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Via Certified Mail

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RE: Notice of Violations of the Endangered Species Act in Connection with the Houston South Vegetation Management and Restoration Project

On behalf of our clients—the Monroe County Commissioners, the Monroe County Environmental Commission, Dr. Paul David Simcox, the Indiana Forest Alliance, and the Hoosier Environmental Council—we are writing to apprise you of numerous violations of the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531–1544, that have occurred and continue to occur in connection with the U.S. Forest Service's ("USFS's") approval of the Houston South Vegetation Management and Restoration Project ("Project" or "Houston South Project") on the Hoosier National Forest ("HNF"). As described below, the Houston South Project, a vegetation treatment and forest management project, is likely to adversely effect at least two species listed under the ESA—the Indiana bat (*Myotis sodalis*) and the Northern long-eared bat (*Myotis septentrionalis*). Rather than conduct the analysis mandated by the ESA, however, USFS and the U.S. Fish and Wildlife Service ("FWS") have concluded that the Project is shielded from meaningful consultation by two different programmatic biological opinions; both of those decision documents, however, are legally deficient and insufficient to shield USFS from liability under Section 9 of the ESA.

Our clients hope to work with USFS and FWS to cure the Project's deficiencies—without resorting to the judicial remedies provided in the ESA. However, the ecological health and biodiversity of the HNF, including imperiled species such as the Indiana and Northern long-eared bats, is of the utmost importance to our clients. And, the undisputed effects stemming from the Houston South Project compound an already bleak environmental baseline for these species. Therefore, absent timely action to rectify the violations of law described herein, this letter shall serve as formal notice, pursuant to 16 U.S.C. § 1540(g)(2), of our clients' intent to compel compliance with the terms of the ESA.

STATUTORY AND REGULATORY FRAMEWORK

The ESA is the "most comprehensive legislation for the preservation of endangered species ever devised by any nation." *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1973). "The plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost." *Id.* at 184. To that end, the statute declares a broad national policy that "all Federal departments and agencies [of the federal government] shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this chapter." 16 U.S.C. § 1531(c)(1). The purposes of the ESA are to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved" and to "provide a program for the conservation of such endangered species and threatened species." *Id*. § 1531(b). An "endangered species" is defined by the Act as one that is presently "in danger of extinction throughout all or a significant portion of its range," and a "threatened species" means "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." *Id*. § 1532(6), (20).

In determining whether a species merits listing as either "threatened" or "endangered," the Secretary must consider five statutory listing criteria: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. *Id.* § 1533(a)(1). If a species meets the definition of threatened or endangered because it is imperiled by any one or a combination of these five factors, the Secretary must list the species. *Id.* § 1533(1). The Secretary must base all listing determinations "solely on the basis of the best scientific and commercial data available." *Id.* § 1533(b)(1)(A). As a result, Congress aptly described Section 4 of the ESA, 16 U.S.C. § 1533, as "[t]he cornerstone of effective implementation of the Endangered Species Act . . . ." S. Rep. No. 418, 97th Cong., 2d Sess. at 10; *see also* H. Rep. No. 567, 97th Cong., 2d Sess. at 10.

Once listed as such, both endangered and threatened species are entitled to broad legal protections under the ESA. The ESA generally makes it unlawful for "any person subject to the jurisdiction of the United States" to "take" any species listed as endangered, in the absence of lawful authorization from FWS. 16 U.S.C. § 1538(a)(1). "Take" is defined by the ESA to include "harass," "harm," "wound," or "kill." *Id.* § 1532(19). "Harm" is further defined by regulation to "include significant habitat modification or degradation where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." 50 C.F.R. § 17.3. "Harass" is defined to mean an "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.*

Although the ESA itself does not prohibit the take of threatened species, Section 4(d) of the statute provides that "[w]henever a species is listed as threatened[,] . . . the Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation of such species." 16 U.S.C. § 1533(d). Pursuant to that authority, FWS has generally extended by default the prohibition against unauthorized take to threatened species as well. *See* 50 C.F.R. § 17.31(a), (c). More recently, however, FWS has opted to create species-specific rules, known

colloquially as "4(d) rules," that exempt certain forms of defined take, and are published along with FWS's "threatened" determination. *See, e.g.*, 4(d) Rule for the Northern Long-Eared Bat, 81 Fed. Reg. 1,900–23 (Jan. 14, 2016). Although 4(d) rules permit some measure of take, those regulations "must provide for the *conservation* of threatened species." *Sierra Club v. Clark*, 755 F.2d 608, 612–13 (8th Cir. 1985) (emphasis in original).

Pursuant to Section 7 of the ESA, before undertaking any action that may have direct or indirect effects on any listed species, an action agency must engage in consultation with FWS in order to evaluate the impact of the proposed action. *See* 16 U.S.C. § 1536(a). FWS has defined the term "action" for the purposes of Section 7 broadly to mean "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies," 50 C.F.R. § 402.02, "in which there is discretionary federal involvement or control." *Id.* § 402.03. An agency may only avoid this consultation requirement for a proposed action if it determines that its action will have "no effect" on threatened or endangered species or critical habitat. *Id.* § 402.14(a).

The purpose of consultation is to ensure that the action at issue "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [designated] habitat of such species." 16 U.S.C. § 1536(a)(2). As defined by the ESA's implementing regulations, an action will cause jeopardy to a listed species if it "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02. The evaluation of the effects of the proposed action on listed species during consultation must use "the best scientific . . . data available." 16 U.S.C. § 1536(a)(2). Moreover, after the initiation of consultation, the action agency is prohibited from making "any irreversible or irretrievable commitment[s] of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures." *Id.* § 1536(d).

Consultation under Section 7 may be "formal" or "informal" in nature. Informal consultation is "an optional process" consisting of all correspondence between the action agency and FWS, which is designed to assist the action agency, rather than FWS, in determining whether formal consultation is required. *See* 50 C.F.R. § 402.02. During an informal consultation, the action agency requests information from FWS as to whether any listed species may be present in the action area. If listed species may be present, the action agency is required by Section 7(c) of the ESA to prepare and submit to FWS a "biological assessment" that evaluates the potential effects of the action on listed species and critical habitat. As part of the biological assessment, the action agency must make a finding as to whether the proposed action may affect listed species and submit the biological assessment to FWS for review and potential concurrence with its finding. 16 U.S.C. § 1536(c). If the action agency finds that the proposed action "may affect, but is not likely to adversely affect" any listed species or critical habitat and FWS concurs with this finding, then the informal consultation process is terminated. 50 C.F.R. § 402.14(b).

If, on the other hand, the action agency finds that the proposed action "may affect" listed species or critical habitat, then the action agency must undertake formal consultation. 50 C.F.R. § 402.14; *see also* FWS, Endangered Species Consultation Handbook ("Consultation

Handbook") at 3-13 (1998). The result of formal consultation is the preparation of a biological opinion ("BiOp") by FWS, which provides FWS's analysis of the best available scientific data on the status of the species and how it would be affected by the proposed action. Additionally, a BiOp must include a description of the proposed action, a review of the status of the species and critical habitat, a discussion of the environmental baseline, and an analysis of the direct and indirect effects of the proposed action and the cumulative effects of reasonably certain future state, tribal, local, and private actions. *See* Consultation Handbook at 4-14 to 4-31.

At the end of the formal consultation process, FWS determines whether the proposed action is likely to jeopardize the continued existence of a listed species or destroy or adversely modify any designated critical habitat. If FWS determines that the proposed action is not likely to jeopardize the continued existence of listed species or cause adverse modification of critical habitat, but that the proposed action will nevertheless result in the incidental taking of listed species, then FWS must provide the action agency with a written Incidental Take Statement specifying the "impact of such incidental taking on the species" and "any reasonable and prudent measures [("RPMs")] that the [FWS] considers necessary or appropriate to minimize such impact" and setting forth "the terms and conditions . . . that must be complied with by the [action] agency . . . to implement [those measures]." 16 U.S.C. § 1536(b)(4). If FWS determines that the action will jeopardize a listed species or destroy or adversely modify designated critical habitat, then FWS must offer the action agency reasonable and prudent alternatives ("RPAs") to the proposed action that will avoid jeopardy to a listed species or adverse habitat modification, if such alternatives exist. *Id.* § 1536(b)(3)(A).

Without an adequate BiOp and Incidental Take Statement in place, any activities likely to result in incidental takes of members of listed species are unlawful. *Id.* § 1538(a)(1)(B). Accordingly, anyone who undertakes such activities, or who authorizes such activities, *id.* § 1538(g), may be subject to criminal and civil federal enforcement actions, as well as civil actions by citizens for declaratory and injunctive relief, *see id.* § 1540.

FACTUAL BACKGROUND

A. The Indiana Bat, The Northern Long-eared Bat, and White-nose Syndrome

(1) The Indiana Bat

The Indiana bat (*Myotis sodalis*) is a small to medium-sized, insectivorous bat that could historically be found from New Hampshire south to northern Florida and west to Iowa, Missouri, and Oklahoma. The species is found in particular abundance in the Midwest, with "[a]lmost half of all Indiana bats (207,000 in 2005) hibernat[ing] in caves in southern Indiana." FWS, Indiana Bat Fact Sheet, at 1–2 (Dec. 2006), https://bit.ly/2RZrS99. The Indiana bat measures approximately 2 to 3.5 inches in length with a wingspan ranging from 9.5 to 10.5 inches. The species is considered "very social," and "large numbers cluster together during hibernation." *Id.* at 1.

The Indiana bat was originally listed as "endangered" in 1967 under a statutory predecessor to the ESA, the Endangered Species Preservation Act. *See* 32 Fed. Reg. 4,001, 4,001

(Mar. 11, 1967). At the time of its listing, the species' populations were declining rapidly due to human disturbance during hibernation and loss of habitat through deforestation. Indiana Bat Fact Sheet, *supra*, at 2; *see also* FWS, Indiana Bat 5-Year Review: Summary and Evaluation, at 13 (Sept. 2009). Today, however, a new threat to the Indiana bat has emerged. Across its current range, the species is under assault by White-nose Syndrome, *see, e.g.*, FWS, Indiana Bat 5-Year Review: Summary and Evaluation ("2019 Review"), at 5 (Sept. 2019), discussed in further detail below. The species' "2019 range-wide population" has undergone "a 19% decline since the arrival of [White-nose Syndrome] in New York in 2007." *Id.* To date, the disease "has caused an overall estimated 90% decline in hibernating bat populations within the [White-nose Syndrome]-affected area and threatens regional or range-wide extinction in multiple species including the Indiana bat." *Id.* at 17. For this reason, FWS concluded in 2019 that the "'degree of threat' to the Indiana bat remains 'high,'" meaning "extinction is almost certain in the immediate future because of a rapid population decline or habitat destruction . . . ." *Id.* at 33. The Indiana bat, therefore, remains "endangered" under the ESA. *Id.*

(2) The Northern Long-eared Bat

The NLEB (*Myotis septentrionalis*) is a medium-sized, insectivorous bat found throughout much of the eastern and north central United States, and several Canadian provinces. The species has historically been most abundant in the Midwestern and Northeastern regions of the United States. Adult bats average between 3 and 3.7 inches in length with a wingspan averaging between 9 and 10 inches. In the spring and summer months, NLEB roost during the day in trees, "chang[ing] roosts about every 2 days," as is "typical of tree-roosting bats" such as the NLEB and Indiana bat. Rodney W. Foster & Allen Kurta, *Roosting Ecology of the Northern Bat (*Myotis septentrionalis*) and Comparisons with the Endangered Indiana Bat (Myotis sodalis)*, 80 J. OF MAMMOLOGY 659, 667–68 (1999). In the fall, beginning approximately around September, the NLEB migrate to caves and abandoned mines to hibernate during winter. *Id.* at 660.

In the Midwest, the NLEB "is considered fairly common throughout much of the region." 12-Month Finding on a Petition to List the Eastern Small-Footed Bat and the Northern Long-Eared Bat as Endangered or Threatened Species ("12-Month Findings"), 78 Fed. Reg. 61,046, 61,502 (Oct. 2, 2013). Indeed, the bat "is commonly encountered in summer mist-net surveys throughout the majority of the Midwest," although experts have had difficulty quantifying the NLEB's winter hibernacula populations. *Id.* The species was historically "considered quite common throughout much of Indiana, and was the fourth or fifth most abundant bat species in the State in 2009." *Id.* at 61,503. Studies have demonstrated the bat's presence in 51 of Indiana's counties, with the majority of the population seemingly concentrated in the south and central portions of the state. *See id.* at 61,502–03.

(3) White-nose Syndrome

In their hibernacula, Indiana bats and the NLEB encounter the single greatest threat to their survival—White-nose Syndrome ("WNS"). WNS is a fungal disease that infects hibernating bats, including both the NLEB and Indiana bat, and "is considered one of worst wildlife diseases in modern times." 2019 Review at 17. The disease is caused by a fungus known

as *Pseudogymnoascus destructans* ("Pd"). Pd thrives in cold, dark, and damp atmospheres, such as caves, and infects hibernating bats during their state of torpor, presenting as a white bloom on the bats' muzzles. Once infected with Pd, bats become atypically active, arousing from hibernation, and exhibiting unusual behaviors, such as flying outside the hibernacula during the day in the depths of winter. This increase in activity (i.e., WNS) causes the bats to burn through fat-stores needed to survive the winter. To date, there is no known cure for the disease.

Since its initial identification in the United States in 2006, WNS has devastated *Myotis* populations wherever found. At sites infected by WNS, biologists have recorded mortality rates between 90 and 100 percent of the entire roosting colony. In the Northeast, NLEB populations have "declined by up to 99 percent from pre-white-nose syndrome levels at many hibernation sites." FWS, *Northern Long-Eared Bat* (Myotis septentrionalis), Environmental Conservation Online System, https://bit.ly/35w3mSO (last visited April 14, 2020). Although initially discovered in the New York, the disease has been spreading steadily across the entire country. With respect to the NLEB's range, FWS estimated in 2015 that WNS has been detected in 25 of the 37 states where the species occurs—including Indiana. *Id.* "Experts expect that where it spreads, it will have the same impact as seen in the Northeast." *Id.* More recent data, collected by the White-Nose Response Team (a public-private partnership lead by FWS), show that the disease has already arrived in much, if not all, of the NLEB's range in the lower 48 states and the majority of the species' Canadian range. *See* White-Nose Syndrome Response Team, *Where is WNS Now?*, https://bit.ly/35tb4gi (last updated Aug. 30, 2019).

B. The NLEB Listing Determination, 4(d) Rule, and Subsequent Legal Challenge

(1) Listing and 4(d) Rule

On January 21, 2010, in light of WNS's imminent threat to hibernating bats, the Center for Biological Diversity submitted a petition to list the NLEB as endangered or threatened under the ESA. FWS published its 12-month findings on the Center's petition on October 2, 2013. *See* 12-Month Findings, 78 Fed. Reg. 61,046–80 (Oct. 2, 2013). In those findings, FWS determined that, "on the basis of the best available scientific and commercial information," the NLEB merited listing "as endangered in accordance with sections 3(6) and 4(a)(1) of the Act." *Id.* at 61,076. At that time, according to FWS, the NLEB was "in danger of extinction throughout its entire range based on the severity and immediacy of threats [] affecting the species." *Id.* Of those threats, FWS identified WNS as the most prominent, with "a large portion of populations in the eastern part of the range hav[ing] been extirpated due to WNS." *Id.* Furthermore, "[WNS] is currently or is expected in the near future to impact the remaining populations." *Id.* Thus, according to FWS, "[t]he risk of extinction is high because the species is considered less common to rare in the areas not yet, but anticipated to soon be, affected by WNS, and significant rates of decline have been observed over the last 6 years in the core of the species' range, which is currently affected by WNS." *Id.*

Following a protracted comment and review process, FWS published its final listing determination on April 2, 2015. *See* Threatened Species Status for the Northern Long-Eared Bat With [Interim] 4(d) Rule ("Listing Rule"), 80 Fed. Reg. 17,974–18,033 (April 2, 2015). In an abrupt about-face from its forecasted "endangered" determination, FWS concluded that the

NLEB was "appropriately categorized as a threatened species." *Id.* at 18,021. In reaching that determination, FWS relied squarely upon its "Significant Portion of Its Range Policy," 79 Fed. Reg. 37,577 (July 1, 2014) ("SPR Policy"). *Id.* at 18,022. Under the SPR Policy, FWS evaluates first whether a species may be either "endangered" or "threatened" throughout all of its range, before evaluating whether a species may be either "endangered" or "threatened" throughout a significant portion of its range. *See generally* SPR Policy, 79 Fed. Reg. 37,577 (July 1, 2014). Assuming that a species merits listing as either "endangered" or "threatened" throughout all of its range, it will be listed as such under the SPR Policy without FWS reaching the second step—i.e., assessing whether the species is either "endangered" or "threatened" throughout a significant portion of its range.

In the case of the NLEB, FWS determined that although WNS had decimated populations within the "core" of the species' range, 80 Fed. Reg. at 17,998, the disease had not (in 2015) spread throughout the *entirety* of the NLEB's range. *Id.* at 18,022. And, despite recognizing "that the species was considered less common or rare" outside of the core of its range, *id.* at 17,998, FWS observed that in areas where WNS had not spread, NLEB "numbers have not declined, and the present threats to the species in those areas are relatively low." *Id.* at 18,022. Thus, FWS surmised that there may be "potentially millions" of NLEBs across its entire range, meaning the species was not yet "'on the brink' of extinction." *Id.* FWS, therefore, concluded that the species was "threatened throughout all of its range." *Id.* Because, under its SPR Policy, FWS found the species to be "threatened throughout all of its range," the agency declined to examine whether the species could be considered endangered in a "significant portion of its range," including the core of the NLEB's range. *See id.* (explaining FWS's application of the SPR Policy).

Roughly six months after the listing determination was published, FWS finalized a final 4(d) rule for the NLEB. *See* 4(d) Rule for the Northern Long-Eared Bat, 81 Fed. Reg. 1,900–22 (Jan. 14, 2016). Across the NLEB's entire range, FWS's 4(d) rule prohibited the purposeful take of the species. *Id.* at 1,903. With respect to incidental take, however, FWS distinguished the NLEB's range between "areas not yet affected by [WNS]," and areas where the disease had been detected, which it termed the "WNS Zone." *Id.* at 1,901. Within areas unaffected by WNS, incidental take was permitted outright. *Id.* Inside the WNS Zone, FWS also permitted the incidental take of NLEB, provided that it occurred more than 0.25 miles from identified hibernacula, and did not "result from an activity that cuts or destroys known occupied maternity roost trees, or any other trees within a 150-foot (45-m) radius from the maternity tree, during the pup season (June 1 through July 31)." *Id.* at 1,918.

Along with the 4(d) rule, FWS completed a programmatic BiOp under Section 7 of the ESA. *Id.* at 1,903; *see also* FWS, Programmatic Biological Opinion on Final 4(d) rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions (Jan. 5, 2016) ("4(d) BiOp"). According to FWS, the 4(d) BiOp was meant to "streamline[] consultation for all federal agency actions that may affect the [NLEB]." 81 Fed. Reg. at 1,903. While again recognizing that WNS had effectively eradicated the species where the disease has been detected, *see, e.g.*, 4(d) BiOp at 14–15, FWS ultimately concluded that the take authorized by the 4(d) rule "is not likely to jeopardize the continued existence of the NLEB." *Id.* at 92. Because, however, FWS anticipated that WNS would inevitably "spread and impact the NLEB throughout its entire range," the 4(d) BiOp is set to expire in January of 2022. *Id.* at 1. While it remained in effect,

federal action agencies were therefore invited to "rely on" the 4(d) BiOp's no-jeopardy finding "to fulfill their project-specific section 7(a)(2) responsibilities under the framework specified [therein]." 4(d) BiOp, at vi.

(2) Challenge to the NLEB Listing Decision and 4(d) Rule

On May 12, 2016, a coalition of conservation organizations ("plaintiffs") challenged the NLEB Listing Rule, 4(d) rule, and the SPR Policy in the U.S. District Court for the District of Columbia. *See Ctr. for Biological Diversity v. Everson*, Civ. No. 15-477, 2020 WL 437289 (D.D.C. Jan. 28, 2020). Seeking vacatur of those decision documents, plaintiffs argued, *inter alia*, that FWS's "threatened" listing decision was contradicted by the best available science, that FWS failed to meaningfully examine impacts on the NLEB other than WNS, and that the SPR Policy ran contrary to the plain language of the ESA. *See id.* at *7–9, *15.[1]

On January 28, 2020, the Court entered an order resolving cross-motions for summary judgment in plaintiff's favor.[2] In relevant part, the Court held that one of FWS's primary bases for listing the NLEB as "threatened"—that within the area of the bat's range not yet affected by WNS (about 40 percent of the species' total geographic range), the species has not yet suffered declines and appears stable," 80 Fed. Reg. at 18,021—was "contradicted by the best available scientific data." *Ctr. for Biological Diversity*, 2020 WL 437289 at *7. As the Court (and FWS) recognized, there are "disparate population densities between the WNS-infected range and the 40 percent of the range that is WNS-free in its determination." *Id.* at *8. Yet, FWS's Listing Rule failed to "provide a rational explanation for why the significant disparity in population density between the 60 percent of the range that is WNS-infected and the 40 percent that is not supports a threatened rather than endangered determination." *Id.* In light of the gravity and immediacy of WNS impacts on NLEB populations, the Court concluded that FWS had critically "failed to 'articulate a rational connection between the facts found and the choice made'" in the Listing Rule, *id.* (quoting *Keating v. FERC*, 569 F.3d 427, 433 (D.C. Cir. 2009)), thereby holding the rule invalid under the Administrative Procedure Act, 5 U.S.C. § 706(2).

The Court also held that FWS "disregarded the cumulative effects that factors other than WNS may have on the species when explaining the rationale for the threatened determination."

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[1] Plaintiffs proposed bifurcated briefing in this matter, asking the Court to first determine whether the Listing Rule was valid because resolving that claim first would "obviate entirely the need to resolve the claims relating to the Final 4(d) Rule, as any valid 4(d) rule must rest on a valid determination that a species is merely threatened, and not endangered." Joint Status Report and Proposed Briefing Schedule (ECF No. 45) at 4 ("Plaintiffs' Proposal"). The Court agreed, granting plaintiffs' request by Minute Order dated January 13, 2017.

[2] Although the Court granted in part and denied in part both motions, the merits were ultimately decided in plaintiff's favor. The only issue on which the Court found in the government's favor was FWS's interpretation of the term "in danger of extinction," as set forth in the Polar Bear Memo. *See Center for Biological Diversity*, 2020 WL 437289 at *10–12 (explaining the genesis and application of the Polar Bear Memo in prior litigation related to FWS's efforts to list the polar bear as "threatened" under the ESA).

Id. at *9. Despite recognizing that "[c]urrent and future forest conversion may have negative additive impacts where the species has been impacted by WNS," 80 Fed. Reg. at 17,991, and that man-made factors "may have a cumulative effect on this species when considered in concert with WNS," *id.* at 18,005–06, the rationale supporting FWS's listing determination "relied solely on WNS, and failed to take into consideration the other factors and the cumulative effect of the other factors that FWS itself analyzed." *Ctr. for Biological Diversity*, 2020 WL 437289 at *9. Thus, the Court concluded that "[b]ecause FWS disregarded the cumulative effects that factors other than WNS may have on the species when explaining the rationale for the threatened determination, it failed to articulate a rational connection between its own analysis and its determination." *Id.* at *10.

Finally, and most importantly, the Court held that the portion of the SPR Policy relied upon by FWS to list the NLEB as "threatened"—i.e., FWS's refusal to examine whether a species is "endangered" in a significant portion of its range after first finding it "threatened" throughout all of its range—violates the plain language of the ESA and, alternatively, constitutes an unreasonable interpretation of the statute under the Supreme Court's decision in *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984). *Ctr. for Biological Diversity*, 2020 WL 437289 at *17–22.

As to the plain language, the Court found that the SPR Policy "fail[s] to give meaning to one of the two bases for listing a species as endangered—whether the species is endangered in a significant portion of its range." *Id.* at *18. Likewise, the Court held that FWS's approach "is inconsistent with the design of the statute, pursuant to which endangered species are entitled to more legal protection than threatened species, because the Services will not analyze whether a species that is threatened throughout all of its range is endangered in a significant portion of its range." *Id.* Accordingly, the Court held that the plain language of the ESA "unambiguously requires FWS to determine whether a species should be listed as endangered by determining whether it is: (1) "in danger of extinction throughout all of its range"; or (2) "in danger of extinction throughout . . . a significant portion of its range." *Id.* (quoting 16 U.S.C. § 1532(6)).

As to the reasonableness of the SPR Policy's interpretation of the ESA, the Court alternatively held that it both "renders the 'endangered in a significant portion of its range' basis for listing superfluous," and contradicts the ESA's fundamental conservation principles. *Id.* at *20. For these reasons, the Court concluded that "the challenged aspect of the [] SPR Policy is an unreasonable interpretation of the ESA under *Chevron* step two." *Id.* at *21.

Having concluded that the SPR Policy both violated the plain language of the ESA and/or constituted and unreasonable interpretation of the statue, the Court concluded that "application of the policy to support the threatened determination as to the [NLEB] was unlawful." *Id.* at *22. Accordingly, the Court remanded the Listing Rule "to FWS to make a new listing decision consistent" with its opinion. *Id.* In addition, the Court vacated "the provision of the [] SPR Policy which provides that if [FWS] determine that a species is threatened throughout all of its range, the Services will not analyze whether the species is endangered in a significant portion of its range."

C. The Hoosier National Forest Land and Resource Management Plan, and the 2006 Programmatic BiOp

(1) The 2006 HNF Forest Plan

Established by proclamation in 1935 and included in the National Forest System ("NFS") in 1954, the Hoosier National Forest ("HNF" or "the Forest") encompasses over 200,000 acres in south-central Indiana. Spanning nine different counties, the HNF represents 25% of Indiana's public lands. The HNF is comprised of a mixture of forest-types, and "[c]ommon species found on the Forest include oaks, hickories, pines, yellow poplar, maples, ash, and walnut." USFS, Final Environmental Impact Statement for the HNF Land and Resource Management Plan ("FEIS"), at 3-49 (2006), https://bit.ly/2xoZK8s.

In 2006, the HNF finalized and released the Hoosier National Forest Land and Resource Management Plan ("LRMP"), FEIS, and its accompanying Record of Decision. As explained by USFS, the LRMP "is a 10 to 15-year strategy" that "provides a framework for environmentally sound management to provide desired ecological conditions and recreation settings, and to produce goods and services in a way that maximize[] long-term net public benefits." USFS, Record of Decision ("ROD"), at 1 (Jan. 2006), https://bit.ly/2Wj9iu6. The LRMP, therefore, "includes forest-wide goals, objectives and standards and guidelines as well as allocating the landbase to a variety of management areas that emphasize different uses, outputs and desired conditions." *Id.* Within each management area, the LRMP specifies "management prescriptions," which "describe the conditions of the land, such as ecological conditions or recreational characteristics that are desired as well as the type of management practices and outputs expected and the uses that are generally suitable" therein. *Id.*

As a long-range planning document, the LRMP does not mandate site-specific projects within each management area. Those projects, such as the Houston South Project, "occur only after they are proposed, their environmental effects are considered, and a decision is made authorizing site-specific action." *Id.* at 2.

(2) The 2006 Programmatic BiOp

On July 7, 2005, in connection with its preparation of the LRMP, USFS requested initiation of formal consultation with FWS under Section 7 of the ESA. Along with that request, USFS transmitted to FWS a Programmatic Biological Assessment, which considered the LRMP's potential impacts on five listed species—the Indiana bat, gray bat, rough Pigtoe pearly mussel, fanshell mussel, and bald eagle, which has since been de-listed. Of those species, USFS determined that the LRMP "may affect, and is likely to adversely affect" the Indiana bat; USFS concluded that the plan "is not likely to adversely affect" the other four species. FWS concurred in that determination, and formal consultation as to the LRMP's effects on the Indiana bat was initiated on August 3, 2005. Because the NLEB had yet to be listed, it was not considered in the Programmatic Biological Assessment.

On January 3, 2006, FWS issued its Biological Opinion ("2006 BiOp"). *See generally* FWS, Biological Opinion of the Proposed Land and Resource Management Plan, Hoosier

National Forest, Indiana (Jan. 3, 2006), https://bit.ly/3d0liHE. In the 2006 BiOp, FWS adopted "an appended programmatic consultation approach," which "analyze[d] the effects of the [LRMP] as a whole." *Id.* at 3. Thus, the 2006 BiOp aims to examine "how the overall goals and objectives of the [LRMP] will affect the landscape in terms of Indiana bat conservation, and the anticipated impacts that may occur from implementing the proposed management actions for future projects." *Id.* For site-specific projects, the 2006 BiOP explained that USFS and FWS would "evaluate the specific impacts associated with the project and tally any take that is anticipated to occur" through the use of a take-tracking spreadsheeet (explained in further detail below). *Id.*

In practice, for all contemplated, site-specific projects implemented under the LRMP and 2006 BiOp, the "appended programmatic consultation approach" requires USFS to first provide FWS with: (1) a description of "the proposed action, the area, and the species to be affected, including map(s) showing the proposed action area"; (2) "the applicable standards and guidelines that will be implemented"; (3) USFS's "determination of effect on affected species for the proposed project and associated action area"; (4) "a statement confirming whether this project is in full compliance with the standards and guidelines and other conservation commitments made in the [LRMP]"; and (5) "a cumulative tally of incidental take that has occurred since the adoption of the 2006 [LRMP], including a map showing the cumulative incidental take action areas." *Id.* at 4.[3]

Upon receipt of that information, the 2006 BiOp provides that FWS must: (1) "confirm that all species that may be affected are identified"; (2) "assess how the action may affect the species, including ensuring the level of effect is commiserate with the effects contemplated in the [2006 BiOp]"; and (3) "verify the tally the cumulative total of incidental take that has occurred to date under the [LRMP]." *Id.* Assuming FWS agrees that a site-specific project "is not likely to adversely affect listed species," the agency issues a concurrence letter referring to the 2006 BiOp; for projects "likely to adversely affect listed species," the 2006 BiOp specifies that USFS and FWS will "engage in formal consultation for the specific project," which will then be appended to the 2006 BiOp. *Id.*

Under this "appended programmatic" framework, FWS proceeded to analyze the anticipated impacts to the Indiana bat over the course of a 10-year planning horizon. *Id.* at 6; *see also id.* at 8 (outlining the "management activities that may cause Indiana bat habitat modification and/or species harm and will occur over the next ten years"). Notably, because the 2006 BiOp was prepared prior to the identification of WNS, it did not consider the impacts of that disease on Indiana bats in the HNF. Instead, the 2006 BiOp largely focused its analysis on direct and indirect impacts associated with tree removal (or harvest) and habitat modification. *See, e.g.*, *id.* at 31–32. Importantly, because "the number of Indiana bats that may be taken through the implementation of the [LRMP could not be "accurately monitored," and because "it is unlikely that [neither FWS nor USFS] would ever notice when an unknown occupied roost tree was cut," the 2006 BiOp found it necessary [to] estimate the level of take that may occur" in

[3] Although the Forest Service's Biological Evaluation contains a map of the Houston South Project area, this map does not meet the BiOp's requirement, because it does not show the cumulative incidental take area of listed species that has occurred throughout the Hoosier National Forest.

terms of acres of habitat modified or trees removed under the LRMP—i.e., using a surrogate metric. *Id.* at 47.

Based upon its review of the LRMP, FWS identified a number of "management activities that may cause Indiana bat habitat modification and/or species harm and will occur over the next ten years[.]" *Id.* at 8. As reflected below in Figure 1, FWS also included the anticipated acreage associated with each potentially adverse management activity, as envisioned by the LRMP.

(Figure 1: 2006 BiOp at 8–9)

MANAGEMENT ACTIVITY	Forested Acres Affected	DESCRIPTION OF ACTIVITY
Timber Harvest (6,820 total acres)	1,020	Hardwood clearcut harvest*
	1,000	Pine clearcut harvest**
	760	Hardwood shelterwood harvest
	80	Pine shelterwood harvest
	2,850	Hardwood group selection
	1,110	Hardwood single-tree selection harvest
	600 trees	Hazard-tree removals (as required)***
Sanitation Harvest	X	As needed to protect forest resources from potential pathogens
Hardwood Salvage Harvest	5,000	Response to strong wind, tornado, and other natural disturbance damage
Pine Salvage Harvest	1,200	Response to strong wind, tornado, and other natural disturbance damage
Timber Stand Improvement	4,500	Includes grapevine removal; follows initial harvest
Prescribed Fire	20,000	Manage plant communities for wildlife habitat improvement and forest regeneration
Wildfire Suppression	500	Containment of naturally occurring wildfires
Forest Openings Maintenance	825	Harvest of single trees to maintain existing openings
Trail Construction / re-Construction	2.5	65 miles of new and re-constructed trails
Special Use Permits	300	Utility right-of-ways; re-issues and new****
Road Construction / re-Construction	267	147 linear miles; includes maintenance, new construction and temporary roads
Construction of Landings	75	Tree clearings for log landings in uneven-aged management
Parking Lot / Trailhead Construction	45	Includes new construction and re-construction
Timber Operation Accidents	1,000 trees	Estimates 1,000 trees lost due to inadvertent circumstances; for example, skidding of trees outside designated area

Wetland Construction	25	Levee or dike construction
Recreation Site Enhancement	35	Site expansion, vista clearing, maintenance, or utility line installation
Herbicide Treatment	4,000	Control non-native/invasive species, re-establish native vegetation, control vegetation at recreation sites

* Hardwood clearcut areas will be limited to a maximum of 10-acres in MA 2.8.
** All clearcut areas will be limited to a maximum of 10-acres, except in Management Area 3.3, where the maximum size is extended to 40-acre tracts.
*** Involves removal of hazard trees in the vicinity of trails, roads, or recreation sites. Approximately 600 trees are estimated within this management activity.
**** Tree removal will not reflect total acreage, as individual permits involve limited acreage over linear features that are typically sparsely forested, including existing roads.

As explained previously, the management activities outlined in Figure 1 and their associated footprint provided the framework through which FWS gauged the LRMP's impacts on the Indiana bat. In other words, because "the level of take that may occur" across the 10-year planning horizon is tied directly to "the level of habitat modification"—as expressed in acres per management activity—the total acreage outlined in Figure 1, *supra*, represents the maximum amount of take actually analyzed by the 2006 BiOp and authorized by the incidental take statement contained therein. *See* 2006 BiOp at 46–47 (explaining that prior to each site-specific project under the LRMP, FWS "will ensure that the *cumulative take* does not exceed what was anticipated in the [2006 BiOp]" (emphasis added)). Indeed, as FWS explained, "if the current anticipated level of habitat loss is exceeded, [FWS] expect[s] the level of incidental take to increase as well." *Id.* at 47.

Based upon the assumption that site-specific management activities authorized pursuant to the LRMP would fall within the parameters listed in Figure 1, *supra*—and without any consideration of WNS, which had yet to be detected in the United States at the time of the 2006 BiOp—FWS concluded that the "level of expected take" attributable to the LRMP "is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat." *Id.* at 52. The 2006 BiOp, therefore, included an Incidental Take Statement ("2006 ITS") authorizing the amount of take estimated over the 10-year planning horizon. *See id.* at 47–55. The "Terms and Conditions" imposed by the 2006 ITS—which are both "non-discretionary" and necessary to "exempt [HNF] from the prohibitions of section 9 of the [ESA], *id.* at 52—further provide that FWS anticipates "annually no more than 2,956-acres of habitat will be lost or altered in accordance with the" 2006 ITS. *Id.* at 53. Thus, according to FWS, if "this level of take is exceeded, such incidental take would represent new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided," thereby obligating USFS to "immediately provide an explanation of the causes of the [additional] taking and review with the [FWS] the need for possible modification of the reasonable and prudent measures." *Id.*

Accordingly, consistent with FWS's regulations, the 2006 ITS provides that "reinitiation of formal consultation is required" if: (1) "the amount or extent of incidental take is exceeded"; (2) "new information reveals effects of the continued implementation of the 2006 [LRMP] (and subsequent amendments) and projects predicated upon it may affect listed species in a manner or to an extent not considered in this opinion"; (3) "the continued implementation of the 2006

[LRMP] and projects predicated upon it is subsequently modified in a manner that causes an effect to listed species not considered in this opinion"; or (4) "a new species is listed or critical habitat designated that may be affected by the action." *Id.* at 55.

(3) The HNF's and FWS's Subsequent Reliance on the 2006 BiOp

Since the 2006 BiOp was implemented, USFS and FWS have engaged in the "appended" consultation process described therein on fourteen different occasions. The projects implemented pursuant to the LRMP and 2006 BiOp have included a variety of forest "restoration" and habitat "improvement" projects across the HNF.[4] Initially, USFS/FWS's "appended programmatic consultation approach" proceeded as envisioned by the 2006 BiOp.

For instance, on July 18, 2007, USFS sought FWS's concurrence on a site-specific project undertaken pursuant to the LRMP known as the Oriole Restoration Project. *See* Letter from Kenneth G. Day, Forest Supervisor, HNF, to Scott Pruitt, Field Supervisor, FWS (July 18, 2007). The Oriole Restoration Project, which sought "to restore hardwood forest ecosystems by moving them toward desired conditions based on ecological classifications and [LRMP] direction," envisioned 112 acres of noncommercial harvest, 2,180 acres of commercial harvest, and roughly 3,500 acres of prescribed burning. *Id.* at 1–2. Based upon this footprint, USFS determined that the Oriole Restoration Project would "have no additional adverse effects to the Indiana bat beyond those previously identified in the [HNF's] January 26, 2005 Programmatic Biological Assessment and the [2006 BiOp]." *Id.* at 2. FWS concurred with that determination the following month. *See* Letter from Scott Pruitt, Field Supervisor, FWS, to Kenneth G. Day, Forest Supervisor, HNF (Aug. 24, 2007). In particular, FWS noted that "the anticipated amount of incidental take from this project is 416-acres of pine removal harvest (i.e. pine clearcuts), 343-acres of hardwood shelterwood cuts, and 3,500-acres of prescribed fire treatment." *Id.* at 1–2. Thus, according to FWS, the Oriole Restoration Project brought "the cumulative total of pine clearcuts to 771-acres out of the 1,000-acres originally anticipated for this management activity in the 2006 [BiOp]," and "the cumulative total of hardwood shelterwood cuts to 343-acres out of 760-acres, and the cumulative total of prescribed fire treatment to 5,670-acres out of 20,000-acres." *Id.* at 2. In that concurrence, FWS further noted that "[a]s required in the [2006 BiOp],

[4] As specified in the spreadsheet attached to the most recent "appended consultation," the Houston South Restoration Project at issue here, the fourteen projects appended to the 2006 BiOp include the: (1) Hazard Tree Removal at Celina Lake Campground (2006); (2) German Ridge Restoration (2006 - ongoing); (3) Oriole Restoration (2007-ongoing); (4) Pleasant Run Habitat Improvement (2008 -ongoing); (5) McKensie Ridge (2007 -2008); (6) Buck Creek (2008 - 2010); (7) Dutch Ridge (2012 - 2013) (8) Uniontown South Restoration (2012-ongoing); (9) Bye Land Exchange (2013); (10) Buffalo Pike (2015); (11) Uniontown North Restoration (2016-ongoing); (12) Tell City Barrens Restoration (2018-ongoing) (13) Tell City Openings (2019-ongoing); (14) Houston South Project (2020-ongoing). *See* 2006 BiOp at App'x 14. Notably, of the fourteen projects appended to the 2006 BiOp, three—the Tell City Barrens Restoration, Tell City Openings, and Houston South projects—all fall outside of the 2006 BiOp's 10-year analysis limitation. *See, e.g.*, 2006 BiOp at 8 (summarizing anticipated "management activities that may cause Indiana bat habitat modification and/or species harm and will occur *over the next ten years*" (emphasis added)).

the [USFS] provided an updated spreadsheet reflecting the anticipated acreage for this project, cumulative totals, and the remaining/available balances for each of the HNF management activities covered under the 2006 [BiOp], which FWS certified was "complete and accurately reflects anticipated impacts of the proposed project without exceeding anticipated levels of incidental take." *Id.*

Troublingly, however, USFS and FWS's adherence to the "appended programmatic consultation approach" began to change around the time the 2006 BiOp was set to expire (i.e., 2016). Without explanation, public notice, or any additional consultation, USFS and FWS began to increase the amount of take of Indiana bats permitted under the 2006 BiOp by increasing the ceiling on the cumulative acreage of certain management activities.[5] The Tell City Barrens Restoration Project ("TCBR") is illustrative. In that project, USFS proposed to conduct prescribed burns across 7,400 to 8,600 acres. *See* Letter from Christopher Zimmer, District Ranger, HNF, to Scott Pruitt, Field Supervisor, FWS (Jan. 19, 2018). In USFS's estimation, the TCBR "may affect, and is likely to adversely affect the Indiana bat." USFS, Tell City Barrens Restoration Project Biological Evaluation for Federally Threatened, Endangered and Candidate Species ("2018 BE"), at 14 (Mar. 2, 2018). USFS further determined, however, that the "project would have no additional effects on the Indiana bat beyond those previously identified and evaluated in the Hoosier National Forest Programmatic Biological Assessment (USFS 2005b) and the [2006 BiOp]." *Id.* Along with its 2018 BE, USFS transmitted two spreadsheets which purport to track the amount of take that has and is planned to occur under the 2006 BiOp's take authorization and analysis. That spreadsheet, however, included unexplained increases in the "Exempted Level of Take Over 10 Years" (expressed as acres of habitat modified) while decreasing others.

Figure 2, *infra*, shows the take totals included with the 2018 BE for the TCBR; variations between the 2006 BiOp's take authorizations and those suddenly included in the 2018 BE are indicated in parentheses below each amendment.

(Figure 2: Planned Indiana Bat Take-Tracking Spreadsheet, 2018 BE (Oct. 3, 2018) (2006 BiOp at App'x 12))

MANAGEMENT ACTIVITY	Forested Acres Affected	DESCRIPTION OF ACTIVITY
Timber Harvest (7,770 total acres) (+950)	810 (-210)	Hardwood clearcut harvest
	1,950 (+950)	Pine clearcut harvest
	970 (+210)	Hardwood shelterwood harvest
	80	Pine shelterwood harvest

[5] Because each of the appendices to the 2006 BiOp are not publicly available (specifically, those appended between 2008 and 2017), it is unclear exactly when USFS and FWS began to increase the amount of allowable incidental take under the 2006 BiOp; however, as the Tell City Barrens Restoration, 2006 BiOp at Appendix 12, makes clear, those increases have occurred as recently as 2018.

	(no change)	
	2,850 (not included in spreadsheet)*	Hardwood group selection
	1,110 (not included in spreadsheet)	Hardwood single-tree selection harvest
	600 trees (no change)	Hazard-tree removals (as required)
Sanitation Harvest	X	As needed to protect forest resources from potential pathogens
Hardwood Salvage Harvest	5,000 (no change)	Response to strong wind, tornado, and other natural disturbance damage
Pine Salvage Harvest	850 (-350)	Response to strong wind, tornado, and other natural disturbance damage
Timber Stand Improvement	4,500 (not included in spreadsheet)	Includes grapevine removal; follows initial harvest
Prescribed Fire	17,900 (-2,100)	Manage plant communities for wildlife habitat improvement and forest regeneration
Wildfire Suppression	500 (no change)	Containment of naturally occurring wildfires
Forest Openings Maintenance	825 (not included in spreadsheet)	Harvest of single trees to maintain existing openings
Trail Construction / re-Construction	2.5 (not included in spreadsheet)	65 miles of new and re-constructed trails
Special Use Permits	300 (not included in spreadsheet)	Utility right-of-ways; re-issues and new
Road Construction / re-Construction	267 (not included in spreadsheet)	147 linear miles; includes maintenance, new construction and temporary roads
Construction of Landings	75 (not included in spreadsheet)	Tree clearings for log landings in uneven-aged management
Parking Lot / Trailhead Construction	45 (not included in spreadsheet)	Includes new construction and re-construction
Timber Operation Accidents	1,000 trees (no change)	Estimates 1,000 trees lost due to inadvertent circumstances; for example, skidding of trees outside designated area
Wetland Construction	25 (not included in spreadsheet)	Levee or dike construction
Recreation Site Enhancement	35 (not included in spreadsheet)	Site expansion, vista clearing, maintenance, or utility line installation
Herbicide Treatment	4,000 (not included in spreadsheet)	Control non-native/invasive species, re-establish native vegetation, control vegetation at recreation sites
Land Adjustment**	1,500	(Management activity not analyzed by 2006 BiOp)

* Some management activities contemplated by the 2006 BiOp were not included in the spreadsheet attached to the 2018 BE because they would be considered on a project-by-project basis; those activities are noted as "(not included in the spreadsheet)".

** The spreadsheet included a new activity not contemplated by the 2006 BiOp

On May 4, 2018, two months after receiving the 2018 BE and its associated take-tracking spreadsheets, FWS concurred with USFS that the "anticipated effects" on the Indiana bat caused by the TCBR were "within the scope" of the 2006 BiOp, and agreed to append the 2018 BE and its concurrence to the 2006 BiOp as "Appendix 12." *See* Letter from Scott Pruitt, Field Supervisor, FWS, to Christopher Zimmer, District Ranger, HNF (May 4, 2018) ("2018 Concurrence"). However, along with its concurrence, FWS transmitted yet another *new* take-tracking spreadsheet that once again included altered "Exempted Level[s] of Take Over 10 Years." Overall, the unexplained acreage increases in the take-tracking spreadsheet represent an additional 2,610 acres in unanalyzed take authorization. *See* Fig. 3, *infra*. Yet, nowhere in the 2018 BE did USFS request adjustments to the level of take permitted under the 2006 BiOp, nor did FWS and USFS engage in any additional formal consultation to examine the impacts of those amendments on the Indiana bat.

Figure 3, *infra*, shows the exempted take totals outlined in the 2018 Concurrence; variations between the 2006 BiOp's take authorizations and those included in the 2018 Concurrence are indicated in parentheses below the acreage totals for each management activity.

(Figure 3: Planned Indiana Bat Take-Tracking Spreadsheet, 2018 Concurrence (May 4, 2018))
(2006 BiOp at App'x 12)

MANAGEMENT ACTIVITY	Forested Acres Affected	DESCRIPTION OF ACTIVITY
Timber Harvest (9,430 total acres) (+2,610)	810 (-210)	Hardwood clearcut harvest
	2,400 (+1,400)	Pine clearcut harvest
	1,970 (+1,210)	Hardwood shelterwood harvest
	80 (no change)	Pine shelterwood harvest
	2,850 (not included in spreadsheet)	Hardwood group selection
	1,110 (not included in spreadsheet)	Hardwood single-tree selection harvest
	600 trees (no change)	Hazard-tree removals (as required)
Sanitation Harvest	X	As needed to protect forest resources from potential pathogens
Hardwood Salvage Harvest	4,000 (-1,000)	Response to strong wind, tornado, and other natural disturbance damage
Pine Salvage Harvest	400 (-800)	Response to strong wind, tornado, and other natural disturbance damage
Timber Stand Improvement	4,500 (not included in spreadsheet)	Includes grapevine removal; follows initial harvest
Prescribed Fire	17,900	Manage plant communities for wildlife habitat

	(-2,100)	improvement and forest regeneration
Wildfire Suppression	500 (no change)	Containment of naturally occurring wildfires
Forest Openings Maintenance	825 (not included in spreadsheet)	Harvest of single trees to maintain existing openings
Trail Construction / re-Construction	2.5 (not included in spreadsheet)	65 miles of new and re-constructed trails
Special Use Permits	300 (not included in spreadsheet)	Utility right-of-ways; re-issues and new
Road Construction / re-Construction	267 (not included in spreadsheet)	147 linear miles; includes maintenance, new construction and temporary roads
Construction of Landings	75 (not included in spreadsheet)	Tree clearings for log landings in uneven-aged management
Parking Lot / Trailhead Construction	45 (not included in spreadsheet)	Includes new construction and re-construction
Timber Operation Accidents	1,000 trees (no change)	Estimates 1,000 trees lost due to inadvertent circumstances; for example, skidding of trees outside designated area
Wetland Construction	25 (not included in spreadsheet)	Levee or dike construction
Recreation Site Enhancement	35 (not included in spreadsheet)	Site expansion, vista clearing, maintenance, or utility line installation
Herbicide Treatment	4,000 (not included in spreadsheet)	Control non-native/invasive species, re-establish native vegetation, control vegetation at recreation sites
Land Adjustment	1,500	(Management activity not analyzed by 2006 BiOp)

D. The Houston South Restoration Project, Biological Evaluation, and FWS's Concurrence

Through the Houston South Project, USFS is proposing to "treat vegetation and conduct related management activities" across thousands of acres of the HNF with the ostensible goal of "improving forest health and sustainability of the oak-hickory ecosystems while also improving wildlife habitat." USFS, Houston South Vegetation Management and Restoration Project, Final Environmental Assessment ("Final EA"), at 2 (Nov. 2019). In practical terms, the Project aims to (1) raze "approximately 1,104 acres" of mature forest through clear-cutting, (2) thin 2,405 acres of pine trees and other hardwoods, (3) open an additional 462 acres of hardwood stands to selection harvest, and (4) authorize 234 acres of midstory removal, a practice similar to selection harvest. Final EA at 10. According to USFS, the Project "is based on and would fulfill [the LRMP] . . . goal of maintaining and restoring sustainable ecosystems." *Id.* at 3. Notably, however, the Project area sits in Management Area 2.8—located in the northwest corner of Jackson County and a small portion of northeast Lawrence County—where commercial "timber harvest[ing]" has been deemed "an appropriate tool for" forest management. *Id.* at 6. Within the Project footprint, USFS proposes to conduct between 9,700 and 13,500 acres of prescribed burns

"to create habitat conditions that are conducive to oak and hickory regeneration and reduce fuels created through timber harvest." *Id.* at 12–13.

By USFS's estimate, the Project is likely to affect at least three listed bat species—the Gray bat (*Myotis grisescens*), the Indiana bat, and the NLEB. USFS, Houston South Project, Biological Evaluation for Threatened and Endangered Species ("2019 BE"), at 23 (June 13, 2019). With respect to the Indiana bat, USFS's 2019 BE concluded that the Project is "'likely to adversely affect' the Indiana bat," but "would not cumulatively affect (negatively)" the species because "other potential Forest activities are considered to have no negative direct effects on the Indiana bat." *Id.* As explained by USFS, its "likely to adversely affect" determination was predicated upon the Project's impacts to "summer and roosting habitat for the Indiana bat" from "timber operation accidents, prescribed fire during the bats active period and the removal of potential roost trees without seasonal restrictions." *Id.* at 20. Ultimately, however, USFS further concluded that the Project "would have no additional effects on the Indiana bat beyond those previously identified and evaluated in" the 2006 BiOp. *Id.* at 23.

Nowhere in the 2019 BE did USFS analyze the impacts that WNS has and will continue to have on the Indiana bat. That omission is particularly notable because, as discussed above, the 2006 BiOp *did not* consider WNS's impacts on the Indiana bat (as the disease had not yet been identified), and because, as FWS has recognized, "WNS is considered one of worst wildlife diseases in modern times." FWS, Indiana Bat 5-Year Review: Summary and Evaluation, at 17 (Sept. 2019). Indeed, FWS's most recent review of the species found that "WNS and the fungus that causes it, *Pseudogymnoascus destructans* (Pd), has spread across the entire range of the Indiana bat and caused mortality of tens of thousands of Indiana bats," with the most "significant WNS-associated declines [occurring] in the Northeast, Appalachia and *Midwest*." *Id.* at 10 (emphasis added). The spread of WNS has lead FWS to conclude that, for the Indiana bat, "extinction is almost certain in the immediate future," and FWS "now considers the Indiana bat to have a 'low' recovery potential, because [the agency] currently ha[s] very limited ability to alleviate the threat posed by WNS." *Id.* at 33. "Because WNS is not the only cause of bat mortality and population decline," FWS has encouraged action agencies to adopt "a holistic approach" to the species' conservation, including "beneficial forest management guidelines for WNS-affected bats." *Id.* at 22. Such management approaches should "foster[] high reproductive success and survival, such as providing for the continual recruitment of large-diameter snags in landscapes with a variety of well-connected forested habitat types . . . ." *Id.* at 34.

With respect to the NLEB, USFS determined that the Project is "likely to adversely affect" the species. 2019 BE at 23. As with the Indiana bat, USFS's determination was predicated upon the Project's impacts to the NLEB's "summer and roosting habitat" from "timber operation accidents, prescribed fire during the bats active period and the removal of potential roost trees without seasonal restrictions." *Id.* at 20. USFS further concluded that the "presence of a known [NLEB] hibernaculum within 5 miles of the action area," meant the Project "may effect" NLEB hibernacula; however, "due to long-term benefits produced by prescribed fire, the creation of more roosting opportunities and the increase of forest sustainability throughout the action area," USFS surmised that the Project is "not likely to adversely affect" the species. *Id.* at 20.

As to cumulative impacts, USFS found that because "other potential Forest activities are considered to have no direct negative effects on the [NLEB], the proposed Houston South Project would not cumulatively affect (negatively) the [NLEB]." *Id.* Although USFS very briefly mentioned WNS's impacts on the NLEB, the agency declined to analyze those effects further because "[e]ven if all anthropogenic activities that might adversely affect [NLEB] ceased, [USFS] do[es] not believe that the resulting reduction in adverse effects would materially change the devastating impact WNS has had, and will continue to have, on [the NLEB] at the local population level or at larger scales." *Id.* at 18. In other words, USFS disregarded WNS's impacts on the NLEB because it believes it is already too late for the species. Notwithstanding its "likely to adversely affect" determination as to the NLEB, USFS ultimately concluded that the Houston South Project "would have no additional effects on the northern long-eared bat beyond those previously identified and evaluated in the 4(d) Rule for the [NLEB]." *Id.* at 23.

On August 21, 2019, USFS transmitted the 2019 BE and its determinations to FWS for review. *See* Letter from Michelle Paduani, District Ranger, HNF, to Scott Pruitt, Field Office Supervisor, Indiana Field Office, FWS (Aug. 21, 2019). Along with its determination letter, USFS included an updated version of the take-tracking spreadsheet required by the 2006 BiOp. *See id.* That spreadsheet, dated August 13, 2019, reflected the same "Exempted Level[s] of Take Over 10 Years" as that from FWS's 2018 Concurrence on the Tell City Barrens Restoration Project, as set forth in Figure 3, *supra*. Thus, the Houston South Project's spreadsheet did not include any *additional* "adjustments" to the take levels analyzed under the 2006 BiOp (or authorized by the 2006 ITS) beyond those reflected in the 2018 Concurrence. The spreadsheet attached to the 2019 BE showed that, as of August 13, 2019, USFS envisioned 2,346 acres of pine clearcuts, 1,671 acres of hardwood shelterwood cuts, 77 acres of pine shelterwood cuts, and 17,900 acres of prescribed burns.

FWS responded to the 2019 BE on October 30, 2019. *See* Letter from Scott Pruitt, Field Supervisor, FWS, to Michelle Paduani, District Ranger, HNF (Oct. 30, 2019) ("2019 Concurrence"). As to the NLEB, FWS stated that it "concur[red] with [USFS's] determination that the proposed action may adversely affect individual NLEBs, but would not jeopardize local populations nor the species and that it would not result in any prohibited incidental take." *Id.* at 4. While acknowledging the "incidental take of one or more NLEBs" due to "prescribed burns and silvicultural treatments conducted" during the bat's active period, FWS agreed that "there are no effects beyond those previously disclosed in" FWS's Programmatic BiOp "for the final 4(d) rule dated January 5, 2016." *Id.* at 4–5.

With respect to the Indiana bat, FWS once again concurred with USFS's determination. Although FWS acknowledged the Project posed "a non-discountable chance of incidental take of some individual Indiana bats roosting in the project area during the summer active season," it "anticipate[d] that the number of adversely affected bats will be low and that the project will likely provide long-term habitat improvements for the species." *Id.* at 5. Thus, FWS concluded that the Project "in conjunction with other activities previously implemented under the [LRMP] is not likely to jeopardize the continued existence of the Indiana bat and that the anticipated effects and resulting level of incidental take from the [] Project are consistent with those analyzed within the 2006 [BiOp]." *Id.* at 5–6.

FWS did not mention in the 2019 Concurrence that the allowable amount of take under the 2006 BiOp had more than doubled through the unexplained increases in the pine clearcut and hardwood shelterwood cut surrogate metrics; nor did FWS acknowledge that that level of take was beyond the scope of impacts analyzed under the 2006 BiOp and authorized by the 2006 ITS. Rather, FWS noted that it concurred that the spreadsheet included with the 2019 BE "is complete and accurately reflects anticipated impacts of the proposed project and will not exceed the *originally anticipated levels of incidental take*," *id.* at 6 (emphasis added).

Having concurred with USFS's determinations, FWS agreed to append the 2019 BE and 2019 Concurrence to the 2006 BiOp as "Appendix 14," thereby concluding Section 7 consultation as to the Houston South Project. *Id.*

LEGAL VIOLATIONS

The approach utilized by FWS and USFS to analyze the effects of the Houston South Project on listed species violates the ESA in various ways set forth below.

A. FWS and USFS Failed to Reinitiate Formal Consultation Over the Houston South Project's Impacts on the Indiana Bat

Under the ESA, every federal agency is tasked with ensuring that "any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence" of any listed species. 16 U.S.C. § 1536(a)(2). Fundamental to that mandate is a federal agency's duty to engage in "formal consultation" for any actions that "may affect" listed species. 50 C.F.R. § 402.14(a). The duty to safeguard against jeopardy, however, is a continuing one. Federal agencies must reinitiate consultation "where discretionary Federal involvement or control over the action has been retained" and: (1) "the amount or extent of taking specified in the incidental take statement is exceeded"; (2) "new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered"; (3) "the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence"; or (4) "a new species is listed or critical habitat designated that may be affected by the identified action." *Id.* § 402.16(a). These triggering events "ensure that [a] 'no jeopardy' determination remains valid." *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 909 (9th Cir. 2012) (citations omitted). "The duty to reinitiate consultation lies with both the action agency and the consulting agency." *Salmon Spawning & Recovery All. v. Gutierrez*, 545 F.3d 1220, 1229 (9th Cir. 2008).

1. The 2006 ITS and BiOp Take Limits Have Been Exceeded

As explained in Section (C)(2), *supra*, in the 2006 BiOp, FWS evaluated "the level of take that may occur" in terms of acres of habitat modified or trees removed per management activity specified in the LRMP. 2006 BiOP at 47. FWS found it necessary to adopt this mode of analysis because "the number of Indiana bats that may be taken through the implementation of the [LRMP] could not be "accurately monitored," making "it is unlikely that [either FWS or USFS] would ever notice when an unknown occupied roost tree was cut . . . ." *Id.* As such, FWS

set forth clear threshold take limits over the span of 10 years for each management activity authorized under the LRMP. *See id.* at 8–9; *see also id.* at 48 (providing, in the 2006 ITS, annual total take limits in terms of cumulative acreage for each specified management activity).

For instance, "[p]ine clearcut harvest[s]" in the 2006 BiOp were capped at 1,000 total acres over the course of the planning horizon. *Id.* at 8. At this threshold, FWS surmised approximately 5.7 Indiana bats would be taken over 10 years as result of pine clearcuts. *See id.* at 51 (estimating the number of male, females, and pups taken per year would be 0.57). Likewise, "[h]ardwood shelterwood harvest[s]" were limited to 760 total cumulative acres, *id.* at 8, thereby leading to approximately 4.3 bats being taken from this particular management activity. *See id.* at 51 (male, females, and pups taken per year totals roughly 0.43). These "surrogate measure[s] of take" provide the parameters of the 2006 BiOp's analysis; any acreage excluded from this baseline "was not considered in the take analysis" conducted by FWS in 2006. *All. for Wild Rockies v. Probert*, 412 F. Supp. 3d 1188, 1202 (D. Mont. 2019) (rejecting FWS and USFS's attempts to "update" the surrogate take measures underlying its programmatic BiOp).

Within the boundaries of this specific framework, and at this level of take, FWS determined that implementation of the LRMP was "not likely to result in jeopardy to the species" and, therefore, authorized that level of take through its 2006 ITS. *Id.* at 52. FWS specifically acknowledged that "if the current anticipated level of habitat loss is exceeded," i.e., the number of acres allotted to each management activity is increased, FWS "expect[s] the level of incidental take to increase as well." *Id.* at 47. Thus, FWS provided that "[i]f, during the course of action, this level of take is exceeded, such incidental take would represent new information *requiring reinitiation of consultation* and review of the reasonable and prudent measures provided." *Id.* at 53 (emphasis added); *see also* 50 C.F.R. § 402.16(a) (mandating reinitiation of consultation where "the amount or extent of taking specified in the incidental take statement is exceeded").

However, in the Houston South Project (and prior projects implemented pursuant to the LRMP), the agencies have relied (inexplicably) upon increased take levels beyond that analyzed in the 2006 BiOp, and the agencies have adopted these increased take levels *without* conducting any additional consultation to examine these additional effects and to determine whether they will result in jeopardy to the species. Indeed, the Project spreadsheet, which tracks the cumulative take that has occurred and will occur under the 2006 BiOp, indicates that the exempted level of take for pine clearcuts has been increased by 1,400 acres over and above that analyzed and permitted in the 2006 BiOp and ITS. *Compare* 2006 BiOp at App'x 14 (2019 Concurrence and take-tracking spreadsheet dated Oct. 30, 2019)*, with* 2006 BiOp at 8 (defining the boundaries of analysis as 1,000 maximum acres of pine clearcut harvest). For hardwood shelterwood cuts, the total exempted level of take has ballooned to 1,970 acres, which represents an increase of 1,210 acres more than that analyzed and permitted in the 2006 BiOp and ITS. *See id.* Assuming the environmental baseline for the LRMP remained the same over the past 14 years (which it has not), FWS's own take estimates reveal that these unexplained increases yield the take of an additional four to five individual Indiana bats. *See* 2006 BiOp at 51, Fig. 4 (estimating 0.57 individuals taken/102 acres of pine clearcuts, and 0.43 individuals/76 acres of hardwood shelterwood cuts). Where the Indiana bat is already teetering on the brink due to WNS (which,

again, has never been analyzed by USFS and FWS in connection with the LRMP or projects implemented pursuant to that plan), any take of that species is significant.

In short, therefore, "the amount or extent of taking specified in" the 2006 ITS and analyzed by the 2006 BiOp has either been exceeded or modified without any additional analysis by either USFS or FWS.[6] 50 C.F.R. § 402.16(a). By expanding the amount of take (in surrogate terms) that the Project will cause—without conducting any additional analysis—USFS and FWS are stripping the 2006 ITS of its function as a "numerical limitation." *Ore. Nat. Res. Council v. Allen*, 476 F.3d 1031, 1038 (9th Cir. 2007). Where, as here, an ITS lacks "clear standard[s] for determining when the authorized level of take had been exceeded," courts have found the ITS "to be arbitrary and capricious." *Id.* at 1039 (citing *Ariz. Cattle Growers' Ass'n v. U.S. Fish and Wildlife Serv.*, 273 F.3d 1229,1251 (9th Cir. 2001); *Nat. Res. Def. Council v. Evans*, 279 F. Supp. 2d 1129, 1185–87 (N.D. Cal. 2003); *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 235 F. Supp. 2d 1143, 1160 (W.D. Wash. 2002)); *see also Sierra Club v. U.S. Dep't of Interior*, 899 F.3d 260, 278–81 (4th Cir. 2018) (rejecting surrogate incidental take measures, for Indiana bats and NLEBs, where "there is no clear and enforceable standard of take" in the ITS issued).[7]

2. The 2006 BiOp and 2006 ITS Are Outdated and Fail to Analyze the Most Significant Threat to the Species

As explained by FWS, the effects analysis in the 2006 BiOp is predicated upon an evaluation of the HNF's "management activities that may cause Indiana bat habitat modification and/or species harm" over the course of "ten years[.]" 2006 BiOp at 8. Indeed, the 2006 ITS proceeded under the same assumption. *See, e.g.*, *id.* at 46 ("[I]t is likely that 60 hazard trees with roost tree characteristics will be targeted for removal over the next ten (10) years; this would equate to roughly 6-trees per year. Thus, we can anticipate that no more than four (4) occupied roost trees will be incidentally cut per year and between four (4) and twelve (12) individuals injured or killed each year."). FWS focused its evaluation of the LRMP's impacts on habitat degradation, the loss of roosting areas, foraging areas, and travel corridors, which was

[6] Alternatively, to the extent that USFS and FWS contend the new take levels reflect amendments to the LRMP's design or implementation, that decision also requires reinitiation. *Salix v. U.S. Forest Serv.*, 944 F. Supp. 2d 984, 995–96 (D. Mont. 2013); *see also* 50 C.F.R. § 402.16(a) (requiring reinitiation of consultation "[i]f the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence"); 2006 BiOp at 55 ("[R]einitiation of formal consultation is required where . . . the continued implementation of the 2006 [LRMP] and projects predicated upon it is subsequently modified in a manner that causes an effect to listed species not considered in this opinion[.]"). As there has been no additional formal consultation between USFS and FWS regarding the LRMP's implementation, amendments thereto would violate the ESA's implementing regulations and the terms of the 2006 BiOp.

[7] Notably, the Fourth Circuit also held that even though Indiana bats and NLEBs are "difficult to detect" on their range, FWS's past practices demonstrate that a numerical take limit is, in fact, achievable. *Sierra Club*, 899 F.3d at 280. Accordingly, the Fourth Circuit explained that FWS may not rely on that explanation alone to justify its utilization of surrogate take metrics. *Id.*

appropriate at the time as these impacts were the greatest threat to the Indiana bat's continued survival before the arrival of WNS.

Today, however, the ten-year analysis boundary of the 2006 BiOp has long since passed. And, in the intervening years, the Indiana bat's environmental baseline has changed dramatically due to WNS. As FWS itself explained, although "[t]he most significant range-wide threats to the Indiana bat have traditionally been habitat loss/degradation, forest fragmentation, winter disturbance, and environmental contaminants," today, "WNS, non-native invasive species, climate change, and wind turbines have emerged as significant new threats to the recovery of the Indiana bat." 2019 Review at 15 ("WNS is substantial enough to make a determination that a reasonable person would conclude that the Indiana bat continues to warrant listing as endangered based on this factor alone.").

As WNS "has spread across the entire range of the Indiana bat and caused mortality of tens of thousands of Indiana bats," *id.* at 10, the species' range-wide population is in free fall. *Id.* at 17 ("WNS has caused an overall estimated 90% decline in hibernating bat populations within the WNS-affected area and threatens regional or range-wide extinction in multiple species including the Indiana bat."). Thus, FWS has acknowledged "that WNS is likely to extirpate the federally endangered Indiana bat over large parts of its range," 80 Fed. Reg. at 17,995, including within the HNF itself. *See* FWS, Biological Opinion on the Effects of Three Ongoing Projects on the Hoosier National Forest on the Federally Threatened Northern Long-Eared Bat, at 15 (Oct. 8 2015) (explaining that "WNS has been confirmed on every National Forest in Region 9 (including the Hoosier NF and other northeastern and midwestern states)" since at least 2011); *see also* FWS, White-Nose Syndrome Zone Around WNS/Pd Positive Counties/Districts (June 27, 2019), https://bit.ly/3da8K0w (placing the HNF in the heart of FWS's identified "WNS Zone").

As noted above, the 2006 BiOp's evaluation of the Indiana bat's status and environmental baseline did *not* include consideration of WNS because the disease had yet to be identified. However, neither USFS's 2019 BE for the Houston South Project nor FWS's 2019 Concurrence even mentioned the devastating impacts that WNS has had on the few remaining Indiana bats, despite the disease's well-documented spread across the species' range. By turning a blind eye to WNS's impacts on the Indiana bat, USFS and FWS are effectively ignoring the "the discovery of new facts" that "mandate[] reinitiating formal consultations." *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Serv.*, 378 F.3d 1059, 1076–77 (9th Cir. 2004), *superseded on other grounds by* 81 Fed. Reg. 7214 (Feb. 11, 2016) (citing *Ariz. Cattle Growers' Ass'n*, 273 F.3d at 1245). And, while "the mere existence of new information does not necessarily trigger reinitiation of consultation," *All. for Wild Rockies*, 412 F. Supp. 3d at 1204 (citation omitted), the salient question "is whether the new information reveals effects that 'w[ere] not previously considered.'" *Id.* (quoting 50 C.F.R. § 402.16(b)).

Here, it is abundantly clear that WNS's effects on the Indiana bat have not been accounted for in either the 2006 BiOp or in the 2019 BE and Concurrence for the Houston South Project. That omission, coupled with the devastating impacts of WNS, demonstrates the shortcomings of the 2006 BiOp's "appended programmatic consultation approach" under these specific circumstances. FWS has recently recognized the need "to minimize potential non-WNS-

related stressors to bats by developing and promoting the use of guidelines containing bat-friendly management practices on a variety of topics," including beneficial forest management guidelines for WNS-affected bats . . . ." 2019 Review at 34. Beneficial guidelines include "fostering high reproductive success and survival, such as providing for the continual recruitment of large-diameter snags in landscapes with a variety of well-connected forested habitat types and protecting hibernating bats from indiscriminate alterations to hibernacula . . . ." *Id.* at 34. Moreover, to its credit, FWS has developed an array of WNS-specific guidance to promote the conservation of Indiana bats. *See* FWS, A National Plan for Assisting States, Federal Agencies, and Tribes in Managing White-Nose Syndrome in Bats (May 2011), https://go.aws/2Stw5Cf (setting forth a number of goals and action strategies for land managers to stem the decline of bats infected by WNS); White-Nose Syndrome Response Team, Beneficial Forest Management Practices for WNS-affected Bats (May 2018), https://bit.ly/3dcZusC (recommending, in collaboration with FWS, best management practices related to prescribed burning, hazard tree removal, snag preservation that seek to minimize "stressors and sources of mortality," which "continue to exist and may further reduce the ability of WNS-affected species to persist or may slow their recovery"). Together, these guidance documents represent the most recent and relevant scientific information that researchers have on strategies for stemming the rapidly growing footprint of WNS.[8]

Rather than incorporate these updated management strategies, however, FWS and USFS continue to arbitrarily rely on the expired 2006 BiOp to escape their duties under Section 7 of the ESA. As courts have recognized, agencies' "reliance on [] outdated biological opinions" violates Section 7(a)(2) of the ESA. *Conservation Law Found. v. Ross*, 422 F. Supp. 3d 12, 30 (D.D.C. 2019); *Haw. Longline Ass'n v. Nat'l Marine Fisheries Serv.*, 281 F. Supp. 2d 1, 25–27 (D.D.C. 2003) (agency action predicated upon "substantively flawed, and outdated" BiOp is " arbitrary, capricious, and contrary to law"); *cf. Citizens for Appropriate Rural Roads, Inc. v. Foxx*, 14 F. Supp. 3d 1217, 1235 (S.D. Ind. 2014) (noting that the agency's reinitiation of consultation to gauge impacts of WNS on the Indiana bat adequately shielded the agency from Section 9 of the ESA). USFS's and FWS's outright failure to consider both the immense negative effects that WNS has had and continues to have on the Indiana bat, or how FWS's best management practices for WNS could mitigate the effects stemming from the Houston South Project falls well short of those agencies' joint duty to consider the best scientific data available. *See* 16 U.S.C. § 1536(a)(2) ("In fulfilling the [consultation] requirements of this paragraph each agency shall use the best scientific and commercial data available."). The agencies' failure to even consider these scientific resources, much less to adopt their common-sense recommendations for measures that could help avoid taking listed species, is a violation of the ESA.

For all of these reasons, FWS and USFS violated the ESA by failing to reinitiate formal consultation for the Houston South Project to examine all current threats to the species, and

[8] For example, the White-Nose Syndrome Response Team's *Beneficial Forest Management Practices for WNS-affected Bats* recommends that prior to prescribed burns being conducted, "exceptionally high-quality potential roost trees (e.g., large snags or large-diameter live trees with lots of exfoliating bark; quality as determined by a wildlife biologist) should be protected from fire by removing fuels from around their base prior to ignition." *Id.* at 16. However, neither the 2019 BE or Concurrence makes such a recommendation.

instead continuing to rely upon the 2006 BiOp (and its appended consultation approach), which is long past the end of its planning horizon and fails to consider WNS and other key sources of mortality currently threatening the species' survival and recovery prospects. In so doing, FWS and USFS have failed to analyze—let alone determine—whether the Houston South Project (in combination with other recent projects USFS has implemented pursuant to the LRMP) will jeopardize the Indiana bat when coupled with WNS, wind energy, climate change, and other current threats affecting this species.

3. Reliance on the 2006 BiOp and ITS for the Houston South Project Violates the ESA

As discussed above, the limitations on the 2006 BiOp's scope—both temporal and spatial—make it abundantly clear that its analysis and the ITS are unable to support the take authorization necessary to proceed with the Houston South Project. As to its spatial limitations, the 2006 BiOp's take ceiling—i.e., its cumulative footprint—has clearly been surpassed without the reintiation called for both by the ESA's implementing regulations, and the 2006 ITS itself. Even excluding the Houston South Project, the agencies' most recent take-tracking spreadsheet, 2006 BiOp at App'x 14 (dated Oct. 30, 2019), shows a planned cumulative pine clearcut of 1,945 acres—945 acres above that analyzed under the 2006 BiOp and authorized under the 2006 ITS. For hardwood shelterwood cuts, excluding this Project, the allowable total has increased by 208 acres, more than one-third of the original budget under the 2006 BiOp. Where, as here, the agencies have chosen to adopt a "programmatic" approach to consultation, these alterations to the baseline analysis are antithetical to the ESA. *See All. for Wild Rockies*, 412 F. Supp. 3d at 1201–03; *Gifford Pinchot Task Force*, 378 F. Supp. 3d at 1076–77.

Importantly, the temporal scope of the 2006 BiOp (and ITS) has also been surpassed in the Houston South Project. Although, under different circumstances, a breach of the temporal analysis boundary may be de minimis, here, it demonstrates a fundamental shortcoming of FWS's "appended programmatic consultation approach"—the inability (or unwillingness) to respond to rapidly evolving threats to highly sensitive species. The presence of WNS on the HNF and its devastation of *Myotis* bat populations, including the Indiana bat, demands a reevaluation of the species' environmental baseline in light of current information. FWS, as the expert federal agency tasked with wildlife conservation, must act to modernize the "Reasonable and Prudent Measures" applicable to LRMP-tiered projects, thereby ensuring they reflect the best available science regarding WNS. Failure to do so risks potential extirpation of the Indiana bat and undermines FWS's vital custodial role under the ESA.

Because both the 2006 BiOp's effects analysis and the 2006 ITS's take authorization are invalid, it is well settled that any further incidental take under those decisions is no longer shielded from the liability imposed by Section 9 of the ESA. 16 U.S.C. § 1536(o) ("[A]ny taking that is in compliance with the terms and conditions specified in a written statement provided under subsection (b)(4)(iv) of this section shall not be considered to be a prohibited taking of the species concerned."); *Bennett v. Spear*, 520 U.S. 154, 170 (1997); *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 481 F.3d 1224, 1230 (9th Cir. 2007); *Mount Graham Red Squirrel v. Espy*, 986 F.2d 1568, 1580 (9th Cir. 1993) (violations of an ITS would remove protective coverage from take liability). Where both USFS and FWS have concluded that the Houston

South Project "is likely to adversely affect" the Indiana bat through the direct and indirect take of the species, 2006 BiOp at App'x 14 (2019 BE and 2019 Concurrence), the ESA's regulations make clear that consultation must be reinitiated. 50 C.F.R. §§ 402.14(a), 402.16(a).

B. FWS and USFS Must Reinitiate Formal Consultation Over the Houston South Project's Impacts on the NLEB

1. The 2015 Listing Decision and 4(d) Rule Are No Longer Valid

As explained previously, the 2019 BE for the Houston South Project concluded that the Project is "likely to adversely affect" the NLEB. 2019 BE at 23. And, at the time the 2019 BE was finalized, the NLEB was listed as a "threatened" species with a 4(d) rule that ostensibly permitted the activities USFS sought to undertake in the Houston South Project. Thus, USFS concluded in the 2019 BE that additional consultation was not necessary because the Project "would have no additional effects on the [NLEB] beyond those previously identified and evaluated in the 4(d) Rule for the [NLEB]." *Id.* FWS concurred in that determination on October 30, 2019. *See* 2019 Concurrence at 4–5.

On January 28, 2020, the U.S. District Court for the District of Columbia set aside FWS's NLEB Listing Rule, remanding that decision to the agency for further consideration. *Ctr. for Biological Diversity*, 2020 WL 437289 at *22. On February 14, 2020, USFS issued its Record of Decision ("ROD") for the Houston South Project, wherein the agency continued to rely upon the 2019 BE and Concurrence's effects determination as to the NLEB. *See* USFS, Decision Notice and Finding of No Significant Impact for Houston South Vegetation and Management and Restoration Project, at 6 (Feb. 14, 2020) ("Incidental take from tree removal activities and prescribed fire is not prohibited under the final 4(d) rule for [NLEB]."). Nowhere in the ROD, however, did USFS mention that the Listing Rule for the NLEB had been remanded to FWS; nor did the ROD discuss the effect of that decision on its continued intention to take NLEB through the Houston South Project.

Under the ESA, 4(d) rules may only be issued for species that have been appropriately listed as "threatened." 16 U.S.C. § 1533(d) ("Whenever any species is listed as a *threatened species* pursuant to subsection (c) of this section, the Secretary shall issue such regulations as he deems necessary and advisable to provide for the conservation of such species." (emphasis added)). Where, as here, an agency decision has been "declared unlawful [] and remanded" to the relevant agency, "continued reliance" on that decision to justify subsequent action "is by definition arbitrary and capricious." *Haw. Longline Ass'n*, 281 F. Supp. 2d at 26 (citing *Resources Ltd., Inc. v. Robertson*, 35 F.3d 1300, 1304 (9th Cir. 1993); *Pyramid Lake Paiute Tribe of Indians v. U.S. Dep't of Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990)). While an agency's reliance on an invalid decision may discharge its procedural obligation under the ESA, it *does not* satisfy the "substantive legal requirement" the Act imposes "on the action agency to ensure that its actions will not likely jeopardize listed species." *Id.* at 24.

2. FWS Has Already Conceded that the NLEB is Endangered in a Significant Portion of its Range, Including Within the Project Footprint

In promulgating its Listing Rule for the NLEB, FWS explained that in the "core" of the species' range, i.e., "where densities of [NLEB] were highest prior to WNS," the disease has effectively eradicated the species' populations, causing declines around 96% of the total population. 80 Fed. Reg. at 17,998. Indiana (and specifically, the south-central portion of the State) is squarely within the "core" of the NLEB's range, as it was the "most commonly captured bat species" prior to the arrival of WNS. *Id.*at 17,980; *see also* FWS, Biological Opinion on the Effects of Three Ongoing Projects on the Hoosier National Forest on the Federally Threatened Northern Long-Eared Bat, at 15 (Oct. 8 2015) ("Prior to the arrival of WNS in Indiana in 2011, NLEB was the most common bat species captured [in the HNF]"). According to FWS, "WNS has been confirmed on every National Forest in Region 9 (including the Hoosier NF and other northeastern and midwestern states)" since at least 2011. *Id.* In areas where WNS "has been present for a significant number of years (e.g., 5 years)," the NLEB "has been extirpated from hibernacula," and approached near total extinction throughout the infected region. *See* 80 Fed. Reg. at 17,998. FWS has, therefore, effectively conceded that the NLEB is "in danger of extinction throughout . . . a significant portion of its range." 16 U.S.C. § 1532(6).

Yet, in the Listing Rule, FWS declined to make that determination. Citing its illegal SPR Policy, 79 Fed. Reg. at 37,577, and the NLEB's status as "threatened" range-wide, FWS declined to examine whether the species was "endangered." 80 Fed. Reg. at 18,022. In ruling on the challenge to the NLEB Listing Rule, however, the U.S. District Court for the District of Columbia rejected the very framework that precluded the NLEB from receiving an "endangered" listing in a significant portion of its range. *Ctr. for Biological Diversity*, 2020 WL 437289 at *22 (vacating "the provision of the Final SPR Policy which provides that if [FWS] determine that a species is threatened throughout all of its range, [FWS] will not analyze whether the species is endangered in a significant portion of its range"). Specifically, the Court directed FWS on remand "to determine whether a species should be listed as endangered by determining whether it is: (1) "in danger of extinction throughout all of its range"; ***or*** (2) "*in danger of extinction throughout . . . a significant portion of its range*." *Id.* (quoting 16 U.S.C. § 1532(6)) (emphasis added).

Where FWS has conceded that (in 2015) the NLEB was on the brink of extinction in the "core" of its range that includes the geographic area encompassing the HNF—i.e., "a significant portion of its range"—and the Court has required FWS to consider that "core" as a basis for listing, it is virtually impossible for FWS to list the NLEB as anything other than "endangered." Moreover, since the 2015 Listing Rule, WNS has spread farther and faster than originally anticipated by FWS; today, the disease is present virtually throughout the NLEB's entire range, and it is having devastating effects where it spreads. *See* White Nose Response Team, *Where is WNS Now?*, https://bit.ly/35tb4gi (last updated Aug. 30, 2019) (reporting cases of WNS across the entire lower 48 states and much of Canada). Thus, because FWS has concluded that "similar [population] declines as seen in the East and portions of the Midwest will be experienced in the future throughout the rest of the species' range" once WNS arrives, 80 Fed. Reg. at 18,000, an "endangered" listing (either based on a finding that the species is endangered throughout all or a significant portion of its range) is inevitable based on the best available scientific evidence.

3. USFS's Reliance on an Invalid 4(d) Rule to Authorize the Take of NLEBs Through the Houston South Project Violates the ESA

USFS's reliance on the NLEB 4(d) rule for the Houston South Project violates the ESA. As explained above, Section 7 of the ESA imposes both procedural and substantive duties upon action agencies. *See Haw. Longline Ass'n*, 281 F. Supp. 2d at 26 (explaining the distinction between the ESA's procedural and substantive obligations); *Resources Ltd., Inc.*, 35 F.3d at 1304 (describing action agencies' independent duty under the ESA when relying on consultation decisions from FWS); *Pyramid Lake Paiute Tribe of Indians*, 898 F.2d at 1415 (same). Assuming USFS intends to continue to rely on the 4(d) rule to permit take of the NLEB—without any further consultation with FWS during the court-ordered remand of the listing rule for the NLEB to analyze the effects of this action on the species in light of the spread of WNS and in light of the court's invalidation of FWS's SPR policy—the agency's decision violates both duties.

Here, the remand of the NLEB Listing Rule dissolves the legal predicate for the 4(d) rule; that is, in the absence of a valid "threatened" determination, the associated 4(d) rule may not be relied upon to authorize new take of the species. That is particularly true here, where the Houston South Project ROD was issued *after* the court in *Ctr. for Biological Diversity* held the listing rule to be invalid on multiple grounds. USFS's failure to acknowledge that development, which bears directly on its decision, is manifestly arbitrary under the APA, 5 U.S.C. § 706(2)(A), and cannot satisfy the agency's procedural obligation under the ESA. *Motor Veh. Mfrs. Ass'n v. State Farm Ins.*, 463 U.S. 29, 43 (1983) (agency action "would be arbitrary and capricious if the agency has . . . entirely failed to consider an important aspect of the problem," or "offered an explanation for its decision that runs counter to the evidence before the agency").

Moreover, USFS's reliance on the legally deficient 4(d) rule cannot carry the agency's independent, substantive duty to safeguard against jeopardizing listed species under the ESA. 16 U.S.C. § 1536(a)(2), much less USFS's duty to use its authorities to "carry[] out programs for the conservation of endangered species and threatened species," *id.* § 1536(a)(1). Again, these obligations carry additional weight where USFS and FWS are aware of the Listing Rule's remand and the seemingly inevitable relisting of the species as "endangered" given the decimating effects of WNS and other threats in the "core range" of the species (not to mention the entire range of the species). The Houston South Project's timetable may well outpace FWS's listing decision, as the Project is slated to begin this year. Final EA at 14. Proceeding with the Project in the absence of any assurances from FWS that the Project's projected take of NLEB in light of the most recent information regarding its status within the HNF, would fall well short of the agency's *substantive* duty under the ESA "to ensure that its actions will not likely jeopardize listed species." *Haw. Longline Ass'n*, 281 F. Supp. 2d at 24 ("The ESA clearly imposes a substantive legal requirement on the *action agency*." (emphasis added) (citing 16 U.S.C. § 1536(a)(2)); *see also Resources Ltd., Inc.*, 35 F.3d at 1304 ("Consulting with the FWS alone does not satisfy an agency's duty under the [ESA]. An agency cannot abrogate its responsibility to ensure that its actions will not jeopardize a listed species; its decision to rely on a FWS biological opinion must not have been arbitrary or capricious." (internal quotation marks and citations omitted)).

Given the recent developments regarding the NLEB's listing status under the ESA, USFS's and FWS's knowledge thereof, and USFS's determination that the Project is likely to adversely affect NLEB, USFS must ensure that its actions in approving the Houston South Project do not contribute to the NLEB's alarming "trend toward [] extinction," *Tenn. Valley Auth.*, 437 U.S. at 180, and USFS and FWS must reinitiate consultation for the NLEB before any work commences in furtherance of this project that currently lacks any lawful take authorization during the court-ordered remand of the legally defective listing rule (and, by extension, the 4(d) rule that rests on that flawed threatened listing).

CONCLUSION

USFS's and FWS's reliance on the 2006 BiOp to authorize the take of Indiana bats during the course of the Houston South Project is a flagrant violation of the ESA. The level of take authorized through the 2019 BE and Concurrence far exceeds that considered in the 2006 BiOp and 2006 ITS, thereby exposing USFS to liability under Section 9 of the ESA. Furthermore, the collective failure of USFS and FWS to consider the effects of WNS during its evaluation of the Project demonstrates that the 2006 BiOp is woefully outdated and no longer serves as an adequate check against the species' jeopardy. Formal consultation must be reinitiated under Section 7 of the Act.

Similarly, USFS's and FWS's reliance on the now invalid 4(d) rule to escape a current and detailed examination of the Project's impacts on the NLEB falls well short of the agencies' respective duties under the ESA. The precipitous declines evident in NLEB populations, coupled with its imminent listing as "endangered" under the ESA, make it paramount that USFS and FWS take immediate action to ensure that Project-related activities do not contribute towards the loss of this species. USFS's failure to do so not only arbitrarily violates the agency's procedural duties under the ESA, but its substantive duty as well. At minimum, USFS and FWS must reinitiate formal consultation concerning the NLEB to ensure that the Project—when coupled with other threats such as WNS—will not jeopardize this species until and unless additional protections are in place from an endangered listing.

The ecological health of the HNF and its biodiversity are of the utmost importance to our clients. Rather than resorting to the judicial remedies provided by the ESA, our clients welcome the opportunity to assist USFS and FWS with remedying the violations of law described herein. Therefore, please do not hesitate to contact me if I can provide additional information or otherwise assist in this matter. We look forward to your prompt response

Sincerely,

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