

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO
Judge William J. Martínez**

Civil Action No. 19-cv-1945-WJM

OREGON-CALIFORNIA TRAILS ASSOCIATION, a nonprofit corporation;
WESTERN NEBRASKA RESOURCES COUNCIL, a nonprofit corporation;
HANGING H EAST, L.L.C., a limited liability corporation;
WHITETAIL FARMS EAST, L.L.C., a limited liability corporation;

Petitioners,

v.

NOREEN WALSH, Reg'l. Director, Mountain-Prairie Region, U.S. Fish and Wildlife Service;
DAVID BERNHARDT, Secretary, U.S. Department of the Interior;
AURELIA SKIPWITH, Director, U.S. Fish and Wildlife Service;

Respondents, and

NEBRASKA PUBLIC POWER DISTRICT,

Intervenor-Respondent.

ORDER AFFIRMING IN PART AND VACATING IN PART AGENCY ACTION

The United States Fish & Wildlife Service (“Service”) has issued a permit to the Nebraska Public Power District (“Power District”) to incidentally “take” (kill or otherwise significantly disturb) the endangered American burying beetle (sometimes referred to in this Order simple as the “beetle”). Such take will happen through construction and operation of a 225-mile electrical transmission line in Nebraska known as the “R-Project.” Petitioners—various organizations whose interests may be negatively affected if the R-Project is built—argue that the Service’s choice to issue the incidental take permit violates portions of the Endangered Species Act (“ESA”), 16 U.S.C. §§ 1531 *et*

seq.; the National Environmental Policy Act (“NEPA”), 42 U.S.C. §§ 4231 *et seq.*; and the National Historic Preservation Act (“NHPA”), 54 U.S.C. §§ 300101 *et seq.* Petitioners thus bring this lawsuit under the Administrative Procedure Act (“APA”), 5 U.S.C. §§ 701 *et seq.*, to have the incidental take permit set aside.

This is an unusually complicated case. The R-Project has been in various planning stages for eight years, and the administrative record is correspondingly enormous. (See ECF Nos. 17–22.) The record is also oddly organized and difficult to navigate. More frustrating, however, are the parties’ arguments. Many are of the underdeveloped, “see what sticks” variety; many are inexcusably belated (*i.e.*, arguments Petitioners make for the first time in their reply brief); and there are a surprising number of seemingly relevant arguments *not* made.

Having bushwhacked for weeks through this thicket, the Court finds, for the reasons explained below, that a large number of Petitioners’ challenges are without merit. The Court agrees with Petitioners, however, as to the following:

- the Service inadequately considered the effects of the R-Project on the O’Fallon’s Bluff segment of the Oregon and California Trail;
- the Service unlawfully excluded potential wind turbine development in Antelope County, Nebraska, from its analysis (an error which infects various other analyses under the ESA, NEPA, and the NHPA); and
- one portion of a “programmatic agreement” entered into to address NHPA matters is arbitrary and capricious, at least on this record.

As a consequence, the Court will set aside the Service’s decision to grant the June 12, 2019 incidental take permit, meaning said permit will be vacated.

Also before the Court are two motions to file amicus briefs. (ECF Nos. 26, 27.)

The Court will deny these motions.

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I. APA STANDARDS

The Service's actions under the ESA, NEPA, and NHPA may be reviewed under the APA. The APA empowers a reviewing court to "set aside" agency action if it is, among other things, "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). Generally, an agency decision violates this standard

if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). A reviewing court should engage in a "thorough, probing, in-depth review," *Wyoming v. United States*, 279 F.3d 1214, 1238 (10th Cir. 2002) (citation omitted), with its review of the merits "generally limited to . . . the administrative record," *Custer Cnty. Action Assoc. v. Garvey*, 256 F.3d 1024, 1027 n.1 (10th Cir. 2001).

However, "[t]he scope of review under the 'arbitrary and capricious' standard is narrow and a court is not to substitute its judgment for that of the agency." *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43. The Court confines its review "to ascertaining whether the agency examined the relevant data and articulated a satisfactory explanation for its decision, including a rational connection between the facts found and the decision made." *Colo. Wild v. U.S. Forest Serv.*, 435 F.3d 1204, 1213 (10th Cir. 2006).

II. BACKGROUND

The following is a general overview of the R-Project, the Service's consideration

of it, the disputes that arose during the Service’s consideration, and the Service’s ultimate decision. The Court will provide much greater factual detail as it becomes relevant in the various analysis sections, below.

In January 2012, a quasi-governmental entity known as the Southwest Power Pool (a regional electric reliability council under the supervision of the Federal Energy Regulatory Commission, see ECF No. 34 at 17)¹ concluded that Nebraska needs a new east-west 345 kV electrical transmission line “chiefly to provide access for wind development in Cherry [County, in north-central Nebraska], but this line also [will] provide[] parallel paths for key contingencies in Nebraska for west to east flows, relieve[] congestion, increase[] transfer capability, and mitigate[] reliability concerns.” (LIT CITED_026788.)²

In April 2012, the Southwest Power Pool directed the relevant regional utility—in this case, the Power District—to plan and construct the new transmission line and associated infrastructure. (*Id.* at 18627.) These tasks comprise the R-Project.

Specifically, the Power District was directed to construct

a new 345 kilovolt (kV) transmission line that will extend from [the Power District’s Gerald Gentlemen] Substation [which is just south of Interstate 80, approximately halfway between North Platte and Ogallala] north to a new 345 kV substation to be located in or near Cherry County, and then extend eastward to another new 345 kV substation to be located in Holt County, which is to interconnect with Western Area

¹ All ECF page citations are to the page number in the CM/ECF header, which does not match the document’s internal pagination due to separately numbered prefatory materials such as a table of contents, a table of authorities, etc.

² The administrative record (ECF Nos. 17–22) is not consecutively paginated from beginning to end. Rather, it is grouped into categories (*e.g.*, “LIT CITED,” “EMAIL,” “NHPA”) and pages within each category are in turn correspondingly stamped with document control numbers. “USFWS,” and sometimes “USFWS_12,” precedes every category label. The Court has dropped that prefix throughout this Order.

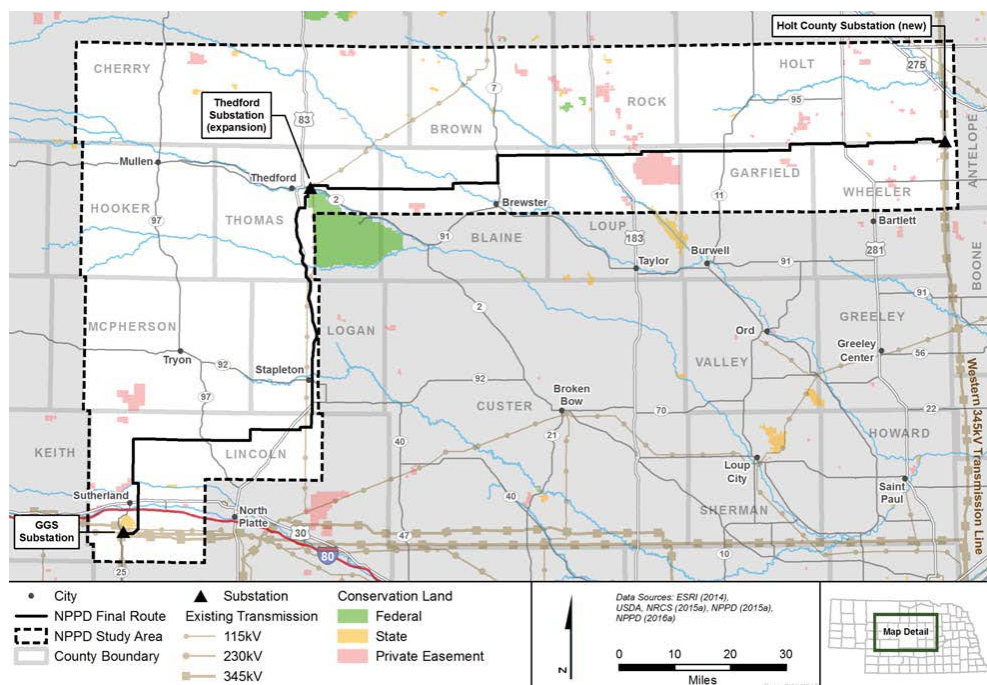
Power Administration's . . . existing Fort Thompson [South Dakota] to Grand Island [Nebraska] 345 kV line that is located on the eastern border of Holt County.

(*Id.*) Later, the Southwest Power Pool and the Power District dropped the idea of a new substation in Cherry County in favor of expanding an existing substation near Thedford, Nebraska, in Thomas County. (*Id.*)

Over the summer of 2012, the Power District “experienced extreme peak load growth that resulted in load shedding to the customers in north-central Nebraska because of the lack of transmission capacity in that area. During the irrigation season when load was shed, [the Power District] was forced to lease expensive mobile generators to serve the irrigation customers.” (NEPA_002443.) The Power District represents that this was the result of “severe drought conditions.” (ECF No. 37 at 12.) In any event, the Southwest Power Pool concluded that the R-Project is needed “to increase reliability and decrease congestion,” “[e]ven if no wind projects were [to be] built.” (NEPA_002443; *see also* LIT CITED_018627.)

For the next couple of years, the Power District pursued a process required by state law for determining the route of the new transmission lines. (See LIT CITED_016898–900; *id.* at 32225–35; CORRESPONDENCE_000301.) The Power District also began consulting with the Service about an incidental take permit for the American burying beetle, and possibly the whooping crane. (HCP_000001–2.) By the end of 2013, however, the expected permit was narrowed to just the beetle. (CORRESPONDENCE_000092.)

The Power District announced its “Final Route” for the R-Project in January 2015. (LIT CITED_016925.) It is about 225 miles long. (*Id.*) The route is depicted in the following map:



(LIT CITED_032205.)

For the next two-plus years, the Service, the Power District, and other parties worked together on the content of an environmental impact statement analyzing the effects of granting an incidental take permit as to the beetle, and thereby clearing the way for the R-Project to be built along the Final Route. In the middle of this process, the Service asked the Power District to apply for incidental take coverage of whooping cranes, not just American burying beetles. (EMAIL_004498–99.) This request eventually generated ten studies, counter-studies, or meta-studies regarding the likelihood of a whooping crane colliding with R-Project power lines. (See Part IV.B.2.a, below.)

Around the same time that the Service began pushing the Power District to include the whooping crane within its permit application, the Service also began receiving information from other federal agencies that the Final Route would cross immediately over, or very near to, relatively pristine sections of the Oregon and

California Trails, the Mormon Pioneer Trail, and the Pony Express Trail.

(EMAIL_004431–33.)

The Service issued its draft environmental impact statement (“**Draft EIS**”) in May 2017, which was limited to the effects of issuing an incidental take permit as to the beetle. (ADD_00084.) In November 2017, the Power District formally applied for such an incidental take permit, with an associated habitat conservation plan. (HCP_000930.) The permit application did not request coverage for incidental take of whooping cranes.

The Service received numerous comments on the Draft EIS and the Power District’s proposed habitat conservation plan. Broadly speaking, the comments focused on potential effects to whooping cranes (and, to a lesser degree, interior least terns and piping plovers), the potential for the R-Project to promote development of large wind farms in the region, and the public’s desire that the Power District consider different routes.

The Service issued its final environmental impact statement (“**Final EIS**”) in November 2018. (LIT CITED_032166.) Then, in June 2019, the Service issued an incidental take permit to the Power District (covering the beetle only), effective through June 12, 2069 (*i.e.*, for the expected fifty-year life of the R-Project). (HCP_001927.)

Petitioners filed this lawsuit in July 2019. (ECF No. 1.) In light of the pending lawsuit, and to avoid preliminary injunction proceedings, the parties stipulated amongst themselves that the Power District would defer major construction activities on the R-Project until this month (*i.e.*, June 2020). (ECF No. 10 ¶¶ 1–3; ECF Nos. 47–48.)

III. STANDING

Respondents do not challenge Petitioners’ standing to sue, and the Court

otherwise finds that standing exists. For example, Petitioner Oregon-California Trails Association is an organization devoted to, among other things, preventing the destruction or degradation of the Oregon and California Trails. (See ECF No. 22-1.) As will become clear below, if the Service did not lawfully issue an incidental take permit, the R-Project would not be built, and the Oregon and California Trails would not be degraded. The other Petitioners would similarly avoid injury to their interests (such as wildlife-watching interests) if the R-Project were not built. (See ECF Nos. 22-2, 22-3.) Accordingly, Petitioners have standing.

IV. DIRECT EFFECTS ON BIRD SPECIES

This Part of the Order addresses Petitioners' arguments that the R-Project itself will cause "take" of the whooping crane, piping plover, and interior least tern. The Court will analyze the effect of wind turbines that might be built because of the R-Project in Part V, below.

A. Preliminary Clarification

The ESA makes it unlawful to "take any [endangered] species within the United States." 16 U.S.C. § 1538(a)(1)(B). "The term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." *Id.* § 1532(19). But ESA § 10 (16 U.S.C. § 1539) allows the Service to make an exception to this prohibition in certain circumstances, including "if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." *Id.* § 1539(a)(1)(B). To obtain such an "incidental take" permit from the Service, the applicant must submit to the Service

a conservation plan [also sometimes called a "habitat conservation plan"] that specifies—

- (i) the impact which will likely result from such taking;
- (ii) what steps the applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps;
- (iii) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and
- (iv) such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan.

Id. § 1539(a)(2)(A).

As for whether to issue a permit,

If the [Service] finds, after opportunity for public comment, with respect to a permit application and the related conservation plan that—

- (i) the taking will be incidental;
- (ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking;
- (iii) the applicant will ensure that adequate funding for the plan will be provided;
- (iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and
- (v) the measures, if any, required under subparagraph (A)(iv) will be met;

and [the Service] has received such other assurances as [it] may require that the plan will be implemented, the [Service] shall issue the permit. The permit shall contain such terms and conditions as the Secretary deems necessary or appropriate to carry out the purposes of this paragraph [*i.e.*, § 1539(a)(2)]

Id. § 1539(a)(2)(B).

The only administrative action under review by this Court is the Service's decision to issue to the Power District a permit to incidentally take American burying

beetles while building and operating the R-Project. (See ECF No. 22 at 8, 9.)

Petitioners argue, however, that the choice whether to issue such a permit implicates many issues beyond whether the permit application satisfies the requirements set forth in ESA § 10.

Petitioners argue that the Service violated ESA § 10 by granting the incidental take permit and approving the habitat conservation plan, because neither the permit nor the plan addresses the whooping crane. (ECF No. 22 at 37–38.) Petitioners concede that “the project proponent must decide whether to seek an [incidental take permit] in the first instance”—in other words, the Service cannot force a private party to apply for a permit as to a particular species (or at all). (*Id.* at 40.) But, according to Petitioners, “the Service acts arbitrarily and capriciously (and in violation of Section 10) by granting—rather than denying—a permit [as to the applied-for species] when the Service knows that the permitted activity is likely to take other ESA-listed species [that are not within the application].” (*Id.*)

Petitioners acknowledge that their argument raises “an issue of first impression under the ESA.” (*Id.* at 39.) But Petitioners point the Court to *Kokechik Fishermen’s Association v. Secretary of Commerce*, 839 F.2d 795 (D.C. Cir. 1988), in which the D.C. Circuit construed a similar statute, the Marine Mammal Protection Act (“MMPA”), to impose such a duty. (*Id.* at 39–40.) In *Kokechik*, a commercial fishing company applied under the MMPA for a permit “to take a fixed number of Dall’s porpoise incidental to commercial fishing for salmon in U.S. conservation waters.” 839 F.2d at 797. In administrative proceedings regarding the permit application, it became clear that protected species other than the porpoise would likely be taken by the commercial

fishing company's activities. *Id.* at 798. The Secretary of Commerce (who administers the MMPA) issued the permit as to the porpoise. *Id.* at 799. As to other species likely to be taken, the Secretary asserted that incidental taking of those species would remain prohibited under the MMPA. *Id.* Apparently the Secretary meant to say that the Commerce Department would deal with take of other species through enforcement of the statute after take had occurred.

Challengers argued that the MMPA permitting process did not permit this result, given that it was "a certainty" that at least one other protected species (the northern fur seal) would be taken. *Id.* at 797, 801. When the dispute reached the D.C. Circuit, the court framed the issue as follows: "The MMPA must be analyzed to determine whether the Secretary of Commerce may legally issue a permit allowing incidental taking of one protected marine mammal species knowing that other protected marine mammal species will be taken as well." *Id.* at 800. The court's answer was no:

It is the duty of the Secretary to take a systemic view of an activity's effect on marine mammals. A view that the permit process functions merely to determine which takes will be exempted from civil penalties is inconsistent with this duty because it allows—subject to the civil penalty price—illegal takings of other protected marine mammals.

Id. at 802.

One member of the panel dissented, however. "In the MMPA," he argued, "Congress created a species-based permit system," not an action-based permit system. *Id.* at 803 (Starr, J., dissenting). In other words, one applies for permission to take a protected species through some planned action, rather than applying for permission to engage in the planned action that might take one or more protected species. *Id.* at 804–06. The dissenting judge criticized the majority because its "construction of the

MMPA effectively requires that *no* permit for *any* species issue until a permit for *all* mammals likely to be [taken] can lawfully issue.” *Id.* at 806 (emphasis in original).

One might argue that the *Kokechik* dissent’s views have equal force for ESA § 10, which likewise appears to create a species-based permit system, not an action-based permit system. See, e.g., 16 U.S.C. § 1539(a)(2)(B)(iv) (requiring the Service to find that “the taking will not appreciably reduce the likelihood of the survival and recovery of *the species* in the wild” (emphasis added)). Moreover, § 10 states that if the Service makes the required findings as to the species in question, “the [Service] *shall* issue the permit.” *Id.* § 1539(a)(2)(B) (emphasis added). Read plainly, this might foreclose any discretion to deny the permit for reasons unconnected to the survival of the species that is the subject of the permit application. Thus, if the Service were to deny a statutorily satisfactory application to take one species because the applicant had not also applied to take a different species, the applicant might have a colorable claim under the APA to “compel agency action unlawfully withheld.” 5 U.S.C. § 706(1).

With so much riding on the interpretation of the Service’s authority under ESA § 10—does an application for any species open the inquiry to all species?—the Court expected at least one of the Respondents to argue that “shall issue the permit” should be interpreted strictly. But neither does.

The Service’s failure to make the argument is ultimately unsurprising. Through its *Habitat Conservation Planning and Incidental Take Permit Processing Handbook* (rev. Dec. 21, 2016) (see ADD_02454) (“*Handbook*”), the Service has already adopted a position in Petitioners’ favor:

If adverse effects to a species [that is not the subject of an application] are possible, we should encourage an applicant

to include them in the [habitat conservation plan] and permit application. If an applicant ultimately decides against covering a species, they face the risk that we would be unable to process the permit application as all species likely to be taken are to be covered by the permit.

(ADD_02532 (internal cross-reference omitted); see also *id.* at 2576 (“The Service[] require[s] applicants to include as . . . covered species all ESA-listed wildlife species for which incidental take is reasonably certain to occur, unless take is addressed through a separate ESA mechanism . . .”).)³

“Unable to process the permit application” is an interesting circumlocution, perhaps chosen to avoid the word “deny” and thereby avoid looking like the Service is contradicting the (apparent) statutory mandate to issue a permit if the application meets the statutory requirements as to the species in question. See 16 U.S.C. § 1539(a)(2)(B) (“the [Service] shall issue the permit”). But the overall meaning is clear. The Service views the application process as action-centric, not species-centric, and is at least willing to threaten denial if an applicant does not apply for incidental take permission as to all relevant species. Thus, if the Service were to argue in this lawsuit that “shall issue the permit” gives it no discretion to deny an otherwise proper application for failure to

³ In their opening brief, Petitioners briefly describe this portion of the *Handbook* as “the Service’s own formal interpretation of [ESA § 10],” but do not argue that the Court must therefore give it any weight or deference. (ECF No. 22 at 38.) Yet in their reply brief, Petitioners attack the Service’s reliance on the *Handbook* (as to a different issue): “The Service does not request any deference for this interpretation, nor is this guidance document binding.” (ECF No. 38 at 28 n.13.) Thus, Petitioners’ view about the weight the Court should give the *Handbook* is unclear. “An agency manual, in contrast to a regulation, is not necessarily entitled to the force and effect of law. This is particularly true if the agency did not intend the manual to be mandatory, but rather intended it as a guidance or advisory document.” *Aragon v. United States*, 146 F.3d 819, 824 (10th Cir. 1998). In this light, at least one court has found that an earlier version of the *Handbook* “was not meant to have the force of law.” *WildEarth Guardians v. U.S. Fish & Wildlife Serv.*, 622 F. Supp. 2d 1155, 1164 (D. Utah 2009). However, for reasons explained below, the Court will assume that ESA § 10 gives the Service power to deny otherwise proper applications for failure to apply as to all relevant species. In that light, the Court need not decide whether the *Handbook*’s guidance on this issue deserves any deference.

apply as to all relevant species, the Service's litigation position would contradict its position as expressed in the *Handbook*.⁴

The Power District, however, has no handbook or prior position with which it must remain consistent. Thus, the Power District seems like the proper party to pose the question, "Does the Service have power to deny an incidental take permit on the grounds suggested by Petitioners?" The Power District's brief contains language suggesting that an argument in this regard will be forthcoming, *e.g.*:

- "Petitioners tellingly devote substantial effort to what the [permit] does not cover—the whooping crane. In doing so, Petitioners highlight the flaw in their challenge—a misapprehension of the Service's scope of authority in this voluntary permit for American burying beetle impacts."
- "[T]he Service cannot compel an applicant to include a particular species in [a habitat conservation plan]."

(ECF No. 37 at 9, 30.) But instead of grounding this argument in ESA § 10's "shall issue the permit" directive, the Power District immediately goes on to address the significance of the *Handbook*: "The Service does, however, *recommend* that an applicant cover a listed species in its [habitat conservation plan] when take is 'reasonably certain' to occur." (*Id.* (quoting ADD_02506) (emphasis in original).)⁵ The Power District then explains why, in this case, the Service properly decided it did not

⁴ Confusingly, the Service *does* take a strict view of "shall issue the permit" in a different context, namely, whether it may deny a permit because there are feasible, less environmentally damaging ways to accomplish the applicant's objective. (See Part VI.A, below.)

⁵ The full quotation from the *Handbook* is as follows: "A landowner or project proponent should be advised to develop an HCP and seek an incidental take permit if they are conducting (or planning to conduct) any type of activity in an area where ESA-listed species are known to occur and where their activity or activities are reasonably certain to result in incidental take." (ADD_02506.)

need to recommend inclusion of the whooping crane (or other species) in the Power District’s application—because take was not reasonably certain to occur. (*Id.* at 30–31.) In other words, the Power District appears to frame this as a dispute over whether the Service lawfully failed to recommend something.

Even from that perspective, the Court would have expected the Power District to argue that an agency’s failure to recommend something to a private party is unreviewable in this circumstance because the Power District obviously would not accept that recommendation. *See Utah v. Evans*, 536 U.S. 452, 464 (2002) (when redressability prong of Article III standing depends on actions of third parties, challengers must show that “the practical consequence” of an order setting aside or compelling agency action “would amount to a significant increase in the likelihood that [the challengers] would obtain relief that directly redresses the injury suffered”). But the Power District does not argue as much. And, again, the Power District never argues that the Service lacks authority to deny an otherwise proper permit application on account of a species-not-applied-for.

Instead, the Service and the Power District both rebut Petitioners’ position by distinguishing *Kokechik* and the *Handbook*. Whereas the commercial fishing at issue in *Kokechik* was certain to take northern fur seals, construction and operation of the R-Project is (according to Respondents) unlikely to take any protected species besides the beetle. (ECF No. 34 at 33–34; ECF No. 37 at 31–32.)⁶ Similarly, the *Handbook* says

⁶ *Kokechik* conceivably raises another concern. In a similar context—namely, the incidental take permit process under the Bald and Golden Eagle Protection Act, 16 U.S.C. §§ 668 *et seq.*—the Service has noted that the statute (like the ESA) “does not mandate that parties seek permits before any action that might incidentally take eagles, but simply gives the Service power to seek penalties against those parties that actually take eagles.” *Front Range Nesting Bald Eagle Studies v. U.S. Fish & Wildlife Serv.*, 353 F. Supp. 3d 1115, 1127 (D. Colo.

that the Service should advise an applicant to add a species when take is reasonably certain to occur, but (in Respondents' view) take of any species besides the beetle is not reasonably certain to occur. (ECF No. 34 at 31–33; ECF No. 37 at 30–31.)

Accordingly, the Court deems the Service and the Power District to concede Petitioners' view that ESA § 10, or the structure and purpose of the ESA generally, grants the Service power to deny an incidental take permit that meets the statutory requirements as to the applied-for species because the action that will take the applied-for species will also take one or more species-not-applied-for. With that concession in mind, the Court turns to the remainder of Petitioners' arguments.

B. Whooping Cranes

All parties agree that a whooping crane colliding with the R-Project would almost certainly be fatal to the bird and thus amount to an ESA-prohibited “take,” unless exempted by permit. The bulk of the parties' briefs focus on either attacking or supporting the Service's decision that the likelihood of a whooping crane colliding with the R-Project is very low, such that the Service need not consider denying the beetle permit on account of the whooping crane. (See Part IV.B.2.a, below.)

From Petitioners' perspective, the Service's conclusion regarding collision risk violates the ESA in two ways. First, Petitioners believe that the administrative record unquestionably establishes a high enough collision risk to warrant denial of the permit,

2018). Because of that, the Service has expressed concern about imposing burdens on the permitting process that might prompt developers “to take their chances rather than seek an incidental take permit.” *Id.* (citing 81 Fed. Reg. 91494, 91495–96 (Dec. 16, 2016)). If applying for an incidental take permit under the ESA as to *any* endangered species opens up the inquiry as to *every* potentially affected endangered species, developers might decide to take their chances instead of applying for a permit. But, again, neither the Service nor the Power District raises this as an argument against *Kokechik's* interpretation of the ESA. The Court therefore will not explore it further.

so the Service “offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs. Ass’n*, 463 U.S. at 43. In that light, Petitioners see an ESA § 10 violation of the same sort as the MMPA violation in *Kokechik*: just as it was arbitrary and capricious in *Kokechik* for the Secretary of Commerce to issue a permit as to porpoises while knowing that fur seals would also be taken, it was arbitrary and capricious under ESA § 10 for the Service to issue a permit as to the American burying beetle while knowing that whooping cranes will also be taken. (ECF No. 22 at 37–41; ECF No. 38 at 9–14.)

The second way the Service violated the ESA, according to Petitioners, is through inadequate “consultation” under ESA § 7 about the risk to whooping cranes. The Court will describe the ESA § 7 standard in more detail shortly. For present purposes, it is enough to note that § 7 requires reliance upon “the best scientific . . . data available.” 16 U.S.C. § 1536(a)(2). Petitioners argue that the Service rejected the best scientific data available on the question of collision risk; or, at a minimum, the Service should have given the whooping crane the benefit of the doubt. (ECF No. 22 at 41–47.)

Petitioners’ two arguments mostly overlap. They both turn on whether the Service improperly weighed the scientific evidence before it. Accordingly, the Court will address the ESA § 10 and ESA § 7 arguments together.

1. Relevant Legal Standards

- a. *ESA § 10 (Incidental Take Permit)*

The standard for issuing an incidental take permit is set forth at the beginning of Part IV.A, above.

b. *ESA § 7 (Consultation)*

Under ESA § 7 (16 U.S.C. § 1536),

[e]ach Federal agency shall, in consultation with and with the assistance of the [Service], insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species

Id. § 1536(a)(2). In all aspects of the Service's evaluation, the ESA directs the Service to "use the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2).

The consultation process culminates in "a written statement setting forth the [Service's] opinion, and a summary of the information on which the opinion is based, detailing how the agency action affects the species or its critical habitat." *Id.*

§ 1536(b)(3)(A). "This written statement is commonly known as a 'biological opinion.'" *San Luis & Delta-Mendota Water Auth. v. Salazar*, 666 F. Supp. 2d 1137, 1141 (E.D. Cal. 2009); *see also* 50 C.F.R. §§ 402.02, 402.14(e).

If the Service finds that "jeopardy [to the species] or adverse modification [of critical habitat]" is likely, the Service "shall suggest [in the biological opinion] those reasonable and prudent alternatives which [it] believes would not violate subsection (a)(2) [*i.e.*, that would not themselves result in jeopardy or loss of critical habitat] and can be taken by the Federal agency or applicant in implementing the agency action." 16 U.S.C. § 1536(b)(3)(A). If, on the other hand, the biological opinion finds that only lawful incidental take will occur (*i.e.*, take that will not cause jeopardy to the species), then the Service, among other things, must "specif[y] the impact of such incidental taking on the species," "specif[y] those reasonable and prudent measures that the Secretary considers necessary or appropriate to minimize such impact," and "set[] forth

the terms and conditions . . . that must be complied with . . . to implement the [minimization] measures [previously specified].” *Id.* § 1536(b)(4).

Strictly speaking, a biological opinion is only advisory:

(a) Following the issuance of a biological opinion, the Federal agency shall determine whether and in what manner to proceed with the action in light of its section 7 obligations and the Service’s biological opinion.

(b) If a jeopardy biological opinion is issued, the Federal agency shall notify the Service of its final decision on the action.

50 C.F.R. § 402.15(a). “[I]n reality,” however, “[the biological opinion] has a powerful coercive effect on the [agency that sought the opinion].” *Bennett v. Spear*, 520 U.S. 154, 169 (1997). Indeed, it has a “virtually determinative” effect on the agency’s decision. *Id.* at 170. For this reason, an aggrieved party usually may challenge a biological opinion without running afoul of the Article III redressability requirement: even though a court order setting aside the biological opinion will not necessarily change the agency’s decision, it almost always does. *Id.* at 168–71. Thus, the biological opinion is the proper subject of an APA challenge.

This case presents an unusual wrinkle in the consultation process. The federal agency contemplating an action (issuing an incidental take permit) is the Service, and the federal agency with which the Service must consult per ESA § 7 is also the Service. The Service refers to this as “intra-Service consultation.” (ADD_002479.) Although it may duplicate the ESA § 10 analysis somewhat (the NEPA analysis too—see below), it is nonetheless a required step. See, e.g., 61 Fed. Reg. 63854, 63856 (Dec. 2, 1996).⁷

⁷ The ESA § 7 consultation process directs the Service to look for “any endangered

2. The Service's Conclusion Regarding "Take" Through Power Line Collision

a. *Additional Background*

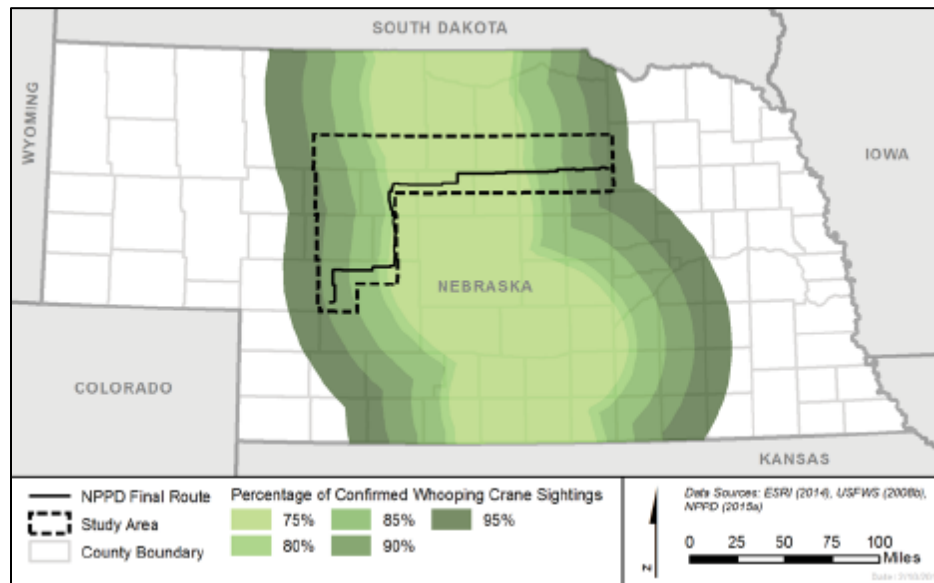
The whooping crane (*Grus americana*) is wading bird, and is the tallest bird in North America. (LIT CITED_032459.) "[D]espite intensive management efforts, the whooping crane remains one of the rarest birds in North America," and there are only four remaining populations: "the Aransas-Wood Buffalo population, Louisiana population, Eastern Migratory population, and Florida population." (*Id.*)

Of particular interest to this lawsuit is the Aransas-Wood Buffalo population, so named because it spends its winters in and around the Aransas National Wildlife Refuge, on the Gulf Coast somewhat northeast of Corpus Christi, Texas, and its summers in and around Wood Buffalo National Park in Canada's Northwest Territories. (*Id.*) Eighty years ago, the Aransas-Wood Buffalo population had been reduced to just fifteen birds; it has since grown (as of 2018) to 505 birds. (*Id.*)

The Aransas-Wood Buffalo population migrates northward between March and May, and southward between September and November. (*Id.*) The cranes' migration path takes them through central Nebraska and across the proposed R-Project. (*Id.*)

species" that might be adversely affected by the proposed action. 16 U.S.C. § 1536(a)(2) (emphasis added). Thus, although the Power District applied under ESA § 10 for a permit as to the beetle only, ESA § 7 required the Service to examine the effect of granting the permit on all potentially affected species, such as the whooping crane. And that is a good argument for not interpreting "shall issue the permit" in ESA § 10 as strictly as the language seems to require—otherwise, § 7 consultation becomes a meaningless exercise. The Service might conclude under § 7 that a species-not-applied-for is doomed if the permit is granted, and yet the Service would have no power to deny the permit as long as it is proper as to the applied-for species. And if that is true, then probably no one would have standing to challenge the biological opinion except as it relates specifically to the applied-for species, because the Service could not change its decision on account of a species-not-applied-for. However, because Respondents do not deny the Service's authority to withhold a permit on account of a species-not-applied-for (see Part IV.A, above), the Court need not explore this possibility further. The Court instead takes it as given that the outcome of the ESA § 7 process *could have* prompted the Service to deny the permit (although it did not in this case).

at 32460.) The following illustration from the Final EIS shows the migration corridor, the R-Project study area, and the Final Route for the R-Project:



(*Id.* at 32461.)

“Collision with power lines has been documented as one of the greatest known sources of mortality for fledged whooping cranes in the Aransas-Wood Buffalo population.” (*Id.* at 32459.) However, the sample size of “known” mortalities is very small. “Between 1950 and 2009, 10 whooping cranes [are known to have] collided with power lines [anywhere in the United States or Canada], representing 20 percent of known mortalities.” (*Id.* (citation omitted).) Collision risk while in migratory flight is essentially nonexistent because the cranes fly at an altitude of 1,000 to 6,000 feet. (WHCR_000203.) But collision can happen “at the start of the day, taking off from their roosting or feeding location, and at the end of the day, coming down to feed or roost.” (*Id.*)

In May 2012, not long after receiving the Southwest Power Pool’s directive to build the R-Project, the Power District contacted the Service to begin discussing

whether the R-Project will affect threatened or endangered species. (SECTION 7_000003–4.) By May 2013, the Power District “anticipate[d]” applying for an incidental take permit as to the whooping crane (as well as the beetle). (HCP_000002.) But by December 2013, the Power District and Service apparently agreed that the Power District need not apply for a permit as to the whooping crane so long as the Power District followed the Service’s “Region 6 Guidance for Minimizing Effects from Power Line Projects Within the Whooping Crane Migration Corridors” (“Region 6 Guidance”). (CORRESPONDENCE_000091–92.) As relevant here, the Region 6 Guidance calls for “marking” power lines, *i.e.*, installing “bird flight diverters,” which make power lines more visible. (NEPA_000025; *see also* LIT CITED_032463–64.)

In September 2014, the Power District informed the Service that it still intended to apply for an incidental take permit, and to develop a habitat conservation plan, as to the beetle. (CORRESPONDENCE_000091.) As to the whooping crane, the Power District said it “plans to provide a detailed analysis of the whooping crane in the [habitat conservation plan],” but determined that a recently developed analysis about collision risk to whooping cranes from power lines “supports the conclusion that the probability of a whooping crane take as a result of the addition of the new transmission lines under the R-[P]roject is too low to warrant the inclusion of whooping cranes as a covered species [in the incidental take permit].” (*Id.*) The Power District noted, however, that it will follow the Region 6 Guidance to minimize risks to whooping cranes. (*Id.* at 91–92.)

Through 2015, the matter of whooping cranes was apparently a relatively low priority as the parties debated whether the Service should explore other routing possibilities for the R-Project. (See Part VI.A, below.) However, in March 2016, the

Service (specifically, its Nebraska Field Office) asked the Power District to apply for incidental take coverage of whooping cranes. (EMAIL_004498–99.)

In either June or July 2016, the Power District submitted to the Service a “Whooping Crane Collision Risk and Likelihood of Take” analysis (“**Power District 2016**”). (WHCR_000194; see *a/so* EMAIL_005471–75.) Extrapolating from three known values (first, that eight Aransas-Wood Buffalo cranes are confirmed to have died from a power line collision during migration in the United States since 1950; second, there are already 326,000 miles of power lines in the United States portion of the migration corridor; third, the R-Project would add 225 miles), and applying various assumptions (*e.g.*, that every mile of power line is equally dangerous to a migrating whooping crane; that death, from any cause, is no more likely during migration than any other time of the year; *etc.*), the Power District estimated that 0.016 cranes are likely to collide with the R-Project infrastructure over its fifty-year lifespan. (WHCR_000195, 202–07.) If it were assumed instead that only about 10% of the 326,000 miles is responsible for whatever crane collision deaths have occurred, then the estimate goes up by one order of magnitude, *i.e.*, to 0.16 likely collision deaths over fifty years. (*Id.* at 207.) But the Power District asserted that “there is no scientific way to identify a subset of the 326,000 miles of power lines that pose a higher potential risk to the whooping crane.” (*Id.* at 195.) Thus, it further asserted that its method applied “[t]he available facts” to “the best available science.” (*Id.* at 197.)

The Power District also reasoned that its calculations “overstate[] the risk by a substantial margin” because, among other things, only about 123 of the 225 miles of proposed R-Project power lines would be near “suitable stopover habitat” (*i.e.*, places

where a whooping crane could be expected to fly low enough to collide with a power line). (*Id.* at 196.) Moreover, the Power District's calculations did not account for "any reduction in risk attributable to use of bird flight diverters," which supposedly "reduc[e] bird strikes by roughly 50 to 80 percent in the case of cranes and waterfowl." (*Id.*) The Power District committed to installing bird flight diverters on the relevant 123 miles of the R-Project, and on another 123 miles of existing power lines. (*Id.*)

The Power District concluded, "Intuitively, it is tempting to assume that any new miles of power line will create a new source of potential mortality for whooping cranes; however, the above analysis demonstrates that any actual incremental risk is very small." (*Id.* at 208.)

In July 2016, the Service's Nebraska Field Office produced a short response to the Power District's conclusions ("**Field Office 2016**"). (*Id.* at 214.) The Field Office adopted the Power District's overall approach (*i.e.*, determining the risk of collision caused by any particular mile of power line in the migratory corridor) but disagreed with the Power District's assumption that death is no more likely during migration than any other time of the year. (*Id.* at 215.) The Field Office believed that more than half of Aransas-Wood Buffalo whooping crane deaths occur during migration, even though the cranes migrate for only about 17% of the year. (*Id.*) Applying that assumption to various other data points, the Field Office estimated that 0.05 whooping cranes would strike the R-Project in its first year of operation (based on current population figures), growing to 0.5 whooping cranes by the end of its fifty-year lifespan (based on expected whooping crane population growth). (*Id.* at 215–16.) For unexplained reasons, the Field Office concluded this report by asserting that "take of at least 1 whooping crane is

likely over the 50 year permit duration.” (*Id.* at 216.) The Field Office said nothing about the possible effect of bird flight diverters.

The Service issued the Draft EIS in May 2017. (ADD_00084.) The Draft EIS acknowledged that “[t]he R-Project transmission line would present a long-term collision hazard for whooping cranes,” but, apparently relying on Power District 2016, it further asserted that “the likelihood of whooping crane collisions with the R-Project transmission line would be extremely low, resulting in a risk value of less than one collision over the 50-year life of the Project.” (*Id.* at 381–82.) The Draft EIS then cited “a separate whooping crane collision risk assessment that also concluded the risk of whooping crane mortality from collision with the R-Project transmission line would be low (Appendix E).” (*Id.* at 382.)

The cross-referenced Appendix E is not Field Office 2016. Rather, it is a new analysis (“**Field Office 2017**”). (*Id.* at 911; see *also* WHCR_000217 (materially same document, but with different formatting).) This analysis begins by calculating “the 50-year cumulative number of crane-years” (ADD_000912), *i.e.*, the number of cranes that will migrate each year for fifty years (*id.* at 911). This calculation relies on various population growth models. (*Id.* at 911–12.) Applying those models to other known statistics (such as confirmed power line strikes, power line miles, etc.), the Field Office derived a

range from a low of essentially zero R-Project transmission line strikes (0.008 cranes), to a high of essentially five R-Project transmission line strikes (4.96 cranes). The maximum likelihood estimates range from a low of 0.422 strikes to a high of 0.619 strikes; however, the uncertainty surrounding these maximum likelihood estimates is so enormous that they should not be considered very much more plausible than any other outcomes embraced by the

Service's 90% confidence interval.

(*Id.* at 915.) The Field Office emphasized that these relatively wide ranges resulted from the fact that it was making estimates based on

very minimal sample sizes, [which] accordingly, have a great degree of uncertainty associated with them[,] and then those uncertainties are compounded and spread across the Service's six population growth scenarios that embrace the uncertainty associated with that factor. . . . Although a tremendous amount of uncertainty exists, we can say that more than 5 total whooping crane strikes with the R-Project transmission line during 2018–2068 are not very plausible. It can also be concluded that for projected initial average annual growth rates below 4.0% it is more likely than not (a low bar for confidence) that no strikes will occur. The key facet for this case is uncertainty, immense uncertainty, such that the decisions to be made will essentially be a risk tolerance policy decision, not a science-directed decision.

(*Id.*)

In November 2017, opponents of the R-Project submitted to the Service an “analysis of whooping crane powerline collision risk” prepared by an entity called Ecosystems Advisors, LP (“**Ecosystems Advisors 2017**”).

(CORRESPONDENCE_001054, 1064, 2797 (capitalization normalized); *see also* WHCR_000223.) The report's authors are two whooping crane researchers, Karine Gil, Ph.D., and Enrique Weir, Ph.D., both of Universidad Simón Bolívar in Venezuela.⁸ Ecosystems Advisors argued that Power District 2016 used incorrect assumptions because, among other things, it did not incorporate radio telemetry data (*i.e.*, GPS tracking data) made recently available showing movements of the Aransas-Wood Buffalo population, it did not recognize that particular power lines (between roosting and

⁸ Thus, in the record and the parties' filings, Ecosystems Advisors 2017 is sometimes referred to as “Gil and Weir.”

foraging sites) are the most dangerous, it failed to recognize research suggesting that cranes have poor forward vision in flight, and it underestimated the amount of suitable crane habitat near the R-Project. (WHCR_000225–41.)

Ecosystems Advisors acknowledged that “we have limited knowledge about how often cranes collide with power lines” (*id.* at 235), but it went on to develop a complicated formula for estimating collision risk based on historical observations, the radio telemetry data, data about power line mileage within certain parameters, and various assumptions about whooping crane behavior and population growth (*id.* at 245). One variable in Ecosystems Advisors’ equation is *M*, representing the “[p]roportion of migration time” that whooping cranes would spend “in R project area.” (*Id.* at 248.) As will become clear below, this variable would become controversial. In any event, applying its formula, Ecosystems Advisors estimated that the collision risk given the current population of Aransas-Wood Buffalo whooping cranes is 1.73 cranes per year, growing to 4.46 cranes per year at the end of fifty years, due to population growth. (*Id.*)

Having estimated as much, Ecosystems Advisors added what appears to be an implicit attack on Power District 2016’s assertion about the intuitive effect of a new power line:

[I]t is not even necessary to rely on a sophisticated model to see that this Project represents a major obstacle to the Whooping Cranes’ migration, and presents a significant risk of collision harm. . . . [G]iven the location of the proposed Project across the migratory corridor and the historical use of the area by Whooping Cranes as shown in the telemetry data, and the fact that it has been acknowledged that power lines are the greatest cause of mortality for migrating Whooping Cranes, regardless of any model it is our expert opinion—after having worked on Whooping Crane issues for the past 14 years—that this Project will result in take of Whooping Cranes

(*Id.* at 251.)

Ecosystems Advisors further opined that bird flight diverters “will not be sufficient to avoid Whooping Crane mortality due to powerline collisions.” (*Id.* at 252–53.) This is so, it said, largely because of studies suggesting that whooping cranes’ visual acuity and in-flight agility are relatively low compared to other birds, such that whooping cranes may not see or have time to react to bird flight diverters. (*Id.* at 253–54.) Ecosystems Advisors estimated “that there will still be between 1.5 and 3.8 Whooping Crane collisions per year associated with the R-Project, even with the use of diverters.” (*Id.* at 254.) Ecosystems Advisors apparently derived these figures by assuming that bird flight diverters “would likely reduce Whooping Crane collisions by a smaller or null amount, perhaps by 15%.” (*Id.* at 251.)

In April 2018, the Service received a report it commissioned from Craig Davis, Ph.D., a professor in the Department of Natural Resource Ecology and Management at Oklahoma State University. (EMAIL_008931–32.) The report (“**Davis 2018**”) reviews (i) Ecosystem Advisors’ critique of Power District 2016, (ii) Ecosystem Advisors’ model for predicting the likelihood of cranes striking the R-Project, (iii) Ecosystem Advisors’ use of GPS data, and (iv) Field Office 2017’s model for predicting collision likelihood. (WHCR_000282–303.)

Concerning Ecosystem Advisors’ critique of Power District 2016, Dr. Davis generally agreed that Power District 2016’s approach oversimplified the matter and relied on some shaky assumptions, mostly arising from “the overall problem . . . that there are not good data on collision mortality and these data are limited in their applicability.” (*Id.* at 284–87.) Dr. Davis also agreed that Power District 2016

underestimated the amount of whooping crane habitat potentially affected by the R-Project, while Ecosystems Advisors “greatly overestimated” such habitat. (*Id.* at 288–89.)

Concerning Ecosystem Advisors’ model for predicting likely crane strikes on the R-Project, Dr. Davis found that certain variables within the equation could be useful, but he determined that these variables did not necessarily point in the direction of greater risk. For example, Ecosystems Advisors treated its variable *M*, representing time spent near the R-Project during migration, as a risk factor (the longer the cranes spent near power lines, the greater the risk of collision), whereas the length of time might instead make the cranes more aware of power lines, and therefore more likely to remember and avoid them. (*Id.* at 293.) But more generally, Davis found himself unable to reproduce how Ecosystems Advisors calculated the value for *M*. (*Id.* at 293–94.) When Davis called Dr. Weir (one of the report’s co-authors) about *M*, Dr. Weir reportedly responded “that it was quite complex and he could not describe the approach used [over the phone].” (*Id.* at 294.)

Dr. Davis also asserted that several of Ecosystems Advisors’ assumptions about whooping crane behavior were overstated or unsupported by peer-reviewed literature. (*Id.* at 294–95.) Nonetheless, overall, he believed that Drs. Gil and Weir “ha[d] attempted to base their approach on the best available science. In particular, they used the whooping crane GPS location data which provides the best unbiased dataset of migrant whooping crane locations for the Aransas-Wood Buffalo population.” (*Id.* at 295.)

Turning to other details of Ecosystem Advisors’ analysis, Dr. Davis opined that

“the calculations used to ultimately arrive at their parameter estimates appeared to be incorrect or flawed and[,] often times, provide estimates that are not biologically relevant and misleading.” (*Id.* at 296.) As one example, Ecosystems Advisors calculated the power line mileage it deemed most dangerous by implicitly (but implausibly) assuming that all whooping cranes would rest from each day’s migration directly under R-Project power lines. (*Id.* at 298.) Ecosystems Advisors’ mileage estimate also relied on a statistic that otherwise “inflated” the “annual mor[t]ality rate per mile.” (*Id.*) Ultimately, however, Dr. Davis opined that “there are too few documented collisions and too much uncertainty to produce reliable and realistic estimates.” (*Id.* at 299.)

Concerning Ecosystems Advisors’ use of GPS telemetry data, Dr. Davis found that the data were generally used properly, but he also criticized Ecosystems Advisors for using these data to calculate whooping crane habitat size under the assumption that everything within a certain distance from GPS-verified stopover locations is suitable whooping crane habitat, which in his view is implausible. (*Id.* at 300–01.)

Finally, concerning Field Office 2017’s model for predicting collision likelihood, Dr. Davis generally praised the Field Office for “us[ing] the best science available in terms of what is known about power line collisions by whooping cranes in the Great Plains.” (*Id.* at 302.) But, “[o]verall, [Field Office 2017] showed that there is tremendous uncertainty with estimating the risk of power line collisions for whooping cranes in the R-Project area.” (*Id.*) Although the Field Office did not incorporate GPS telemetry data (what Dr. Davis called “other best science available”), Dr. Davis did not believe it would have provided “much more certainty”:

Ultimately, I think they would have come to the same conclusion because the overriding issue that is creating this

uncertainty is the lack of good, reliable, and accurate data on whooping crane power line collisions in the Great Plains. Without better data, we cannot be confident in our assessments. . . .

* * *

I realize that under the Endangered Species Act that a “take” estimate must be determined, but in this case, I do not believe that the necessary data is actually available to obtain an estimate of take that is at a level of certainty that is scientifically defensible.

(*Id.* at 302, 303.)

Also in April 2018, a company named Western EcoSystems Technology (“WEST”) produced a report commissioned by the Power District to critique Ecosystems Advisors 2017 (“**WEST 2018**”). (*Id.* at 318.) WEST attacked Ecosystems Advisors on numerous fronts, including that WEST could reproduce only one of Ecosystems Advisors’ many calculations (*id.* at 321–22); some of Ecosystems Advisors’ calculations showed basic mathematical errors (*id.* at 323); and Ecosystems Advisors frequently misrepresented the content of various studies on which it relied (*id.* at 324–26, 335). Thus, WEST claimed that “[m]any statements in [Ecosystems Advisors 2017] were not supported by the best available science.” (*Id.* at 325.)

Like Dr. Davis, WEST criticized Ecosystems Advisors for failing to explain *M*, and for calculating the relevant amount of dangerous power line mileage by assuming that migrating cranes would always stop directly under power lines. (*Id.* at 330.) WEST claimed that other variables in Ecosystems Advisors’ formula were similarly unexplained or suspect. (*Id.* at 330–31.) WEST further criticized Ecosystems Advisors for “ma[king] no clear connection between [some] of [its] assumptions [about whooping crane behavior] and any parameter in the risk model.” (*Id.* at 333.)

As for Ecosystems Advisors' assumption that bird flight diverters would, at best, provide only a 15% reduction in collisions, WEST countered that none of Ecosystems Advisors' cited literature supported such a calculation. (*Id.* at 334.) The literature actually said that bird flight diverters "may be up to 50% effective" or "50% to 80% [effective]." (*Id.*) Moreover, WEST asserted that the literature about whooping cranes' comparative inability to benefit from bird flight diverters (due to size and eyesight) mostly discussed whooping cranes' comparative inability to see power lines (rather than inability to see bird flight diverters), and generally supported the notion that cranes strike power lines less often when lines are marked with bird flight diverters. (*Id.* at 335–36.)

In May 2018, Ecosystems Advisors submitted a letter to the Service, responding to Dr. Davis's critiques ("**Ecosystems Advisors 2018**"). (*Id.* at 306.) The letter shows disagreement over the significance of various studies and statistics, and who misunderstood whom. (*Id.* at 308–16.)⁹ But the letter reiterates, "It is not necessary to rely on a sophisticated model to see that this project represents a major obstacle to the Whooping Cranes' migration, and presents a significant risk of collision harm." (*Id.* at 307.)

In September 2018, the Field Office sent to the Regional Office yet another projection ("**Field Office 2018**") with the explicit purpose of "demonstrat[ing] that take of the endangered whooping crane . . . is reasonably certain to occur over the 50-year life of [the R-Project]." (*Id.* at 373.) Extrapolating from the GPS data, the Field Office

⁹ Although Ecosystems Advisors addressed the *M* controversy, it did not specifically answer Dr. Davis's concerns. (*Compare id.* at 293–94 (stating that *M*, as calculated by Ecosystems Advisors, could not plausibly represent the number of times per year that whooping cranes would cross the R-Project) *with id.* at 310–11 (asserting, without further explanation, that *M* "represents the number of times per year that these birds are likely to be exposed to the R-Project transmission line" based on "the actual data available for the birds").)

presented two methods of calculating the likely number of collision deaths. The first method looked at likely number of collisions per crossing of the R-Project, *i.e.*, the estimated number of times any crane would move from one side of the R-Project to the other. (*Id.* at 377.) The second method, similar to most previous analyses, looked at likely collisions per mile of power line. (*Id.* at 377–78.) The first method yielded an estimated 0.26 expected collisions in the first year of the R-Project, and the second method estimated 0.54 expected collisions in the first year. (*Id.* at 379.) The Field Office then applied population growth estimates to those calculations and concluded that there would be 40 collisions (under the first calculation method) or 84 collisions (under the second) over the fifty-year life of the R-Project. (*Id.*)

Finally, based on its own review of the research, the Field Office asserted that “installation of [bird flight diverters] on the R-Project to reduce collisions by whooping cranes would be minimally effective” due to their size and eyesight, and because cranes would be expected to cross closest to the R-Project lines at dawn or dusk as they are leaving or arriving at roosting areas, or making shorter low-level foraging flights from a roosting area. (*Id.* at 384.)

According to the Power District, it “met with the Regional Office [in September 2018] and was informed that the remaining work on the permitting process would be handled by the Regional Office rather than the Nebraska Field Office.” (ECF No. 37 at 19.)¹⁰

¹⁰ All parties appear to agree that the Regional Office took over at about this time, but they do not agree on why. Petitioners insinuate that the Regional Office was giving in to the Power District’s desire to sideline the Field Office, but Petitioners offer no evidence that the Power District expressed such a desire nor that the Regional Office was heeding the Power District’s demands. (ECF No. 22 at 32–33.) The Power District, for its part, says that the Regional Director is the ultimate signatory on any incidental take permit, so the Regional Office

In early November 2018, Joseph Skorupa, Ph.D., and Lara Juliusson, a mapping specialist—both of whom work in the Service’s Regional Office—issued a critique of Field Office 2018 (“**Regional Office 2018**”). (WHCR_000396.)¹¹ The Regional Office asserted that the Field Office started off on the wrong foot because it extrapolated the wrong value from a 1987 study about the frequency of whooping crane power line collisions, and otherwise failed to account for a 1995 follow-up to that same study that found no additional whooping crane strikes. (*Id.* at 397–98.) And, similar to the critiques of Ecosystems Advisors 2017, the Regional Office could not reproduce some of the numbers that the Field Office plugged into its formula. (*Id.* at 398, 404, 405.) Plugging in what the Regional Office believed to be the correct numbers into the Field Office’s collisions-per-crossing formula, the Regional Office estimated 0.46 strikes per fifty years, “assuming an unmarked line.” (*Id.* at 402.)

The Regional Office’s most emphatic criticism was that one important number used in the Field Office’s equation, if taken seriously, implied that Aransas-Wood Buffalo whooping cranes already strike power lines in their migration corridor 2,175 to 7,069 times per year—whereas the total population in 2018 was 505 birds. (*Id.* at 399, 404.) In a similar vein, the Regional Office asserted that the Field Office’s estimates imply a 189% to 2,116% increase in the risk of striking a transmission line in Nebraska,

must become more closely involved in the late stages of the process; and, in any event, the Power District “played no role in the Regional Office’s decision to complete the work on the permit application.” (ECF No. 37 at 19 & n.5.)

¹¹ Dr. Skorupa’s e-mail signature is “Joseph Skorupa, PhD” (EMAIL_010859) and the Power District, in briefing, refers to him as “Dr. Skorupa” (ECF No. 37 at 20). The parties do not point the Court to anything in the record identifying the discipline in which Dr. Skorupa received his doctoral degree, but neither does any party argue that he is unqualified to render the opinions expressed in Regional Office 2018.

even though the R-Project represents only a 4.7% increase over existing transmission line mileage in Nebraska. (*Id.* at 406–07, 408.)

From the Regional Office’s perspective, it was beyond question that power line strikes kill migrating whooping cranes, but no one knows whether the existing data underrepresent or overrepresent the true risk: “The relative importance of power-line strikes compared to other sources of post-fledging [Aransas-Wood Buffalo whooping crane] mortality simply remains a scientific unknown.” (*Id.*) Nonetheless, the Regional Office insisted that this was “not the same as saying there is a total absence of reasonably certain knowledge that’s relevant to assessing risk for a particular power line.” (*Id.*)

From this, the Regional Office launched into a null-hypothesis analysis, positing that “[t]he R-Project transmission line will be no more or less hazardous than the average level of hazard from existing transmission lines on the Nebraska landscape” within the migratory corridor. (*Id.* at 408.) The Regional Office deemed the following factors as having been established with “reasonabl[e] certain[ty],” mostly based on crane GPS tracking data and existing power line locations: the current amount of transmission line mileage within the migratory corridor in Nebraska; the number of transmission miles the R-Project would add; the average annual percentage of post-fledging Aransas-Wood Buffalo whooping crane deaths (from any cause); the average percentage of deaths that occurred during migration; the constancy of death rates across the cranes’ annual cycle; and the amount of migration time spent in the United States (as opposed to Canada). (*Id.* at 408–09.) From these data points, the Regional Office calculated that five cranes per year die during migration (from any cause). (*Id.*

at 409.) The Regional Office then applied that figure to certain estimates of power line strike rates which were “not reasonably certain” due to observation biases and very small sample sizes, but were nonetheless “the best available information.” (*Id.* (emphasis in original).) The ultimate output was 0.58 expected whooping crane strikes over the fifty-year life of the R-Project, assuming an unmarked line. (*Id.*)

Around the same time that the Regional Office produced the foregoing paper, the Power District submitted to the Service an update to Power District 2016 (“**Power District 2018**”). (*Id.* at 414.) This updated analysis incorporated the GPS tracking data (the lack of which in Power District 2016 was one of Ecosystems Advisors’ major critiques). (*Id.* at 415, 418–19.) According to the Power District, the GPS data cast significant doubt on the assumption—reached before GPS data became available—that power line collision was the single greatest known source of post-fledging crane deaths. (*Id.* at 415, 418–19, 421.) The Power District also took another swipe at Ecosystems Advisors 2017, somewhat in the same vein as the Regional Office’s critique of Field Office 2018: “[Ecosystems Advisors 2017] predicted that the R-Project was going to somehow result in more mortality than the other 99.3% of [power] lines combined.” (*Id.* at 423.)

The Power District agreed with the Service’s general theme that “the paucity of data on collision mortality, coupled with the temporal and spatial scale at which it occurs, leads to final conclusions that have so much uncertainty that they cannot be defended from a scientific view.” (*Id.* at 424.) The Power District nonetheless updated its 2016 calculations, which now yielded an estimate between 0.022 and 0.22 collisions in a fifty-year period, or, under different assumptions, 0.006 collisions in the same

timeframe. (*Id.* at 425–26.) All of these estimates assumed that no bird flight diverters would be installed. (*Id.* at 426–27.)

The Service issued the Final EIS in November 2018. (LIT CITED_032166.) Concerning whooping cranes, the Final EIS relies on Field Office 2017 (the same study attached to the Draft EIS) and Regional Office 2018 (Dr. Skorupa’s and Ms. Juliusson’s recent critique of Field Office 2018) “to conclude that the risk of whooping crane collision is low (less than 0.5 whooping cranes over the 50-year life of the project). The Service has found no scientifically agreed-upon methodologies that more accurately assess whooping crane collision risk than the analyses conducted by the Service.” (LIT CITED_032465 (citations omitted).)¹²

In January 2019, the Service (specifically, the Regional Office) issued “A Review and Critique of Risk Assessments Considered by the U.S. Fish and Wildlife Service Regarding the Collision Risk for Whooping Cranes with [the Power District’s] R-Project” (“**Regional Office 2019**”). (WHCR_000183.) This document summarizes the ten formal analyses the Service had generated or received about whooping crane collision risk (Power District 2016, Field Office 2016, Field Office 2017, Ecosystems Advisors 2017, Davis 2018, WEST 2018, Ecosystems Advisors 2018, Field Office 2018, Regional Office 2018, and Power District 2018). (*Id.* at 183–87.) The document then notes,

All of the quantitative conclusions presented in this memo were determined without any correction factor regarding the efficacy of bird flight diverters (BFDs). [The Power District] has committed to utilizing BFDs for the R-Project, consistent with the Service’s [Region 6 Guidance]. Use of BFDs will provide some risk reduction of power lines in the whooping crane corridor. While there is a wide range of opinion

¹² In the Final EIS, Field Office 2017 is cited as “Appendix E” (see LIT CITED_032964–70) and Regional Office 2018 is cited as “USFWS 2018b” (see *id.* at 32833).

regarding the effectiveness of BFDs, the vast majority of literature reviewed on this subject suggests a risk reduction between 40 percent and 60 percent is possible [citing five academic papers]. The Service concluded it is reasonable to assume that using BFDs could reduce collision risk within the range stated in the literature.

(*Id.* at 187 (emphasis in original).)

Regional Office 2019 further describes why the Service favored the analysis in Regional Office 2018 over that of Field Office 2018: “[The Field Office’s] quantitative analyses (and therefore their life-of-project projections) imply a level of effect two to four orders-of-magnitude greater in scale than the scale of the R-Project action, thus bringing into question the very plausibility of [those] projections (and by similar logic Ecosystem Advisors 2017).” (*Id.*) Also, Regional Office 2018 showed that Ecosystems Advisors 2017 and Field Office 2018 overemphasized the significance of GPS data. (*Id.*) Thus, Ecosystems Advisors 2017 and Field Office 2018 “did not incorporate the best available science.” (*Id.*)

“In summary,” the document continues,

based on all the analyses conducted for the [Power District’s] R-Project and considering the various critiques of these analyses, the Service has concluded that there is a low likelihood of whooping crane strikes with the R-Project over the 50-year project life. If one were to consider the effectiveness of BFD’s the likelihood would be reduced even further. The Service therefore concludes that incidental take of whooping cranes with the R-Line Project is not reasonably certain to occur.

(*Id.* at 188.)

In June 2019, the Service issued its biological opinion (“**BiOp**”). (SECTION 7_000035.) The introductory section of the BiOp states that issuing an incidental take permit to the Power District with respect to the beetle was “not likely to adversely affect”

whooping cranes (nor interior least terns or piping plovers). (*Id.* at 3.) “The determinations and rationale for each of the species [was] provided in the transmittal memo for this [BiOp]” and so was not discussed in the BiOp proper. (*Id.*) The transmittal memo summarily describes the Service’s reasoning as to those species (*i.e.*, the reasoning already discussed above) and refers the reader to other documents, such as Regional Office 2019. (*Id.* at 36–37.)

b. *Threshold for Sufficient Risk of Take*

As already discussed (Part IV.A, above), ESA § 10 does not explicitly address species-not-applied-for. Thus, § 10 contains no standard for deciding when a species-not-applied-for must be included in the permit, or else the permit be denied. ESA § 7 likewise contains no standard. True, § 7 requires the Service to ask itself if the proposed action is “likely to jeopardize the continued existence of any endangered species.” 16 U.S.C. § 1536(a)(2). One might therefore argue that “likely” is the standard. But that skips a step. Not all “take” of a species is “likely to jeopardizes [its] continued existence,” and the Service need not analyze jeopardy at all if there is not a sufficient risk of take in the first place. Thus, ESA § 7, like ESA § 10, specifies no standard for deciding when there is a high enough risk of take to prompt an inquiry into jeopardy.

In their opening brief (see ECF No. 22 at 38), Petitioners draw the appropriate standard from the *Handbook*’s language that “all species likely to be taken are to be covered by the permit.” (ADD_02532.) Thus, Petitioners argue that the R-Project will “likely” take whooping cranes, whether viewed through an ESA § 7 or § 10 lens. (ECF No. 22 at 38–42.)

The Service’s response brief interestingly asserts, “As all parties agree, the

standard for determining whether a project is likely to result in incidental take is whether the take is ‘reasonably certain to occur.’” (ECF No. 34 at 31.) The Service quotes from a different part of the *Handbook*, which reads, “The standard for determining whether activities are likely to result in incidental take is whether take is ‘reasonably certain’ to occur in considering both the direct and indirect impacts of the activities. The same standard applie[s] to section 7 of the ESA” (ADD_02506.) The Power District similarly adopts the “reasonably certain” standard. (See ECF No. 37 at 25 (“the Service concluded that it is not reasonably certain that even one whooping crane will be taken by the R-Project”).)

In their reply brief, Petitioners assert—for the first time—that the standard must be “likely” (as opposed to “reasonably certain”), and that “likely” must mean “a 50% or greater probability.” (ECF No. 38 at 13 & n.4.) Petitioners reason as follows:

Both the Handbook and Respondents’ briefs interchangeably use the terms “likely” and “reasonably certain” when referring to the probability of take required for inclusion in an [incidental take permit]. Since the Handbook uses the “likely” and “reasonably certain” standards interchangeably—and because likelihood (in contrast to “reasonably certain”) has a fixed definition—it is reasonable to assume that a listed species must be covered by an [incidental take permit and habitat conservation plan] so long as take of the species is more likely than not to occur.

(*Id.* at 13 n.4.)

Petitioners do not provide the Court with the “fixed definition,” but their invocation of “more likely than not” calls to mind the preponderance-of-the-evidence burden of proof in civil cases. In any event, Petitioners cite *Western Watersheds Project v. Fish and Wildlife Service*, 535 F. Supp. 2d 1173 (D. Idaho 2007). That case was about whether a species was “likely to become endangered” and therefore should be listed by

the Service as “threatened.” See 16 U.S.C. §§ 1532(2), 1533(a)(1). In the administrative record in that case, the Service defined “likely” to mean “‘more likely than not,’ which is a probability of 50% or greater.” *Id.* at 1184. The district court applied that definition, but made clear that “[t]his definition has not been challenged here, and thus the Court expresses no opinion on [it].” *Id.* at 1184 & n.3.

Petitioners further cite *Trout Unlimited v. Lohn*, 645 F. Supp. 2d 929 (D. Or. 2007), which also addressed “likely” in the context of the statutory definition of “threatened.” In that context, the Service (really, the National Marine Fisheries Service, which handles ESA matters in coastal waters) treated “likely” as equivalent to “more likely than not” (meaning “greater than 50%”) in certain Federal Register publications, and the district court upheld the interpretation against an argument that it fails to give the benefit of the doubt to the species. *Id.* at 944–49.

These cases point out a subtle inconsistency. “More likely than not” almost always means “*greater than a 50% probability*,” and not (as Petitioners and *Western Watersheds* put it) “*a 50% or greater probability*” (because 50% means something is *equally* likely as not). In any event, Petitioners prefer “50% or higher” because “the Service’s own data” (*i.e.*, setting aside Ecosystems Advisors, the Power District, and WEST) supposedly “establish that one whooping crane is likely to be taken” under a “50% or higher” standard. (ECF No. 38 at 22.)

The Court granted the Service a brief surreply on this new argument. (See ECF Nos. 42, 43.) The Service argues that no such 50%+ standard exists, citing another case about “likely” in the definition of “threatened.” See *Alaska Oil & Gas Ass’n v. Pritzker*, 840 F.3d 671, 684 (9th Cir. 2016). That case says that the Service (again,

actually referring to the National Marine Fisheries Service) “is not required to define ‘likely’ in terms that require specific quantitative targets,” *id.*, which the Service takes to mean that “courts have rejected the argument that [the] term ‘likely’ is necessarily a quantified amount or percentage” (ECF No. 43 at 2). But the same case points out that the National Marine Fisheries Service “has interpreted the term ‘likely’ to have its common meaning (i.e., more likely than not). Indeed, most dictionaries define ‘likely’ to mean that an event, fact, or outcome is probable.” *Alaska Oil & Gas*, 840 F.3d at 684.

Of course, here the Court is not faced with interpreting the word “likely” in a statute, or reviewing the Service’s definition of a statutory term. Rather, the Court is faced with a sub-statutory, sub-regulatory concept—risk of take—which, once evaluated, informs certain statutory and regulatory decisions. And the only “authority” guiding the risk-of-take standard (at least the only authority to which the parties have pointed the Court) is the *Handbook*, which sometimes says “likely” and sometimes says “reasonably certain.”

Assuming the *Handbook* is properly deemed to be the governing authority on this question, the Court finds that it need not definitively resolve whether the *Handbook* establishes a “more likely than not” standard, whether defined as “50% or greater” or “greater than 50%.” The Court will assume Petitioners’ position (50% or greater) for the sake of argument. As will become clear below, even under that standard Petitioners would not prevail on the question of whooping crane risk of take.

c. *Analysis*

Petitioners say that the Service violated ESA § 10 by rejecting the opinions of the Field Office and Ecosystems Advisors. (ECF No. 22 at 38–39.) Petitioners also argue that rejecting the opinions of the Field Office and Ecosystems Advisors was a violation

of ESA § 7's "best available science" requirement. (*Id.* at 41–43.) The Court finds that the "best available science" inquiry resolves both versions of the argument.

"Deference to the agency is especially strong where the challenged decisions involve technical or scientific matters within the agency's area of expertise." *Utah Envtl. Cong. v. Bosworth*, 443 F.3d 732, 739 (10th Cir. 2006) ("*Bosworth*"). "Though a party may cite studies that support a conclusion different from the one the [agency] reached, it is not [a court's] role to weigh competing scientific analyses." *Forest Guardians v. U.S. Forest Serv.*, 641 F.3d 423, 442 (10th Cir. 2011). Similarly, "[w]hen specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive." *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 378 (1989). Finally, "[t]he general view is that the agency decides which data and studies are the 'best available' because that decision is itself a scientific determination deserving deference." *Miccosukee Tribe of Indians of Fla. v. United States*, 566 F.3d 1257, 1265 (11th Cir. 2009); accord *San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 602 (9th Cir. 2014).

These precedents severely constrain the Court's review of this issue. To grant Petitioners relief, Petitioners must demonstrate that the Service's conclusion regarding whooping crane mortality from the R-Project "so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43. Petitioners have not met that burden.

The record presents an epic "battle of the experts." Every party to make a prediction asserts that it is relying on the best available data, and further asserts that its

predictions probably overstate or understate the risk (depending on which side of the issue they are on). The Court simply does not have the competence to determine which among them is right.¹³ And even if the Court, as an original matter, would have found the Ecosystems Advisors and Field Office analyses more persuasive, the Power District's and Regional Office's analyses (and critiques of other analyses) are not so implausible that they cannot be considered the project of agency expertise. For example, Ecosystems Advisors has never adequately explained *M* (one of its key variables), and no opponent of the R-Project has answered the criticism that the models predicting a substantial risk of collision seem to suggest that the Aransas-Wood Buffalo population should already be extinct from collisions with existing power lines.

Picking up on Ecosystems Advisors' "no sophisticated model is needed" theme, Petitioners argue that the likelihood of collision is "basic common sense" given the location of the R-Project within the whooping cranes' migration corridor. (*Id.* at 42, 43.) But the Service's statutory duty is to make its determinations based on "the best scientific . . . data available." 16 U.S.C. § 1536(a)(2). Of course there are situations when the best scientific data available and common sense have become one and the same, meaning the Service could invoke common sense and thereby satisfy its

¹³ Petitioners make much of the fact that Davis 2018 said that Ecosystems Advisors 2017 "attempted to base [its] approach on the best available science." (WHCR_000295.) "Hence," Petitioners say, "the Service-retained independent reviewer found many of the assumptions used by Drs. Gil and Weir to be reasonable—and found that these experts generally relied on the best available scientific evidence in reaching their conclusions" (ECF No. 38 at 21.) But Dr. Davis's statement must be read in context of his very next sentence: "In particular, [Ecosystems Advisors] used the whooping crane GPS location data which provides the best unbiased dataset of migrant whooping crane locations for the Aransas-Wood Buffalo population." (WHCR_000295.) In other words, Dr. Davis was commending Ecosystems Advisors for using the GPS dataset in their calculations (in contrast Power District 2016); he was not declaring the results of those calculations to be the best available science. In any event, Davis 2018 was only one among ten different analyses that the Service needed to evaluate by the time it made its decision.

statutory duty. The record in this case shows that this is not one of those situations.

The various analyses show widely divergent methods for calculating power line collision risk, and equally divergent predictions. Indeed, if the Service had denied the permit because it found a likelihood of collision based on “common sense” (and then, in turn, a likelihood of jeopardy to the species), the Power District would have had a good argument on this record that the Service acted “not in accordance with law,” 5 U.S.C. § 706(2)(A), because the studies before it showed that likelihood of collision was not something the Service could resolve through mere common sense.

Petitioners also frequently highlight the disagreements between the Field Office and Regional Office about whooping crane collision risk. (See, e.g., ECF No. 22 at 8, 38, 43.) But agency employees are allowed to disagree amongst themselves as they consider what action to take, and “the fact that a preliminary determination by a local agency representative is later overruled at a higher level within the agency does not render the decisionmaking process arbitrary and capricious.” *Nat’l Ass’n of Home Builders v. Defs. of Wildlife*, 551 U.S. 644, 659 (2007); accord *Audubon Soc’y of Greater Denver v. U.S. Army Corps of Eng’rs*, 908 F.3d 593, 605 n.6 (10th Cir. 2018); *WildEarth Guardians v. Nat’l Park Serv.*, 703 F.3d 1178, 1186–87, 1192 (10th Cir. 2013).

Here, the Service thoroughly considered all opinions submitted to it, or generated by it, regarding whooping crane collision risk. In the Final EIS, it concluded that Field Office 2017 (predicting from 0.422 strikes to a high of 0.619 strikes) and Regional Office 2018 (predicting 0.58 strikes) were most persuasive and showed a sufficiently low likelihood of collision risk (LIT CITED_032465), especially considering that they

assumed no use of bird flight diverters, which the Service judged to reduce risk by a further 40–60% (WHCR_000187). In other words, even under Petitioners’ view that a 50% or greater chance of one whooping crane collision triggers the need for an ESA § 7 jeopardy analysis, the real risk—as the Service judged it—was about half as large as the predictions in Field Office 2017 or Regional Office 2018, and so well below a 50% threshold.

As the Service rightly notes, “Petitioners’ argument is not that there is additional data on this issue unconsidered by the Service, but that the Court should find that the Service should have resolved the competing science in the opposite direction.” (ECF No. 34 at 37.) Governing precedent does not permit the Court to do so. The Court therefore rejects Petitioners’ argument in this regard.

d. *“Benefit of the Doubt”*

Although the Service received ten differing studies on the likelihood of whooping crane collision risk, all studies agreed on one thing: due to available data, or lack of it, there is a lot of uncertainty when making such predictions. Petitioners therefore argue that, at a minimum, the Service had a legal duty to give the whooping crane the benefit of the doubt. (ECF No. 22 at 45–46.)

Petitioners’ benefit-of-the-doubt argument reaches back to a House Conference Report (itself quoting a prior Conference Committee statement) that is part of the ESA’s legislative history. This report says

If the biological opinion is rendered on the basis of inadequate information then the federal agency has a continuing obligation to make a reasonable effort to develop that information.

This language continues to give the benefit of the doubt to the species, and it would continue to place the burden on the

action agency to demonstrate to the consulting agency that its action will not violate Section 7(A)(2). Furthermore the language will not absolve federal agencies from . . . developing adequate information on which to base a biological opinion.

H.R. Rep. No. 96-697, at 12 (Conf. Rep.), reprinted in 1979 U.S.C.C.A.N. at 2576.

If this passage means to require anything, it is that the Service must “develop” information during the ESA § 7 inquiry if existing information is inadequate. But if “develop” in this context was meant as an obligation on the Service to fill in gaps through its own efforts, courts have already rejected such an obligation. *San Luis & Delta-Mendota Water Auth. v. Locke*, 776 F.3d 971, 995 (9th Cir. 2014) (“*Locke*”) (“The [best available science] standard does not, however, require an agency to conduct new tests or make decisions on data that does not yet exist.”); *cf. N.M. Farm & Livestock Bureau v. U.S. Dep’t of Interior*, 952 F.3d 1216, 1226–27 (10th Cir. 2020) (in the context of designating critical habitat, which also requires reliance on the “best available science,” stating that “the agency need only base its determinations on the ‘best scientific data available,’ not the best scientific data possible” (citation omitted)); *Ecology Ctr., Inc. v. U.S. Forest Serv.*, 451 F.3d 1183, 1194 n.4 (10th Cir. 2006) (in the context of a “best available science” requirement in the National Forest Management Act, stating that “the Forest Service need not collect new data”); *Sw. Ctr. for Biological Diversity v. Babbitt*, 215 F.3d 58, 60 (D.C. Cir. 2000) (in the context of the ESA requirements for listing a species as threatened or endangered, which also has a “best available science” mandate, stating that “[t]he ‘best available data’ requirement makes it clear that the Secretary has no obligation to conduct independent studies”).

But perhaps the Conference Report’s use of the word “develop” was not intended as an expectation that the Service would actually develop new information. Perhaps it

was meant to require the Service only to gather existing information. The first court to invoke the Conference Report and its “benefit of the doubt” language uses it in precisely this way: “the [Service] cannot ignore available biological information To hold otherwise would eviscerate Congress’ intent to ‘give the benefit of the doubt to the species.’” *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988).

District courts within the Ninth Circuit have since disagreed on whether *Conner* enshrined “benefit of the doubt” as a freestanding rule of decision. *Compare Ctr. for Biological Diversity v. BLM*, 422 F. Supp. 2d 1115, 1127 (N.D. Cal. 2006) (“To the extent that there is any uncertainty as to what constitutes the best available scientific information, Congress intended ‘to give the benefit of the doubt to the species.’”) *with NRDC v. Kempthorne*, 506 F. Supp. 2d 322, 360, 362 (E.D. Cal. 2007) (“*Conner* does not directly support the broader interpretation urged by Plaintiffs * * * [T]he agency must carefully examine the available scientific data and models and rationally choose the most reliable [rather than falling back on ‘benefit of the doubt’].”).

The Tenth Circuit has never relied on the Conference Report’s “benefit of the doubt” language, and, in any event, the Court finds that its meaning in context is far too ambiguous to create the rule of decision that Petitioners urge. Petitioners also fail to explain how the rule should operate in practice. Any future prediction will have some amount of uncertainty. At what point is the uncertainty so great that the Service must give the benefit of the doubt to the species? If that is a question the Service must ask, it is probably also a question that the Service must answer through its own expertise, and to which this Court must normally give deference.

Here, the Service gathered all the data available, reviewed it thoroughly, frankly

acknowledged the uncertainty in those data and related studies, and then made a judgment according to what it deemed “the best scientific . . . data available.” 16 U.S.C. § 1536(a)(2). It therefore carried out its statutory duty. *Cf. Rocky Mountain Wild v. Walsh*, 216 F. Supp. 3d 1234, 1250, 1251 (D. Colo. 2016) (in the context of whether the Service had used the best scientific data available in deciding whether to list a species as endangered, observing that “the ESA does not require [the Service] to always assume the worst. Nor does it require [the Service] to give more weight to evidence favoring a finding of threatened or endangered status. Rather, [the Service] must simply evaluate the relevant data to determine whether a species meets the statutory definition of endangered or threatened. * * * Put plainly, [the Service] is allowed to predict the likelihood of something happening *or not*, so long as its predictions are grounded in ‘the best scientific and commercial data available.’” (emphasis in original)).

3. The Service’s Conclusion Regarding “Take” Through Habitat and Behavioral Disturbances

The analysis thus far has focused on take through collision with power lines, likely resulting in death. But “take” under the ESA is broader. It also includes “harm” and “harass[ment].” 16 U.S.C. § 1532(19). “Harm . . . include[s] significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” 50 C.F.R. § 17.3. “Harass” means “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.” *Id.*

Petitioners’ opening brief overwhelmingly focuses on take through collision, but

also makes a brief reference to the possibility that the R-Project might cause take through harm or harassment. (See ECF No. 22 at 37 (“[The Power District’s habitat conservation plan] concedes that the R-Project ‘may cause migrating whooping cranes . . . to avoid potentially suitable whooping crane habitat,’” (first ellipses in original)).)¹⁴ The reference is so brief that the Court could ignore it. See, e.g., *United States v. Hunter*, 739 F.3d 492, 495 (10th Cir. 2013) (deeming waived an argument inadequately developed in opening brief); *United States v. Martinez*, 518 F.3d 763, 768 (10th Cir. 2008) (same); *Thompson R2-J Sch. Dist. v. Luke P., ex rel. Jeff P.*, 540 F.3d 1143, 1148 n.3 (10th Cir. 2008) (same); *Rojem v. Gibson*, 245 F.3d 1130, 1141 n.8 (10th Cir. 2001) (same). In the interest of thoroughness, however, the Court will reach the argument—or at least what the Court understands the argument to be, considering its brevity.

a. *Additional Background*

Petitioners cite a passage from the finalized Habitat Conservation Plan about whooping cranes avoiding areas around the R-Project. (ECF No. 22 at 37.) The full relevant passage reads as follows:

Construction activities will occur year-round, including the whooping crane migration season. However, during the whooping crane migration season, all construction-related activities including helicopter use will be preceded by a daily whooping crane presence/absence survey developed for the R-Project that will meet or exceed the [Nebraska Game and Parks Commission] standard protocol. Such surveys will be conducted immediately prior to construction during the spring (March 23 to May 10) and fall (September 16 to November 16) whooping crane migration periods. Surveys will occur in the morning prior to the initiation of construction

¹⁴ Petitioners offer a second “harassment” argument as it relates to wind turbines, which the Court discusses in Part V, below.

activities that day. If no whooping cranes are observed within 0.5 mile, work will commence at that location. If a whooping crane is observed within 0.5 mile of any location where construction-related activity is planned to occur, such as structure erection sites, fly yard/assembly areas, pulling and tensioning sites, construction access, and helicopter flight paths, work would not be allowed to begin until the whooping crane vacates the area of its own accord. If, during the day, a whooping crane lands within 0.5 mile, all work will cease and will not resume until the whooping crane(s) has left the area or relocated at least 0.5 mile away from the construction area of its own accord.

The presence of construction personnel and equipment in and adjacent to potentially suitable habitat along the R-Project over the period of project construction (approximately 21 to 24 months) may cause migrating whooping cranes arriving in the area to avoid potentially suitable whooping crane habitat where the construction activity is occurring. Such potential effects would be limited to habitat within 0.5 mile of construction crews during whooping crane migration. The 0.5-mile estimate is based on the search radius described in the [Nebraska Game and Parks Commission] whooping crane preconstruction survey protocol. Therefore, the potential for migrating whooping cranes to encounter construction crews working near suitable habitat the birds may use upon descent from migration flights is small. Migrating whooping cranes may travel 200 to 400 miles in one day, and wetlands suitable for stopover habitat for migrating whooping cranes are available throughout Nebraska and the Sandhills region. Pearse and Selbo completed an energetics model for whooping crane flights and found that whooping cranes that fly an additional 10 km in a wetland-dominated ecosystem would require one extra day of foraging to recoup the energy lost from the additional flight distance. The [Service]-mapped [National Wetlands Inventory] indicates there are over 50,000 acres of wetlands within 10 km of the R-Project. Given the availability of potentially suitable whooping crane habitat, any additional flights to locate suitable roosting habitat away from construction crews are expected to be short in distance and duration. At no point would a whooping crane be forced to fly more than 10 km to find suitable roosting and foraging habitat. This would have minimal to no effect on migrating whooping cranes.

(HCP_001738 (citations omitted).)

b. *Analysis*

Simply by virtue of where Petitioners place the argument in their opening brief, it appears they are saying that the Service's approval of the foregoing is either arbitrary and capricious on its face, or at least is not based on the best available science. But Petitioners do not elaborate. They do not, for instance, point the Court to anything in the record demonstrating that the predicted "minimal to no effect" "runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43. Accordingly, Petitioners have failed to show that the Service committed any legal error when considering take through harm or harassment, as those terms are defined in 50 C.F.R. § 17.3.¹⁵

C. Interior Least Terns and Piping Plovers

Petitioners' follow their ESA § 10 argument regarding the whooping crane with a one-paragraph, "[b]y the same token" argument as to both the interior least tern and piping plover. (ECF No. 22 at 40–41.) And Petitioners follow their ESA § 7 arguments as to the whooping crane with similar tag-along arguments as to the tern and the plover. (*Id.* at 42–43, 47.) The Court thus turns to these arguments, such as they are.

1. Additional Background

The interior least tern (*Sterna antillarum*) is "a small migratory shorebird" that is considered endangered by both the federal government and the state of Nebraska. (LIT CITED_032451.) According to the Final EIS, "[t]he interior least tern has not been

¹⁵ In their reply brief, Petitioners argue for the first time that the Service's real failing was a lack of discussion of non-lethal take in the incidental take permit and the BiOp. (ECF No. 38 at 23–24.) The Court deems this argument forfeited for failure to raise it in the opening brief.

documented in the study area,” but it has been documented both north and south of the study area; “[t]herefore, it is likely that interior least terns cross the study area during migration.” (*Id.*) The Final EIS further states,

The R-Project transmission line would create a collision hazard, possibly resulting in injury or death to individuals. This long-term impact would persist for the life of the R-Project. Although one interior least tern mortality resulting from a transmission line collision has been reported in Nebraska, such incidents are unlikely because the interior least tern is a small, agile flyer and will be able to easily avoid the transmission line in most cases. Avoidance and minimization measures that may further reduce the risk of transmission line collisions include strategic placement of river crossings in areas without interior least tern habitat and at existing infrastructure (i.e., bridges) and installation of line markers.

(*Id.* at 32452.) Thus, the R-Project “would not likely result in take of the species.” (*Id.*)

The piping plover (*Charadrius melodus*) is also a “small migratory shorebird” that is considered endangered both by the federal government and by Nebraska. (*Id.* at 32454.) It has been documented once (in 1992) in the study area. (*Id.*) Like the tern, it has also been documented north and south of the study area, so “it is likely that the piping plover is occasionally present in the study area during migration flights to and from nesting locations.” (*Id.*) “Potential effects on the piping plover . . . would be similar to those described for interior least terns, given the overlap in range habitat preferences between the two species,” including “long-term collision hazard.” (*Id.* at 32454, 32455.) But, as with the tern, “[p]otential collision impacts would be minimal due to the ability of the piping plover to avoid collisions with power lines and the implementation of avoidance and minimization measures,” *i.e.*, the same measures implemented as to the tern. (*Id.* at 32455.)

2. Analysis

Petitioners assert that “[t]he best available science demonstrates that it is likely that one or more least terns and/or piping plovers will collide with the R-Project over its fifty-year life.” (ECF No. 22 at 40–41; see also *id.* at 16–17, 42–43, 47.) Petitioners cite nothing in the administrative record to support this statement. Petitioners instead cite the Final EIS portions described above, as if they self-evidently show a failure to follow the best available science. They do not. The Court therefore rejects Petitioners’ argument in this regard.¹⁶

V. EFFECTS OF WIND POWER

Although the R-Project will be built regardless of whether wind turbines will also be built in the same region, one of the three main purposes of the R-Project is to make wind power in north-central Nebraska feasible. Petitioners argue that the Service failed to properly evaluate the threat that wind turbines would pose to whooping cranes and the other bird species (both lethal threat, such as collision, and nonlethal threat, such as habitat modification), in violation of ESA § 7, ESA § 10, and NEPA.

A. Relevant Legal Standards

1. ESA § 10 (Incidental Take Permit)

For purposes of this Part, the standard for issuing an incidental take permit set forth at the beginning of Part IV.A, above, remains the only relevant standard to consider.

¹⁶ In their reply brief, Petitioners yet again raise a new argument, namely, that the Service’s real problem was failure to conduct the same sorts of collision risk studies regarding terns and plovers as it did for whooping cranes. (ECF No. 38 at 26–27.) The Court again deems this argument forfeited.

2. ESA § 7 (Consultation)

Again, ESA § 7 requires the Service to determine if the proposed federal action is “likely to jeopardize the continued existence of any endangered species.” 16 U.S.C. § 1536(a)(2). In this process, the Service must, among other things, “[e]valuate the effects of the action and cumulative effects on the listed species.” 50 C.F.R. § 402.14(g)(3). “Effects of the action” and “cumulative effects” are further defined as follows:

- “effects of the action” means “the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action,” and, within this definition,
 - “indirect effects” means effects “that are caused by the proposed action and are later in time, but still are reasonably certain to occur”;
 - “interrelated actions” means “those that are part of a larger action and depend on the larger action for their justification”; and
 - “interdependent actions” means “those that have no independent utility apart from the action under consideration”;
- “cumulative effects” means “those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation,” and, within this definition,
 - “action area means all areas to be affected directly or indirectly by

the Federal action and not merely the immediate area involved in the action.”

Id. § 402.02 (eff. May 4, 2009).¹⁷

3. NEPA

NEPA “require[s] agencies to consider environmentally significant aspects of a proposed action.” *Utahns for Better Transp. v. U.S. Dep’t of Transp.*, 305 F.3d 1152, 1162 (10th Cir. 2002). “NEPA does not, however, require agencies to elevate environmental concerns over other appropriate considerations; it requires only that the agency take a ‘hard look’ at the environmental consequences before taking a major action.” *Citizens’ Comm. to Save Our Canyons v. Krueger*, 513 F.3d 1169, 1178 (10th Cir. 2008) (citation and internal quotation marks omitted). Also, “NEPA dictates the process by which federal agencies must examine environmental impacts, but does not impose substantive limits on agency conduct.” *Utah Env’tl. Cong. v. Russell*, 518 F.3d 817, 821 (10th Cir. 2008). NEPA merely guards against “uninformed—rather than unwise—agency action.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989).

The fact that NEPA does not require a particular outcome does not necessarily violate the Article III standing requirement of redressability. This is because a violation of NEPA is deemed a “procedural injury,” which is “a special relaxation of the normal standards for redressability.” *Zeppelin v. Fed. Highway Admin.*, 305 F. Supp. 3d 1189,

¹⁷ Since this lawsuit was filed, the Service amended its definition of “effects of the action.” Compare 74 Fed. Reg. 20421, 20422–23 (May 4, 2009) with 84 Fed. Reg. 44976, 45016 (Aug. 27, 2019). Petitioners’ arguments rely on the previous version of the regulation. (See ECF No. 22 at 10–11, 52–54.) The Service, for its part, states that the amendments “are not retroactive and, therefore, not relevant to the Service’s determinations or this Court’s review.” (ECF No. 34 at 41 n.11.) Accordingly, the Court will ignore the amended definition.

1198 (D. Colo. 2018) (internal quotation marks omitted). Although a NEPA plaintiff “cannot represent to a court that a judgment against the agency *would* prevent the feared injury, only that it *could* prevent that injury [because the agency might make a different decision after reconsideration],” the doctrine of procedural injury says that “‘could’ is good enough for redressability purposes; the plaintiff need not establish ‘would.’” *Id.* at 1198–99 (emphasis in original).

One way an agency satisfies its NEPA obligations is by preparing an environmental impact statement (“EIS”). See 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1502.4; see also *Bosworth*, 443 F.3d at 736 (discussing when an EIS is necessary). An EIS must address, among other things, “[d]irect,” “indirect,” and “cumulative” effects (or “impacts”) of the proposed action. 40 C.F.R. § 1508.25(c); see also *id.* § 1508.8 (“Effects and impacts as used in these regulations are synonymous.”). These terms are further defined as follows:

- “Direct effects . . . are caused by the action and occur at the same time and place,” *id.* § 1508.8(a);
- “Indirect effects . . . are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems,” *id.* § 1508.8(b); and
- “Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present,

and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time,” *id.* § 1508.7.

B. Additional Background

In April 2009, the Service released an “issue paper” on the topic of “whooping cranes and wind development.” (LIT CITED_031637 (capitalization normalized).) This paper says that “risk of lethal take to whooping cranes from wind turbines [*i.e.*, striking the towers or blades] is not known at this time,” but “[t]he best available information . . . indicates that whooping cranes may avoid stopover habitat that is developed with wind energy appurtenances, particularly turbines. This avoidance may deny them the use of important habitat, and thus may result in take in the form of harm by significant habitat modification.” (*Id.* at 31639.)

The parties do not point the Court to anything in the record showing precisely when the effects of wind power development on birds became a concern with respect to R-Project. Nonetheless, the Draft EIS, released in May 2017, discusses the potential effect of wind power under the NEPA “cumulative impact” rubric. (ADD_00663.) The Draft EIS, while acknowledging that the R-Project would likely lead to wind power development, discounts the Service’s ability to analyze the potential effects in any detail:

The R-Project . . . would likely encourage future wind energy farms to be built. At this time, predicting when, where, and what size future wind farms would be built is speculative. While a number of wind energy projects have been announced and discussed with landowners and the Service, none of these have yet signed an interconnection agreement with [the Power District], with the exception of the

Thunderhead Wind Energy Center. Thus, none of these potential future wind energy projects meet[s] the definition of a reasonable foreseeable future project Thus, this type of future project is treated in a generic manner within the cumulative impact analysis.

(*Id.*) As to the Thunderhead project, the Draft EIS goes on to describe it as “[a] 300-MW, 168-turbine wind generation facility to be located in northeast Wheeler County.”

(*Id.* at 667.)

In March 2018, the Service received a letter from a concerned citizen in Cherry County, Nebraska, who had researched public records in the Cherry County Courthouse and determined that at least 47 landholders had already agreed to participate in a private wind venture called Cherry County Wind, LLC, if the R-Project is built. (NEPA_002481.) The letter included maps of the participating lands. (*Id.* at 2485, 2488–2502.)

In August 2018, the Field Office generated a paper titled, “Methods to Estimate Take of Whooping Cranes for the R-Project Transmission Line in Nebraska.” (WHCR_000089.) That paper stated,

Whooping cranes are believed to avoid wind turbines as they obstruct vision, forcing them to seek other less familiar stopover habitats, increasing migration distance, and energy expenditure as well as the time needed to replenish fuel reserves. Wind turbines sited in the [Aransas-Wood Buffalo] migration corridor have the potential to cause significant mortality, thereby threatening the recovery of the species.

(*Id.* at 95 (citations omitted).)

The Final EIS, released in November 2018, continues to analyze wind power under NEPA’s cumulative impacts rubric. (LIT CITED_032733, 32746.) The Final EIS disavows the Draft EIS’s reliance on a signed interconnection agreement before deeming a wind project reasonably foreseeable. (*Id.* at 32746.) But the Service still

believed that only the Thunderhead project was reasonably foreseeable—and even as to that, information was still lacking to make a fuller assessment:

The development of wind power projects involves numerous steps, each of which takes considerable time, before such projects can be constructed. Steps that must be taken prior to construction of a wind project include siting studies, land acquisition, development of interconnection agreements, regulatory approval, and development of power purchase agreements, among others. The overall timeline for completion of all necessary steps prior to construction is approximately four to five years. . . .

. . . only one wind energy project is located in the analysis area with a signed interconnection agreement (the Thunderhead Wind Energy Center). While wind as a type of action may be reasonably foreseeable, there is insufficient information in terms of the number of projects, their configuration, whether funding exists, whether environmental reviews have occurred, and whether permits have been issued or power purchase agreements entered into to provide a detailed analysis regarding wind development

(LIT CITED_032746–47.)

The Final EIS goes on to note that “[b]ird and bat mortality associated with wind energy development is influenced by various factors including project siting, tower height, and structure type.” (*Id.* at 32757 (citations omitted).) Similarly, “[t]he risk of bird and bat mortality from collisions with wind turbines varies among species and groups based on biological and behavioral characteristics and the type and quality of habitat present in the vicinity of the wind energy facility.” (*Id.* at 32758.) As for Thunderhead specifically, the Final EIS eventually concludes that it

will create a long-term collision hazard, resulting in mortality of migratory birds and bats. While anticipated bird and bat mortality associated with the Thunderhead Wind Energy Center cannot be predicted with a great degree of certainty, it is likely that mortality rates would be within the range of those documented at similar wind energy facilities in the region; raptors, passerines, and migratory tree-roosting bats

likely would be the most affected groups.

(*Id.* at 32759.)¹⁸ Then, returning to a more generic analysis, the Final EIS says, “The intensity of impacts to wildlife associated with wind energy development would depend on the number of wind energy projects built, along with geographic locations, and other site- and project-specific characteristics.” (*Id.*)

In December 2018, the Service issued an “Analysis of Public Comment Report” that responded to (among many other things) comments on the Draft EIS regarding the need for more inquiry into the effects of wind turbines that might be built because of the R-Project. (NEPA_002388.) To these comments, the Service responded,

The R-Project transmission line has a designed capacity to carry a certain amount of energy, regardless of the generation source. The capacity is also dynamic, i.e., constantly fluctuating. In an interconnected transmission system, the entire system must be analyzed under various loading scenarios and contingency events to determine whether sufficient transmission capacity is available to provide incremental generator interconnection service. Thus, it is impossible to predict the number of turbines that the R-Project would be able to accommodate or to predict what other loads or supplies could also materialize that would consume the capacity of the line.

(*Id.*) Also, as to the Cherry County Wind project, the Service responded,

Leases or invested lands, meetings between local boards and developers, evaluations from the FAA, and registration of meteorological equipment towers are not sufficient information to analyze the specific potential impacts of these activities in a cumulative impacts analysis. Overall, the specific locations and details of reasonably foreseeable future wind development activities are unknown, except for the Thunderhead Wind Energy Center

¹⁸ Raptors are birds of prey and passerines are birds with feet adapted for perching. No party asserts that the whooping crane, interior least tern, or piping plover is a raptor or a passerine.

(*Id.* at 2389.)

In March 2019—after the Final EIS issued but before the BiOp and incidental take permits issued—Petitioners’ counsel sent a letter to the Service demanding a supplemental EIS. (LITIGATION_000097–98.) Petitioners’ counsel provided information they had gleaned from the Southwest Power Pool’s website, including information that eight wind projects are listed as planned for “interconnect[ing] to [the Power District].” (*Id.* at 104–05.) Petitioners counsel did not say whether these eight projects would interconnect with the R-Project specifically (as opposed to other Power District facilities).

The BiOp, which issued in June 2019, discusses wind energy development, this time in the context of the ESA § 7 analysis. As described above (Part IV.B.2.a), the BiOp states at the outset that the R-Project is not likely to adversely affect whooping cranes, interior least terns, and piping plovers, and does not otherwise describe the effects of anticipated wind turbine development or operation on those species. However, the BiOp’s discussion of whether constructing wind turbines would take American burying beetles is relevant to the arguments Petitioners make in the context of the bird species.

As to the beetle, then, the BiOp defines the relevant “action area” as “the [habitat conservation plan] permit area, which is a subset of the entire R-Project,” as shown in the following graphic (with callouts added by the Court to clarify matters discussed below):

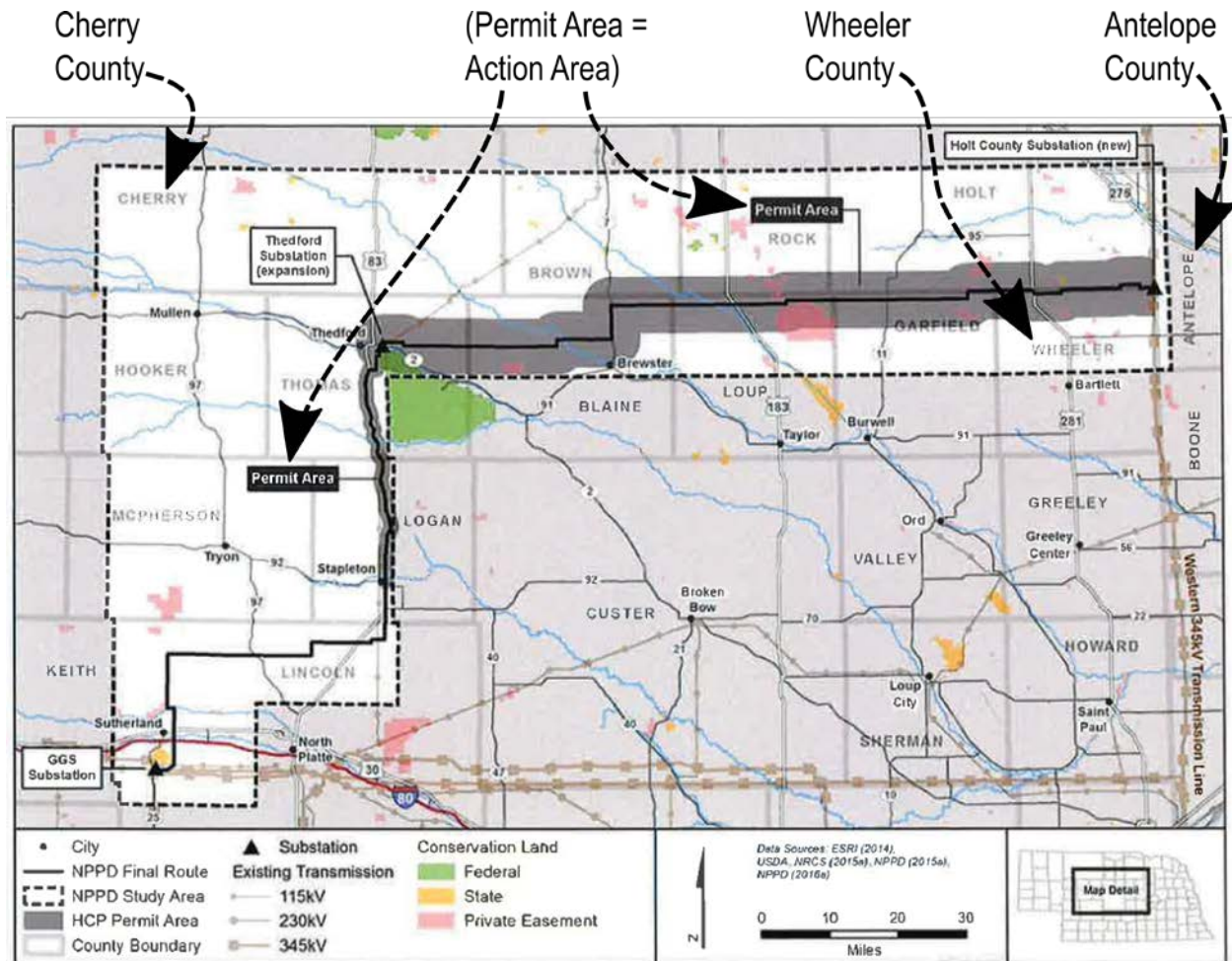


Figure 1. NPPD Final Route and HCP Permit Area/Action Area for ESA section 7

(SECTION 7_000005, 6.)

Concerning future construction of wind turbines, the BiOp (like the Final EIS) categorizes this possibility as a “cumulative effect.” (*Id.* at 27.) The BiOp acknowledges that “future [wind power] projects have the potential to impact [beetle] habitat,” but asserts that “the intensity of impacts and whether or not [they] cause[] effects to [the beetle] would depend on the number of wind energy projects built, presence or absence of [beetles] at the site, geographic location, and other project-specific characteristics.” (*Id.*) Moreover, “the resulting effects would also depend on the number and types of avoidance, minimization, and mitigation measures that would be implemented for each

project.” (*Id.*)

In this regard, the BiOp cites the Thunderhead project as an example, because it was identified in the Final EIS “as reasonably foreseeable.” (*Id.*) “The information that we could find on this project indicates that Thunderhead is proposing 171 total turbine locations, 137 in Antelope County and 34 in Wheeler County.” (*Id.* at 27–28.) The BiOp finds that “[t]he Wheeler County portion of the project is the only part of the proposed plan that may occur in the action area; however, we could not locate any detailed information on whether Wheeler County permits were issued, on the specific locations of the turbines, or on whether these turbines would be built in [beetle] habitat.” (*Id.* at 28.) Thus, “the Service knows of no projects reasonably certain to occur in the action area for which the Service has the level of detail necessary to identify and analyze specific effects.” (*Id.*)

C. Analysis

1. Framing the Arguments

Petitioners argue that the Service did not properly carry out its obligation to analyze the potential effects of wind power development. Petitioners argue that this is an ESA § 10 violation (because wind turbines will probably take whooping cranes and the other bird species, and an incidental take permit cannot issue unless it lawfully covers all protected species), an ESA § 7 violation (for essentially the same reasons, and for failure to properly categorize wind power in the “effects” analysis), and a NEPA violation (because the Service failed to fully inform itself about the effects of wind power before making a decision). (See ECF No. 22 at 39, 40–41, 52–55, 57–58.)

The Court finds that the best place to approach these various arguments is from the ESA § 7 perspective, beginning with the question of whether the Service properly

categorized wind power as a “cumulative effect.” The Court reemphasizes that the Service’s ESA § 7 analysis and resulting BiOp focused on the beetle, not the birds. However, the BiOp incorporates previous analyses of the birds, such as in the Final EIS, and the Final EIS discusses wind power as it relates to the birds as a “cumulative effect” under NEPA (defined similarly to the same term under ESA § 7 regulations). Thus, the BiOp effectively covers both the birds and the beetle under the same type of analysis.

So, to repeat, the BiOp analyzes wind power development as a cumulative effect. And again, “cumulative effects are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation.” 50 C.F.R. § 402.02. Given this definition, the Service limited its analysis to wind power within what it designated as the action area, *i.e.*, the area adjacent to the R-Project, as shown in the map reproduced in Part V.B, above. Thus, the Service dismissed from consideration wind power development that might occur outside the action area, notably the 137 turbines that may be built in Antelope County. (SECTION 7_000027–28.)

Petitioners label this “a major analytical error,” asserting the Service must deem wind power in the region around the R-Project to be an indirect effect (those “that are caused by the proposed action and are later in time, but still are reasonably certain to occur,” 50 C.F.R. § 402.02), not a cumulative effect. (ECF No. 22 at 52–53.)

Petitioners say that properly classifying wind power as an indirect effect has “the critically important effect of expanding the ‘action area’ the Service must consider,” because “action area” means “all areas to be affected directly *or indirectly* by the

Federal action and not merely the immediate area involved in the action.’ 50 C.F.R. § 402.02[] (emphasis added). In other words, the action area’s boundaries are delimited by the area of direct and indirect effects (but not cumulative effects).” (*Id.* at 53.) Here, however, Petitioners argue that the Service “artificially limit[ed] the action area by erroneously classifying indirect effects as cumulative effects,” thus allowing the Service to ignore wind energy development in Antelope County and other places outside the action area. (*Id.* at 54.)

Petitioners’ argument is intelligible but their emphasis on the action area is, to some degree, misplaced. Indirect (and direct) effects are not *constrained* by the action area—they *are* the action area. Again, “[a]ction area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” 50 C.F.R. § 402.02. Once the Service defines the action area (by reference to direct and indirect effects), then the Service knows the proper bounds of its *cumulative effects* analysis. See *id.* (cumulative effects are those “reasonably certain to occur within the action area”).¹⁹ But the initial premise of Petitioners’ argument is that wind power development is *not* a cumulative effect, and should have been classified by the service as an indirect effect. Accordingly, the question is not whether the Service improperly defined the action area, but whether the Service improperly classified wind power development as a cumulative effect instead of an indirect effect.²⁰

¹⁹ The action area also sets the bounds of the “environmental baseline.” *Id.* Petitioners say nothing about the environmental baseline and so the Court will likewise ignore it.

²⁰ To be sure, if the Service must treat wind power development as an indirect effect, then, as Petitioners say, it would have “the . . . effect of expanding the ‘action area.’” (ECF No. 22 at 53.) But focusing on the action area implies that the Service should have expanded the geographic scope of its *cumulative effects* analysis. Petitioners never argue that there is any cumulative effect that the Service failed to consider. The Court therefore need not explore

2. Whether Wind Power is an Indirect Effect in These Circumstances

Once more, indirect effects are effects “caused by the proposed action and are later in time, but still are reasonably certain to occur,” and cumulative effects are “those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur.” *Id.* Obviously these definitions overlap on the reasonable certainty requirement, but not as to the causation requirement for indirect effects.

As far as the Court could locate, the Tenth Circuit has never decided the scope of indirect effects under ESA § 7. This Court is thus persuaded by an oft-cited Fifth Circuit decision from not long after the ESA and the relevant regulations came into force. *See Nat’l Wildlife Fed’n v. Coleman*, 529 F.2d 359 (5th Cir. 1976) (“*Coleman*”). *Coleman* was a challenge to the Secretary of Transportation’s approval to build a new section of Interstate 10 through the habitat of the endangered Mississippi sandhill crane. *Id.* at 361. The district court upheld the approval, but the Fifth Circuit reversed because the agency had not properly considered the “indirect effect” of construction that the highway would enable:

Principal among the indirect effects of the highway on the crane is the residential and commercial development that can be expected to result from the construction of the highway. The district court found that the record contained no statement or opinion rising above ‘mere speculation’ to indicate that such development is likely to occur. We disagree. In addition to [certain materials in the record], the [final environmental impact statement] acknowledges in three places that private development always accompanies the construction of a major highway and that this development is the primary effect of I-10 on the crane.

Id. at 373. Relying on *Coleman*, the Ninth Circuit has stated (and this Court agrees)

whether the Service’s definition of action area led it to consider a too-narrow scope of relevant cumulative effects.

that “an indirect effect—as envisioned by 50 C.F.R. § 402.02—is one that the action makes possible (or indeed, more probable), but does not directly cause.” *Locke*, 776 F.3d at 1009.

Here, although the Southwest Power Pool eventually decided to require the R-Project to be built regardless of the potential to serve wind farms (see NEPA_002443), providing a way for wind farms to connect to the grid remains one of the R-Project’s three explicit purposes (see LIT CITED_032211 (“The R-Project is intended to: * * * 3) provide transmission access to renewable energy resources (i.e., wind projects) in an area of Nebraska with wind resources.”)). Thus, wind power development is something the R-Project makes “more probable,” even if it does not “directly cause” it. *Locke*, 776 F.3d at 1009. Thus, Petitioners are correct: the Service should have treated wind power development as an indirect effect of granting an incidental take permit to the Power District, not a cumulative effect.

3. Prejudicial Error

Although the Service erred by considering wind power to be a cumulative effect, and not an indirect effect, the analysis of the practical import of that error does not stop there. In administrative review actions such as this one, “due account shall be taken of the rule of prejudicial error.” 5 U.S.C. § 706. Thus, the Court must ask whether the Service’s error was prejudicial (typically requiring the vacatur and remand) or non-prejudicial (*i.e.*, harmless).

Under the circumstances of this case, the prejudicial error inquiry requires the Court to look at two different aspects of the Service’s treatment of wind power: (1) the potential wind power the Service considered (such as in Cherry and Wheeler Counties), and (2) the potential wind power the Service explicitly chose *not* consider (in Antelope

County). The Court will discuss these issues in that order.

a. *Potential Wind Power Actually Considered*

Here, the Service understood that wind power might be developed, such as in Cherry County. It even considered the Wheeler County portion of the Thunderhead project to be reasonably foreseeable. It believed, however, that the information before it was insufficiently specific to meaningfully evaluate the risks posed by wind power. (See ECF No. 34 at 42–45.) If *that* conclusion is reasonably supported by the record, then the Service’s error in classifying new wind power as cumulative rather than indirect is non-prejudicial because labeling new wind power an “indirect” effect does not make the Service any more knowledgeable about the relevant effects than before.²¹ In consequence, the Court must ask if the Service knew enough to make any useful forecast of the effects of new wind turbines on the bird species.

Petitioners say that “members of the public repeatedly supplied the Service with detailed information about *several* wind projects that will foreseeably result from the R-Project’s construction.” (ECF No. 22 at 54 (emphasis in original).) As examples, Petitioners point to Cherry County Wind and their counsel’s March 2019 letter about eight wind projects planning to interconnect with Power District facilities. (See *id.* (citing NEPA_2477–79 (regarding Cherry County Wind) and LITIGATION_101–07 (the March 2019 letter from counsel)).) As to the letter from counsel, the Court has already noted that Petitioners’ information does not show any planned interconnection with the

²¹ In passing, Petitioners also argue that wind power may be an “interrelated action” instead of an indirect effect. (ECF No. 22 at 53 n.9.) Interrelated actions “are part of a larger action and depend on the larger action for their justification.” 50 C.F.R. § 402.02. The R-Project is not part of some larger wind-energy-plus-transmission-line action, so it is not “interrelated” with wind power under the regulatory definition. Regardless, the prejudicial error analysis would still apply.

R-Project. As for Cherry County Wind, the Service explained that the information made available to it was “not sufficient . . . to analyze the specific potential impacts of these activities Overall, the specific locations and details of reasonably foreseeable future wind development activities are unknown” (NEPA_002389.) In partial contrast, the Service acknowledged the reasonable foreseeability of the Thunderhead project, but still deemed the details too uncertain to make a meaningful prediction about effects on birds. (LIT CITED_032746–47; *see also* SECTION 7_000027–28.)

These not-enough-information explanations prompt Petitioners’ second argument: “[T]he Service did not explain why it requires pinpoint precision of turbine locations (for the Thunderhead project or any other project) to conduct a generalized evaluation of the increased risks to ESA-listed bird species such as the whooping crane.” (ECF No. 22 at 54–55.) Stated slightly differently, Petitioners argue that,

[s]imply put, the Service failed in the record to provide any coherent explanation for why it could not reasonably forecast the overall number of wind turbines expected to flow from the R-Project’s construction and, based on this estimate, evaluate generally the impacts to wildlife based on known per-turbine mortality data from existing projects in this region.

(ECF No. 38 at 17.)²²

Regarding the alleged failure to explain the inability to forecast the number of wind turbines, the Service indeed provided an explanation: “In an interconnected transmission system, the entire system must be analyzed under various loading scenarios and contingency events to determine whether sufficient transmission capacity is available to provide incremental generator interconnection service.” (NEPA_002388.)

²² Petitioners do not explain what they mean by “known per-turbine mortality data from existing projects in this region.”

This passage is not a model of plain English, but it is not incoherent, as Petitioners suggest. (See ECF No. 38 at 17.) The point is that whether a transmission system can accommodate a new generator depends on everything else it is already accommodating. “Thus, it is impossible to predict the number of turbines that the R-Project would be able to accommodate or to predict what other loads or supplies could also materialize that would consume the capacity of the line.” (NEPA_002388.) Petitioners give the Court no reason to suspect that this statement is not true.

As for the Service's alleged failure to explain why it supposedly “requires pinpoint precision of turbine locations . . . to conduct a generalized evaluation of the increased risks to ESA-listed bird species such as the whooping crane” (ECF No. 22 at 54–55), it is not clear what Petitioners mean by “generalized evaluation.” In any event, the Service repeatedly explained that risk to bird species from wind turbines depends greatly on where wind turbines are located. (See, e.g., LIT CITED_032757 (“[b]ird and bat mortality associated with wind energy development is influenced by various factors including project siting, tower height, and structure type”); *id.* at 32759 (“The intensity of impacts to wildlife associated with wind energy development would depend on the number of wind energy projects built, along with geographic locations, and other site- and project-specific characteristics.”).)

Petitioners themselves recognize that risk to birds like the whooping crane arises from “poorly sited wind turbines,” not wind turbines *per se*. (ECF No. 22 at 39.) The study Petitioners cite in this regard (LIT CITED_031665–92) confirms that “whooping cranes generally migrate above the height of wind turbines” and so “potential vulnerability to wind turbines is mostly associated with use at stopover locations” (*id.* at

31682). (See *also id.* at 32758 (“[t]he risk of bird and bat mortality from collisions with wind turbines varies among species and groups based on biological and behavioral characteristics and the type and quality of habitat present in the vicinity of the wind energy facility”).) Petitioners point to nothing in the record showing that every windy location within interconnection distance of the R-Project (whatever that distance may be) is suitable crane stopover habitat. Petitioners likewise point to nothing in the record showing that every parcel enrolled in the Cherry County Wind project, or within the counties where Thunderhead is proposed to be built, is also good whooping crane habitat.

Accordingly, whether wind power is a cumulative or indirect effect of the R-Project, the Service did not “fail[] . . . to provide any coherent explanation” (ECF No. 38 at 17) for not forecasting the overall number of turbines and generally evaluating the effects they might have on the whooping crane and other bird species. Although the Service knew that wind energy was likely to be developed because of the R-Project, and it knew of certain projects in various planning stages (Cherry County Wind and the Wheeler County portion of the Thunderhead project), it did not know precisely where the wind turbines would be built. Under the circumstances, that is very important information. Without it, any “generalized evaluation of the increased risks to ESA-listed bird species” (ECF No. 22 at 55) would be pure guesswork. Accordingly, Petitioners’ attack on this aspect of the Service’s decisionmaking fails.

b. *Antelope County*

The foregoing may also be true for the Antelope County portion of the Thunderhead project. However, because the Service believed that potential wind power was a cumulative effect, not an indirect effect, it believed it could exclude the 137

turbines that may be built in Antelope County from further analysis. (SECTION 7_000027–28.) This was error, and the Court cannot find that it was harmless.

Perhaps the locations of the Antelope County turbines are as uncertain as the Wheeler County turbines, but the Court cannot hold as much without putting words into the Service’s mouth—which the Court may not do. See *SEC v. Chenery Corp.*, 318 U.S. 80, 87–88 (1943) (court must review administrative action on the reasons actually given by the agency); *Custer Cnty. Action Assoc.*, 256 F.3d at 1027 n.1 (court normally reviews administrative action on the record developed by the agency). If it turns out that the precise locations of planned turbines in Antelope County are known, then, per ESA § 7, the Service must determine whether those planned turbines are likely to take whooping cranes, interior least terns, or piping plovers. If the answer is yes as to one or more of those species, then the Service must determine whether such take would jeopardize the continued existence of the species. And if *that* answer is yes, then the Service could, and almost certainly would, deny the Power District’s incidental take permit. See *Bennett*, 520 U.S. at 169–70.

Accordingly, the Service’s cumulative-versus-indirect error is not harmless as to the Antelope County turbines that the Service specifically excluded from additional analysis. The Court therefore must remand the BiOp to the Service to address this error.²³

²³ The Power District, but not the Service, argues that the Thunderhead is “not ‘caused by’ the R-Project because Thunderhead could potentially connect to the existing Western Area Power Administration line in Holt County.” (ECF No. 37 at 50 n.23.) Based on the Fifth Circuit’s *Coleman* decision and the Ninth Circuit’s *Locke* decision, *supra*, the Court has already concluded that an indirect effect need not be “caused by” the action under consideration. Thus, arguing lack of causation is beside the point.

Even if the Court were to consider a causation requirement, the Power District’s case

Similarly, the Court must remand the corresponding portion of the Final EIS. The Final EIS speaks of the Thunderhead project without breaking it down into its Wheeler County and its Antelope County portions. The Court cannot be sure this was a function of treating the Thunderhead project as a single project, regardless of county, or if it was influenced by the forthcoming BiOp analysis, yet without saying so.

Nonetheless, even if the Final EIS found that no Thunderhead wind turbine's location is reasonably foreseeable, regardless of county, the BiOp was issued several months later and information about Antelope County turbines may have materially changed by that point. Accordingly, remand to the Service remains appropriate.

VI. ALTERNATIVE ROUTES & CONFIGURATIONS

Petitioners argue that the Service violated ESA § 10 and NEPA in its decisions regarding potential alternative R-Project routes. The analysis of alternatives under the ESA and NEPA is not necessarily the same. *See Union Neighbors United, Inc. v.*

law on causation does not apply here. In *Wilderness Workshop v. BLM*, 531 F.3d 1220 (10th Cir. 2008)—which was not analyzing indirect effects under ESA § 7—the agency had made a finding that natural gas wells would be built, and their gas would reach the market, whether or not the agency approved a new natural gas pipeline. *Id.* at 1230–31. And in *Sierra Club v. BLM*, 786 F.3d 1219 (9th Cir. 2015), the wind farm developer had demonstrated that it could and would connect its wind farm to the grid by building infrastructure on private land if the agency refused a permit to build that infrastructure on federal land. *Id.* at 1222–23. Here, unlike *Wilderness Workshop*, there is no agency finding that Thunderhead or other wind projects will be built whether or not the R-Project is built; and, unlike *Sierra Club*, there is no affirmation from a wind farm developer that it will build a wind farm whether or not the R-Project is built. The only part of the record that comes close to either of these circumstances is a February 2018 “white paper” that the Power District itself drafted—or, more probably, its counsel drafted, since it is manifestly a legal brief—to persuade the Service that the Final EIS should only analyze wind farms that have signed an interconnection agreement with the Power District. (EMAIL_009104–13.) In this white paper, the Power District asserts, without citation to evidence, “If the R-Project were not constructed, wind projects would have other options to connect to the grid on existing [Power District] or Western Area Power Administration lines,” apparently referring to the Western 345kV Transmission Line running north-south near the right edge of the map reproduced at Part V.B, above. (*Id.* at 9112–13.) This bald assertion by the Power District (which is neither the agency nor the proponent of a wind project) falls well short of demonstrating that wind projects will go forward no matter what.

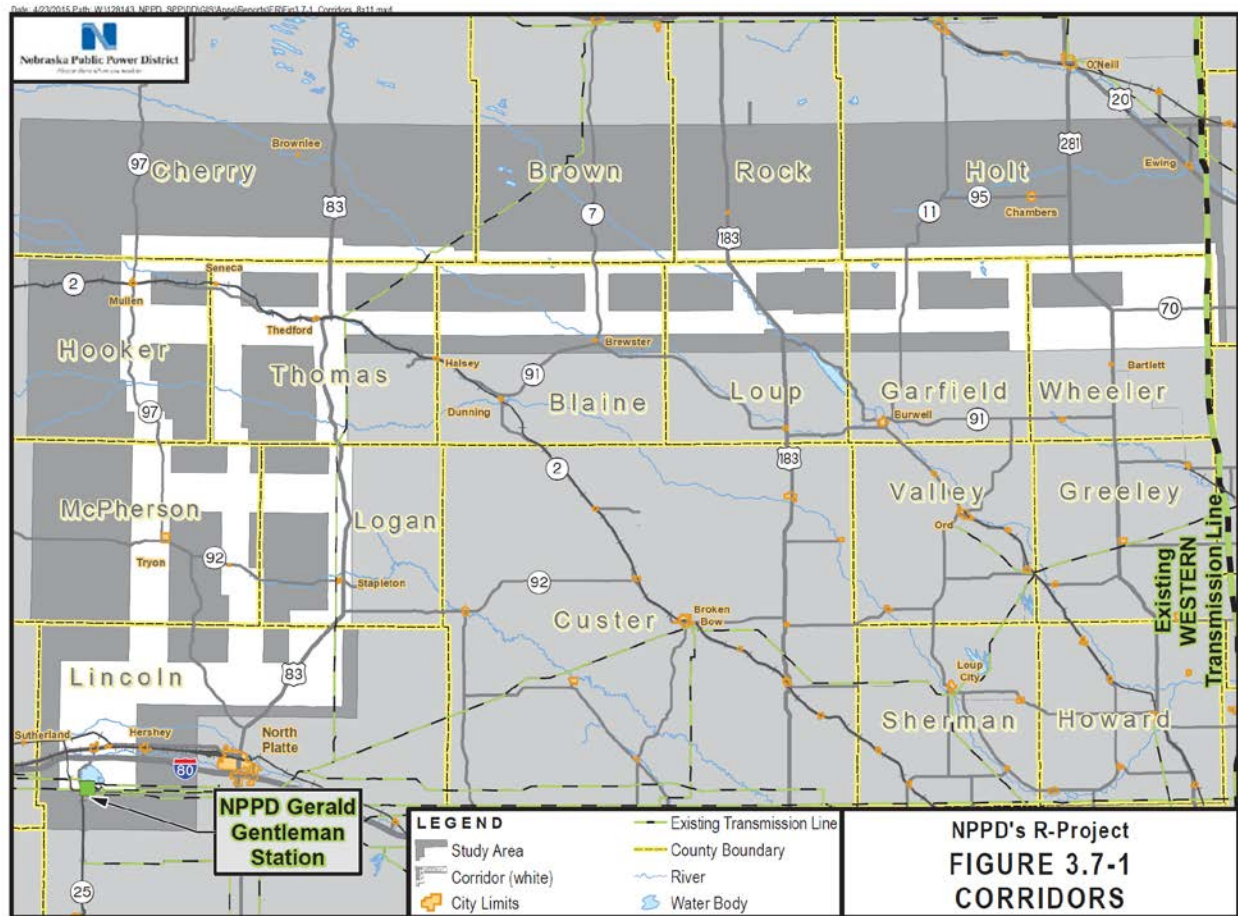
Jewell, 831 F.3d 564, 570 (D.C. Cir. 2016) (“Because the [NEPA and ESA] standards are not identical, a failure to comply with one statute does not necessarily result in a failure to comply with the other.”). Thus, the Court will first set forth the background relevant to the Service’s consideration of alternative routes, and the Court will then analyze Petitioners’ NEPA arguments, followed by their ESA arguments. Petitioners also make a NHPA-based argument about alternative routes, which the Court will address in Part VIII, below.

A. Additional Background

The Power District began its process for selecting a route in September 2012 by designating a “wide study area.” (LIT CITED_032225.) This was a “state-law-driven process.” (ECF No. 34 at 18; see *also* CORRESPONDENCE_000301 (“there is no federal action at this point in project development,” *i.e.*, during the state-law process for selecting a route).) In January 2013, the Power District held open-house meetings throughout the study area to discuss the location of the R-Project with community leaders and the general public. (LIT CITED_016894.)

Based on “data collected for the R-Project study area, input from the public, and agency concerns and priorities,” the Power District developed about fifty “routing criteria.” (LIT CITED_016898–900.) The routing criteria were divided into three major categories: land use (*e.g.*, proximity to residences and airports), environmental (*e.g.*, whooping crane migratory stopover habitat, tern and plover habitat), and engineering and construction (*e.g.*, length of the transmission line, cost, construction access). (*Id.*) The Power District used these criteria to develop potential R-Project corridors, which it presented to the Service and the public between July and September 2013. (*Id.* at 16901.) The following is a map prepared by the Power District showing both the study

area (dark gray shading) and potential routing corridors (white areas within the dark gray shading):



(*Id.* at 16902.)

In August 2014, the Power District applied to the Nebraska Power Review Board for permission to build the R-Project on one of two routes: the “preferred” or the “alternate.” (CORRESPONDENCE_000080.) The Power Review Board approved that application on December 9, 2014. (LIT CITED_016906.) This approval was “at the corridor level,” *i.e.*, the Board did not approve a specific route, but only approved the corridors proposed by the Power District, apparently leaving to the Power District the decision where to run the lines within those corridors. (EMAIL_001697–98.) Thus, on

January 20, 2015, the Power District announced the 225-mile Final Route. (LIT CITED_016925.)

On February 13, 2015, the Field Office e-mailed the Power District to propose

a potential R-project route alternative . . . that appears to meet the purpose and need of the R-project and have less environmental impact. . . .

We recognize that [the Power District] has selected a final route for the R-project, but the project is still in the early stages of development. Thus, this should not preclude [the Power District] from conducting an evaluation of (or the Service advocating for) other less environmentally damaging alternatives that may arise

(EMAIL_001360.)

A few days later, the Power District responded to the Field Office's e-mail.

(EMAIL_001500.) The Power District recounted the "approximately two and a half years" it had thus far spent "completing a comprehensive process to identify the final route"; therefore, it said, "this project is not in the early stages of development." (*Id.* at 1501.) The Power District further noted that the Field Office's proposed alternative route would not connect the Gerald Gentleman substation to the Thedford substation, contrary to the Southwest Power Pool's directive. (*Id.*) The Power District concluded, "[N]o additional routes for the R-Project Transmission Line will be considered for evaluation." (*Id.*)

In April 2015, the Power District, the Field Office, and the Regional Office met to discuss the Service's forthcoming EIS addressing the Power District's forthcoming habitat conservation plan for the beetle. (EMAIL_001697.) The meeting minutes first record the parties' agreement about the then-current scope of alternatives for the Service to consider in the EIS: "[T]here are two alternatives at this point: a) No action

alternative (i.e., NPPD does not receive a permit and does not build the project); and b) issuance of the permit and construction of the line using NPPD's final route." (*Id.*) The Power District then affirmed that "it could not construct the line without a permit." (*Id.*) The meeting minutes state that Service personnel were beginning to consider "alternative route alignment(s) to reduce or avoid take of American burying beetles (ABB) that meet the [Southwest Power Pool] purpose, need, and constraints." (*Id.*)

The Power District and the Field Office met again in May 2015 regarding the forthcoming EIS. (EMAIL_001982.) The meeting minutes show significant disagreement between the Field Office and the Power District about the wisdom of the Service's plans to propose alternative routes for the R-Project. The Power District denied the Service's authority to require the Power District to select a different route, and it questioned the Service's competence to propose and evaluate viable transmission line routes, particularly "from an electrical and engineering point of view." (*Id.* at 1983.) Another meeting participant, the Nebraska Game and Parks Commission, "questioned how [it and the Service] could replicate the two-year [Power District] routing process and address all 50 [routing] criteria in a day." (*Id.*) In response, the Service did not assert authority to require the Power District to select a new route. Instead, the Service insisted on its duty under NEPA to "consider route alternatives that are potentially less environmentally damaging to the [beetle] yet still meet the project purpose and need. Analysis of alternative routes would be for comparison purposes only." (*Id.* at 1983–84.) The Power District pushed back that "it has a final route and [will] not consider options outside the corridor approved by the Power Review Board to be feasible," and "indicated that any alternative routes considered in detail in the EIS

could very well mislead the public as to the [Service's] authority and provide the avenue for citizen suit." (*Id.* at 1984.) The meeting ended with the Service's agreement to "provide additional clarification on consideration of alternative routes in the [EIS]." (*Id.*)

On August 12, 2015, the Service sent the Power District a "white paper" to "articulate the approach that will be used by [the Service] to identify alternatives for evaluation in the R-Project . . . Habitat Conservation Plan (HCP) environmental impact statement (EIS)." (EMAIL_002281, 2285.) The white paper says, "While the Service acknowledges that it has no authority over routing of the R-Project, it does have jurisdiction over permitting take of [the beetle]; thus, analysis of alternatives in the EIS would include examination of reasonable alternative routes for the R-Project that reduce take of [the beetle]." (*Id.* at 2286.) The white paper concludes by stating that the EIS will analyze four "alternatives": (1) not issuing the incidental take permit; (2) issuing the incidental take permit precisely as requested by the Power District; (3) issuing the incidental take permit with "variations in permit duration, various combinations of conservation measures, and/or variations in the types of covered activities for the proposed route"; and (4) "analyz[ing] alternative R-Project transmission line routes that would avoid or minimize take of [the beetle]." (*Id.* at 2286–87 (footnotes omitted).)²⁴

On August 18, 2015, the Power District, through counsel, e-mailed the Service about the white paper. (*Id.* at 2288.) Counsel asked,

Since the Service will not have an application for an incidental take permit on any route other than [the Final Route], what would happen if the Service were to select one of the alternative routes it identifies in the EIS? If your response is that the alternative routes would only be

²⁴ The fourth "alternative" is an interim action, not a choice about whether (or in what form) to issue the permit. The Court will return to this discrepancy in Part VI.B.2.a, below.

included for comparison purposes but would not be selected by the Service, then doesn't that make the alternative routes unreasonable, or at least strawman alternatives, since they would not [be] selected? There does not appear to be any purpose to analyzing alternatives that are hypothetical only and would never be implemented.

If you[r] response is that the Service could choose one of those alternatives, that would make them the equivalent of a no-action alternative, since [the Power District] has not applied for a take permit on any other route.

(*Id.* at 2289.) The next day, the Field Office replied, stating that it would coordinate with the Regional Office "to provide a response to [counsel's] concerns and questions." (*Id.* at 2303.) The Field Office further stated, "[I]t is important that [the EIS and NEPA] process retain its independence, regardless of whether NPPD or their counsel like or dislike particular alternatives." (*Id.*)

In November 2015, the Field Office presented to the Power District three alternative routes developed by a contractor. (*Id.* at 2958–90.) These alternatives were dubbed "Northern," "Central," and "Southern." (*Id.* at 2972.) The Field Office, however, immediately ruled out the Northern and Southern Routes due to increased likelihood of beetle take and much greater expense (as to the Northern option) and greatly increased length (as to the Southern option). (*Id.* at 2978, 2984.) The Central Route was deemed by the Service to be more feasible and would avoid sensitive habitat. (*Id.* at 2985–86.) The Field Office's presentation concluded by saying, "How the central route will be incorporated into the EIS will be determined following input from [the Power District]." (*Id.* at 2990.)

The Power District responded to the Service's proposal in December 2015. (*Id.* at 3090.) The Power District said it would not pursue the Central Route, principally because: (i) it was a "conceptual route," rather than one subject to multiple years of

planning and community engagement (*i.e.*, in contrast to the Final Route or other possibilities previously considered), and so would probably require additional years of study, delaying the proposed January 2018 in-service goal; (ii) it would require Nebraska Power Review Board approval, also causing delay; (iii) it would cost \$57.7 million more than the Final Route “due to the increased length of the line and the increased amount of the lattice tower construction”; and (iv) it was inconsistent with prudent utility practice, such as minimizing impacts on landowners and costs to ratepayers. (*Id.* at 3095–101.)

The Service issued the Draft EIS in May 2017. (ADD_00084.) Concerning routing alternatives, the Draft EIS says, “While the Service has no authority over routing of the R-Project, it does have jurisdiction over permitting take of the beetle. Consequently, this [Draft EIS] evaluates possible options to avoid and minimize take of the beetle by using different routes for the transmission line.” (*Id.* at 187–88.) The Draft EIS then briefly describes the Northern and Southern Routes and the reasons for eliminating them from further consideration. (*Id.* at 190–93.) It goes on to describe the Central Route in more detail, including one detail that would become important in later deliberations, namely, that the Central Route would stop short of the Holt County substation (the terminus specified by the Southwest Power Pool) “to minimize environmental effects and construction costs.” (*Id.* at 194.)

The Draft EIS opines that the Central Route “is feasible from both a technical and economic perspective.” (*Id.* at 197.) But it ultimately dismisses it as a viable alternative because it would likely require an additional two years of detailed study and permitting activities, along with a revised habitat conservation plan, “resulting in unacceptable

delays” compared to the January 2018 in-service goal. (*Id.* at 197.) “Not meeting the in-service date could result in transmission system reliability issues and not provide the urgently needed congestion relief at the [Gerald Gentleman] Substation.” (*Id.* at 198.)

The Draft EIS also lays out the three alternatives the Service was explicitly considering, namely: (1) “No-action” (denying the permit); (2) granting the permit on the terms requested by the Power District, which, for these purposes, meant permitting the Power District to string its power lines along both steel lattice towers and tubular steel monopole towers; and (3) granting the permit but limiting the Power District to using tubular steel monopole towers, due their reduced impact on visual and cultural resources as compared to steel lattice towers. (*Id.* at 158–83.)

The Service issued the Final EIS in November 2018. (LIT CITED_032166.) Concerning alternate routes, the Final EIS explains, “The Service’s federal action subject to NEPA is the decision whether to issue a permit for incidental take of the beetle and still meet [the Power District’s] need for the R-Project. Therefore, the Service explored alternative routes that may avoid or reduce impacts from take of the beetle.” (*Id.* at 032268.) Like the Draft EIS, the Final EIS briefly describes the Northern and Southern Routes and then dismisses them as nonviable alternatives, while describing the Central Route more thoroughly. (*Id.* at 32269–75.) Unlike the Draft EIS, however, the Final EIS does not describe the Central Route as technically and economically feasible. Rather, it backs away from the Draft EIS in that regard: “The conclusion in the [Draft EIS] that the central conceptual route would be technically and economically feasible was based primarily on assumptions that construction costs would be similar to those of [the Final Route].” (*Id.* at 32276.) Since then, the Service

had concluded that it would cost about \$38 million more than the Final Route (about \$30.6 million more in construction costs and \$7.4 million more to redo all of the pre-construction planning, permitting, public meetings, and so forth). (*Id.* at 32275–77.) The Service further found that it would create an additional three-year delay before construction, which would itself take two more years. (*Id.* at 32276.) During that time, the Power District would continue to need to use mobile diesel generators to service farms in the region, further increasing expenses. (*Id.* at 32277.) And the Service acknowledged that the Central Route’s eastern terminus was short of the Holt County substation, contrary to the Southwest Power Pool’s directive. (*Id.* at 32276.)

But these reasons were actually alternative reasons for discounting the Central Route. The Final EIS’s primary reason for “dismissing [the Central Route] from further analysis,” was the Service’s belief that it may not withhold an incidental take permit as to a particular route if the habitat conservation plan meets all of the statutory requirements:

The Service’s permit decision is based on a determination of whether [the Power District’s habitat conservation plan] contains all conservation plan requirements at section 10(a)(2)(A) and meets all permit issuance criteria at section 10(a)(2)(B) of the ESA. Section 10(a)(2)(B) further states that the [Service] *shall* (emphasis added) issue a permit²⁵ if the permit application, including the [habitat conservation plan], meets all the permit issuance criteria and other Section 10 and general permit requirements. Although the Service may recommend [that the Power District] consider route modifications during the planning process, it does not have authority to require [the Power District] to alter the proposed route or select a different one if the permit application meets all the permit issuance criteria.

(*Id.* at 32276.)

²⁵ The Final EIS is quoting ESA § 10 but no quotation marks appear in the original.

Lastly, the Final EIS carries forward the three explicit alternatives: (1) no-action (deny the permit); (2) permit both steel lattice towers and tubular steel monopole towers; and (3) permit only tubular steel monopole towers. (*Id.* at 32199–201.) The Service deemed the second alternative to be the preferred alternative because the Power District met all permit criteria and the monopole-only option would disturb more ground (and therefore likely take more beetles) compared to the lattice-and-monopole option. (*Id.* at 32201.)

B. Analysis: NEPA

1. Relevant Legal Standards

For purposes of this Section, the emphasis is NEPA's requirement that the agency develop "alternatives to the proposed action." 42 U.S.C. § 4332(C)(iii). One of those alternatives must be the "no action" alternative. See 40 C.F.R. § 1502.14(d).

Beyond that,

[w]hen evaluating the adequacy of the [agency's] alternatives analysis (*i.e.*, the number of alternatives the [agency] was required to consider and the requisite level of detail), [courts] employ the "rule of reason" to ensure the environmental impact statement contained sufficient discussion of the relevant issues and opposing viewpoints to enable the Forest Service to take a hard look at the environmental impacts of the proposed expansion and its alternatives, and to make a reasoned decision. . . . [T]he National Environmental Policy Act does not require agencies to analyze the environmental consequences of alternatives it has in good faith rejected as too remote, speculative, or impractical or ineffective. What is required is information sufficient to permit a reasoned choice of alternatives as far as environmental aspects are concerned.

Colorado Env'tl. Coal. v. Dombeck, 185 F.3d 1162, 1174 (10th Cir. 1999) (citations and certain internal quotation marks omitted; certain alterations incorporated). In addition, "Agencies may not define a project's objectives so narrowly as to exclude all

alternatives. But where a private party’s proposal triggers a project, the agency may give substantial weight to the goals and objectives of that private actor.” *BioDiversity Conservation All. v. BLM*, 608 F.3d 709, 715 (10th Cir. 2010) (citations and internal quotation marks omitted).

2. Adequate Consideration of Alternatives

Petitioners argue that the Service “analyzed an exceedingly narrow range of alternatives” and improperly “dismissed [the Central Route] from detailed consideration.” (ECF No. 22 at 55.) Whether the Service appropriately dismissed the Central Route affects the answer to the question of whether the Service considered an adequate range of alternatives. The Court will therefore analyze the Central Route question first.

a. *Significance of the Central Route*

In this instance, the Power District was correct to predict that the Service’s choice to consider entirely different routes was likely to create confusion, mostly because the Service could not consistently articulate why it was required or helpful to explore different routes that it avowedly could not impose on the Power District. Indeed, the August 2015 white paper actually labels analysis of alternative routes to be a formal NEPA “alternative” that the Service might elect, as if the forthcoming EIS would analyze the choice between granting the permit, denying the permit, and looking for alternatives.

From other explanations the Service gave, however, its *initial* reasoning for considering alternatives seems clear enough. In both the August 2015 white paper and the Draft EIS, the Service stated that it could not mandate a route, but it still needed to decide whether to issue the incidental take permit; for that reason, it would analyze alternative routes. (EMAIL_002286; ADD_00187–88.) In other words, the Service appeared to be saying that part of its “hard look” under NEPA—the Court has seen

nothing in the record showing that the Service saw alternative routes as an ESA-driven inquiry—would be looking for feasible routes with less potential environmental damage. If such routes exist, the now-better-informed Service might decide that granting an incidental take permit along the applied-for route is a bad idea. The Service might then choose to deny the permit on that basis (*i.e.*, the Service would choose the no-action alternative).²⁶

To put this slightly differently, it appears the white paper and Draft EIS were making a distinction between two concepts. The first concept is a *formal NEPA action alternative*: a course of action the Service will seriously consider and might choose. Here, the white paper and Draft EIS seem to say that alternate routes cannot be deemed formal action alternatives because the Service has “no jurisdiction” over the route.²⁷ The second concept is *information that will help the Service make its decision*. The availability of better routes apparently falls into that category, and particularly could inform the Service’s deliberations about choosing the no-action alternative.

But the Final EIS sees matters differently. As noted above, only the Central Route was deemed worthy of serious consideration, yet the Service “dismissed it from further analysis” in the Final EIS because it believed that ESA § 10 forbids denying the permit on account of a better route so long as the application meets § 10’s standards as to the applied-for route. (LIT CITED_032276 (“Section 10(a)(2)(B) . . . states that the

²⁶ Again, the whole premise of redressability in NEPA lawsuits is that a better-informed agency might reach a different conclusion. (See Part V.A.3, above.)

²⁷ No party cites the NEPA regulation stating that an agency developing an EIS “shall * * * [i]nclude reasonable alternatives not within the jurisdiction of the lead agency.” 40 C.F.R. § 1502.14(c). The Court therefore will not further explore whether this regulation supports the Service’s choice to examine alternate routes.

[Service] *shall* (emphasis added) issue a permit if the permit application, including the [habitat conservation plan], meets all the permit issuance criteria and other Section 10 and general permit requirements.”.) In other words, by the time of the Final EIS, the Service had concluded that alternate routes were not even helpful to its deliberations about the no-action alternative because it could not pick the no-action alternative (at least not on that account).

There is at least an apparent inconsistency between this position and the Service’s position that it may deny a permit on account of a species-not-applied-for, notwithstanding “shall issue the permit.” (See Part IV.A, above.) But now the tables turn. Just as Respondents do not argue that the Service misinterprets ESA § 10 in the context of a species-not-applied-for, Petitioners do not argue that the Service misinterprets ESA § 10 in the context of considering and dismissing different routes under NEPA. Indeed, Petitioners’ NEPA challenge to the Service’s reasons for dismissing the Central Route entirely ignores the Service’s first reason for dismissing the route from further consideration, *i.e.*, that “shall issue the permit” makes further consideration moot. (See ECF No. 22 at 33, 55–57 (arguing that expense and delay are not adequate reasons to dismiss the Central Route from further consideration; saying nothing about Service’s interpretation of “shall issue the permit”); ECF No. 38 at 33–34 (same in reply brief).)²⁸ The Court therefore deems Petitioners to concede that, no matter how better informed the Service might be by considering alternate routes under NEPA, the Service could not have elected the no-action alternative on that basis.

²⁸ By contrast, Petitioners’ *do* argue that the ESA § 10 analysis (as opposed to the NEPA analysis) contains a requirement to deny a permit where feasible, less environmentally damaging routes exist. (ECF No. 22 at 48–51; ECF No. 38 at 34 n.16.) The Court addresses this argument in Part VI.C, below.

This concession has two significant implications. First, it deprives the Court of Article III jurisdiction to adjudicate Petitioners' NEPA arguments as to the Central Route. *Cf. Hartford Cas. Ins. Co. v. Trinity Universal Ins. Co. of Kansas*, 158 F. Supp. 3d 1183, 1191 (D.N.M. 2015) ("District courts have an independent duty to examine whether they have subject matter jurisdiction over cases and may do so *sua sponte*"). As noted above (Part V.A.3), Article III standing exists for NEPA claims under the presumption that the agency *could* reach a different decision if it gave a harder look at the issue. But if, under the circumstances of the case, a harder look could *not* yield a different result, then standing for "procedural injury" evaporates. *See Zeppelin*, 305 F. Supp. 3d at 1199 ("it is not enough that some extra quantum of procedure would redress a procedural harm—it must be reasonably capable of leading the agency to make a decision that would redress the underlying substantive harm").

Second, even if Article III standing still somehow exists, Petitioners could not succeed on their argument. The "rule of reason" for determining the range of alternatives to consider and the depth of consideration, *see Dombeck*, 185 F.3d at 1174, surely rules out forbidden alternatives. Thus, because considering the Central Route was futile *from the outset*, the Service did not violate NEPA by failing to give it *further* consideration.

For these reasons, the Court need not consider Petitioners' arguments that expense and delay—the Service's alternative reasons for discounting the Central Route—are invalid or insufficiently supported.

b. *The Two Action Alternatives*

Apart from the no-action alternative, the Service considered requiring the Power District to build only monopole towers, to the exclusion of steel lattice towers.

Petitioners argue that lattice-and-monopole versus monopole-only are “two essentially identical action alternatives,” so the Service “necessarily has not considered a ‘range’ of reasonable alternatives because there is no range at all.” (ECF No. 22 at 56.)

The only example Petitioners give of something else the Service should have considered is the Central Route. (*Id.* at 56–57.) Because Petitioners do not challenge the Service’s claim that ESA § 10 overrides its ability to consider routing alternatives when the applied-for route meets the statutory criteria, consideration of the Central Route (much less additional consideration) would be futile.

Petitioners’ use of the Central Route to illustrate the need for more action alternatives is also fundamentally confused—because the Central Route was never an action alternative. If analyzing the Central Route was anything other than an empty gesture, it was as further support for the no-action alternative.

As for matters the Service *could* mandate (because they would not change the route), Petitioners nowhere explain why lattice-and-monopole versus monopole-only was an unreasonable range of action alternatives under the circumstances. Accordingly, Petitioners have not shown that the Service failed in its NEPA duty to consider a reasonable range of alternatives.

C. Analysis: ESA § 10

1. Relevant Legal Standards

The standard for issuing an incidental take permit set forth at the beginning of Part IV.A, above, remains relevant to this Part. The focus for present purposes is the requirement that the Service find “the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking.” 16 U.S.C. § 1539(a)(2)(B)(ii). For simplicity, the Court will refer to this as the “maximize-mitigation” finding.

2. “Minimize and Mitigate” to the “Maximum Extent Practicable”

Petitioners argue that the Service’s duty to make a maximize-mitigation finding creates an independent obligation to consider alternatives like the Central Route—and, if such an alternative is practicable, to deny the permit for failure to embrace that alternative. (ECF No. 22 at 48–51; ECF No. 38 at 34 n.16.) The parties do not point the Court to anything in the record showing that the Service decided to consider alternative routes as part of its maximize-mitigation duties (as opposed to its NEPA duties), or, indeed, that it knew the maximize-mitigation language could be interpreted to impose such a duty. Nonetheless, Respondents raise no objection in this regard, so the Court will turn to the merits, keeping in mind that this argument focuses on the Service’s evaluation of whether alternative routes would reduce impacts to beetles.²⁹

In support of their argument, Petitioners emphasize *Gerber v. Norton*, 294 F.3d 173 (D.C. Cir. 2002). There, the Service received an incidental take permit application from a residential housing developer (“Winchester”), seeking permission to take an endangered fox squirrel through the construction and existence of a new housing development. *Id.* at 175–77. Evaluating the application, the Service found

there was a “Reduced Impact Alternative” to Winchester’s plan that “would reduce the likelihood of take” of fox squirrels by relocating the development’s access road “away from the [squirrels’] forested edge habitat.” It noted, however, that this alternative had been “rejected by the applicant” because it would entail additional costs and would delay the process of obtaining approval from the Queen Anne’s County zoning department.

Id. at 177–78 (quoting the administrative record; citations omitted). For that reason, the

²⁹ Petitioners apply this argument to the bird species as well (ECF No. 22 at 47–48), but the Court has already found that the Service discharged its ESA § 10 duties as to the bird species.

Service found that the permit, as applied for, met the maximize-mitigation standard, and the Service issued the permit. *Id.* at 177.

The district court upheld the Service's action but the D.C. Circuit reversed. *Id.* at 175. The problem, the appellate court said, was that ESA § 10 requires the Service to make the maximize-mitigation finding, not the applicant. *Id.* at 184–85. Thus, the Service could not defer to Winchester's assertions that the Reduced Impact Alternative was impracticable; the Service needed to make that finding for itself. *Id.* at 185 (“[T]he Service was careful to state that these were the developer's views. Indeed, the agency's decisional documents do not contain any *analysis* whatsoever as to whether implementation of the Reduced Impact Alternative would actually result in additional costs and delay, or whether the magnitude of such costs or delay would render the alternative impracticable.” (emphasis in original)). The D.C. Circuit therefore remanded the matter to the Service so it could make its own finding in this regard. *Id.* at 186.

Petitioners say that the Service's dismissal of the Central Route commits the same error as in *Gerber*. (ECF No. 22 at 51.) The Court disagrees.

First, the error in *Gerber* was the Service's unquestioning deferral to the developer, rather than making its own finding of impracticability. Here, the relevant facts show that the Service was self-consciously *not* deferring to the Power District, but was making its own findings as to “practicability” (more accurately, as to whether the Central Route deserved further analysis for NEPA purposes, which the parties implicitly treat as the functional equivalent of an ESA § 10 practicability judgment).

Second, the D.C. Circuit's *Union Neighbors* decision distinguishes *Gerber* in a way that matters to this case. *Union Neighbors* addressed a proposed Ohio wind farm

that would likely take endangered bats. 831 F.3d at 568. In considering the maximize-mitigation requirement, the Service rejected certain alternatives that would probably take fewer bats (e.g., requiring particular wind turbine blade angles). *Id.* at 578. It justified its rejection on account of the *Handbook*, which interprets the maximize-mitigation language from ESA § 10 to be *per se* satisfied if mitigation efforts will fully offset the expected impacts—which would be true in that case because, among other things, the developer would elsewhere acquire and permanently devote certain ideal habitat for the bat. *Id.* at 578, 579.

The D.C. Circuit found that the *Handbook* only deserved limited deference, *id.* at 579–80, but it nonetheless upheld the interpretation even under such limited deference, *id.* at 580–83. And, because the wind farm developer had shown that it would fully offset the impacts of the expected take, the court upheld the Service’s maximize-mitigation finding. *Id.* at 583.

As for *Gerber*, the D.C. Circuit questioned whether it applied in a case where there was a *per se* maximize-mitigation finding, per the *Handbook*. *Id.* at 584. But, assuming it did apply, the court found that the Service had made its own findings about practicability, and those findings were “sufficient.” *Id.*

Neither *Gerber* nor *Union Neighbors* controls in this District. However, Petitioners give the Court no reason to adopt *Gerber* while rejecting the same circuit’s later relevant authority on the same subject, *Union Neighbors*. Indeed, although both Respondents urge this Court to follow *Union Neighbors* (ECF No. 34 at 50; ECF No. 37 at 45), Petitioners entirely ignore it in their reply brief (see ECF No. 38).³⁰ Accordingly,

³⁰ Petitioners cite *Union Neighbors* in their opening brief, but for a point related to NEPA, not ESA § 10. (ECF No. 22 at 57.)

the Court finds that to the extent *Gerber* applies, so does *Union Neighbors*.

Here, the *Handbook* continues to say what it said at the time of *Union Neighbors*: “The statutory standard of minimizing and mitigating the impacts of the take ‘to the maximum extent practicable’ under ESA Section 10(a)(2)(B)(ii) will always be met if the [habitat conservation plan] applicant demonstrates that the impacts of the taking will be fully offset by the measures incorporated into the plan.” (ADD_02633.) And here, the Service found that the Power District will fully offset the impacts of the taking because the Power District has an option to purchase, and has committed to purchase, 600 acres of high-quality beetle habitat (which is more than the 500 acres the Service required). (HCP_001945–48.)³¹

The third reason why the Court finds *Gerber* inapposite here is the sorts of alternatives at issue in that case as compared to this one. If mapped to the same scale, the choice in *Gerber* about where to place the access road within the housing development is akin to the Service’s choice here about whether to require monopole-only towers; whereas the choice to deny the R-Project permit on account of the Central Route would be akin to the Service in *Gerber* telling the developer to pick somewhere else to build and then come back with a new application.

For all these reasons, the Court finds that the Service properly made a maximize-mitigation finding under the circumstances.

VII. THE BEETLE

In this Part, the Court discusses Petitioners’ arguments unique to the American

³¹ Petitioners argue for the first time in their reply brief that, in light of a beetle expert’s comments, 600 acres is not enough, and therefore the offset finding was unsupported. (ECF No. 38 at 28 n.13.) This argument is forfeited as untimely. (See also Part VII.B & n.32, below.)

burying beetle.

A. Additional Background

The American burying beetle (*Nicrophorus americanus*) is a one- to two-inch long carrion-eating species that is active from May through October in Nebraska and otherwise remains dormant underground. (LIT CITED_032206.) “The species is intolerant to human disturbance” (*Id.*) It has been listed as endangered under the ESA since 1989. (*Id.*)

The Draft EIS summarized efforts by the Power District to quantify the presence of beetles along the Final Route for the R-Project. (ADD_00397.) In essence, the Power District set traps in 2014, 2015, and 2016 in numerous locations throughout the R-Project right-of-way, and the Power District then counted the number of beetles found in each trap (the 2016 survey was also able to discern between newly trapped and previously trapped beetles). (*Id.*)

The Draft EIS further estimated that

[c]onstruction of the R-Project is expected to permanently destroy 33 acres of beetle habitat in the permit area and temporarily disturb an additional 1,042 acres of beetle habitat in the permit area. The permanent loss of 33 acres of beetle habitat would result from the installation of permanent access roads, structure foundations, relocation of distribution lines, and construction of the Thedford Substation. Temporary habitat disturbances would result from temporary access improvements, temporary work and staging areas, [right-of-way] clearing, relocation of distribution lines, and well relocations.

(*Id.* at 399.)

In November 2017, beetle researcher Jon C. Bedick, Ph.D., of Shawnee State University, Portsmouth, Ohio, submitted comments on the Draft EIS’s discussion of the beetle. (CORRESPONDENCE_003112–26.) Dr. Bedick offered numerous opinions,

including:

- the Power District should have done surveys perpendicular to the R-Project route;
- the Power District should have factored in the possibility of warmer winters at times (because hibernating beetles “presumably” hibernate closer to the surface in such conditions and are therefore more likely to be crushed if heavy machinery rolls over their hibernation location);
- the Power District and the Service had incorrectly “assume[d] that [the beetles] are distributed equally across the landscape”;
- surveys in June and August of each year, as the Power District conducted, “may not provide a proper representation of the [beetle] population in some years”;
- the Power District had potentially underestimated the number of acres “permanently” affected because construction activities (deemed to be only temporary disturbances) could cause soil compaction with “long-term impacts on the species” after construction equipment is gone;
- parked construction equipment might cause beetle take at night “when beetles may fly into construction areas seeking prey . . . [and] then [find] impacted soils”;
- a study on which the Power District relied about the firmness of the ground in winter (and therefore the weight of equipment that can roll over the ground without crushing beetles) used a medium-sized truck as a reference, not heavy construction equipment;

- the model relied on to calculate likelihood of take (derived from an academic paper on the issue) is “somewhat useful for identifying areas of concern . . . [but] is likely underestimating the level of take”; and
- the Power District should have used survey data from South Dakota and elsewhere to validate its model.

(*Id.* at 3112–16.) “In conclusion,” Dr. Bedick said, “I do not believe that the best available science has been used to arrive at [the Power District’s] and the Service’s conclusions regarding impacts to [the beetle].” (*Id.* at 3116.)

The Final EIS carries forward the Draft EIS’s estimate that 33 acres of beetle habitat would be permanently destroyed, and another 1,042 acres would be temporarily disturbed. (LIT CITED_032481.) Based on survey data, the Final EIS estimated that the R-Project “would result in the take of 167 beetles throughout [its fifty-year] life.” (*Id.* at 32482.) The Power District, however, “has agreed to acquire and protect in perpetuity at least 500 acres of occupied beetle habitat” that “would be of the same or higher quality habitat with beetle densities greater than or equal to those which would be disturbed or removed by the R-Project.” (*Id.* at 32483.) “Therefore, mitigation would conserve as least as many beetles than the anticipated take associated with the R-Project because it would preserve high-quality beetle habitat in perpetuity.” (*Id.*)

The Service’s response to public comments, issued in December 2018, addresses Dr. Bedick’s criticisms. Although not referring to Dr. Bedick by name, the Service summarized the following criticism:

The [Draft EIS] fails to adequately analyze the impacts on the beetle because the estimate of beetle density in the permit area provided in the [Draft EIS] is not supported by reliable data and has not been properly validated with

accurate surveys. Impacts from construction activities, including soil compaction, may be greater than described in the [Draft EIS], in part because the analysis does not take into account the fact that the beetle is active at night when it may fly into construction areas seeking prey. Therefore, take of the beetle may be higher than the estimate provided in the [Draft EIS].

(NEPA_002362.) The Service then asserted that the beetle take estimate was, contrary to Dr. Bedick's claim, "based on the best available science." (*Id.*) More specifically, the estimate was "based on the 99th percentile of current and historical trap data that were collected inside and outside the permit area and that met specific survey requirements identified by the Service." (*Id.*) Thus, further contrary to Dr. Bedick's criticism, "[t]he take estimate calculation does not assume the beetles are equally distributed across the landscape but rather assumes that all impacts would occur in areas with the highest 1 percent of beetle density ever recorded." (*Id.*) This approach meant that, "regardless of actual habitat quality, the [habitat conservation plan] calculates the highest take number that may occur from construction. The Service believes that this is the best approach for estimating take of the beetle." (*Id.*)

The Service also discussed minimization and mitigation measures the Power District would take at night to reduce the likelihood of beetles coming into construction sites, *e.g.*, "avoiding nighttime construction and [avoiding the use of] artificial lighting during periods when the beetle is active to avoid attracting beetle[s] to construction areas." (*Id.*) As for beetles being crushed underground as equipment rolls over the surface, the Service noted that it had relied on "[a] graduate thesis study aimed at investigating the impacts of soil compaction on the beetle [which] found high survival rates when beetles were exposed to compaction from moving vehicles, including [a Power District] line truck, which is the largest in [the Power District's] fleet." (*Id.* at

2363.) This study had used “burying beetles with similar biological characteristics as a proxy for the [American burying] beetle.” (*Id.*)

Many of these same explanations, although not framed as a response to Dr. Bedick or any other comment, previously appeared in the Final EIS (see LIT CITED_032481–87), and were repeated in the BiOp (see SECTION 7_00018–26) and habitat conservation plan (see HCP_ 001706–12, 1773–75).

B. Analysis

Petitioners argue that “the Service’s [incidental take permit], [BiOp], and [Final] EIS fail entirely to mention—let alone address—the serious concerns raised by [Dr. Bedick].” (ECF No. 22 at 51.) Restating this argument somewhat, Petitioners later say,

Remarkably, although the Biological Opinion cited Dr. Bedick’s peer-reviewed studies *four times*, *see, e.g.*, USFWS_SECTION_7_17—underscoring his status as a recognized ABB expert—the Service *never* referenced his detailed comments or addressed them in any way. As courts have held in analogous circumstances, this is textbook arbitrary and capricious decisionmaking.

(*Id.* at 52 (emphasis in original).)

Petitioners’ argument appears disingenuous on multiple levels. To begin, Petitioners never acknowledge the December 2018 response to public comments, in which the Service directly responded to Dr. Bedick’s criticisms (even though the Service did not identify Dr. Bedick by name). Indeed, it appears Petitioners very carefully phrased their argument to avoid the December 2018 document, *i.e.*, by accusing the Service of failing to respond to Dr. Bedick *in the specific documents mentioned*—the incidental take permit, the BiOp, and the Final EIS—as if the APA, NEPA, or ESA contains such a requirement (Petitioners cite none).

Even on that level, however, Petitioners' argument is off-base because the BiOp and the Final EIS *do* respond to Dr. Bedick's criticisms. Those documents do not say that they are responding to public comments (and, again, do not mention Dr. Bedick by name), but the information recited there is nonetheless responsive.

Petitioners are correct that the incidental take permit does not contain the same information, but they do not explain (and the Court cannot discern) why that would be relevant. This is the sort of information one would expect in the permit's necessary corollary, *i.e.*, the habitat conservation plan, and it *does* appear there. Moreover, by then, the information had already appeared in the Final EIS, the December 2018 response to comments, and the BiOp.

In short, Petitioners' argument is based on a mystifying oversight (failure to read the relevant parts of the record), or it is intentionally designed to obfuscate the Court's inquiry. It fails either way.³²

C. Beetles and Wind Power

Petitioners' arguments based on expected wind power development focus almost exclusively on wind turbines' potential to harm the bird species. (See ECF No. 22 at 54–55, 57–58.) But each of these arguments ends with a nod to "other" species. (*Id.* at 55, 58.) To the extent this is meant as an attack on the Service's analysis of potential wind power development on the beetle, the Court rejects it in part and sustains it in part. As with the bird species, the Service adequately and rationally explained why it needs

³² For the first time in, yes, the reply brief, Petitioners change course and argue that the Service did not *adequately* respond to Dr. Bedick's criticisms. (ECF No. 38 at 31–32; *see also id.* at 28 n.13.) Petitioners now insist that Dr. Bedick explained the best available science, contrary to the Service's conclusion about the best available science. (*Id.* at 31.) This argument is deemed forfeited. Even if it were not forfeited, the Court would reject for materially the same reasons explained in Part IV.B.2.c, above.

site-specific information about wind turbines before it can make any useful estimate of wind power development's likely effects on the beetle. (See Parts V.B & V.C.3.a, above.) And the Service found that it did not have that information for turbines that may be built within the geographic area that the Service actually analyzed. (*Id.*) Thus, as to that geographic area, the Service's analysis was equally sufficient as to the beetle.

Again, however, the Service specifically excluded the Antelope County portion of the Thunderhead project from consideration. Just as the Service must look at that issue again as to the birds, it must do so as to the beetle. (See Part V.C.3.b, above.)

VIII. HISTORIC RESOURCES

A. Legal Standards

"[P]rior to the issuance of any license," federal agencies "shall take into account the effect of the undertaking on any historic property." 54 U.S.C. § 306108. This directive is often referred to as "Section 106." Part of the Section 106 process is consultation with government agencies that have jurisdiction over historic properties, and with other affected persons and entities. See 36 C.F.R. § 800.3(c)(3), (f). Also, the agency "shall ensure that the section 106 process is initiated early in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking." 36 C.F.R. § 800.1(c). "The Section 106 process does not demand a particular result, however, because Section 106 is essentially a procedural statute and does not impose a substantive mandate on the agencies governed by it." *Diné Citizens Against Ruining Our Env't v. Bernhardt*, 923 F.3d 831, 846 (10th Cir. 2019).

"When effects on historic properties cannot be fully determined prior to approval of an undertaking," an agency can fulfill its Section 106 obligations through a

“programmatic agreement” between the agency and relevant stakeholders. 36 C.F.R. § 800.14(b) & (b)(1)(ii). Moreover, “[w]here alternatives under consideration consist of corridors or large land areas, or where access to properties is restricted, the agency official may use a phased process to conduct identification and evaluation efforts,” and the agency may “defer final identification and evaluation of historic properties if it is specifically provided for in . . . a programmatic agreement.” 36 C.F.R. § 800.4(b)(2). “When a governing programmatic agreement is in place, compliance with the procedures in that agreement satisfies the agency’s NHPA Section 106 responsibilities for all covered undertakings.” *Diné Citizens*, 923 F.3d at 846.

B. Additional Background

As early as March 2016, the Service received from the National Park Service a letter stating that the R-Project “would cross the Mormon Pioneer, California, Oregon, and Pony Express National Historic Trails (NHTs) at a particularly sensitive location,” and encouraging an alternate route within the approved routing corridor that would “cross the trail corridor in places where the trail and its setting already have been compromised or destroyed.” (EMAIL_004431–33.)

The Final EIS straightforwardly acknowledges that the R-Project would have “a long-term, high-intensity indirect (visual, auditory, and atmospheric) effect” on an area known as O’Fallon’s Bluff, which “exhibit[s] some of the most clearly defined and preserved segments of the Oregon-California Trails.” (LIT CITED_ 032586, 32587.)

The viewing area for the still-visible wagon wheel ruts currently features an “uninterrupted landscape of rolling bluffs” which is “important to the public interpretation and appreciation of the site.” (*Id.* at 32586.) The R-Project’s transmission towers and overhead lines, however, “would become the most dominant feature of the landscape,

contrasting sharply with the rural feel of the area.” (*Id.* at 32587.) The transmission towers would also create a constant hum. (*Id.*)

For similar reasons, the Final EIS goes on to find that the R-Project would have a high-intensity, long-term, indirect (visual, auditory, and atmospheric) impact” on a segment of the Mormon Pioneer Trail known as the “Sand Hills Ruts.” (*Id.* at 32588.) The Final EIS makes analogous findings for various other historical sites, such as a ranch, a bridge, and a church. (*Id.* at 32590–91.)

The Final EIS concludes that “avoidance of all historic properties is not possible.” (*Id.* at 32592.) Moreover, “[r]erouting the transmission line is not a feasible treatment option^[33] because at this stage of Project design, only minor adjustments can be accommodated to meet the needs of individual landowners, and neither the Service nor [the] Nebraska [State Historic Preservation Office] have the authority to require rerouting.” (*Id.*) The Power District had agreed, however, to make some of those “minor adjustments,” such as “[u]sing a setback distance of structures from trail remnants as allowed by engineering constraints.” (*Id.*)

Concerning wind power, the Final EIS says, “The potential for such projects to affect the visual environment of historic properties would depend on the projects’ locations relative to the historic properties and thus is difficult to predict.” (LIT CITED_032765.) Nonetheless, the Service knew of no wind energy projects planned for the areas around historic resources the R-Project itself would affect. (*Id.* at 32766.)

The Final EIS also notes that a programmatic agreement “has been developed

³³ The document indeed says “treatment option.” The Court presumes the Service actually meant something like “mitigation option,” or just “option.”

and signed to guide the Section 106 process, including opportunities for public involvement, as it continues beyond the NEPA process.” (*Id.* at 32594.)

Despite what the Final EIS says, the parties agree that a programmatic agreement (“Programmatic Agreement”) was actually signed in April 2019, a few months after the Final EIS. (ECF No. 22 at 35; ECF No. 34 at 27.) The Programmatic Agreement—entered into by the Service, the Power District, and certain others—states that the Power District had “completed intensive pedestrian surveys to identify historic properties for approximately 93% of the [relevant area], where landowners have approved right-of-entry.” (NHPA_000544.) The Programmatic Agreement further states, “[T]he parties recognize that the proposed Thunderhead Wind Energy Center is a reasonably foreseeable action; however, the parties agree that no further work will be done to resolve any adverse effects to historic properties that may result from that project for the purpose of this [Programmatic Agreement].” (*Id.* at 545.)

The Programmatic Agreement goes on to commit the Power District to completing the surveys for the remaining 7% of un-surveyed area “as access is obtained.” (*Id.*; see also LIT CITED_032568 (further discussing inaccessibility of certain properties).) The Power District also committed to not begin construction on any part of the R-Project that would run closer than one-quarter mile from an un-surveyed area. (NHPA_000545.) Finally, the Power District committed to numerous mitigation and minimization measures. (*Id.* at 545–47.)

C. Analysis

Petitioners argue that the Service failed to fulfill its Section 6 duties in four ways: (1) not requiring the Power District to survey 100% of the affected area (as opposed to 93%) before making a decision; (2) failing to analyze a proper range of alternatives that

might reduce or eliminate adverse effects on historic resources; (3) failing to include the effect of new wind turbines on historic and cultural resources; and (4) acknowledging that Thunderhead was reasonably foreseeable but agreeing not to do further work to resolve adverse effects on historic properties. (ECF No. 22 at 59–60.)

The Service responds that “Petitioners’ arguments fail for the simple reason that the Service has entered into a Programmatic Agreement that post-dates all of Petitioners’ complaints about the consultation process.” (ECF No. 34 at 60.) In this vein, the Service emphasizes the language from *Diné Citizens* that “compliance with the procedures in [a programmatic agreement] satisfies the agency’s NHPA Section 106 responsibilities for all covered undertakings.” 923 F.3d at 846.

Petitioners reply, in effect, that a programmatic agreement does not shield an agency from judicial inquiry into whether it fulfilled its Section 106 responsibilities, including whether entering into a programmatic agreement was arbitrary and capricious. (ECF No. 38 at 35.) The Court mostly agrees.

Diné Citizens supports its above-quoted “all covered undertakings” statement by citing 36 C.F.R. § 800.14(b)(2)(iii), which reads (in relevant part), “Compliance with the procedures established by an approved programmatic agreement satisfies the agency’s section 106 responsibilities for all *individual undertakings of the program covered by the agreement* until it expires or is terminated” (emphasis added). In other words, a programmatic agreement answers the question of what *further* Section 106 analysis is required for the “individual undertakings” that are set out in the programmatic agreement.

Here, the Programmatic Agreement embraces (among other things) surveying

the remaining 7% of the affected area, which the Power District was unable to survey due to private ownership. The Programmatic Agreement therefore establishes that the Service's Section 106 responsibilities as to the remaining 7% are satisfied to the extent the Power District adheres to the Programmatic Agreement. That is a legitimate purpose for a programmatic agreement—indeed, one specifically contemplated by the regulations. (See Part VIII.A, above.) Thus, Petitioners' first argument against the Service's Section 106 analysis fails.

However, the Programmatic Agreement does not insulate the Service from *any* attack on the Section 106 analysis. Thus, as to actions not embraced by the Programmatic Agreement, the Court may properly address Petitioners' arguments that the Service did not properly discharge its duty to "account the effect of the undertaking on any historic property." 54 U.S.C.A. § 306108.

Petitioners' second argument is that the Service "fail[ed] to analyze (or adopt) a route within [the Power District's] routing corridor [*i.e.*, in contrast to a significantly different route like the Central Route] that would have run east from the Gerald Gentleman Substation and thus avoided most (if not all) of the affected historic resources located directly north of the substation [referring to O'Fallon's Bluff]." (ECF No. 22 at 59–60 (emphasis removed).) Petitioners say that this violates the Service's obligation to consider "a broad range of alternatives." (*Id.* at 60.)³⁴

Neither the Service nor the Power District responds to this argument. Respondents' silence on this point appears to implicitly concede error, and the Court finds error regardless. Unlike in the NEPA context (see Part VI.B.2.a, above), the

³⁴ Petitioners erroneously cite the "range of alternatives" regulation as 36 C.F.R. § 800.3(c). (See *id.*) It is § 800.1(c).

Service has never asserted that “shall issue the permit” in ESA § 10 overrides its ability to look at alternate routes from a historic preservation perspective—and to conclude, after reflecting on the alternative routing possibilities, that the permit should not issue.

With that understanding, the Court returns to Service’s explanation of why it did not consider any alternative routes, even within the Power District’s routing corridors.

The Service explained in the Final EIS that “[r]erouting the transmission line is not a feasible treatment option because at this stage of Project design, only minor adjustments can be accommodated to meet the needs of individual landowners, and neither the Service nor [the] Nebraska [State Historic Preservation Office] have the authority to require rerouting.” (LIT CITED_032592.) This explanation is problematic in one of two ways, depending on the extent of the Power District’s discretion to change its route.

First, unlike the Central Route (which was mostly outside any approved routing corridor), the record shows that there were options within approved routing corridors to avoid major impacts on O’Fallon’s Bluff. (See EMAIL_004431–33.) Thus, to the extent the Power District retained routing discretion within the approved corridors (like its discretion to build with lattice towers or monopole towers), the Service could have developed one or more formal action alternatives that involved approving the permit on an alternate route within the Power District’s discretion. The Service’s statement that it was too late to consider rerouting all but admits a violation of the regulation that requires “initiat[ing] [the Section 106 process] *early in the undertaking’s planning*, so that a broad range of alternatives may be considered during the planning process for the undertaking.” 36 C.F.R. § 800.1(c) (emphasis added).

Second, if the Power District did *not* have discretion over routing (even within approved corridors), the Service may not simply declare that it lacks jurisdiction to require rerouting and then walk away. Whether or not different routes could be elevated to formal action alternatives, it is still useful to consider them when deciding whether to issue the permit. The point of the NHPA is to require agencies “to stop, look, and listen before proceeding when their action will affect national historical assets.” *Diné Citizens*, 923 F.3d at 839. Thus, after gathering useful information on a proposed permit, an agency could legitimately conclude, “We see your need for this project but you have not persuaded us that you need to build the project precisely *there*; permit denied.” Yet the Service seems not to have considered this possibility, and at the very least said nothing indicating that it understood this alternative was available to it.

Thus, the Service acted “not in accordance with law,” 5 U.S.C. § 706(2)(A), with respect to its consideration of possibilities to avoid impacts on O’Fallon’s Bluff.

Petitioners’ third argument is that the Service “failed to evaluate the impacts that will result from the R-Project’s facilitation of hundreds (or possibly thousands) of wind turbines in this region that is filled with significant historic and cultural resources.” (ECF No. 22 at 60.) However, as with the effects of wind turbines on ESA-listed species, the Service explained that it cannot assess the effects of wind turbines on historic resources without knowing where those wind turbines will be. (LIT CITED_032765–66.) This explanation is reasonable as to the geographic area the Service actually considered. Indeed, the Service’s analysis of impacts on historic resources shows that the analysis turns almost exclusively on whether the effects can be heard or seen from the historic property, or whether they will in fact destroy some amount of the historic property. (See

id. at 32576–85.) Thus, the Service did not err in this respect. But, as before, the Service erroneously excluded the Thunderhead wind turbines in Antelope County from additional analysis. (See Part V.C.3.b, above.) Thus, to the extent the locations of those turbines are known or reasonably foreseeable, the Service must also analyze the potential effect on historic resources. Petitioners’ argument is sustained to that extent.

Petitioners’ fourth and final argument challenges the Programmatic Agreement’s statement that the Thunderhead project is “a reasonably foreseeable action; however, the parties agree that no further work will be done to resolve any adverse effects to historic properties that may result from that project for the purpose of this [Programmatic Agreement].” (NHPA_000545.) This language is indeed enigmatic, and neither the Service nor the Power District explains what it means, or what authority the Service possesses to excuse “further work” in this regard. Moreover, as just noted, the Service did not properly evaluate potential Thunderhead turbines in Antelope County.

Accordingly, the Court agrees with Petitioners that this clause of the Programmatic Agreement is arbitrary and capricious without further consideration of Antelope County, and without explanation of what the parties intend by this clause and the authority to adopt it.

IX. AMICUS BRIEFS

The Center for Biological Diversity et al. (“Center”) and Nebraska State Sen. Tom Brewer have each filed a motion for leave to file an amicus brief (ECF Nos. 26 (Center), 27 (Sen. Brewer).) The Power District opposes these motions. (ECF No. 33.)

The Federal Rules of Civil Procedure have no specific procedure for amicus briefs. District courts therefore have “broad discretion in allowing participation of *amicus*

curiae.” *Medina v. Catholic Health Initiatives*, 2015 WL 13683647, at *1 (D. Colo.

Oct. 7, 2015). In considering whether to grant leave to file an amicus brief, the Court finds useful five factors adopted by Senior U.S. District Judge Robert E. Blackburn:

- (1) whether the proposed amicus is a disinterested entity;
- (2) whether there is opposition to the entry of the amicus;
- (3) whether counsel is capable of making arguments without the assistance of an amicus; (4) the strength of the information and argument presented by the potential amicus curiae’s interests; and, perhaps most importantly (5) the usefulness of information and argument presented by the potential amicus curiae to the court.

Id. Concerning the third factor, the Court further notes,

[O]urs is a party-directed adversarial system and we normally limit ourselves to the arguments the parties before us choose to present. Amici briefs often serve valuable functions, but those functions don’t include presenting arguments forgone by the parties themselves or effectively and unilaterally expanding the word limits established by rule for a favored party.

United States v. Ackerman, 831 F.3d 1292, 1299 (10th Cir. 2016).

None of the factors set forth above favors accepting either proposed amicus brief. The Court need not analyze all of the factors, nor any of them in detail. The following adequately explains the Court’s reasoning.

The Center mostly proposes to argue that Ecosystems Advisors is right and the Service is wrong about whooping crane collision risk. (See ECF No. 26-1.) Yet more argument on that point fails the “usefulness” inquiry. To the extent the Center finds fault with Service decisions that Petitioners have not chosen to challenge, the Court finds these arguments inappropriate for the reasons stated in *Ackerman*, above.³⁵

³⁵ The Center has also not shown itself to be an accurate source of information. For example, the Center represents that there have been forty-nine “documented fatal [power line] collisions” among the Aransas-Wood Buffalo whooping cranes, representing “39 percent of all

Sen. Brewer, whose state senate district encompasses at least part of the R-Project, proposes to inform the Court of his reasons for opposing the R-Project, and to recount his experiences supposedly showing that Respondent Walsh (the Service's regional director) was unsympathetic to his opposition. (See ECF No. 27-1.) Sen. Brewer also argues that the Field Office's analyses showing a likelihood of whooping crane collision are the best available science. None of this satisfies the "usefulness" test. And many of Sen. Brewer's arguments rely on information or documents outside of the administrative record. *Cf. Custer Cnty. Action Assoc.*, 256 F.3d at 1027 n.1 (review of agency action is "generally limited to . . . the administrative record").

For all these reasons, the Court denies the Center's and Sen. Brewer's respective motions to file amicus briefs.

X. REMEDY

The statutorily prescribed remedy for the flaws in the Service's analysis is that the "reviewing court shall * * * hold unlawful and set aside [the relevant] agency action, findings, and conclusions." 5 U.S.C. § 706(2)(A). Respondents, however, argue that the Court need not always "set aside" (*i.e.*, vacate) the agency action, particularly when there will be dire consequences for doing so. (ECF No. 34 at 61–62; ECF No. 37 at 55–57.) The Service calls for further briefing specifically about remedy (ECF No. 34 at 61–62), and Petitioners, while insisting that vacatur is the appropriate remedy, do not

known mortalities in this population since 1956." (ECF No. 26-1 at 9.) If true, this would be important—the Service itself says there have been ten known power line strikes among the Aransas-Wood Buffalo cranes since 1950. (LIT CITED_032459.) But it is not true. The portion of the record the Center cites in support of this statement says there have been forty-nine documented power line collisions among *all* currently existing populations of whooping cranes. (CORRESPONDENCE_001284.) And the "39 percent of all known mortalities" statistic was among "the introduced Rocky Mountain population," not the Aransas-Wood Buffalo population. (*Id.*)

oppose further briefing (ECF No. 38 at 36–38)—or at least they did not oppose further briefing as of January 2020, when they filed their reply brief, and when expected commencement of R-Project construction was still several months away.

The Court will grant for purposes of argument that “shall” in “shall * * * hold unlawful and set aside,” 5 U.S.C. § 706(2)(A), sometimes does not mean “shall.” *Cf. Diné Citizens Against Ruining Our Env’t v. U.S. Office of Surface Mining Reclamation & Enf’t*, 2015 WL 1593995, at *1 (D. Colo. Apr. 6, 2015) (interpreting 5 U.S.C. § 702 as “preserving the power of courts to apply equitable factors in the [APA § 706] remedies analysis”). Even so, this is not a case in which the Court would deviate from the statute. The R-Project is not an in-service system on which power users currently rely. The Court does not discount the expense to the Power District of renting mobile diesel generators to power irrigation systems in north-central Nebraska, nor the associated inconvenience to the affected farmers. As far as the record reveals, however, the Power District and the farmers have thus far managed to continue their operations without serious disruption.³⁶

More importantly, the Court notes the Power District's position that if an incidental take permit does not issue, the R-Project will not be built. (EMAIL_001697.) The possibility remains that the Service, on remand, could decide not to issue the permit. If this Court were to allow the permit to remain in place pending that decision, then construction could go forward in the meantime and perhaps cause the very harms

³⁶ The record also does not reveal how frequently the Power District actually needs to compensate for the lack of additional capacity in north-central Nebraska. The Power District says that such need arose in 2012 with “severe drought conditions.” (ECF No. 37 at 12.) Significantly, the Power District does not point the Court to anything in the record showing that this has become a constant or yearly problem.

the avoidance of which would otherwise have prompted the Service to deny the permit. Accordingly, to prevent the R-Project from becoming a *fait accompli*, the Court will “set aside” the incidental take permit, as contemplated by the express terms of 5 U.S.C. § 706(2)(A).

XI. CONCLUSION

For the reasons set forth above, the Court ORDERS as follows:

1. The Center for Biological Diversity et al.’s Motion to File Amicus Brief in Support of Petitioners (ECF No. 26) is DENIED;
2. Sen. Tom Brewer’s Motion for Leave to File Proposed Brief Amicus Curiae (ECF No. 27) is DENIED;
3. The Service’s analysis of whether to grant an incidental take permit to the Power District is AFFIRMED IN PART and VACATED IN PART as set forth above, and the June 12, 2019 incidental take permit is VACATED;
4. This matter is REMANDED to the Service for further proceedings consistent with this Order;
5. The Clerk shall enter judgment accordingly and shall terminate this case; and
6. Petitioners shall have their costs upon compliance with D.C.COLO.LCivR 54.1.

Dated this 17th day of June, 2020.

BY THE COURT:



William J. Martinez
United States District Judge