ENVIRONMENTAL LAW & POLICY CENTER
Protecting the Midwest's Environment and Natural Heritage

COMMENT ON DRAFT COMPATIBILITY DETERMINATION

UPPER MISSISSIPPI RIVER NATIONAL WILDLIFE AND FISH REFUGE
CARDINAL-HICKORY CREEK HIGH-VOLTAGE TRANSMISSION LINE

Thank you for the opportunity to comment on the draft Compatibility Determination for the proposed crossing of the Upper Mississippi National Wildlife and Fish Refuge (the Refuge) by the new Cardinal-Hickory Creek 345-kilovolt transmission line (CHC Project). The proposed CHC Project would run above ground through land owned or managed by the U.S. Fish and Wildlife Service (USFWS) in the Refuge in Iowa, before crossing the Mississippi River to Cassville, Wisconsin.

The CHC Project would open a new right-of-way (ROW) 260 feet wide through the Refuge and cross the River near the now-demolished Nelson Dewey coal-fired power plant in Cassville. From there, the CHC Project will proceed through the Driftless Area in southwestern Wisconsin and eventually connect to a substation in Middleton, WI, just outside of Madison. The CHC project will include fourteen high-voltage transmission towers on Refuge land. Twelve of them will be H-style towers, typically 75 feet high, but at the River crossing, two of the towers will be approximately 195 feet high. The 260-foot ROW will be clearcut and vegetation strictly controlled through herbicide application throughout the 60-year (or more) life of the Project.

There is an existing 150-foot transmission right-of-way, not on the same route, that crosses the Mississippi River about a mile south of where the proposed CHC Project would cross. That right-of-way has been occupied by transmission lines, one 161 kV, one 69 kV, on 75-foot single pole structures. The applicants have said that, if the CHC Project is approved, they intend to tear down the existing line, at the so-called "Stoneman crossing," and restore the clearcut land on that corridor so it will someday again be suitable for wildlife habitat.

This comment is submitted by the Environmental Law & Policy Center on behalf of the Driftless Area Land Conservancy and the Wisconsin Wildlife Federation, and by the National Wildlife Refuge Association and the Defenders of Wildlife (collectively, "Commenters"). Contrary to the draft Compatibility Determination, Commenters submit that the CHC project (1) cannot meet the requirements for a "compatible use" under the National Wildlife Refuge System Administration Act of 1966 (1966 Act), as amended by the National Wildlife Refuge System Improvement Act of 1997 (1997 Act), 16 U.S.C. §§ 668dd, 668ee; and (2) cannot be justified as merely a "realignment" or "minor extension or expansion" of an existing transmission line right-of-way. Allowing the CHC Project to proceed through the Upper Mississippi Refuge sets a dangerous precedent. A number of our national wildlife refuges are currently crossed by pipelines or transmission lines that predate the 1966 and 1997 Refuge Administration Acts and, under the best of circumstances, it will be many years before those incompatible uses can be reduced and eliminated. Under the theory outlined in this draft Compatibility Determination, however, those

incompatible uses will *never* be eliminated, and indeed will be used to allow the construction of new infrastructure that would expand or even, as in this case, extend to additional Refuge land in perpetuity.

The expansion or extension of infrastructure to additional Refuge land is contrary to both the letter and spirit of the 1966 and 1997 Acts. We therefore urge that the draft Compatibility Determination be withdrawn, and that the joint Application for Transportation and Utility Systems and Facilities on Federal Lands from applicants ITC Midwest and Dairyland Power Cooperative be denied.

Background on the Upper Mississippi River National Wildlife and Fish Refuge

The Upper Mississippi River National Wildlife and Fish Refuge was established by an Act of Congress in 1924. Upper Mississippi River National Wildlife and Fish Refuge Act, Pub. L. No. 68-268, 43 Stat. 650 (1924). Today, it covers approximately 240,000 acres of Mississippi River floodplain along a 261-mile corridor running from near Wabasha, Minnesota to near Rock Island, Illinois. The 1924 Act describes the purposes of the Refuge as follows:

a. [A]s 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. [T]o such extent as the Secretary 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. [T]o such extent as the Secretary may be regulations prescribe as a refuge and breeding place for fish and other aquatic animal life.

16 U.S.C. § 723. The Refuge's own informational material describes it as "an invaluable natural legacy recognized by Congress as part of a nationally significant ecosystem." The Refuge's Comprehensive Conservation Plan (CCP) describes it as a "seemingly endless panorama of river, backwaters, marshes, islands, and forest, framed by steep bluffs" and as "a national scenic treasure." It is the most heavily visited national wildlife refuge in the System, with an estimated 3.7 million annual visitors. The CCP also calls it "perhaps the most important corridor of fish and wildlife habitat in the central United States":

- 306 bird, 119 fish, 51 mammal, and 42 mussel species recorded;
- Up to 40% of the continent's waterfowl use the Mississippi Flyway during migration, with up to the 50% of the world's Canvasback ducks and 20 % of the eastern U.S. population of Tundra Swans stopping on the Refuge during fall migration;
- 167 active Bald Eagle nests in 2005, up to 2,700 eagles on the Refuge during spring migration; and
- Approximately 5,000 heron and egret nests in up to 15 colonies.

The Refuge has National Scenic Byways on both sides. It has been designated as a Globally Important Bird Area, and has been designated a floodplain Wetland of International Importance by the Ramsar Convention on Wetlands.

Governing Law

The statute governing management of the Refuge is the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, 16 U.S.C. § 668dd, 668ee. The 1997 Act for the first time clarified that the *sole* mission of the National Wildlife Refuge System is:

> [T]o administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

16 U.S.C. § 668dd(a)(2). That mission includes the obligation to "ensure that the biological integrity, diversity, and environmental health of the System are maintained… ." 16 U.S.C. § 668dd(a)(4)(B).

The 1997 Act was enacted in response to a series of reports finding that incompatible uses, including transmission lines, were threatening the biological integrity and purposes of the national wildlife refuge. *See generally* U.S. Gov't Accountability Office, GAO-RCED-89-196, *National Wildlife Refuges: Continuing Problems with Incompatible Uses Call for Bold Action* (1989), https://www.gao.gov/assets/150/148073.pdf. The GAO report recommended that, to address that weakness in the 1966 statute, "compatibility determinations" needed to be based *solely* on biological criteria to prevent nonbiological considerations from influencing such decisions. *Id.* at 24. It also recommended that existing "secondary uses" like pipelines, powerlines, and business activities on Refuge land be periodically reevaluated, and that incompatible uses be eliminated as soon as practicable. *Id.* at 33.

Consistent with that newly clarified mission, the 1997 Act provides that the Secretary [USFWS] "shall not initiate or permit a new use of a refuge or *expand, renew, or extend an existing use* of a refuge, unless the Secretary has determined that the use is a compatible use and that the use is not inconsistent with public safety." 16 U.S.C. § 668dd(d)(3)(A)(i) (emphasis added). Even more specifically, the Act provides that USFWS may not grant easements for "purposes such as but not necessarily limited to, powerlines, telephone lines, canals, ditches, pipelines, and roads, including the construction, operation, and maintenance thereof" unless it has first "determine[d] that such uses are compatible with the purposes for which these areas are established." 16 U.S.C. §668dd(d)(1)(B).

The statute also requires that *existing* incompatible uses be eliminated as soon as possible. It explicitly requires the Secretary to "provide for the elimination or modification of any use as expeditiously as practicable after a determination is made that the use is not a compatible use." 16 U.S.C. § 668dd(d)(3)(B)(vi). The statute requires USFWS to reevaluate existing uses whenever "conditions under which the use [was] permitted change significantly, or there is

significant new information regarding the effects of the use, but not less frequently than every 10 years, to ensure that the use remains a compatible use." 16 U.S.C. § 668dd(d)(3)(B)(vii). Projects such as transmission lines with easements extending more than 10 years are still to be reevaluated at least every 10 years, but only to "examine compliance with the terms and conditions of the authorization, not examine the authorization itself." *Id.*

The 1997 Act says "[c]ompatibility determinations in existence on October 9, 1997, shall remain in effect until and unless modified," 16 U.S.C. § 668dd(d)(3)(A)(iv), but conspicuously does not grandfather in existing incompatible uses anywhere.

The 1997 Act also established a much clearer standard for "compatibility." "Compatible use" is now defined as:

> [A] wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Director, will *not materially interfere with or detract from* the fulfillment of the mission of the System or the purposes of the refuge.

16 U.S.C. § 668ee(1) (emphasis added). "Sound professional judgment," in turn, is defined as a "determination or decision that is consistent with principles of sound fish and wildlife management and administration, available science and resources, and adherence to the requirements of [the Improvement] Act and other applicable laws." 16 U.S.C. § 668ee(3).

The regulations adopt the same general definitions as the statute. 50 C.F.R. §§ 25.12, 29.21; *see generally* Final Compatibility Regulations Pursuant to the National Wildlife Refuge System Improvement Act of 1997, 65 Fed. Reg. 62,458 (Oct. 18, 2000). The "policy" USFWS adopted at that same time, Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997, 65 Fed. Reg. 62,484 (Oct. 18, 2000), largely incorporated into part 603 of the USFWS Manual, fws.gov/policy/manuals, contains the same general definition as well, but the policy also adds a number of substantive clarifications to the compatibility definition.

First, it squarely places the burden of proving compatibility on applicants:

> Compatibility, therefore, is a threshold issue, and the proponent[s] of any use or combination of uses must demonstrate to the satisfaction of the Refuge Manager that the proposed use[s] pass this threshold test. The burden of proof is on the proponent to show that they pass, not on the Refuge Manager to show that they surpass.

603 FW § 2.11.B(1), 65 Fed. Reg. at 62,489. And it makes clear that in the "incomplete information" situation, the applicant will not have met its burden of proof. "If information available to the Refuge Manager is insufficient to document that a proposed use is compatible, then the Refuge Manager would be unable to make an affirmative finding of compatibility, and we must not authorize or permit the use." 603 FW § 2.11.E; 65 Fed. Reg. at 62,490.

Second, the rules and policy emphasize that proposed "economic" uses for a Refuge are to receive stricter scrutiny than uses that support wildlife conservation or wildlife-dependent recreation. As the rules provide: "We may only authorize public or private economic use of the natural resources of any national wildlife refuge . . . where we determine that the use *contributes to* the achievement of the national wildlife refuge purposes or the National Wildlife Refuge System mission." 50 C.F.R. § 29.1 (emphasis added). That section of the rules then states that "economic" use "includes *but is not limited to* grazing livestock, harvesting hay and stock feed, removing timber, firewood or other natural products of the soil, removing shell, sand or gravel, cultivating areas, or engaging in operations that facilitate approved programs of national wildlife refuges." *Id.* (emphasis added). This proposed high-voltage transmission line is, of course, a purely "economic" use that would do nothing to "contribute to" wildlife conservation or wildlife-dependent recreation.

Third, the Policy expressly requires Refuge managers to complete a review of indirect and cumulative impacts, considering both other existing and likely future proposed uses:

> The Refuge Manager must consider not only the direct impacts of a use but also the indirect impacts associated with the use and the cumulative impacts of the use when conducted in conjunction with other existing or planned uses of the refuge, and uses of adjacent lands or waters that may exacerbate the effects of a refuge use.

603 FW § 2.11.B(3); 65 Fed. Reg. at 62,489.[1]

Fourth, the Policy prohibits using "compensatory mitigation" to make a proposed use compatible. Refuge managers may not allow incompatible uses on Refuge land in exchange for applicant commitments to provide additional wildlife habitat elsewhere. "We will not allow compensatory mitigation to make a proposed refuge use compatible. . . . If the proposed use cannot be made compatible with stipulations we cannot allow the use." 603 FW § 2.11.C; 65 Fed. Reg. at 62,489.

Fifth, the Policy takes a very strong position against permitting habitat fragmentation:

> Fragmentation of the National Wildlife Refuge System's wildlife habitats is a direct threat to the integrity of the National Wildlife Refuge System both today and in the decades ahead. Uses that we reasonably may anticipate to reduce the quality or quantity or fragment habitats on a national wildlife refuge will not be compatible.

603 FW § 2.5.A; 65 Fed. Reg. 62, 486.

[1] *E.g.* future high-voltage transmission lines crossing the Refuge. Mike Hughlett, *Minnesota Utilities Will Study if the $2B CapX2020 Grid Improvements Were Enough*, StarTribune (Aug. 19, 2019), http://www.startribune.com/minnesota-utilities-will-study-if-the-2b-capx2020-grid-improvements-were-enough/554442792/ (describing likely "CapX2050" project to expand existing CapX2020 transmission lines).

Consistent with that, the USFWS Manual states unequivocally that "[i]t is the policy of the Service to discourage the types of uses embodied in right-of-way requests. On areas in the National Wildlife Refuge System (System) if a right-of-way cannot be certified as compatible with the purposes for which a unit was established, it cannot be granted without authorization by Congress." Manual, 340 FW § 3.3.

Analysis—Compatibility

To their credit, the Refuge managers who prepared the draft Compatibility Determination did not attempt to argue or even suggest that the CHC Project could pass the "compatible use" test if it were a new project. It is clear that the proposed CHC Project would significantly negatively impact and interfere with the purpose of the Refuge. As Kevin Foerster, former supervisor for the Upper Mississippi River Refuge, outlined in a letter related to a prior high-voltage transmission line proposal:

> By their nature, right-of-ways and some construction projects can cause habitat fragmentation; reduce habitat quality; degrade habitat quality through the introduction of contaminants; disrupt migration corridors; alter hydrology; facilitate introduction of alien, including invasive, species; and disturb wildlife. Proposed uses which would conflict with the legal requirement to maintain biological integrity, diversity and environmental health are not appropriate or compatible.

Letter from Kevin Foerster, Refuge Supervisor to Stephanie Strength, RUS Environmental Protection Specialist (Feb. 23, 2012) (Attachment A). Construction and operation of a new high-voltage transmission line would certainly cause many, if not all, of these impacts. The likely frequency of fatal bird collisions is especially concerning considering that the CHC Project would run east-west across the north-south Mississippi Flyway and the protection of migratory birds is the first statutory purpose of the Refuge.

Consistent with that view, when first consulted about the CHC project, the current Refuge managers made it very clear that, although there are existing transmission lines crossing the Refuge, those uses are incompatible and potential applicants could not meet the burden necessary to secure approval today. Minutes from a multi-agency meeting on September 18, 2012 reported as follows:

> Tim Yager [deputy Refuge manager] said that any proposed impact to the refuge would require demonstration of avoidance. Both Rich King [Driftless Area Refuge manager] and Tim Yager said the alternatives that have been discussed today were presenting minimization and mitigation measures. Tim said that the existing transmission lines were authorized many years ago and would likely not be permitted or considered a compatible use today. Tim said he is very uncomfortable with moving forward with only Cassville options being considered, since all of these alternatives have impacts to the refuge.

Meeting Minutes, ATC Cardinal Bluffs Project – Multi-Agency Meeting, at 6 (Sept. 18, 2012) (Attachment B). Throughout this process, the Refuge managers have stated their strong

preference that the CHC Project avoid crossing the Refuge if at all possible. During the scoping phase of the federal environmental review for the CHC project, the Environmental Protection Agency (EPA) took the same position—that the project should not go forward without serious consideration of non-Refuge-crossing alternatives. Letter from Kenneth A. Westlake, Chief of NEPA Implementation Section, U.S. EPA Office of Enforcement and Compliance Assurance, to Dennis Rankin, Envtl. Specialist, U.S. Dep't of Agriculture, Rural Utilities Service, at 2 (Jan. 6, 2017) (Attachment C).

The draft Compatibility Determination itself outlines many of the negative impacts that justify that position:

(1) Negative visual impacts, significantly greater with the selected Nelson Dewey right-of-way;
(2) Permanent disruption of forest succession patterns, especially for the "young" forest established by the Turkey River restoration project; and
(3) The "loss, degradation, and/or fragmentation of breeding, rearing, foraging, and dispersal habitats, and increased noise/vibration levels," especially during construction but also from maintenance activities.

Likewise, the final environmental impact statement for the CHC project (the "FEIS"),[2] currently out for comment, describes how the project will "materially interfere with and detract from" the Refuge's purposes:[3]

- Temporary or permanent removal, degradation, or alteration of vegetation within the Refuge (primary land cover class being wetland), FEIS at 157;
- Project will cross 15 identified wetlands, 41 acres within the ROW, including 27 acres of mature forested wetland, FEIS at 419;
- The Project will diagonally cross the Turkey River restoration area, resulting in habitat fragmentation of the restoration area. That habitat fragmentation will, according to the EIS, "adversely impact forest interior species that need large contiguous tracts of forest to complete their life cycles." (The Turkey River restoration area is currently "young forest," with the goal, at least before the CHC project, being a long-term restoration of the Turkey River floodplain so it can grow into bottomland forest within 100 years.), FEIS at 421;
- If the Project is approved, the existing low-voltage line along the "Stoneman crossing" ROW will be retired and revegetated, but it will take 25 to 50 years for the area to return to surrounding vegetative conditions, FEIS at 420;
- Adverse impact on recreational users, during construction and then permanently by "altering the visual environment from an undeveloped landscape to a developed landscape," FEIS at 421;

[2] Final Environmental Impact Statement for the Cardinal-Hickory Creek Transmission Line Project, Rural Utilities Service (Oct. 2019), available at https://www.rd.usda.gov/publications/environmental-studies/impact-statements/cardinal-%E2%80%93-hickory-creek-transmission-line.
[3] The draft Compatibility Determination is based on Segment B-1A2, in the environmental impact statement, a version of the "Nelson Dewey crossing."

- "Long-term, major adverse impacts to scenic resources within the Refuge"—new transmission line structures and conductors which will "dominate the landscape and detract from current user activities" along Oak Road, and "additional visual impacts to visitors, fishermen, and wildlife photographers as well as car ferry users in the area," FEIS at 422;
- New avian collision risk, "particularly for larger species and in areas of dense bird congregations, such as migrating waterfowl corridors in the Mississippi Flyway. . . . Migratory waterfowl would be especially susceptible to transmission line collisions where the proposed transmission lines are near migration staging areas and natural flight corridors such as the Mississippi River. FEIS at 185.

For all of those reasons, the draft Compatibility Determination does not attempt to deny the proposition that the CHC Project will indeed "materially interfere with or detract from" the Refuge's purposes. There is likewise no suggestion that the CHC Project will somehow "contribute to" the Refuge's purposes, or that applicants have in any way met their burden to prove that their proposal would be a "compatible use." Under the 1997 Act, the rules, and the policy, then, that means the compatibility determination should be negative.

Analysis—Claimed Exemption for "Existing Rights-of-Way"

Instead of addressing the compatibility issue head on, the draft Compatibility Determination tries to avoid the issue by contending that Congress *prohibited* them from considering negative Refuge impacts, because this is only a "reauthorization" of an "existing right-of-way." The draft relies almost entirely on an interpretation of a sentence in 50 C.F.R. § 25.21(h), which reads "When we prepare a compatibility determination for re-authorization of an existing right-of-way, we will base our analysis on the existing conditions with the use in place, not from a pre-use perspective." The draft interprets that sentence to mean "[i]n other words, only modifications from the historic permitted use are to be analyzed." Draft Compatibility Determination at 9. Then, based on that interpretation, the draft attempts to minimize the size of the modification by making calculations about affected acreage. As the draft says, if one assumes that the entire existing right-of-way is successfully and completely restored instantly, and therefore can be subtracted from total affected acreage, there will in the end only be a net increase of 2.5 acres of affected habitat with the new right-of-way. And the draft says applicants have agreed to provide compensatory mitigation with habitat on land now in private ownership.[4]

That interpretation and application of the rule is simply incorrect.

First, the CHC project is not a "re-authorization of an existing right-of-way." It is an entirely new right-of-way, in a different location, on different property. It is much larger than the existing right-of-way; 260 feet wide instead of 150 feet, nearly 75% wider. Unlike the existing right-of-way, it travels through the Turkey River restoration area, a Refuge priority and significant financial commitment, just as new trees are getting established. It will involve towers up to 195 feet high, more than double the height of the current 161-kV towers, and wider H-shaped towers instead of the single-pole towers that currently exist. The proposed use will be more intensive—

[4] This despite the USFWS's express policy against using compensatory mitigation to reach a positive compatibility finding.

two 345 kV high-voltage lines instead of two lower-voltage 69 kV and 161 kV lines. And, instead of smaller lines near the end of their useful life, the Refuge will feel the impacts of the larger lines for at least the next 60 years. That is not a "reauthorization" of an existing use. That is permitting a new use, or, at best, permitting applicants to dramatically "expand, renew, or extend an existing use." 16 U.S.C. § 668dd(d)(3)(A)(i). In either case, the Act requires a full compatibility determination.

Nor can this Project somehow be characterized as routine "maintenance of an existing right-of-way." The USFWS Manual does say that "maintenance of an existing right-of-way" can include "minor expansion or minor realignment to meet safety standards." 603 FW § 2.11.D. But the examples provided are truly minor: "expand the width of a road shoulder to reduce the angle of the slope, expand the area for viewing on-coming traffic at an intersection; and realign a curved section of a road to reduce the amount of curve in the road." *Id.* Granting a new right-of-way 260 feet wide on different land, 110 feet wider than any existing right-of-way in the area, for high-voltage transmission towers, two of which will be nearly 200 feet high, designed to last for 60 years is considerably less minor than expanding the width of a road shoulder to make it safer. There are, of course, no safety standards at issue here. This is a proposed large scale, stand alone construction project, pure and simple, that has no connection whatsoever to any reasonable concept of "maintenance."

Second, by its own terms, it is not at all clear that 50 C.F.R. § 25.21(h) applies to this situation at all. Subsection (h) is about "compatibility *re*-evaluations" not initial "compatibility determinations." The 1997 Act directs USFWS to reevaluate compatibility determinations at least every 10 years to account for new information and experience. There is no evidence, however, that the existing transmission line ROW—the Stoneman ROW—ever went through a compatibility determination evaluation under the terms of either the 1966 Act or the 1997 Act. The existing lines were built back in the 1950's. Consequently, there is no existing compatibility determination to reevaluate, and subsection (h) simply does not apply. The statute's language does not permit any other interpretation. Section 668dd(d)(3)(A)(iv), which is the only provision that addresses what would be "grandfathered in" makes it clear that only "compatibility determinations" would be, not all preexisting uses. The existing transmission line ROW is almost certainly one of the incompatible uses that drove the GAO report in 1989, U.S. Gov't Accountability Office, GAO-RCED-89-196, *National Wildlife Refuges: Continuing Problems with Incompatible Uses Call for Bold Action* (1989), https://www.gao.gov/assets/150/148073.pdf. GAO-RCED-89-196, and led to the passage of the Act in 1997, the kind of incompatible use the 1997 Act was intended eventually to eliminate.

Third, while the legislative history of the 1997 Act suggests a concern about eliminating existing rights-of-way, H.R. Rep. 105-106, at 13 (1997), there is no evidence that Congress intended to give existing right-of-way easement or permit holders the right to continue their incompatible uses in perpetuity. There is certainly no evidence that Congress intended to allow right-of-way holders to expand and extend their otherwise incompatible uses of Refuge property. The key term is "existing." If USFWS were to order the existing low-voltage transmission line at Cassville torn down before the easements expire, without recompense, the owners would have a legitimate beef. Nothing in that House Report suggests, however, that easement holders have a

permanent right, not only to keep their easements, but also to expand or extend them, or to swap them for new easements in new locations.

Fourth, USFWS policy flatly prohibits using compensatory mitigation like the applicant's proposal to restore the Stoneman ROW (and create habitat on private property elsewhere) to justify a project. 603 FW § 2.11.C. Even if this project could be reasonably characterized as maintenance of an existing right of way, which it cannot, USFWS policy sets minimum requirements that have not been met here, particularly the requirement that all restoration work be completed before any new easement is recorded:

> We will not make a compatibility determination and will deny any request for maintenance of an existing right-of-way that will affect a unit of the National Wildlife Refuge System, unless (1) the design adopts appropriate measures to avoid resource impacts and includes provisions to ensure no net loss of habitat quantity or quality; (2) restored or replacement areas identified in the design are afforded permanent protection as part of the national wildlife refuge or wetland management district affected by the maintenance; and (3) all restoration work is completed by the applicant prior to any title transfer or recording of the easement, if applicable.

603 FW § 2.11.D. Here, as the draft freely acknowledges, achieving "no net loss" of habitat will require the restoration of the Stoneman ROW and the unidentified private property to succeed, a result which may not be achievable at all, but which will certainly involve a process that will likely take decades to complete.

Fifth, the draft's interpretation cannot be reconciled with analogous zoning law principles governing nonconforming uses. The general rule, of course, is that any right to continue a nonconforming use—a use that violates the zoning code but is grandfathered in—does *not* include a right to expand or enlarge it. Patricia E. Salkin, *Expansion of Nonconforming Use*, 2 Am. Law of Zoning § 12.19 (2019). As the Iowa Supreme Court explained:

> The prohibition against expanding or enlarging a non-conforming use defends against the growth of a pre-existing aggravation. That pre-existing aggravation, the non-conforming use, survives as a matter of grace. The public is not required to expand upon that grace to its increasing aggravation.

Perkins v. Madison Cty. Livestock & Fair Ass'n, 613 N.W.2d 264, 270 (Iowa 2000) (citing *Stan Moore Motors, Inc. v. Polk County Bd. Of Adjustment*, 209 N.W.2d 50, 53 (Iowa 1973)). To the extent a zoning ordinance allows expansion of nonconforming uses, the rule is to construe that strictly against the owner, consistently with the policy of restraining and eventually eliminating nonconforming uses. Rathkopf et al., *Zoning Treatment of Nonconforming Uses*, 4 Rathkopf's The Law of Zoning and Planning § 73.16 (4th ed., 2019). When the proposal uses more land than the existing use, or increases the height of structures, or proposes to use a different parcel of land, the courts have uniformly rejected the idea that the owner has a right to the modification. *Id.* at §§ 73.18, 73.22, 73.25. The USFWS's authority to prohibit uses that are not compatible with Refuge purposes works very much like a zoning ordinance. Like a zoning code, the goal is to

eventually eliminate incompatible uses. The 1997 Act differs with the typical zoning ordinance by expressly requiring incompatible uses to be eliminated as soon as practicable, but even to the extent preexisting rights-of-way are allowed to remain for the length of their easement terms, nothing allows them to be expanded or enlarged. Reading the rules in any other way would mean that the Service would be forced to allow transmission lines, pipelines, and roads now crossing Refuges, not only to serve out their useful life or their easement terms, but to expand whenever the owners want, even to build on different property, and to expand in perpetuity. That is not what Congress intended in 1997.

What Congress intended was that, when a proposal came in to expand or extend an existing use in a Refuge, the Refuge managers would treat it just like a proposal for a new use. They would assess whether the applicants had proven that their proposed use would not "materially interfere with or detract from" the Refuge's purposes, 16 U.S.C. § 668ee(1), or, in the case of a proposed "economic" use, that the proposed use would "contribute[] to" those purposes, 50 C.F.R. § 29.1. If the applicants could not meet their burden of proof, the application would be denied.

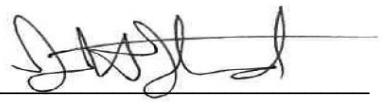
Conclusion

The CHC project would impose a new incompatible use on a part of our nation's public lands system that needs more, not less, protection. This draft Compatibility Determination sets a terrible precedent by granting old right-of-way easement or permit holders a permanent right to shelter huge new construction projects bearing no resemblance to the original projects from the strict application of the 1966 and 1997 Refuge Acts. A river valley migratory bird refuge should be the last place—not the first place—to build huge new transmission lines. Establishing this precedent will do yet more damage to wildlife habitat and wildlife-dependent pursuits in our National Wildlife Refuge System. That is not what Congress intended; that is not something USFWS should allow, nor is it something that the USFWS has the legal authority to allow. USFWS's duty under the statute is to "ensure that the biological integrity, diversity, and environmental health of the System are maintained," 16 U.S.C. § 668dd(a)(4)(B), not to find ways to accommodate the kind of incompatible economic activities that drove passage of the statute in the first place.

For all of the reasons set forth in these comments, the Service should withdraw its draft Compatibility Determination and reject the project proponents' application.

Dated: November 25, 2019

Respectfully submitted,



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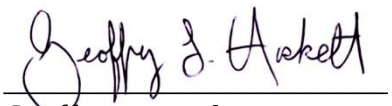

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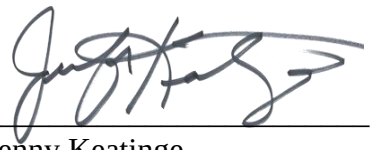

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COMMENT ON DRAFT COMPATIBILITY DETERMINATION

UPPER MISSISSIPPI RIVER NATIONAL WILDLIFE AND FISH REFUGE
CARDINAL-HICKORY CREEK HIGH-VOLTAGE TRANSMISSION LINE

ATTACHMENT A:

Letter from Kevin Foerster, Refuge Supervisor to Stephanie Strength, RUS Environmental Protection Specialist (Feb. 23, 2012)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Upper Mississippi River National Wildlife and Fish Refuge
51 E. Fourth Street - Room 101
Winona, Minnesota 55987

February 23, 2012

Stephanie A. Strength
Environmental Protection Specialist
Engineering and Environmental Staff
Rural Utilities Service
1400 Independence Ave. SW
Mail Stop 1571, Room 2242
Washington, DC 20250

Dear Ms. Strength:

As a cooperating agency in preparation of National Environmental Policy Act documentation for the CAPX2020 project, we are appreciative of your efforts to produce an environmental impact statement for the project which provides full and fair disclosure of impacts to deciding officials within the U.S. Department of Agriculture, Rural Utilities Service (USDA-RUS).

As a follow-up to our telephone conversation on February 22, 2012 we are providing information to assist USDA-RUS with responding to public comments regarding the decision to not include expansion of an expired right-of-way across the Upper Mississippi River National Wildlife and Fish Refuge (Refuge) as an alternative project route.

As discussed on February 22nd and reiterated through multiple communications over several years with the project applicant and your agency, expansion of the expired right-of-way across the Black River bottoms is not an appropriate use of Refuge lands. Enclosed you will find further description, rationale and justification for why expansion of the expired right-of-way is not an appropriate use of the national wildlife refuge. This appropriate use finding is only applicable to the 345kv line issue at the Black River bottoms.

If you require any clarification on the enclosed documents, please contact me or Deputy Refuge Manager Tim Yager at (507) 452-4232.

Sincerely,

Kevin S. Foerster
Refuge Supervisor

Attachments

cc: Tony Sullins, TCFO

Why is expansion of the existing Q1 line (route) not considered an alternative in the Federal EIS for the proposed 345 kV line?

An existing 161 kV power line (known as the Q1 line and operated/maintained by Dairyland Power, Inc.) crosses the Upper Mississippi River National Wildlife and Fish Refuge (Refuge) on an expired right-of-way. The right-of-way permit for the Q1 line was issued by the Bureau of Land Management (BLM) in 1951. Prior to December 19, 1969, permits for rights-of-way across lands under the primary jurisdiction of the U.S. Fish and Wildlife Service (Service) were issued by the BLM in accordance with regulations now published in 43 CFR 2800. After December 19, 1969, the Service's basic authority for granting right-of-way permits and/or easements is the National Wildlife Refuge System Administration Act of 1966 as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 668dd-668ee).

The expired Q1 right-of-way was authorized in 1951 for a period not to exceed 50 years. As noted in the U.S. Fish and Wildlife Service decision document dated December 12, 1950, the right-of-way *"...shall be limited specifically to an area lying within 20 feet on both sides of the centerline of the proposed right-of-way as shown in the application and on the maps therewith designated" drawing of Power Line for Easement on Federal Lands, La Crosse County Wisconsin," No L-91, Reference Drawing P-16 SHT 14 S."* In effect, this permitted a 40-foot wide by approximately 5,000-foot long corridor on the Refuge through the Black River Bottoms near the Village of Trempealeau, WI and the Village of Holmen, WI.

The project applicant contacted the Upper Mississippi River National Wildlife and Fish Refuge as early as 2006 to explore opportunities/alternatives for utilizing the expired Q1 right-of-way in constructing a new 345 kV power line as part of the CAPX2020 project. As described by the project applicant, utilization of the expired right-of-way would require expansion of the "footprint" of the expired right-of-way. It should be noted that the right-of-way expired in 2001 and is nearly 60 feet beyond the authorized 40-foot corridor. The expanded right-of-way for the CAPX2020 project would require a significant increase to an approximate 155-foot wide by 5,000-foot long corridor.

"Renewal" and/or reissuance of a right-of-way permit for the existing Q1 line as well as expansion of the expired right-of-way to accommodate a new, larger 345 kV line would be subject to review/evaluation following policy and procedures established in the Fish and Wildlife Service Manual, Chapter 603 FW 1, Appropriate Refuge Uses. This chapter provides a national framework for determining appropriate refuge uses. In addition, this chapter provides the policy and procedure for Refuge Managers to follow when deciding if uses are appropriate on a refuge. Refuge Managers are delegated authority to decide if a new or existing use is an appropriate refuge use. If an existing use is not appropriate, the Refuge Manager will eliminate or modify the use as expeditiously as practicable. If a new use is not appropriate, the Refuge Manager will deny the use without determining compatibility. This threshold "appropriate use" finding can aide project applicants from

needlessly and wastefully dedicating resources to projects that simply are not feasible or appropriate.

The appropriate use policy also clarifies and expands on the compatibility policy established under the National Wildlife Refuge System Improvement Act of 1997. The Fish and Wildlife Service Manual, Chapter 603 FW 2, Compatibility describes when Refuge Managers should deny a proposed use without determining compatibility. When we find a use appropriate, we must then determine if the use is compatible before we allow it on a refuge. This policy applies to all proposed and existing uses in the National Wildlife Refuge System (Refuge System) where we have jurisdiction over the use.

Refuges are managed in accordance with an approved comprehensive conservation plan (CCP). The CCP describes the desired future conditions of the refuge or refuge planning unit and provides long-range guidance and management direction to accomplish the purpose(s) of the refuge and the Refuge System mission. We prepare CCPs with State fish and wildlife agencies, public involvement, and include a review of the appropriateness and compatibility of existing refuge uses and any planned future public uses. If, during preparation of the CCP, we identify previously approved uses we can no longer consider appropriate on the refuge, we will clearly explain our reasons to the public and describe how we will eliminate or modify the use. When uses are reviewed during the CCP process, the appropriateness finding is documented using FWS Form 3-2319 and maintained in refuge files. The documentation for both appropriateness findings and compatibility determinations should also be included in the documentation for the CCP. The CCP for the Upper Mississippi River National Wildlife and Fish Refuge was completed in October 2006. The CCP can be viewed at www.fws.gov/midwest/planning/uppermiss/index.html.

When a refuge manager finds that a proposed use is not appropriate, the finding is documented for the refuge files using FWS Form 3-2319. This finding does not require refuge supervisor concurrence. However, if outside the CCP process a refuge manager finds that an existing use is not appropriate, the finding requires refuge supervisor concurrence.

Attached is Form 3-2319 which documents the Refuge's finding that expansion of the expired right-of-way through the Black River bottoms to accommodate a new 345 kV transmission line is not an appropriate use. A discussion of the rationale behind this determination is also included.

FINDING OF APPROPRIATENESS OF A REFUGE USE

Refuge Name: Upper Mississippi River National Wildlife and Fish Refuge

Use: CapX 2020 345 kV Transmission Line Proposal - Black River

This form is not required for wildlife-dependent recreational uses, take regulated by the State, or uses already described in a refuge CCP or step-down management plan approved after October 9, 1997.

Decision Criteria:	YES	NO
(a) Do we have jurisdiction over the use?	✓	
(b) Does the use comply with applicable laws and regulations (Federal, State, tribal, and local)?	✓	
(c) Is the use consistent with applicable Executive orders and Department and Service policies?		✓
(d) Is the use consistent with public safety?	✓	
(e) Is the use consistent with goals and objectives in an approved management plan or other document?		✓
(f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed?	✓	
(g) Is the use manageable within available budget and staff?		✓
(h) Will this be manageable in the future within existing resources?		✓
(i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources?		✓
(j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D, 603 FW 1, for description), compatible, wildlife-dependent recreation into the future?		✓

Where we do not have jurisdiction over the use ("no" to (a)), there is no need to evaluate it further as we cannot control the use. Uses that are illegal, inconsistent with existing policy, or unsafe ("no" to (b), (c), or (d)) may not be found appropriate. If the answer is "no" to any of the other questions above, we will **generally** not allow the use.

If indicated, the refuge manager has consulted with State fish and wildlife agencies. Yes ✓ No ___

When the refuge manager finds the use appropriate based on sound professional judgment, the refuge manager must justify the use in writing on an attached sheet and obtain the refuge supervisor's concurrence.

Based on an overall assessment of these factors, my summary conclusion is that the proposed use is:

Not Appropriate ✓ **Appropriate** ___

Refuge Manager: _____ Date: February 24, 2012

If found to be **Not Appropriate**, the refuge supervisor does not need to sign concurrence if the use is a new use.

If an existing use is found **Not Appropriate** outside the CCP process, the refuge supervisor must sign concurrence.

If found to be **Appropriate**, the refuge supervisor must sign concurrence.

Refuge Supervisor: _____ Date: February 24, 2012

A compatibility determination is required before the use may be allowed.

FWS Form 3-2319
02/06

Kevin S. Foerster
Refuge Supervisor

Rationale for appropriate use determination regarding expansion of the expired right-of-way (Q1 line) through the Black River bottoms of the Upper Mississippi River National Wildlife and Fish Refuge to accommodate a new 345 kV transmission line.

Refuge Manager's determine appropriateness of use based on 10 criteria. A discussion of the Refuge's position in regards to expansion of the expired Q1 right-of-way through the Black River bottoms to accommodate a new 345 kV transmission line follows.

a) Do we have jurisdiction over the use? If we do not have jurisdiction over the use or the area where the use would occur, we have no authority to consider the use.

YES. The expired Q1 right-of-way through the Black River bottom is on/over lands owned in fee title by the Department of the Interior and managed as part of the Upper Mississippi River National Wildlife and Fish Refuge. The Refuge has full jurisdiction over uses of this expired right-of-way and adjacent lands.

b) Does the use comply with all applicable laws and regulations? The proposed use must be consistent with all applicable laws and regulations (e.g., Federal, State, tribal, and local). Uses prohibited by law are not appropriate.

YES. It is unknown at this time if the proposed 345 kV line is compliant with all applicable laws and regulations. However, for the purposes of this analysis it is assumed that construction of the new 345 kV line at any location would only be permitted and/or funded if it were found to be consistent with all applicable laws and regulations. Accordingly, we answered yes.

c) Is the use consistent with applicable Executive orders and Department and Service policies? If the proposed use conflicts with an applicable Executive order or Department or Service policy, the use is not appropriate.

NO. It is the policy of the Fish and Wildlife Service (see Fish and Wildlife Service Manual, Chapter 340 FW 3, Rights-of-Way and Road Closings) to discourage the types of uses embodied in right-of-way requests. On areas in the National Wildlife Refuge System, if a right-of-way cannot be certified as compatible with the purposes for which a unit was established, it cannot be granted without authorization by Congress. The National Wildlife Refuge System Improvement Act of 1997 mandates the maintenance of biological integrity, diversity and environmental health on units of the National Wildlife Refuge System. Consistent with its purpose, each refuge is required to protect and, where appropriate, restore natural, historic ecological conditions including associated processes (such as natural forest succession/regeneration). Historic conditions are those which were present prior to substantial, human-related changes to the landscape (see Fish and Wildlife Service Manual, Chapter 601 FW 3.6D). By their nature, right-of-ways and some construction projects can cause habitat fragmentation; reduce habitat quality; degrade habitat quality through introduction of contaminants; disrupt migration corridors; alter hydrology; facilitate introduction of alien, including invasive, species;

and disturb wildlife (see response to item e below). Proposed refuge uses which would conflict with the legal requirement to maintain biological integrity, diversity and environmental health are not appropriate or compatible (see Fish and Wildlife Service Manual, Chapter 603 FW 2.5). Additionally, Executive Order 11988 – Floodplain Management, discourages the construction and/or placement of infrastructure within floodplains of rivers.

d) Is the use consistent with public safety? If the proposed use creates an unreasonable level of risk to visitors or refuge staff, or if the use requires refuge staff to take unusual safety precautions to assure the safety of the public or other refuge staff, the use is not appropriate.

YES.

e) Is the use consistent with refuge goals and objectives in an approved management plan or other document? Refuge goals and objectives are designed to guide management toward achieving refuge purpose(s). These goals and objectives are documented in refuge management plans, such as CCPs and step-down management plans. Refuges may also rely on goals and objectives found in comprehensive management plans or refuge master plans developed prior to passage of the Improvement Act as long as these goals and objectives comply with the tenets and directives of the Improvement Act. If the proposed use, either itself or in combination with other uses or activities, conflicts with a refuge goal, objective, or management strategy, the use is generally not appropriate.

NO. The Upper Mississippi River National Wildlife and Fish Refuge was established by an Act of Congress on June 7, 1924 as a refuge and breeding place for migratory birds, fish, other wildlife, and plants. The Refuge encompasses approximately 240,000 acres of Mississippi River floodplain in a more-or-less continuous stretch of 261 river-miles from near Wabasha, Minnesota to near Rock Island, Illinois.

The 1924 act set forth the purposes of the Refuge as follows:

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 Agriculture 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 Commerce may by regulations prescribe as a refuge and breeding place for fish and other aquatic animal life."*

**changed to Secretary of the Interior pursuant to reorganization and transfer of functions in 1939 (16 USC 721-731).*

The Refuge is an invaluable natural legacy recognized by Congress as part of a nationally significant ecosystem. It is: a National scenic treasure – river, backwaters, islands, and forest framed by 500-foot high bluffs; National Scenic Byways on both sides; designated as a Globally Important Bird Area; a continentally significant migration corridor/flyway; and designated a floodplain Wetland of International Importance by the Ramsar Convention on Wetlands.

The Refuge is a part of the National Wildlife Refuge System which includes more than 556 national wildlife refuges and 38 wetland management districts totaling over 148 million acres of lands and waters set aside for fish and wildlife habitat. The Refuge System is administered by the U.S. Fish and Wildlife Service, Department of the Interior.

The Refuge Improvement Act of 1997 mandates that the Secretary of the Interior, and thus the Service, prepare Comprehensive Conservation Plans for all units of the National Wildlife Refuge System by October, 2012. The CCP for the Refuge was completed in 2006 and guides management of the Refuge through 2021. The CCP ensures that management and administration of the Refuge meets the mission of the Refuge System, the purpose for which the Refuge was established, and the goals for the Refuge.

The mission of the National Wildlife Refuge System set forth in the Refuge Improvement Act of 1997 is:

"To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."

The 1924 Refuge act set forth the purposes of the Refuge, which remain valid to this day, and guide planning, management, administration, and use of the refuge:

"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 Agriculture 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 Commerce may by regulations prescribe as a refuge and breeding place for fish and other aquatic animal life."

The vision for the Refuge provides a simple statement of the desired, overall future condition of the Refuge. From the vision flow more specific goals which in turn provide the framework to craft more detailed, and measurable objectives which are the heart of the CCP. The vision and goals are also important in developing alternatives, and are

important reference points for keeping objectives and strategies meaningful, focused, and attainable.

Refuge Vision: The Upper Mississippi River National Wildlife and Fish Refuge is beautiful, healthy, and supports abundant and diverse native fish, wildlife, and plants for the enjoyment and thoughtful use of current and future generations.

Refuge Goals:

1. Landscape. We will strive to maintain and improve the scenic qualities and wild character of the Upper Mississippi Refuge.

2. Environmental Health. We will strive to improve the environmental health of the Refuge by working with others.

3. Wildlife and Habitat. Our habitat management will support diverse and abundant native fish, wildlife, and plants.

4. Wildlife-Dependent Public Use. We will manage public use programs and facilities to ensure high quality and sustainable hunting, fishing, wildlife observation, wildlife photography, interpretation, and environmental education opportunities for a broad cross-section of the public.

5. Other Recreational Use. We will provide opportunities for the public to use and enjoy the Refuge for traditional and appropriate non-wildlife-dependent recreation that is compatible with the purpose for which the Refuge was established and the mission of the Refuge System.

6. Administration and Operations. We will seek adequate funding, staffing, and facilities, and improve public awareness and support, to carry out the purposes, vision, goals, and objectives of the Refuge.

Expansion of the expired right-of-way across the Black River bottoms to accommodate a new 345 kV line would not contribute to the purposes of the Refuge or the Refuge System. In fact, expansion of the expired right-of-way would detract from the Refuge purpose and Refuge goals. Some of the anticipated effects of expansion of the expired right-of-way are discussed below. A description and discussion of the significance of the forest community and species composition in the Black River bottoms can be found on page 130, Chapter 7 of the Final Environmental Impact Statement, CapX2020 Alma-La Crosse 345 kV Transmission Project, Volume 1, Public Service Commission of Wisconsin, Wisconsin Department of Natural Resources, January 2012.

***Scenic qualities**. Power lines present a significant visual intrusion on scenic viewsheds such as those found in the Black River bottoms.*

Invasive Plants. *Invasive plants continue to pose a major threat to native plant communities on the Refuge and beyond. Invasive plants displace native species and often have little or no food value for wildlife. The result is a decline in the carrying capacity of the Refuge for native fish, wildlife, and plants. Control of invasive plants on a predominantly floodplain environment is extremely challenging due to difficulty of access and the rapid dispersal of plants. In addition, control has been hampered by staff and funding limits for basic inventory, direct control, and research into species-specific biological controls. An invasive plant, reed canary-grass is abundant within the expired Q1 right-of-way. Reed canary-grass is a "disturbance adapted" species which aggressively colonizes natural areas which are disturbed by both natural and human activities. Removal of woody vegetation through cutting, mowing and/or pesticide application is an example of disturbance activities which encourage establishment of invasive species such as reed canary-grass, European buckthorn, Japanese knotweed and others. Expansion of the expired Q1 right-of-way through the Black River bottoms would increase the risk of negative interactions between invasive plants and adjacent forested/grassland habitats.*

Threatened and Endangered Species. *There is currently one federally-listed threatened or endangered species (Higgins' Eye pearlymussel) and two candidate species (eastern massasauga rattlesnake and sheepnose mussel) confirmed on the Refuge. One candidate species, the spectaclecase mussel, may occur on the Refuge but there are no recent records. Threatened and endangered species are issues due to their often precarious population status, and the need for special considerations and protection which influences Refuge use and management activities. The eastern massasauga rattlesnake is known to inhabit the forested/grassland habitats found in the Black River bottoms, the location of the expired Q1 right-of-way.*

Nationally Important Species. *The American Bald Eagle was removed from Federal designation as a threatened species in 2007. However, the bald eagle remains protected under the Golden and Bald Eagle Protection Act and is a nationally important species. Morever, it is the symbol of the United States of America. Bald eagles are known to nest, roost and feed within the Black River bottoms. The Black River forest is prime nesting habitat for bald eagles. There are currently three active bald eagle nests within 0.75 miles of the expired Q1 right-of-way. As is the case with many species of birds, as discussed below, transmission lines present a significant hazard.*

Migratory Birds. *The floodplains forests on and adjacent to the Mississippi River, including the Black River bottoms, provide critical migration habitat for many neotropical migrants. Continuous forest corridors which are relatively unfragmented, like the forest community in the Black River bottoms, and free of hazards are important for these migrants. Transmission lines greatly increase the risk of bird strikes, especially for migrant species which may be unfamiliar with the presence of power lines. Additionally, local/resident birds may avoid areas where power lines are present due to the day to day hazard present.*

Forest Management. *The Refuge includes approximately 51,000 acres of floodplain forests, one of the largest contiguous areas of floodplain forest in the Midwest. This habitat is critical to the river ecosystem, providing habitat for a variety of wildlife including songbirds, wood ducks, bald eagles, red-shouldered hawks, herons, egrets, and numerous mammals and amphibians. It also provides scenic beauty, a welcome place for recreation, protects soils, and improves water quality.*

The floodplain forest of the Refuge has undergone a series of changes since Refuge establishment. A more diverse forest gave way to a more monotypic forest dominated by silver maple. The current forest is even aged, growing old, and in many cases, not regenerating itself. In many areas, reed canary grass is replacing former forest areas by choking tree regeneration. If current trends continue, there could be a marked loss of forest within the Refuge and elsewhere in the river floodplain. As discussed under Invasive Species above, the expired Q1 right-of-way provides a corridor for invasion of adjacent forest habitat by invasive species.

Habitat Fragmentation. *Many species, but in particular forest interior species, prefer large unbroken tracts of habitat. Transmission lines which pass through habitats result in habitat fragmentation, whereby a large contiguous habitat is divided. The expired Q1 right-of-way through the Black River bottoms has damaged and fragmented the floodplain forest. Expanding the expired right-of-way through the Black River bottoms would lead to further unacceptable habitat fragmentation.*

f) Has an earlier documented analysis not denied the use or is this the first time the use has been proposed? If we have already considered the proposed use in a refuge planning process or under this policy and rejected it as not appropriate, then we should not further consider the use unless circumstances or conditions have changed significantly. If we did not raise the proposed use as an issue during a refuge planning process, we may further consider the use.

YES. *Expansion of the expired right-of-way through the Black River bottoms was not considered as a proposed use during preparation of the CCP for the Refuge.*

g) For uses other than wildlife-dependent recreational uses, is the use manageable within available budget and staff? If a proposed use diverts management efforts or resources away from the proper and reasonable management of a refuge management activity or wildlife-dependent recreational use, the use is generally not appropriate. In evaluating resources available, the refuge manager may take into consideration volunteers, refuge support groups, etc. If a requested use would rely heavily on volunteer or other resources, the refuge manager should discuss the situation with the refuge supervisor before making an appropriateness finding. The compatibility policy also addresses the question of available resources (603 FW 2.12A(7)).

NO. *Powerline right-of-ways require frequent and recurring management of vegetation through herbicide application, cutting, mowing and/or other vegetation control actions. These vegetation management activities are typically conducted by the utility company*

but do require oversight by Refuge staff to ensure compliance with any stipulations set forth in the right-of-way permit. In many cases, work conducted within right-of-ways also requires access and/or additional work outside of the right-of-way. Work outside of right-of-ways, if permissible, is permitted through issuance of a special use permit from the refuge. The commitment of staff can be minimal and manageable within existing resources, however, in this case the presence of important natural resources (T&E species, nesting bald eagles, etc. and the potential for invasion of adjacent refuge lands by invasive plants) would require substantial commitment of staff resources and time to ensure compliance with right-of-way stipulations and any special use permit requirements. Those resources are currently not available.

h) Will the use be manageable in the future within existing resources? If the use would lead to recurring requests for the same or similar activities that will be difficult to manage in the future, then the use is not appropriate. If we can manage the use so that impacts to natural and cultural resources are minimal or inconsequential, or if we can establish clearly defined limits, then we may further consider the use.

***NO**. Powerline right-of-ways require frequent and recurring management of vegetation through herbicide application, cutting, mowing and/or other vegetation control actions. These vegetation management activities are typically conducted by the utility company but do require oversight by Refuge staff to ensure compliance with any stipulations set forth in the right-of-way permit. In many cases, work conducted within right-of-ways also requires access and/or additional work outside of the right-of-way. Work outside of right-of-ways, if permissible, is permitted through issuance of a special use permit from the refuge. The commitment of staff can be minimal and manageable within existing resources, however, in this case the presence of important natural resources (T&E species, nesting bald eagles, etc. and the potential for invasion of adjacent refuge lands by invasive plants) would require substantial commitment of staff resources and time to ensure compliance with right-of-way stipulations and any special use permit requirements. Those resources are unlikely to be available in the future.*

Due to the size, location and landscape juxtaposition the Refuge will likely receive future requests for various civil service infrastructure projects (powerlines, gas lines, railroads, highways, etc.). As per the appropriate use policy and procedure, all requested uses will be considered on a case-by-case basis, and in some cases the proposed impacts may be minimal and therefore considered appropriate. However, expansion of an expired right-of-way across a biologically diverse and relatively unfragmented portion of the Refuge does not have minimal impacts and has and will continue to require a significant commitment of Refuge staff time and resources to manage. Therefore, if expansion of the expired right-of-way were to be considered appropriate, it is not unreasonable to assume that future similar requests would follow and/or potentially increase. This would increase the demand for currently unavailable (see criteria g above) resources needed to manage similar requests.

i) Does the use contribute to the public's understanding and appreciation of the refuge's natural or cultural resources, or is the use beneficial to the refuge's natural or cultural resources? If not, we will generally not further consider the use.

NO. Expansion of the expired right-of-way through the Black River bottoms to accommodate a 345 kV line would not contribute to the public's understanding and appreciation of the Refuges' natural and cultural resources. It is damaging to the natural and cultural resources of the Refuge. In particular, the scenic quality and values of the Black River bottoms would be compromised by the right-of-way.

j) Can the use be accommodated without impairing existing wildlife-dependent recreational uses or reducing the potential to provide quality (see section 1.6D), compatible, wildlife-dependent recreation into the future? If not, we will generally not further consider the use.

NO. The Refuge stretches over 260 river miles and encompasses approximately 240,000 acres providing a wide range of wildlife-dependent recreational opportunities for the visiting public. Eleven criteria for "quality" wildlife-dependent recreation are defined in the Fish and Wildlife Service Manual, 605 FW1, Section 1.6 and include providing opportunities for the public to experience wildlife. Although open to the public, the Black River Bottoms does not provide improved access (i.e. paved trails and roads) that would encourage high public use. Therefore, it provides a unique opportunity for the public to conduct wildlife-dependent recreation in a relatively isolated setting. The Black River bottoms is one of the largest contiguous tracts of floodplain forest in the region, particularly when adjacent State of Wisconsin protected lands are also considered. Expansion of the expired right-of-way would impact wildlife-dependent recreational opportunities due to reduced habitat quality which directly impacts wildlife species upon which recreation is based. Additionally, the scenic qualities of the Black River bottoms would be compromised by the presence of a much larger right-of-way clearing. Allowing an expansion of the expired right-of-way would impair the quality of the visitor experience and likely reduce the public's opportunity to experience wildlife.

COMMENT ON DRAFT COMPATIBILITY DETERMINATION

UPPER MISSISSIPPI RIVER NATIONAL WILDLIFE AND FISH REFUGE
CARDINAL-HICKORY CREEK HIGH-VOLTAGE TRANSMISSION LINE

ATTACHMENT B:

Meeting Minutes, ATC Cardinal Bluffs Project – Multi-Agency Meeting (Sept. 18, 2012)

Meeting Minutes

ATC Cardinal Bluffs Project – Multi Agency Meeting

Date / Time: September 18, 2012 / 1:00 PM to 3:00 PM

Location: Four Mounds Inn and Conference Center in Dubuque, Iowa

Attendees:

Amy Lee, ATC Environmental
Andy Schaeve, ATC Project Manager
Chris Zibart, ATC Legal Counsel
Justin Funk, Stantec Consulting
Barry Lindahl, Dubuque – City Attorney
Dave Heiar, Dubuque – Economic Development
Cheryl Laatsch, WDNR
Shari Koslowsky, WDNR
Ken Rineer, PSCW
Dan Sage, PSCW
Simone Kolb, USACE – Regulatory
Rich King, USFWS – Dist. Mgr. McGregor
Tim Yager, USFWS – Deputy Refuge Mgr.
Jim Sundermeyer, IUB

On Tuesday September 18, 2012 at 1:00 PM, the above referenced attendees met at the Four Mounds Inn and Conference Center in Dubuque, Iowa. The purpose of the meeting was to discuss Mississippi River crossing alternatives for the Cardinal Bluffs 345kV Transmission line project. The meeting minutes follow the agenda items below.

1. Introductions

Amy Lee (ATC) began the meeting by having attendees introduce themselves. Hardcopy handouts of the meeting agenda and project maps were distributed. The goals of the meeting were to provide a brief project review and update the attendees on the progress of ATC's evaluation of alternatives for crossing the Mississippi River; obtain feedback and answer questions about the project; and discuss each regulatory entity's approval processes.

2. Project Overview

Amy provided a brief overview of the project since most attendees have had an introduction to the project during previous meetings. Amy reviewed the general project endpoints and referenced ATC's 10-Year Transmission System Assessment map showing the general project area from the Madison area to the Dubuque area. As part of this project a crossing of the Mississippi River is necessary. Both the Upper Mississippi Fish & Wildlife Refuge (UMFWR) and City of Dubuque are located in potential crossing locations.

Amy explained that in Iowa, the City of Dubuque has regulatory authority over siting transmission lines within their municipal boundaries. This differs from Wisconsin where the state (PSCW) has jurisdiction within cities as well. This is why other municipalities are not amongst the attendees. Barry Lindahl added that the City of Dubuque has jurisdiction through zoning and building permits. There was additional discussion regarding the city's jurisdiction of the Mississippi River itself through Dubuque's Charter City status from the State of Iowa.

3. River Crossing Analysis - Overhead Alternatives

Amy Lee discussed that four potential river crossing locations are being evaluated as part of the project. These alternatives were selected based on the project endpoints, lack of better alternatives north of Cassville or south of Dubuque, and the width of the river between Dubuque and Cassville. Amy directed the attendees to the project maps that were provided and displayed.

Dubuque – USH 151 Bridge – Amy Lee introduced the southernmost alternative at the highway bridge. Known constraints include the riverfront development in downtown Dubuque and dense residential development further west.

Shari Koslowsky asked about potential routing corridors to this location in Wisconsin. Andy Schaeve pointed out USH 151 would be a potential corridor to the east, eventually connecting with other transmission lines and corridors. The Wisconsin side has some bluffs with scattered residential development.

Dubuque – Lock and Dam #11 – Amy Lee proceeded to discuss the lock and dam. The corridor on the WI side would be Eagle Point Road. This corridor may provide construction/maintenance access. This road is heavily used by the Corps and the public. It would likely require structures in the backwaters adjacent to the road. Amy pointed out that ATC met with Simone Kolb and Corps operations staff regarding this location. There is significant crane activity at the lock and dam and potential lock and dam expansion, both of which cause operational and clearance concerns for ATC and the Corps.

There are two options for routing a transmission line on the Iowa side of the river. One option would be to cross Eagle Point Park, which is a large city park located on a bluff overlooking the river. It's a nationally recognized park for its landscape architecture. Clearing for a 345 kV ROW would significantly change the landscape and be a concern. The other potential option would be routing south around the park through a dense residential area.

Dave Heiar asked how ATC could route a transmission line through the city. Andy Schaeve recognized those challenges, but discussed that there are existing ITC transmission line routes that run through some of the city in close proximity to residential and commercial buildings – detailed corridor reviews would be necessary to confirm feasibility of a 345kV line in the same areas. There was additional discussion about existing transmission line right-of-way. Amy Lee clarified that the existing ITC right of way width is not known, but the 345kV line would generally be greater than the 69kV or 161kV lines that exist now.

Andy Schaeve asked Jim Sundermeyer about the IUB role within the city of Dubuque. Jim briefly explained that the IUB has regulatory authority for routing and siting within areas outside a municipal boundary. Dubuque has authority within the city. However, the IUB does have safety jurisdiction everywhere, including within municipalities.

Cassville – Stoneman – Amy Lee proceeded to discuss potential options at the existing double circuit transmission line at the Stoneman Power Plant location in Cassville. This location has extensive forested wetlands on the Iowa side within the UMFWR. Routing through Cassville is challenging with options going north along railroad tracks through dense residential areas, past high school and church up the bluff; or around high school and up the bluff. ATC has been

talking to ITC at a high level about this project, and in more detail to DPC regarding these potential options, as their facilities would be impacted by some of these options.

One option would be to parallel the existing transmission line crossing on new ROW at the Stoneman Power Plant. Another option would be to remove the existing 69kV and rebuild as a double circuit 161kV/345kV. This option requires a new 69kV line to Stoneman from Nelson Dewey through or around Cassville, with potential routes similar to the previous Nelson Dewey transmission project that was previously proposed. A triple circuit stacked configuration does not work at this location because of nearby airport/FAA height limitations combined with navigational clearance requirement.

Tim Yager stated that a new transmission line crossing through the refuge would be subject to a compatibly determination.

Cheryl Laatsch asked about the height of the existing transmission structures versus what would be required with new structures. Andy Schaeve discussed that the height of the new structures would be dependent on the line configuration while maintaining clearance for navigability on the Mississippi and the height restrictions at the Cassville airport. Generally a lower height would require a wider right-of-way.

Simone Kolb added that there might be some flexibility in the clearance requirements outside the main channel of the river.

Tim Yager stated that generally a lower transmission line height, below the tree tops is preferable to reduce bird impacts.

Andy Schaeve also stated that there are height thresholds for transmission towers where anything greater than 200 feet requires lighting. Shari Koslowsky added that lights are not preferable for potential bird impacts. Tim Yager added that APLIC has some recommendations on the subject.

Cassville – Nelson Dewey/Oak Road – Amy Lee continued on to discuss potential options at the Nelson Dewey Power Plant.

Single circuit 345kV. Existing lines at Stoneman would remain untouched

Double circuit 345/161kV. Eliminate the existing lines at Stoneman. Requires a new 69kV line to Stoneman (from NED, through/around Cassville).

Triple circuit 345/161/69kV. Eliminates existing lines at Stoneman crossing, still requires a new 69kV connection through/around Cassville from NED to Stoneman.

Cheryl Laatsch asked about potential interference with the Cassville Ferry. Amy Lee responded that ATC has not specifically discussed operational issues with the ferry, but would work to address that issue.

Ken Rineer said that Alliant Energy has plans for retirement of the Nelson Dewey plant. Andy Schaeve responded that ATC is aware of the upcoming retirement.

Cheryl Laatsch asked about potential future electric generation along the river, for example at Lock and Dam #11. If there are any future plans for generation, ATC should take that into

consideration with this project. Andy Schaeve responded that he is unaware of any future plans and that this project would be needed regardless.

Shari Koslowsky asked about potential routing corridors through WI to the Cassville area. Andy Schaeve pointed out that there are several existing transmission lines along the bluffs that would be considered. Shari asked about the feasibility of double circuiting these existing lines. Andy said that the preliminary studies show that in this particular case, a double circuit along these existing lines appears to be feasible.

Amy Lee stated that based on the evaluation of alternatives, ATC prefers the crossing to be at the Oak Road/Nelson Dewey plant location.

- Constructability – most of the route through the refuge is upland, good access
- Minimizes impacts to the Cassville community
- Significant less cost for the single circuit 345kV configuration
- Environmental benefits to the options that remove the existing crossing (double or triple circuit)
- Length of refuge crossing is shorter at Oak Road/Nelson Dewey plant

4. River Crossing Analysis - Underground Alternatives

Amy Lee discussed that ATC is working with HBK Engineering to evaluate feasible underground alternatives at the river. Preliminary options include a 345kV underground either parallel to the existing Stoneman crossing, near the Oak Rd/Nelson Dewey power plant, or moving one or both of the existing lines underground and building the 345kV overhead.

Cheryl Laatsch asked about methodology for underground and the potential right-of-way requirements. Amy Lee responded that the likely methodology would be the directional bore under the main channel, but other options are being evaluated. Open trench construction within Oak Road would be considered due to accessibility. The ROW width requirement for an underground alternative is likely less than overhead, but exact requirement are not known at this time.

Amy Lee added that any of the underground options require transition stations on both sides of the river where the line transitions from overhead to underground. A picture of a typical transition station was shown to the attendees. Typical dimensions of these stations are 50'x50' or 70'x100'. Additionally, underground vaults with manholes are required due to cable reel lengths; every 2000 feet is the current spacing assumption. They typical size is about 30'x14'x10'.

Simone Kolb asked about tree clearing and whether or not the ROW needs to be maintained over the underground line. Amy Lee said that it was her understanding that trees or woody vegetation could not be allowed above an underground line to maintain integrity. Andy Schaeve agreed.

Cheryl Laatsch asked about construction related impacts along with potential dewatering, flooding, etc. She also pointed out that there would be sending and receiving pits for the directional bore. Amy Lee agreed and responded that there would be a need for dewatering the vaults and that construction impacts have not been fully evaluated; however, a typical sending/receiving pit size is 25'x15'.

Tim Yager asked about dewatering the vaults. Andy Schaeve clarified that the vaults would need to be dewatered during construction and for maintenance; otherwise they could be designed to fill with water during operation, although that is not preferable. Andy added that ATC has an underground fact sheet that could be provided to explain some of the details of underground transmission lines.

5. Agency Review and Approval Processes

Amy Lee asked if any of the attendees had comments or questions, and asked about their approval processes.

Tim Yager briefly discussed the purpose of the UMFWR and its extent along the Mississippi River. He stated that he appreciated the underground analysis and other information presented. He went on to discuss that any changes to the refuge would require a compatibility review that would take into consideration any physical alteration of habitat. New ROW or expansion of existing ROW within the refuge would need to follow an 'avoid, then minimize, and then mitigate' evaluation. Tim went on to discuss that any impacts to the refuge would require an EA or EIS through the USACE 404 or USFWS ROW process.

Cheryl Laatsch discussed the CAPX project and USFWS involvement. She stated that the Rural Utility Service (RUS) completed an EIS for the Mississippi River crossing.

Tim Yager discussed several issues regarding the locations within the refuge. The visual and migratory bird impacts would be evaluated as part of any crossing. Additionally there are known archeological sites in the nearby Turkey River Mounds area and there could be additional sites within the refuge property. This would be especially problematic for underground construction. There has been southern migration of the Turkey River within the floodplain just north of Oak Road. He also said that the federally endangered Higgins' eye mussel is present in the area and has a very fragile population.

Cheryl Laatsch added that erosion control would be of significant importance, since the sedimentation of mussel beds are a significant threat to the Higgins' eye.

Tim also said that there is a significant eagle population, and that the Bald and Golden Eagle Act would certainly come into play. He felt that a take permit for eagles would likely be necessary. Shari Koslowsky agreed and encouraged ATC to coordinate early since the process can take a long time. Tim also encouraged ATC to work with the Rock Island Ecological Field Office on Endangered Species Act issues.

6. Next Steps

Amy Lee stated that ATC is considering introducing the project to the general public in November, with meetings with local officials starting in October. ATC would like to only include Cassville options going forward.

Tim Yager said that any proposed impact to the refuge would require demonstration of avoidance. Both Rich King and Tim Yager said the alternatives that have been discussed today were presenting minimization and mitigation measures. Tim said that the existing transmission lines were authorized many years ago and would likely not be permitted or considered a compatible use today. Tim said he is very uncomfortable with moving forward with only Cassville options being considered, since all of these alternatives have impacts to the refuge.

Ken Rineer said that the PSCW would not be in favor of excluding Dubuque options if the USFWS is uncomfortable with this decision. Cheryl Laatsch agreed.

Dave Heiar asked if the Lock and Dam #11 option had impacts to the UMFWR. Amy Lee said that there is refuge land adjacent to Eagle Point Road, and there could be impacts depending on the location of the structures. There was further discussion about potential routing at the Lock and Dam including potential underground alternatives. An underground option would need to consider potential expansion and operational issues at the dam.

Simone Kolb said that the Corps Section 404 and Section 10 permits would incorporate Corps operational concerns.

Dave Heiar said that the Mississippi River is very important to commerce, and that the aging lock and dam system may need improvements in the future to compete in a global economy. He felt there would likely be future infrastructure improvements to the lock and dam to system that could conflict with a crossing at that location. Andy Schaeve said that during the Corps meeting, there was some discussion about expansion that would need to be considered. Dave Heiar also said that the intense development of Dubuque in the downtown area would make the USH 151 option very difficult.

Jim Sundermeyer discussed the IUB's role and approval process. Jim reiterated that the IUB has regulatory authority for routing and siting within areas outside municipal boundaries and that Dubuque has approval authority within the city.

There was additional discussion regarding the Cassville options. Tim Yager said that the existing transmission lines in the UMFWR were authorized many years ago and would likely not be permitted or considered a compatible use today. The USFWS would prefer that the existing lines were removed altogether. There was some discussion with Simone Kolb and Tim Yager about reducing impacts within the refuge, including reducing the height of the lines and changing configuration to specifically reduce potential bird impacts. Simone Kolb said that the Nelson Dewey/Oak Road corridor could be wider to avoid forested wetland impacts and reduce bird impacts. Shari Koslowsky said that bird flight diverters would be needed. Tim Yager referenced the National Wildlife Refuge Improvement Act from the 1990s and the need to explore other alternatives that would avoid the refuge.

Based on the USFWS feedback during the meeting, more routing and siting analysis will be performed in the Dubuque area. ATC will re-evaluate their outreach plan and next steps; ATC will remain in contact with the agencies involved with the discussion.

COMMENT ON DRAFT COMPATIBILITY DETERMINATION

UPPER MISSISSIPPI RIVER NATIONAL WILDLIFE AND FISH REFUGE
CARDINAL-HICKORY CREEK HIGH-VOLTAGE TRANSMISSION LINE

ATTACHMENT C:

Letter from Kenneth A. Westlake, Chief of NEPA Implementation Section, U.S. EPA Office of Enforcement and Compliance Assurance, to Dennis Rankin, Environmental Specialist, U.S. Dep't of Agriculture, Rural Utilities Service (Jan. 6, 2017)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JAN 06 2017

REPLY TO THE ATTENTION OF E-19J

Dennis Rankin
Environmental Protection Specialist
U.S. Department of Agriculture, Rural Utilities Service
1400 Independence Avenue SW.
Room 2244, Stop 1571
Washington, DC 20250-1571

Re: Scoping Comments for the Environmental Impact Statement for the Cardinal-Hickory Creek 345 kV Transmission Line Project, Dubuque County, Iowa to Dane County, Wisconsin

Dear Mr. Rankin:

The United States Environmental Protection Agency has reviewed the U.S. Department of Agriculture's (USDA) Notice of Intent (NOI) to Prepare an Environmental Impact Statement (EIS) and Hold Public Scoping Meetings related to the connection of the Hickory Creek Substation in Dubuque County, Iowa to the Cardinal Substation in Middleton, Wisconsin dated October 21, 2016. In accordance with EPA's responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, we are providing scoping comments regarding issues that we recommend should be considered during preparation of the EIS for the proposed project.

The NOI identifies that Dairyland Power Cooperative, American Transmission Company LLC by its corporate manager, ATC Management Inc., and ITC Midwest LLC (collectively, Utilities) propose to construct and own a 345-kilovolt (kV) transmission line (approximately 125 miles) connecting the Hickory Creek Substation to the Cardinal Substation. The project is proposed to address multiple needs:

- address reliability issues on the regional bulk transmission system;
- cost-effectively increase transfer capacity to enable additional renewable generation needed to meet state renewable portfolio standards and support the nation's changing energy mix;
- alleviate congestion on the transmission grid to reduce the overall cost of delivering energy; and
- respond to public policy objectives aimed at enhancing the nation's transmission system and reducing carbon-dioxide emissions.

The proposed project would create a 345-kV connection between the two substations and include in the following facilities:

- a new 345-kV terminal within the existing Hickory Creek Substation in Dubuque County, Iowa;

- a new intermediate 345/138-kV substation near the Village of Montfort in either Grant or Iowa County, Wisconsin;
- a new 345-kV terminal within the existing Cardinal Substation in the Town of Middleton in Dane County, Wisconsin;
- a new 45- to 65-mile (depending on the final route) 345-kV transmission line between the Hickory Creek Substation and the intermediate substation;
- a new 45- to 60-mile (depending on the final route) 345-kV transmission line between the intermediate substation and the existing Cardinal Substation;
- a rebuild of the Mississippi River Crossing at Cassville to accommodate a section of the 345-kV transmission line between Hickory Creek and the intermediate substation, and Dairyland's 161-kV transmission line;
- a short, less than one-mile, 69-kV line in Iowa to enable the removal of the 69 kV line that crosses the Mississippi River at Cassville;
- facility reinforcement needed in Iowa and Wisconsin due to the addition of the Hickory Creek Substation/Cardinal Substation 345-kV transmission line and the removal of the existing 69-kV Mississippi River crossing at Cassville; and
- rebuild the Turkey River Substation in Dubuque County, Iowa with two 161/69-kV transformers, four 161-kV circuit breakers, and three 69-kV circuit breakers.

In addition to the topics covered in the Macro-Corridor Study dated September 28, 2016, the Alternatives Evaluation Study dated July 2016, and the Alternatives Crossing Analysis dated April 2016, EPA recommends that Rural Utilities Service also address the following topics in the Draft EIS: alternatives analysis, project features, connected actions, aquatics impacts, air quality and resilience, human health, wildlife, and non-native, invasive species.

Our detailed scoping comments are provided in the enclosure to this letter. Because the Upper Mississippi National Wildlife and Fish Refuge encompasses one of the largest blocks of floodplain habitat in the lower 48 states, lies within the Mississippi Flyway, and is designated as a Wetland of International Importance and a Globally Important Bird Area, impacts to fish and wildlife habitat can be detrimental to sustaining wildlife populations. Therefore, EPA strongly recommends that potentially significant impacts to species and to the Refuge be avoided.

For any natural resources potentially affected by the proposed action, EPA recommends USDA commit in the Record of Decision (ROD) to monitoring efforts based on the respective resource agencies' frequency and methods as well as committing to address adverse monitoring results. Monitoring data should be publicly available, allowing individuals interested in the project access to this information.

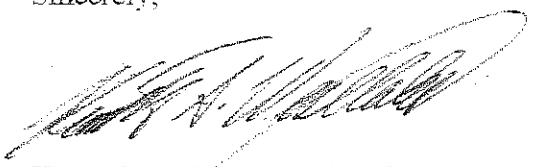
USDA may find NEPAssist,[1] EPA's free, publically available, web-based tool that provides immediate screening of environmental assessment indicators for geographic areas defined by the user, useful when developing the draft EIS. EPA's "EJSCREEN" tool can be used to screen for potential impacts to communities living with or vulnerable to environmental justice concerns.[2] Lastly, EPA recommends any coordination with Federal or state agencies should become part of

[1] NEPAssist is available for public use at: http://nepassisttool.epa.gov/nepassist/entry.aspx
[2] EPA's EJSCREEN Environmental Justice and Mapping Tool is available at: https://www.epa.gov/ejscreen

the draft NEPA documentation as an appendix. Aerial photographs are recommended to provide the reader with a visual representation of habitat.

We appreciate the availability of extensive scoping documents and the opportunity to provide input at the earliest stages of project preparation. Please send future NEPA documents to me at the address listed in the letterhead. If you have any questions concerning these comments, please contact Kathleen Kowal ((312) 353-5206 or via email at kowal.kathleen@epa.gov) or Amber Tilley (913-551-7665 or via email at tilleyamber@epa.gov).

Sincerely,



Kenneth A. Westlake, Chief
NEPA Implementation Section
Office of Enforcement and Compliance Assurance

Enclosure: U.S. EPA's Scoping Comments dated January 6, 2017
EPA's Suggested Construction Emission Controls

cc: Thomas Melius, Regional Director, US Fish and Wildlife Service
Kevin Foerster, Refuge Manager, UMNWFR, US Fish and Wildlife Service
Tim Yager, Assistant Refuge Manager, UMNWFR, US Fish and Wildlife Service
Kraig McPeek, Ecological Services Field Office, US Fish and Wildlife Service
Michael Hayes, USACE, Rock Island District
Curt Kemmerer, Iowa Department of Natural Resources
Preston Jehn, Wisconsin Department of Natural Resources, South Central Region

U.S. EPA's Scoping Comments Concerning the
Cardinal-Hickory Creek 345 kV Transmission Line Project
Dubuque County, Iowa to Dan County, Wisconsin
January 6, 2017

Alternatives Analysis

While EPA appreciates efforts to locate the proposed transmission line along existing crossing locations consistent with the intended Project configuration, the development of the study area and alternative crossing locations, focusing solely on existing crossing locations, is too narrow. The scoping materials exclude evaluation of new Mississippi River crossings that would occur outside the Refuge. As stated in the Alternative Crossings Analysis (Analysis), the Utilities have identified seven potential crossings of the Mississippi River, four of which are located outside Refuge boundaries and three of which are located within Refuge boundaries. The scoping materials present two Refuge crossings as the only viable crossings for consideration. While the use of existing utility corridors is typically less impactful, the use of an existing corridor in this project will likely adversely impact the Refuge.

Recommendations: EPA recommends the Draft EIS present and evaluate one of more alternative(s) located outside Refuge lands. The selection of only two Refuge alternatives carried forward for further evaluation leaves USDA and the Applicant vulnerable to permit denial by USFWS and an ultimate decision of no action by USDA. EPA believes one or more non-Refuge alternatives is needed in order to compare and contrast impacts that would occur within and outside of the Refuge.

The Analysis indicates, "*Key characteristics, constraints, and opportunities for the Galena 16-kV Line crossing are:*

- *If selected, the existing 161-kV and 69-kV lines through the Refuge at Stoneman would remain in place.*
- *The crossing would be located on lands outside the Refuge.*
- *The crossing requires routing through urban residential development and downtown Dubuque.*
- *The corridor would cross numerous residential properties (61 homes would be within 100 feet of centerline of transmission line corridor, nine of which would be within 25 feet). All trees within the easement area would need to be removed.*
- *Requires routing new 345-kV line through Schmitt Island and Riverview Park; the new line would cross recreational fields for which federal funds were obtained, the use of which may limit or prohibit redevelopment of these areas.*
- *It provides an opportunity to co-locate with an existing 161-kV overhead line.*"

Recommendations: EPA recommends the Draft EIS clarify the following: if a 161-kV overhead line currently passes through an urban residential development and downtown Dubuque, what additional impacts would occur by adding a 345-kV line? Could the 161-kV and the 345 kV lines be co-located on the same towers, thereby not causing a change to the existing corridor footprint? EPA recommends this alternative be augmented by additional analysis, including diagrams or photographs to illustrate the existing corridor, what co-location of the 161-kV and the 345-kV lines would look like, and the impacts to the human environment from co-locating these two lines. Additional discussion of the different impacts associated with additional voltage within the existing corridor is warranted.

The Analysis indicates "*Alternative alignments at the Stoneman location are limited by the presence of the Cassville Municipal Airport (the runway is located approximately 2,000 feet from the crossing location). Due to the airport and the height of the bluff immediately east of Cassville, transmission line structures located in the airport's conical surface would likely require additional design and evaluation by the Federal Aviation Administration, and may be limited in height.*"

Recommendations: EPA recommends the Draft EIS address whether coordination regarding the above was conducted with the Federal Aviation Administration (FAA). We recommend the results of that coordination should be included in the Draft EIS and correspondence should be included in an appendix to the Draft EIS. EPA recommends this issue be addressed with FAA, particularly in light of the possibility of co-locating the proposed line with the existing 161 kV line.

The Analysis indicates, "*While the current needs are for the existing 161 kV-line and the proposed 345-kV line, the Utilities are presenting in this ACA a design with 345-kV/345 kV specifications within the Refuge. The facilities would be operated at 345-kV/161-kV, but be capable of operating at 345-kV/345-kV in case future system conditions warrant it. Constructing the line in its ultimate configuration, a typical technique when crossing a refuge or major river, is a prudent and cost-effective investment to accommodate future needs in a manner that avoids future impacts to the Refuge if another 345-kV transmission line between Iowa and Wisconsin is needed. As with the other transmission features planned for the Refuge, the final design of the transmission facilities would be determined in consultation with the USFWS.*"

Recommendations: EPA recommends the Draft EIS discuss impacts resulting from constructing a 345-kV/161-kV line, then switching to a 345-kV/345-kV line. We recommend discussing whether any differences exist in monitoring/maintaining the two different configurations.

The Analysis indicates "*USFWS's Mitigation Policy adopted the definition of mitigation used in the Council on Environmental Quality's (CEQ) National Environmental Policy Act (NEPA) regulations (40 Code of Federal Regulations [CFR] 1508.20). That definition consists of five sequential steps:*

1. Avoiding the impact altogether by not taking a certain action or parts of an action
2. Minimizing impacts by limiting the degree or magnitude of the action
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
5. Compensating for the impact by replacing or providing substitute resources or environments."

According to the scoping documents, the existing Stoneman 69-kV transmission line would be removed and natural revegetation (in consultation with the USFWS) of the existing transmission corridor would occur, including both wetland and woodland habitat, present at the existing Stoneman crossing through the Refuge.

Recommendations: EPA recommends the Draft EIS clearly discuss how the USDA and the Utilities will comply with USFWS's Mitigation Policy as it pertains to relocating the existing 161-kV transmission line and right-of-way (ROW) from the Stoneman crossing to the proposed Nelson Dewey crossing. In particular, the Draft EIS should clarify the nature of "natural revegetation" that USDA and the Utilities propose if the Nelson Dewey crossing is selected.

USFWS's position regarding revegetating and controlling non-native, invasive species, if they exist in the Stoneman corridor, should be included in the Draft EIS and whether USFWS' recommendations will be followed. EPA strongly recommends USDA and the Utilities commit to seeding and/or planting species native to the ecoregion, determine measures of success for the revegetation/restoration (e.g., a maximum of 15 percent non-native, invasive species), and a provide a monitoring and adaptive management plan. The utility ROW also presents an opportunity to establish or enhance habitat for pollinator species. EPA recommends that opportunity be evaluated and, if feasible, implemented. The details of revegetation/restoration should be coordinated with USFWS and included in the Draft EIS.

Additionally, EPA recommends the Draft EIS describe conceptual mitigation agreed upon with USFWS if any Refuge property is used for the proposed project.

Connected Actions

The Study indicates, "Because of the existing limitations on transfer from Iowa to Wisconsin, the development of additional wind generation in Iowa is dependent on increasing transfer capability. Indeed, there are a number of wind generation projects in the Midcontinent Independent System Operator Inc. system (MISO) that are explicitly dependent upon completion of the Project. MISO has informed these wind generators that they are only eligible for conditional interconnection agreements ("IAs") until the Cardinal-Hickory Creek Project is built and operational." The Study includes a table listing 12 interconnection requests conditional on the proposed project being in service (see Table 2-2 of the Study).

The Study also indicates, "Over several years, MISO completed hundreds of computer modeling runs to determine the best alternatives to achieve the specified purpose and need. MISO selected the 345-kV MVP Portfolio because it was shown to "more reliably enable the delivery of wind generation in support of the renewable energy mandates of the MISO states in a cost-effective manner" (MISO, 2012, p. 87). **The Project is one component of a Portfolio that was designed assuming all of the components would be built and work together as a whole**. Because this Portfolio benefitted all of the MISO states, the states agreed to share in the costs of building the Portfolio." (emphasis added)

Recommendations: When analyzing the proposed project and alternatives, USDA should consider actions that result as a direct or indirect consequence - that is, as connected actions.[1] These actions should be incorporated into the description of the proposal (and alternatives, if relevant). If other additional system enhancements will be needed to meet current load demands, those enhancements should also be discussed and evaluated in the Draft EIS as connected actions.

[1] 40 CFR 1508.25: Connected actions are those that are "closely related" to the proposal and alternatives. Connected actions automatically trigger other actions, they cannot or will not proceed unless other actions have been taken previously or simultaneously, or they are interdependent parts of a larger action and depend on the larger action for their justification.

Project Description

The Alternatives Evaluation Study (Study) indicates the typical ROW width for the Project would be 200 feet in Iowa and 150 feet in Wisconsin.

Recommendations: The Draft EIS should explain why different ROW widths are proposed for Iowa and Wisconsin. Additionally, the Draft EIS should indicate if these widths are the narrowest practicable widths to accommodate transmission line; reducing impact to the surrounding habitat is beneficial from three perspectives: less impact to the natural or human environment, fewer mitigation costs, and less land susceptible to non-native, invasive plants due to disturbance.

The Study indicates the new 345-kV line may be co-located with existing transmission lines.

Recommendations: EPA supports co-location with existing transmission lines, unless use of an existing ROW poses other impacts (see above discussion on alternatives that avoid the Refuge). The Draft EIS should indicate all possible sites where co-location is possible. In areas where the transmission line could be co-located but is instead proposed to travel across a new corridor, the rationale behind selecting a new corridor rather than co-locating should be clearly explained in the Draft EIS. For each section of new corridor, the social and environmental impacts should be clearly described.

The Alternative Crossings Analysis (Analysis) indicates the connection between the Hickory Creek Substation and the intermediate substation requires a crossing of the Mississippi River at a location that includes the Refuge. Coordination with USFWS regarding a potential crossing of the Refuge is ongoing. The Utilities have provided the analysis to USFWS for evaluation of the Mississippi River crossings. After completing its environmental review, USFWS will ultimately make a determination regarding whether the proposed power line corridor is compatible with the Refuge and, therefore, permittable.

Recommendations: EPA recommends the Draft EIS incorporate USFWS's comments regarding a potential crossing of the Refuge, as well as USDA's responses to those comments and USDA's attempts to minimize impacts to the Refuge. EPA also recommends that correspondence with USFWS concerning a potential crossing of the Refuge be added to the Draft EIS as an appendix.

The Study indicates, "*Power flow has also increased on the Dairyland owned Stoneman-Nelson Dewey 161-kV line. Power usually flows from the 345-kV transmission source at the Hickory Creek Substation near Dubuque towards Wisconsin on the 161-kV transmission lines causing high flows on these 161-kV lines. These lines could overload under certain contingencies. Without the Project, Dairyland would likely need to rebuild the Stoneman-Nelson Dewey 161-kV line to increase its capacity, and* ***would likely*** *need to replace equipment at the Stoneman Substation to increase the capacity for the Turkey River-Stoneman 161-kV line. The Project* ***will likely*** *allow Dairyland to avoid these transmission upgrades that would be necessary if the Project were not constructed.*" (emphasis added)

Recommendations: EPA recommends the Draft EIS describe the contingencies under which the existing lines from Dubuque toward Wisconsin could overload and what the results for users would be. Additionally, EPA requests clarification of the following: "...will likely allow Dairyland to avoid these transmission upgrades..." to the Stoneman-Nelson Dewey 161-kV line and the Stoneman Substation to increase capacity for the Turkey River-Stoneman 161-kV line.

The Study indicates, "*... Section 2.4.1.2 of the AES, ... describes the need to develop and implement local operating guides for the southwestern Wisconsin area to protect transmission lines from potential overload during high load times. A last resort in one of these operating guides is the potential for shedding load to maintain equipment loading under their maximum loading capabilities. This includes some Dairyland member load in southwestern Wisconsin. Once complete, the Project will allow for the retirement of the operating guides. The Project will add transmission capacity and improve system performance during peak load times. Completion of the Project will reduce the risk of potential loss of load to maintain adequate equipment loading during a contingency.*"

Recommendations: EPA recommends the Draft EIS indicate whether the proposed upgrades will allow all current load demands in the project area to be met. If additional system enhancements will be needed to meet current load demands, those enhancements should be discussed and evaluated in the Draft EIS as connected actions[2]. Additionally, the Study indicates the closures of the Nelson Dewey and Stoneman power plants are changing the electricity flows on the regional grid in southwestern Wisconsin and the Utilities are presently investigating an interim response to these changing flows. The Draft EIS should clearly discuss:

- changes to electricity flows on the regional grid in southwestern Wisconsin experienced as a result of the closures of the two generating plants in 2012 and 2015,
- how those changes affect the proposed project, and
- whether additional enhancements will be needed in the foreseeable future to provide electricity to meet all current demands in the study area.

Recommendations: EPA recommends the Draft EIS include the proposed maintenance cycle for the corridor and the general types of activities included in maintaining a transmission line corridor. The type of habitat that would be impacted to provide access points/roads required for maintenance and/or repairs should also be described in the Draft EIS.

Aquatic Resources

For aquatic resources potentially affected by the proposed action, EPA recommends USDA commit in the ROD to monitoring efforts based on the respective resource agencies' frequency and methods as well as committing to address adverse monitoring results. Monitoring data should be publicly available, allowing individuals interested in the project access to this information.

The analysis indicates impacts to wetlands and streams in the ROWs are expected.

Recommendations: Under Section 404 of the Clean Water Act (CWA), a permit is required from the U.S. Army Corps of Engineers (Corps) for the discharge of dredge or fill material into waters of the U.S. Identification and assessment of the various alternatives' direct, indirect and cumulative impacts to waters of the U.S. (e.g., wetlands, streams, rivers, and lakes) should be included in the Draft EIS. The Draft EIS should also discuss measures taken to avoid and minimize impacts to wetlands and streams. Additionally, conceptual mitigation for the remaining acreage of wetlands and linear feet of stream that could not be avoided should be

[2] Connected actions, as defined in NEPA, are those that are "closely related" to the proposal and alternatives. Connected actions automatically trigger other actions. They cannot or will not proceed unless other actions have been taken previously or simultaneously, or they are interdependent parts of a larger action and depend on the larger action for their justification (40 CFR 1508.25).

included in the Draft EIS. The identification of appropriate compensation mitigation sites should take place in consultation with the Federal and state resource agencies.

The analysis indicates impacts to waterways are expected.
Recommendations: The Draft EIS should describe water bodies and groundwater resources within the Study Area that may be impacted by each of the alternatives. Special attention should be given to work that would occur in an identified drinking water wellhead protection zone, or upstream of a drinking water intake, if applicable. While the Draft EIS would most likely not identify the specific locations of public and private drinking water supply intakes or wells, impacts to these resources should be evaluated and mitigation measures identified, if applicable.

Impacts of the various alternatives on water quality should address, but not be limited to, a water body's designated use and compliance with state water quality standards and Clean Water Act, Section 401 Water Quality Certification. The Draft EIS should also identify whether or not water bodies located in the various proposed project areas are listed by a state as impaired, and, if so, are part of a Total Maximum Daily Load (TMDL) plan. If impaired waters are identified, the Draft EIS should identify the impairment(s) and the reason(s) for the impairment(s).

Details regarding the widths of proposed stream crossings and how these crossings will be accomplished should be identified and discussed. If any placement of underground utilities is considered in this project, EPA recommends, where feasible, the use of directional drilling for water crossings, including directional drilling of associated floodplains, wetlands and unique wildlife habitats, such as forest land.

The Draft EIS should identify and discuss whether National Pollution Discharge Elimination System Clean Water Act Section 402 direct discharge and/or storm water construction permits may be required. We recommend the permitting agency and contact information for each state, as applicable, be disclosed in the Draft EIS. We recommend that the DEIS included a draft Erosion Control Plan and draft Stormwater Pollution Prevention Plan.

EPA recommends the Draft EIS analyze effects to water quality, habitat, aquatic species, and commercial and recreation navigation from constructing crossing structures on the banks of the Mississippi River.

Per the Public Service Commission of Wisconsin's Publication[3] regarding environmental impacts of transmission lines, woodlands and shrub/scrub areas along streams are a valuable buffer between adjacent land uses such as farm fields and corridors of natural habitats. Vegetation protects water quality, maintains soil moisture levels in stream banks, helps stabilize the banks, filters nutrient-laden sediments and other runoff, maintains cooler water temperatures, and encourages a diversity of vegetation and wildlife habitats, while removal of vegetative buffers could raise water temperatures. Existing vegetative buffers should be left undisturbed or minimally disturbed, whenever possible. For areas where construction impacts cannot be avoided, low-growing native tree and shrub buffers along these streams should be allowed to regrow and/or should be replanted so as to maintain the pre-construction water quality in the

[3] Public Service Commission of Wisconsin. "Environmental Impacts of Transmission Lines." 2013. Accessed online 12/2016 at http://psc.wi.gov/thelibrary/publications/electric/electric10.pdf.

streams. Establishment and/or preservation of pollinator habitat is encouraged. EPA strongly recommends the above measures become commitments in the ROD.

Air Quality and Resilience Planning

Impacts to air quality that may occur from construction and operation of a transmission and associated substations should be analyzed in the Draft EIS.

Recommendations: The Draft EIS should identify and discuss the potential impacts to air quality from construction and operation of the proposed project. The air quality analysis should address and disclose the project's potential effect on: 1) all criteria pollutants under the National Ambient Air Quality Standards (NAAQS), including ozone; 2) any significant concentrations of hazardous air pollutants; and 3) protection of public health. Mitigation measures should be identified. We recommend the project proponents pursue opportunities to use clean diesel equipment, vehicles and fuels in construction of the project. The Draft EIS should evaluate the protective measures outlined in the enclosure, *EPA's Suggested Construction Emission Controls*. We strongly recommend applicable measures become commitments in the EIS and ROD in order to reduce potential health impacts, particularly for workers.

Section 7.6 of the Study indicates the 2011 MISO Transmission Expansion Plan designated a portfolio of 17 multi-value projects (MVP Portfolio), which includes the proposed project. This section also indicates this portfolio of 17 projects reduces carbon emissions by 9 to 15 million tons annually; however, the Study does not indicate estimated carbon emission reductions from the proposed project, individually.

Recommendations: The Draft EIS should include an estimate of the net reduction in greenhouse gas (GHG) emissions, in CO2 equivalent terms, that will be realized by the proposed project.

The U.S. Global Change Research Program's National Climate Assessment (NCA)[4] section on the Midwest provides a useful starting place for analyzing changing climate conditions. The report finds that, in the Midwest, extreme heat, heavy downpours, and flooding will affect infrastructure, health, air and water quality, and more.

Recommendations: The potential impacts of a changing environment on the proposed action should be addressed, as appropriate, in the project design or analysis of alternatives and identification of resilience measures in the Draft EIS. This may include a discussion of steps to ensure reliable service during extreme events.

Health Concerns

EPA recognizes that the public may have health concerns regarding electromagnetic fields created by a high-voltage transmission line.

Recommendations: The Draft EIS should analyze potential health and environmental effects associated with electromagnetic fields induced by one or more transmission lines. Any disproportionate impacts to communities with environmental justice (EJ) concerns should be identified in the Draft EIS. Tools are available to assist USDA in the EJ analysis for the Draft

[4] U.S. Global Change Research Program, 2014 *National Climate Assessment*, available at: http://nca2014.globalchange.gov/report

EIS.[5] In addition, EPA released "EJSCREEN,"[6] which is a publically-available mapping tool designed to screen for potential impacts to communities living with or vulnerable to EJ concerns.

Hazardous Materials

The construction and operation of substations and associated facilities can generate used oils on-site (e.g., transformer oil, dielectric fluids, fluorinated hydrocarbons, etc.). Spills can result in substantial adverse impacts to surface and ground water quality and aquatic habitats.

Recommendations: The Draft EIS should discuss the frequency or likelihood of such events for the proposed activity, and describe spill and release response capabilities. Appropriate state-identified and USDA-identified BMPs to reduce potential non-point sources of pollution from proposed project activities should be designed into the project and identified in the Draft EIS.

Noise

Construction of the transmission line and operational activities associated with substations may cause an increase in local noise levels.

Recommendations: The Draft EIS should identify the sources of noise pollution and provide details of any mitigation measures that will be implemented to decrease noise pollution to acceptable levels. Mitigation measures may include, but are not limited to, restricting construction to daylight hours, the use of noise barriers, placement of trees and shrubs, sound-proofing structures, and the use of transformers that emit the lowest levels of noise practicable.

Impacts to Local Communities

The project may have other impacts on the communities in the project area.

Recommendation:

The Draft EIS should identify and address the social and economic impacts this project may have on the different communities through which the transmission line, terminals, and substations would pass. This would include, but is not limited to, identifying the number of outside workers that would be brought into the communities to construct the project and the duration of proposed construction activities through the various communities. The Draft EIS should also consider environmentally related socio-economic impacts to the local communities, such as housing for project workers, burdening existing solid waste and wastewater handling facilities, increased road traffic with associated dust and hazardous materials spill potential, and easier human access to wildlife habitat (with associated increased disturbances). If applicable, methods to avoid or minimize such impacts should be discussed.

Non-native Invasive Plant Species (NNIS)

Impacts to Refuge land, private conservation easements, and state or local public lands are expected. Studies show that new roads and pipeline/utility ROWs can become a pathway for the

[5] The inter-agency Workgroup for EJ recently released a report entitled, "Promising Practices for EJ Methodologies in NEPA Reviews" available at: https://www.epa.gov/environmentaljustice/ej-iwg-promising-practices-ej-methodologies-nepa-reviews. The report includes examples of methodologies used across the Federal government for EJ analyses in the NEPA process.

[6] EPA's EJSCREEN Environmental Justice and Mapping Tool is available at: https://www.epa.gov/ejscreen

spread of NNIS. The spread of NNIS is a threat to biodiversity as many NNIS can out-compete native plants and produce a monoculture that has little or no benefit to wildlife. Early recognition and control of new infestations is essential to stopping the spread of infestation and avoiding future widespread use of herbicides, which could correspondingly have more adverse impacts on biodiversity and nearby water quality.

Recommendations: EPA recommends the Draft EIS include a vegetation management plan (Plan) to address control of existing NNIS along the corridor as well as new infestations of NNIS that occur as a result of construction/maintenance activities. The Plan should list the NNIS plants that occur in the study area, as well as a strategy for prevention, early detection, and control of each species. The state Departments of Natural Resources are valuable sources of information in the fight against NNIS. Additionally, BMPs to reduce the possibility of spreading NNIS should be included as an appendix (e.g., washing construction equipment before entering or leaving an area).

Habitat

The analysis indicates impacts to woodlands and Refuge lands are expected. Any new corridor would convert uplands into non-forested utility ROW and fragment existing forestland.

Recommendations: The Draft EIS should describe upland habitat (e.g., type, quality, species, acreage) within the Study Area that may be impacted by each of the alternatives. EPA recommends the effects of proposed activities on wildlife and their habitats, as well as recreational or tribal, if applicable, activities should be disclosed and evaluated in the Draft EIS. We also recommend the Draft EIS identify and discuss the important functions that upland forest play in protecting water quality in the immediate watershed, providing wildlife habitat and their role in carbon sequestration and climate change.

EPA recommends a discussion of steps that will be taken to avoid or minimize adverse impacts to upland habitat and wildlife should be presented in the Draft EIS. For example, seasonal construction restrictions to avoid impacting breeding individuals are strongly advised. USFWS and state Departments of Natural Resources can assist in determining appropriate seasonal restrictions. We encourage a commitment to seasonal construction restrictions is included in the ROD.

EPA strongly recommends USDA and the Utilities commit to voluntary mitigation for upland trees that will be removed during construction. Part of this voluntary mitigation might include, but is not limited to, assisting local, county or state agencies with any on-going or planned forest reclamation projects in the watershed and/or planting native tree saplings as upland buffers at the wetland compensatory mitigation sites. The state Departments of Natural Resources are valuable sources of information regarding potential planting locations and native tree species. We encourage a commitment to replant native tree species at a 1:1 ratio is included in the ROD.

Wildlife

The Analysis indicates impacts to Refuge lands are expected. Habitat conversion and habitat fragmentation have the potential to impact wildlife (e.g., movement of avian species along the Mississippi Flyway).

Recommendations: The Draft EIS should describe impacts to wildlife associated with habitat conversion/fragmentation. In particular, potential impacts from construction and operation of the proposed transmission line to migratory birds (e.g., collisions with power lines, electrocutions) that typically use the Mississippi Flyway should be discussed in the Draft EIS. Additionally, the Draft EIS should discuss how fight diverters and shield wires will be used to reduce aviation collisions with power lines. Coordination with USFWS regarding appropriate measure to reduce avian collisions and electrocutions should be included as an appendix to the Draft EIS. EPA encourages USDA to incorporate suggestions to reduce avian impacts from USFWS as commitments in the ROD.

The analysis indicates, *"... numerous transmission lines exist within the Mississippi Flyway and Refuge and are incorporated into the population level persistence and movement of avian species. Although potential impacts to individual birds or groups may occur, the Stoneman ACA route is not anticipated to have potential impacts at the population level for avian species or to migratory pathways."*
Recommendations: EPA recommends the above statements are supported in the Draft EIS. Because USFWS has jurisdiction for avian species under the Migratory Bird Treaty Act and Bald and Golden Eagle Treaty Act, we recommend supplanting the above statements with evidence obtained by USFWS regarding impacts of transmission lines in the Refuge.

Cumulative Impacts Analyses
In addition to an analysis of direct and indirect impacts, the Draft EIS should provide a cumulative impacts analysis for each resource that will be impacted by the proposed project. The purpose of a cumulative impacts analysis is to assess the incremental impacts on each resource of concern due to connected and unconnected actions that take place in a geographic area over time (i.e., past, present and future) no matter which entity (public or private) undertakes the actions. At this time, we recommend that a cumulative impacts analysis should be undertaken for each of the following resources: surface waters (quality, quantity, and aquatic habitat), wetlands, habitat (e.g., effects of other transmission lines crossing the Refuge and/or other projects located within proximate range of the proposed project with the potential to pose effects on habitat within the Refuge such as the Hampton-Rochester-La Crosse 345-kV transmission line), wildlife, air quality, and climate. A cumulative impacts analysis aids in identifying the level of significance of those impacts on a particular resource and the appropriate type and level of mitigation required to offset the current proposal's contribution to these impacts.

The appropriate area of consideration and the temporal scope to use when assessing cumulative impacts will vary for each resource under consideration. For example, forested wetland loss is probably best considered in the context of historical forested wetland losses in a particular watershed. Incremental forested wetland losses due to past, present, and future actions when viewed in a cumulative context may result in a significant impact due to the time it takes to replicate a forested wetland. Consequently, impacts to a forested wetland resource, no matter how small for a particular proposal, may be significant. This would dictate that all efforts be made to avoid and minimize impacts to forested wetlands, and require adequate mitigation for any unavoidable loss.

U.S. Environmental Protection Agency
Suggested Construction Emission Controls

Diesel emissions and fugitive dust from project construction may pose environmental and human health risks and should be minimized. In 2002, EPA classified diesel emissions as a likely human carcinogen, and in 2012 the International Agency for Research on Cancer concluded that diesel exhaust is carcinogenic to humans. Acute exposures can lead to other health problems, such as eye and nose irritation, headaches, nausea, asthma, and other respiratory system issues. Longer term exposure may worsen heart and lung disease.[1] We recommend that USDA and the Applicant consider the following protective measures and commit to applicable measures in the forthcoming Draft EIS.

Mobile and Stationary Source Diesel Controls

Purchase or solicit bids that require the use of vehicles that are equipped with zero-emission technologies or the most advanced emission control systems available. Commit to the best available emissions control technologies for project equipment in order to meet the following standards.

- On-Highway Vehicles: On-highway vehicles should meet, or exceed, the EPA exhaust emissions standards for model year 2010 and newer heavy-duty, on-highway compression-ignition engines (e.g., long-haul trucks, refuse haulers, shuttle buses, etc.).[2]
- Non-road Vehicles and Equipment: Non-road vehicles and equipment should meet, or exceed, the EPA Tier 4 exhaust emissions standards for heavy-duty, non-road compression-ignition engines (e.g., construction equipment, non-road trucks, etc.).[3]
- Marine Vessels: Marine vessels servicing infrastructure sites should meet, or exceed, the latest EPA exhaust emissions standards for marine compression-ignition engines (e.g., Tier 4 for Category 1 & 2 vessels, and Tier 3 for Category 3 vessels).[4]
- Low Emission Equipment Exemptions: The equipment specifications outlined above should be met unless: 1) a piece of specialized equipment is not available for purchase or lease within the United States; or 2) the relevant project contractor has been awarded funds to retrofit existing equipment, or purchase/lease new equipment, but the funds are not yet available

Consider requiring the following best practices through the construction contracting or oversight process:

- Use onsite renewable electricity generation and/or grid-based electricity rather than diesel-powered generators or other equipment.
- Use ultra-low sulfur diesel fuel (15 ppm maximum) in construction vehicles and equipment.
- Use catalytic converters to reduce carbon monoxide, aldehydes, and hydrocarbons in diesel fumes. These devices must be used with low sulfur fuels.
- Use electric starting aids such as block heaters with older vehicles to warm the engine.
- Regularly maintain diesel engines to keep exhaust emissions low. Follow the manufacturer's recommended maintenance schedule and procedures. Smoke color can signal the need for maintenance (e.g., blue/black smoke indicates that an engine requires servicing or tuning).
- Retrofit engines with an exhaust filtration device to capture diesel particulate matter before it enters the construction site.

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[1] https://www3.epa.gov/region1/eco/diesel/health_effects.html
[2] http://www.epa.gov/otaq/standards/heavy-duty/hdci-exhaust.htm
[3] http://www.epa.gov/otaq/standards/nonroad/nonroadci.htm
[4] http://www.epa.gov/otaq/standards/nonroad/marineci.htm

- Repower older vehicles and/or equipment with diesel- or alternatively-fueled engines certified to meet newer, more stringent emissions standards (e.g., plug-in hybrid-electric vehicles, battery-electric vehicles, fuel cell electric vehicles, advanced technology locomotives, etc.).
- Retire older vehicles, given the significant contribution of vehicle emissions to the poor air quality conditions. Implement programs to encourage the voluntary removal from use and the marketplace of pre-2010 model year on-highway vehicles (e.g., scrappage rebates) and replace them with newer vehicles that meet or exceed the latest EPA exhaust emissions standards.

Fugitive Dust Source Controls

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative, where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.

Occupational Health

- Reduce exposure through work practices and training, such as turning off engines when vehicles are stopped for more than a few minutes, training diesel-equipment operators to perform routine inspection, and maintaining filtration devices.
- Position the exhaust pipe so that diesel fumes are directed away from the operator and nearby workers, reducing the fume concentration to which personnel are exposed.
- Use enclosed, climate-controlled cabs pressurized and equipped with high-efficiency particulate air (HEPA) filters to reduce the operators' exposure to diesel fumes. Pressurization ensures that air moves from inside to outside. HEPA filters ensure that any incoming air is filtered first.
- Use respirators, which are only an interim measure to control exposure to diesel emissions. In most cases, an N95 respirator is adequate. Workers must be trained and fit-tested before they wear respirators. Depending on the type of work being conducted, and if oil is present, concentrations of particulates present will determine the efficiency and type of mask and respirator. Personnel familiar with the selection, care, and use of respirators must perform the fit testing. Respirators must bear a NIOSH approval number.

NEPA Documentation

- Per Executive Order 13045 on Children's Health[5], EPA recommends the lead agency and project proponent pay particular attention to worksite proximity to places where children live, learn, and play, such as homes, schools, and playgrounds. Construction emission reduction measures should be strictly implemented near these locations in order to be protective of children's health.
- Specify how impacts to sensitive receptors, such as children, elderly, and the infirm will be minimized. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.

[5] Children may be more highly exposed to contaminants because they generally eat more food, drink more water, and have higher inhalation rates relative to their size. Also, children's normal activities, such as putting their hands in their mouths or playing on the ground, can result in higher exposures to contaminants as compared with adults. Children may be more vulnerable to the toxic effects of contaminants because their bodies and systems are not fully developed and their growing organs are more easily harmed. EPA views childhood as a sequence of life stages, from conception through fetal development, infancy, and adolescence.