms of the convention between the United States and Great Britain for the protection of migratory birds, concluded August 16, 1916, and (b) to such extent as the Secretary of the Interior may by regulations prescribe, as a refuge and breeding place for other wild birds, game animals, fur-bearing animals, and for the conservation of wild flowers and aquatic plants, and (c) to such extent as the Secretary of the Interior may by regulations prescribe as a refuge and breeding place for fish and other aquatic animal life.

As described below, the proposed land exchange fulfills the Refuge's purposes by exchanging lower quality habitat for higher quality habitat, increasing the total protected acreage in the Refuge, reducing habitat fragmentation in the long term, and allowing the Refuge to acquire a high-priority tract that would not otherwise be available. Each of these factors will further the purposes of conserving and maintaining refuge and breeding places for birds, animals, fish, and plants. Acquisition of the Wagner tract will also provide value for wildlife-dependent recreation on the Refuge, such as hunting, fishing and wildlife observation, which is directly related to the purposes of this Refuge and of the National Wildlife Refuge System as a whole.

The divested tract will also continue to provide some benefits to the Refuge purposes because it will be managed under the approved vegetation management plan. The vegetation management plan requires invasive species control, reduces and limits impacts associated with soil disturbance from use of heavy equipment, and identifies desirable plant species that are suitable for each zone within the transmission line corridor. All herbicide applications will be reviewed with the Refuge and approved prior to use. These requirements will ensure that vegetation on the divested tract, which will continue to adjoin Refuge lands, will be managed in a way that is aligned with Refuge needs, to the maximum extent possible. Public access across the divested tract will also continue to be allowed.

Compare the conservation value of the acquired land and the divested land. Does the acquired land have greater potential for achieving habitat protection objectives? The proposal to acquire the Wagner tract has tremendous conservation value to the Refuge and its

purposes since it provides higher quality habitat and less fragmentation. The Wagner tract has a mosaic of habitats, including mature floodplain forest, that provide benefits to wildlife species, and it fronts the Mississippi River. Acquiring and preserving the shoreline protects these sensitive areas from development and reduces the potential for erosion that could impact the endangered Higgins Eye pearl mussel and other sensitive aquatic species. Most of the tract does not need restoration, and the utilities have already completed the necessary tree planting restoration work on a smaller portion of the tract in November 2022 and continue to monitor the survival and success of the restoration effort. Restoration efforts have so far been successful on the tract, unlike those on the Turkey River bottoms, which are severely hampered by the flashiness of the Turkey River. The Wagner tract is nearly twice as large as the divested tract (35.69 acres vs 19.84 acres) and is substantially larger than the combined acreage of the USFWS divested tract plus the 9.22-acre Corps right-of-way within the Refuge (35.69 acres vs. 29.06 acres). While the divested tract is already fragmented by Oak Road, the Wagner tract does not have any roads or utilities fragmenting the habitat, and it adjoins other Refuge land. Refuge acquisition of this tract would preserve and protect undeveloped habitat adjacent to existing refuge lands that will increase habitat connectivity on the landscape. Because of its conservation value, the Wagner tract is listed as a high priority acquisition in the Refuge's Comprehensive Conservation Plan that was completed in 2006.

The conservation value of the divested tract along Oak Road is significantly lower than the Wagner tract to be acquired, as the Oak Road tract maintains little to no wildlife or habitat value. Habitat within the divested tract is primarily scrub-shrub and wet meadow habitats intermixed with young willow and cottonwood stands, where most of the scattered trees present are less than 15 years old. It is fragmented by the presence of the gravel road, is routinely inundated by floodwaters that are flashy and deposit debris from the Turkey River, and the area surrounding the gravel road consists of reed canary grass, an invasive plant, and scattered willows and shrubs. Attempts at restoring floodplain forest along the Oak Road corridor have not been successful because of these issues.

Since the Wagner tract has more acreage of higher quality, unfragmented habitat, it provides more conservation value than the divested tract and has greater potential for achieving habitat protection objectives.

What is the likely use of the divested parcel, if known, and what are the potential harms to the refuge, if any? The divested parcel will be used to construct and maintain the CHC Project. Impacts of the CHC Project on the Refuge are detailed in FEIS Section 3.14 and SEA Section 3.14. Construction and maintenance of the CHC Project will impact the entire divested parcel and visual quality and aesthetics in the vicinity and will contribute to habitat fragmentation. The divested tract would be affected by some minor tree clearing, but this tree clearing would not involve any potentially suitable woody habitat (i.e., larger trees) for northern long-eared bats based on an assessment conducted by a qualified consultant in October 2023.

The potential harms of building the CHC Project on the divested parcel must be considered in the context of all the terms of the land exchange and the existing transmission line fragmentation in this unit of the Refuge. Restrictions in the proposed Land Exchange Agreement will limit or mitigate negative impacts associated with the CHC Project. The deed to the divested tract would require the utilities to follow an approved vegetation management plan, which outlines specific habitat types and plant species in each zone of the transmission line footprint, as well as activities that will limit and/or remove soil disturbance and require control and treatment of invasive species. There is an increased potential for success of viable habitat in the divested tract through the vegetation management plan than without since the Service has had limited opportunity and success in treating reed canary grass in this area. Constant mowing/haying to prevent reed canary grass from going to seed in combination with herbicide application, could reduce reed canary grass based on available research, which would allow more desirable species to outcompete the invasive grass. The proposed Land Exchange Agreement would also require transmission line removal, habitat restoration, and easement abandonment for the utilities' existing transmission lines on both Service and Corps lands in this Refuge unit. However, the CHC Project will result in moderate visual impacts to the Refuge. Nonetheless, while restoration of the current easement areas will take time, in the long run, the proposed exchange would move transmission line impacts on the Refuge from more sensitive wetland habitat to the Oak Road location, which has poorer quality, already fragmented habitat. These changes would eliminate fragmentation and transmission line visual impacts in the more sensitive area where the existing lines are located.

Under the proposed land exchange, the Service would divest 19.84 acres of fee-title land along an existing road and railroad within the Refuge to the Utilities and gain 35.69 acres from the Utilities on the acquired tract. Based on commitments in the Land Exchange Agreement, the Utilities would also abandon, restore, revegetate, and convey to the United States approximately 28.1 acres of their existing perpetual rights-of-way within the Refuge (approximately 6.5 acres on Service lands and 21.6 acres on Corps lands), resulting in the removal of 30 transmission structures from the Refuge. The restoration and abandonment of these existing perpetual rights-of-way will remove fragmentation from more sensitive wetland habitats along the entire existing right-of-way through the Refuge on this tract and co-locate transmission line fragmentation with the existing gravel road, creating an overall reduction in habitat fragmentation in that area of the Refuge. The commitments in the Land Exchange Agreement will be enforceable through restrictions in the deed for the divested parcel. Thus, in combination with the Corps right-of-way, the Utilities' proposed land exchange would result in the Project occupying an approximately 29.06-acre corridor on lands within or exchanged from (formerly within) the Refuge. The total acreage of divested tract and previously issued Corps easement (29.06 acres) includes the existing gravel road which is not reflected in the loss of habitat since a portion of those lands has and will remain in use as gravel road.

Considering all of the above, how will this exchange be a net benefit to the refuge? This proposed land exchange provides an acquisition opportunity that was not previously available.

The Wagner tract is listed as a high priority acquisition in the Refuge’s 2006 Comprehensive Conservation Plan. The tract has never been offered to the Refuge for acquisition and the Refuge would likely be unable to acquire the tract outside of this proposed exchange due to limits of how much the Service can pay per acre based on fair market value. This exchange will be a net benefit to the Refuge since it will increase the acres protected in perpetuity by the Refuge by nearly double what is divested and the divested tract will be managed similarly to how it is managed now, creating a significant net gain of benefits. Abandonment and restoration of the utilities’ two existing perpetual transmission easements will provide additional benefits to the Refuge, improving habitat and eliminating fragmentation in that area. See Table 1 for habitat benefits resulting from the project and Table 2 for net change in Refuge acres as a result of the proposed land exchange.

Table 1. Habitat Benefit of the C-HC Project within the Upper Mississippi River National Wildlife and Fish Refuge

Net Habitat Benefit (in acres)	With Proposed Land Exchange and CHC Project (+/-)
Corps Easement for CHC Project	-9.22
Proposed Divested Tract	-19.84
Restored Abandoned Easement	+28.1 (Corps and FWS fee)
Proposed Acquired Tract	+35.69
Total Benefit (+/-)	+34.73

Table 2. Change of Refuge Land Acres resulting from C-HC Project within the Upper Mississippi River National Wildlife and Fish Refuge

Net Change (in acres)	With Proposed Land Exchange and CHC Project (+/-)
Proposed Divested Tract	-19.84
Proposed Acquired Tract	+35.69
Total Acres (+/-)	+15.85

In addition to meeting the net conservation benefit standard, are there other refuge management factors to consider for this exchange? There are other benefits to this land exchange beyond conservation benefits. Moving forward with this exchange will eliminate the

risk that the utilities would build the CHC Project through the Refuge using the broad rights in their existing easements along the Stoneman route. This possibility is discussed in SEA Section 2.3.2. Although this alternative was dismissed from detailed analysis in the SEA, if the Service declined this proposed land exchange, the utilities could pursue this alternative and have stated that they would do so. The CHC Project proponents have continued to be clear on their intent to complete this line along the Stoneman route if the land exchange does not go forward. They have ruled out any other possibilities by completing the Alternative Crossings Analysis, which showed there is no feasible route around the 261-mile long, approximately 244,000-acre refuge. As a result, the risk that the Utilities would build through the Refuge on the Stoneman route, absent this land exchange, is high. Assuming the utilities can construct and maintain the CHC Project pursuant to the rights granted by their existing easements, there would be no compatibility determination, in accordance with 603 FW 2.10.B.

Building the CHC Project using existing easements on the Stoneman route would cause much greater adverse impacts on and off the Refuge as compared to the Nelson-Dewey route that would include the land exchange. Using the Stoneman route would mean that transmission lines would continue to fragment more sensitive habitat with wetlands along the entire route through the Refuge. The Service would lose the opportunity to consolidate fragmentation along Oak Road. The Stoneman route would also have significant impacts to cultural resources in Iowa off Refuge lands and would have impacts to residences, churches, schools, and a municipal airport in the Village of Cassville, WI, as discussed in the FEIS. Because of these negative impacts on and off the Refuge, the FEIS selected the Nelson-Dewey route instead of the Stoneman route. Visual impacts of transmission lines are expected along roadways and although this project, as proposed with the land exchange, would increase the visibility of the transmission line in this area by aligning it along the existing roadway and out of the more heavily forested area, the extended width of the utility corridor will allow for shorter towers. Using the existing utility easements on the Stoneman route would cause greater negative impacts to birds and to visual quality as compared to the land exchange proposal or the Stoneman alternative discussed in the FEIS, because the transmission line would be constructed with much taller structures in order to stay within the width of the existing easements, and would be constructed within less fragmented, higher quality Refuge habitats which would make them seem more out of place than the standard placement along a roadway. Due to these significant negative impacts, facilitating the crossing along the already-fragmented Oak Road and allowing a wider footprint to accommodate the shorter structures is in the best interest of the Refuge, cultural resources, and the Village of Cassville.

Conclusion

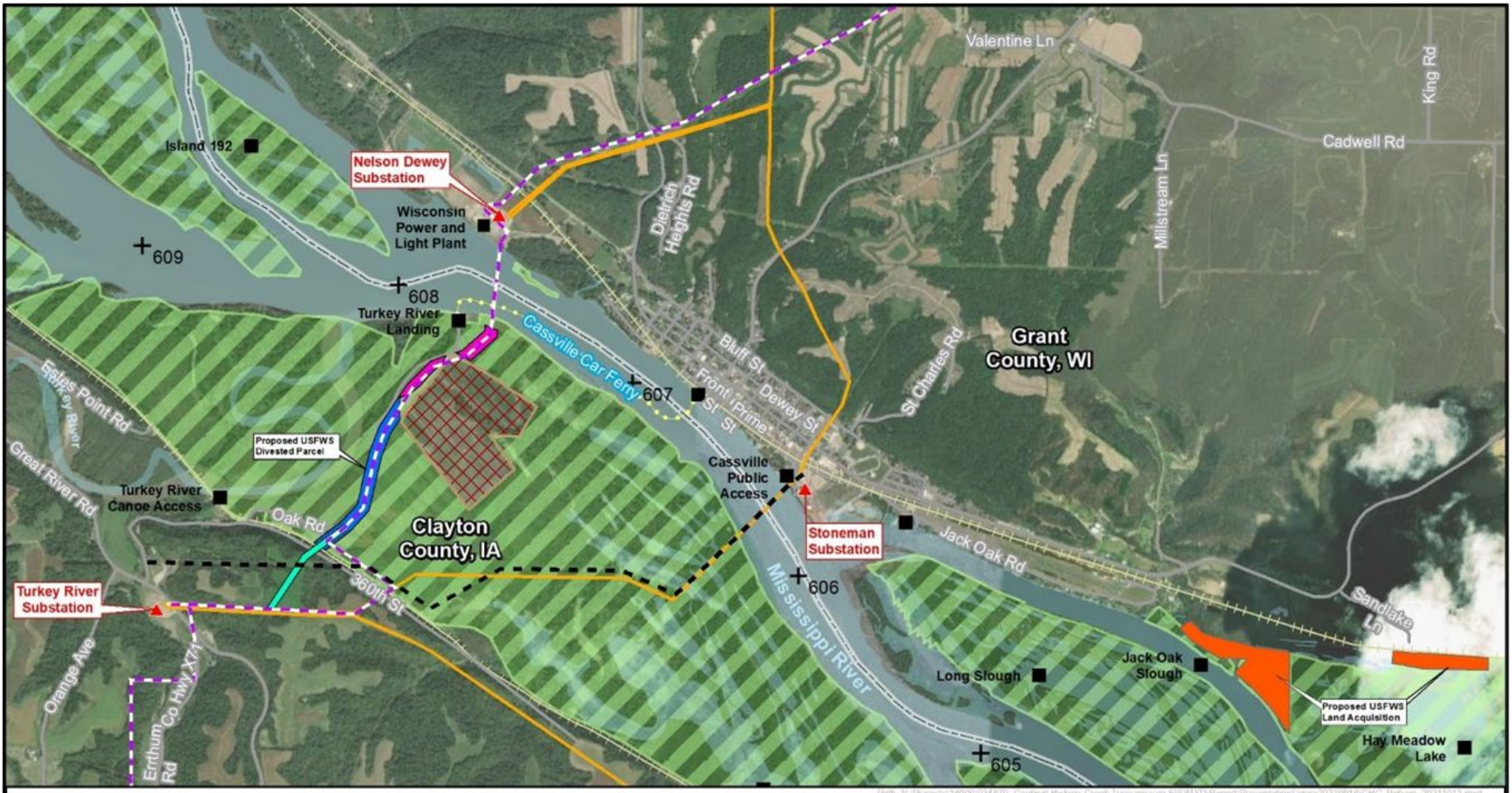
Based on this analysis, the land exchange will provide a net benefit to the Refuge and the National Wildlife Refuge System and complies with the requirements of the National Wildlife Refuge System Improvement Act.

Signature Approval:

(1) Refuge Manager

(2) Assistant Regional Director, NWRS

(3) Regional Director



CARDINAL-HICKORY CREEK 345-KV TRANSMISSION LINE EIS

TRANSMISSION LINE CORRIDORS

UPPER MISSISSIPPI RIVER NATIONAL WILDLIFE AND FISH REFUGE MAP

CLAYTON & DUBUQUE CO, IOWA
GRANT, LAFAYETTE, IOWA AND DANE CO, WISCONSIN

▲ Existing Project Substations	— Existing 161-kV Transmission Line	■ Proposed USFWS Divested Parcel	■ Upper Miss. River Nat'l Wildlife and Fish Refuge
■ Pool 11 Features	- - - 2020 Selected Route	■ USACE Easement DACW25-2-20-4030	■ Private Inholding
+ River Miles	— Route Modification B-IA3	— Roads	
- - - Existing N-9 Transmission Line	■ Wagner Tract Proposed for USFWS Acquisition	— Railroad	
— Cassville Car Ferry			

October 2021

Figure 1. Proposed Land Exchange on Refuge Lands