

UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF LOUISIANA

ATCHAFALAYA BASINKEEPER, et al.

Plaintiffs,

vs.

DAVID BERNHARDT, et al.

Defendants.

Case No. 20-651-BAJ-EWD

MEMORANDUM IN SUPPORT OF PLAINTIFFS'
MOTION FOR SUMMARY JUDGMENT

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INTRODUCTION

The U.S. Fish and Wildlife Service (FWS) removed the iconic Louisiana black bear (LBB) from the protections of the Endangered Species Act (ESA) even though it had reached less than 1% of its historical population and 2% of its historical range. The LBB was originally listed under the ESA in order to protect its unique genome, distinct from other black bear subspecies. The primary justification for delisting despite this paltry recovery was that the Recovery Plan criteria of two viable and connected (interbreeding) LBB populations had been met. However, one of those is not the LBB at all, but a different subspecies descended from bears imported from Minnesota for sport hunting in the 1960s. In its haste to delist, FWS translocated some LBB bears to an area between the Tensas River Basin (TRB) population and the imported non-LBB bear population, to facilitate connection and interbreeding between the two. Prior to the translocation project, no such hybridization had occurred. But it has now begun. The LBB, especially the TRB, which is the only viable population of true LBB, is in imminent danger of losing the genetic integrity whose preservation was the basis for its listing. This tragic misdirection of destroying the LBB to save it must be stopped.

In addition to the newly created threat of hybridization, the two small remaining true LBB populations, especially the isolated Lower Atchafalaya River Basin population (LARB), continue to face serious threats from habitat loss and degradation due to development, climate change, and human-related mortality such as road kills and poaching, as well as the likelihood of state-permitted hunting. FWS's delisting rule and the state's post-delisting management plans essentially write off the LARB, even though it contains nearly a third of Louisiana's true LBBs.

Loss of habitat by the LARB and the imminent loss of genetic integrity by the TRB pose a devastating combination of threats for the LBB. Plaintiffs ask this court to order that the LBB

be returned to the List of Endangered and Threatened Wildlife and that a new Recovery Plan, directed at preserving true LBB, be adopted.

LEGAL OVERVIEW

As the Supreme Court has stated, “the Endangered Species Act of 1973 represented the most comprehensive legislation for the preservation of endangered species ever enacted by any nation. Its stated purposes were ‘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 . . . species.’” *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 180 (1978) (“The plain intent of Congress . . . was to halt and reverse the trend toward species extinction, *whatever the cost.*”) (emphasis added).

To achieve this goal, the Secretary of the Interior is authorized to determine “whether any species is an endangered species or a threatened species” as a result of any one or more of five factors: habitat destruction, overutilization, predation or disease, inadequate regulatory structures, or any other natural or manmade factors affecting the species’ continued existence. 16 U.S.C. § 1533(a)(1)(A)-(E). Such species are added to the List of Endangered and Threatened Wildlife, § 1533(c), and are often referred to as “listed species.” They are entitled to multiple protections from actions of the federal government, *Id.* § 1536 (requiring all federal agencies to ensure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of a listed species), as well as actions of other parties. *Id.* § 1538(a)(1)(B) (prohibiting “any person” from “take” of listed species).

The term “species” includes “any subspecies of fish or wildlife or plants,” *id.* § 1532(16), such as the LBB. The ESA defines “endangered species” to include “any species which is in danger of extinction throughout all or a significant portion of its range.” *Id.* § 1532(6).

“Threatened species” is defined to include “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(20).

Concurrent with listing, the Secretary is to designate the species’ “critical habitat.” *Id.* § 1533(a)(3)(A). The Secretary must also develop recovery plans containing management actions for the conservation and survival of the species and criteria which, when met, would result in a determination that the species could be removed from the List. *Id.* § 1533(f).

Listing and delisting decisions are to be made “solely on the basis of the best scientific and commercial data available,” *Id.* § 1533(b)(1)(A), (c)(2)(B); 50 C.F.R. § 424.11(b), and both are based on consideration of the same five factors noted above. 50 C.F.R. § 424.11(c), (e). “The objective of the ESA is to enable endangered species not merely to survive, but to recover from their endangered or threatened status.” *Markle Interests, L.L.C. v. U.S. Fish & Wildlife Serv.*, 827 F.3d 452, 460-61 (5th Cir. 2016), *rev’d on other grounds*, 139 S.Ct. 361 (2018) (quoting *Sierra Club v. U.S. Fish & Wildlife Serv.*, 245 F.3d 434, 438 (5th Cir. 2001)). The Secretary can also delist if the listed entity is extinct or does not meet the statutory definition of a species, 50 C.F.R. § 424.11(e)(1), (3), but neither of these reasons was invoked here.

Species which have been delisted based on recovery are to be monitored for not less than five years, and the Secretary is directed to make prompt use of the authority to issue emergency regulations to prevent a significant risk to the wellbeing of such species. 16 U.S.C. §1533(g)(1), (2).

Agency action under the ESA is reviewed under the standards of the Administrative Procedure Act (APA), 5 U.S.C. § 551, *et seq.* Under APA review, agency action that is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law will be held unlawful and set aside. *Id.* § 706(2)(A). An agency’s action is arbitrary and capricious if it

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

Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

FACTUAL BACKGROUND

The following Background relies entirely on documents in the Administrative Record (AR) prepared by the FWS, as supplemented. Dkt. Nos. 44, 47.¹ The LBB is a subspecies (*luteolus*) of American black bear (*Ursus americanus*) which is Louisiana's state mammal and was the original “Teddy Bear.”² Its historical range, at least 118,000 square miles, covered Louisiana, eastern Texas, southern Arkansas, and much of Mississippi. AR 23; 001102; AR 391; 016868. Compared to other black bears, the LBB’s skull is longer, narrower, and flatter, with larger molar teeth. AR 63; 002210. It is a relatively large subspecies; adult males can exceed 600 pounds. *Id.*

Information in the AR indicates the LBB originally numbered at least 80,000. AR 63; 002213; AR 134; 004655; AR 492; 018669; AR 654; 020054, 020071. However, by the 1980s it had been drastically reduced to fewer than 150 bears. AR 654; 020053. Two populations of *luteolus* then existed, one in the Tensas River Basin of northeastern Louisiana (TRB) and one in the Lower Atchafalaya River Basin (LARB) of south-central Louisiana. AR 11; AR 37. Figure 1. Between them, but well separated from both, was another population in the Upper Atchafalaya River Basin (UARB), which was not *luteolus*, but a different subspecies, *U. a. americanus*, that

¹ Documents are cited by their AR document number per the FWS index, followed by their Bates stamp numbers where a particular page of the document is referenced, e.g. AR 362 or AR 362; 016082.

² The “Teddy bear” stuffed toy was created in response to an incident in which President Theodore (Teddy) Roosevelt while on a hunting trip refused to shoot a Louisiana black bear which had been tied to a tree, because it would be “unsporting.”

had been introduced for sport hunting purposes from Minnesota by the Louisiana Department of Wildlife and Fisheries (LDWF) from 1964 through 1967. AR 37; AR 492; AR 655. Plaintiffs emphasize that many of the key facts justifying this lawsuit arise from FWS's erroneous inclusion of Minnesota-descended UARB bears with the allegedly recovered Louisiana population of the distinct, highly jeopardized, *luteolus* subspecies.

In 1992, FWS listed *luteolus* as threatened. AR 63. In 2016, the agency delisted *luteolus*, claiming "recovery," AR 654; 020050-020051, but with no estimation of original population numbers or original range as a baseline by which to judge recovery. Rather, the recovery claim entirely hinged on the TRB and UARB (the Minnesota bear) populations being supposedly viable and securely connected. AR 654; 020061. This connection had purportedly been achieved by an FWS translocation project from 2001 to 2009, which moved some TRB bears to an area between the TRB and UARB, known as the Three Rivers Complex (TRC), explicitly to facilitate interbreeding between the two populations. Figure 1. AR 654; 020056. FWS hailed this interchange as a conservation success leading to its proposed delisting. AR 654; 020051. In fact, it was unnatural hybridization of two distinct taxa that jeopardized – and continues to jeopardize – the genetic integrity of the native "Teddy bear," the LBB.

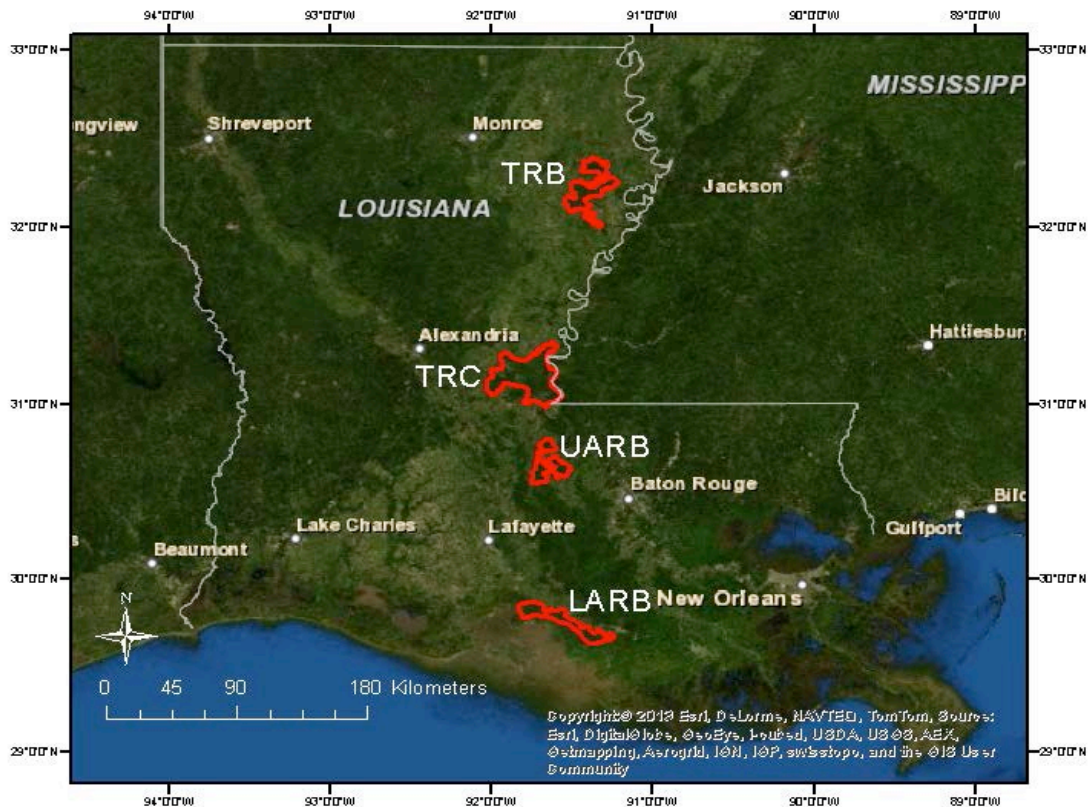
Pertinent ESA administrative history

The primary reasons for the 1992 listing of the LBB as a "threatened" subspecies, AR 63; 002210-002217, were: (a) past modification and reduction of the subspecies' habitat, (b) reduced carrying capacity of the remaining habitat due to fragmentation, and (c) the threat of future habitat conversion and human-related mortality. *Id.* at 002212-002214.³ FWS found that suitable habitat for the LBB had been reduced by 80% as of 1980, and that the remaining habitat was

³ Only after being sued by some of the plaintiffs in this case did FWS act to list the LBB and over 17 years later, after being sued again, to designate its critical habitat.

reduced in quality due to human activity, stressing the surviving animals. The LBB had been eliminated from much of the remaining habitat even where it was still suitable. *Id.* at 002212.

Figure 1. Louisiana’s occupied bear range (red polygons): TRB – *luteolus*, LARB – *luteolus*, UARB – Minnesota origin, *americanus*, and Three Rivers Complex (TRC – hybridized). Adapted from Laufenberg and Clark (2014); AR 362; 016082. A small group also occurs in western Mississippi.



The listing decision classified any other subspecies of *U. americanus* found within LBB range (Louisiana, Mississippi, Texas) as threatened pursuant to the “look-alike” provisions of the ESA. *Id.* at 002215-00216. FWS noted that the presence in Louisiana of bears of the separate subspecies, *americanus*, descended from the Minnesota introduction, could present enforcement problems if they were not also protected. *Id.* at 002216, 002213 (right column).

The 1992 listing rule noted controversy as to whether *luteolus* was distinct from other subspecies of *U. americanus*, *id.* at 002210, but concluded that morphological distinctiveness existed and that *luteolus* was a valid subspecies under the ESA. The rule noted: “the only practical means available for protecting any possibly remaining unique genetic material originally belonging to the native *U. a. luteolus* would be through listing and protecting the taxon now distinguished by cranial features as *U. a. luteolus*.” *Id.* at 002214 (left column).

In 1995 FWS issued an LBB Recovery Plan. AR 79; 002595-002653. Its threshold criteria needed to achieve delisting of *U. a. luteolus* were precise and straightforward:

- (1) *At least two viable subpopulations, one each in the Tensas and Atchafalaya River Basins;*
- (2) *Immigration and emigration corridors between the two viable subpopulations; and*
- (3) *Long-term protection of the habitat and interconnecting corridors that support each of the two viable subpopulations used as justification for delisting.*

Id. at 002615.

In March 2009, FWS published a final rule designating ESA Critical Habitat for the LBB. AR 249; 009501-009561. That designation included and protected approximately 1,868 square miles of prime LBB habitat within Louisiana. *Id.* at 009502.

In February 2014, FWS completed a 5-Year Review of the status of the LBB, which concluded that the LBB should maintain “threatened” status. AR 391; 016804-016877. Just over a year later, on May 21, 2015, FWS reversed course and proposed delisting the LBB. AR 548; 019194-019230. On March 11, 2016, FWS issued its final delisting rule, which also rescinded the LBB’s Critical Habitat. AR 654; 020049-020097. The delisting rule continued to recognize *luteolus* as a subspecies distinct from two other subspecies in the Southeast, *U. a. americanus* (American black bear) and *U. a. floridanus* (Florida black bear). AR 654; 020051-52.

The delisting decision relied on the fundamental assertion that the Recovery Plan criteria had been met. *Id.* at 020061. However, while the delisting decision relied on the UARB as the viable and connected Atchafalaya River Basin population, at that time only the TRB and LARB supported populations of native *luteolus* that had been continuously present through known history. No LBB migration was known between those two distant areas. AR 654; 020095.

The Minnesota bears brought to Louisiana

Again, critically for this Motion, at the time of the 2016 delisting, no *luteolus* bears inhabited the central UARB. It contained only the non-native bears descended directly from a distinct subspecies, *americanus*, brought from Minnesota. AR 655; 020098-020102, AR 37; 001832-001848 (Nowak, R. 1986. *Status of the Louisiana Black Bear*. FWS Office of Endangered Species report, cited at AR 654; 020055 (right column).)

The genetic evidence presented by the Laufenberg and Clark (2014) study, *Population Viability and Connectivity of the Louisiana Black Bear*, AR 362, a document FWS relied on in its delisting decision (cited 140 times) as the “best available science,” showed high genetic similarity between the UARB population and bears still resident in Minnesota. AR 362; 016070-016182, at 016127. In other words, the *americanus* bears had not somehow converted to *luteolus* bears. Further research, begun well prior to the LBB’s delisting, with FWS cooperation and support and published in 2018, confirmed the genetic makeup of UARB bears, identifying them closely with the introduced subspecies *americanus*, not with *luteolus*. AR 659; 020146-020158.⁴

The resulting publication states:

This collective evidence supports the hypothesis that the contemporary Upper Atchafalaya [UARB] population is likely the product of the historical translocated Minnesota bears.

⁴ Murphy, S. M., J. S. Laufenberg, J. D. Clark, M. Davidson, J. L. Belant and D. L. Garshelis. 2018. Genetic diversity, effective population size, and structure among black bear populations in the Lower Mississippi Alluvial Valley, USA. *Conservation Genetics*, 19(5):1055-1067, <https://doi.org/10.1007/s10592-018-1075-6>.

Id. at 020152. It also reconfirmed the findings of Csiki et al. (2003, at AR 136; 004678-004689) and Triant et al. (2004, at AR 145; 004835-004847) that the UARB bears are not *luteolus*.

The 2018 study (as well as the earlier studies) contradict a primary prerequisite for the delisting, that the UARB and TRB populations are both native *luteolus*. Consequently, the FWS claim, also required for “recovery,” of two viable and connected populations of *luteolus*, is nullified, and the TRB population is left as the only viable LBB population. The 2018 study also found the TRB population to show no evidence of having been affected by the Minnesota introductions; thus, it remained as native *luteolus*. AR 659; 020152 (left column).

Other evidence demonstrates FWS was aware the UARB population was not the ESA-listed *luteolus* subspecies. AR 657; 020104-020137, at 020105 and 020106 (a FWS biologist reiterating that based on Csiki et al., 2003 (AR 136), the UARB bear population “. . . should not be protected under the ESA because of interbreeding with introduced American black bears from Minnesota.”); AR 656; 020103 (1988 letter from the Secretary of the LDWF, Virginia Van Sickle, to the Director of FWS, Frank Dunkle, reiterating that where the Minnesota bears were introduced from 1964 to 1967, the LBB may no longer exist.)

Translocations and potential contamination of the *U. a. luteolus* subspecies

The newest of the four Louisiana populations is the TRC population (Fig.1). It did not exist at listing, but was created through the FWS 2001-2009 translocations to implement its Recovery Plan. AR 79; 002595-002653. The translocations aimed to create a dispersal zone between the TRB (with native *luteolus*) and the UARB (with non-native *americanus*). It is now known, largely through the genetics studies by Laufenberg and Clark, that there was virtually no potential for natural dispersal of bears between the TRB and the distant UARB prior to FWS’s creation of the TRC. AR 362; 016070-016182; AR 659; 020146-020158.

The 2018 study essentially substantiated that, because the UARB population is indeed *americanus*, not *luteolus*, FWS opened the way for genetic contamination of the native TRB population by the TRC translocations. Remarkably, the agency charged with conserving *luteolus*, the subspecies it listed under the ESA, has actually facilitated hybridization between that subspecies and a non-native subspecies. This translocation has led to the ongoing hybridization process in the TRC and to the imminent threat that this process will spread to the TRB, thereby destroying the natural genome of the sole remaining viable population of native *luteolus*.⁵

The separate Lower Atchafalaya River Basin population

There is very low potential for any natural interchange between the isolated *luteolus* population in the LARB and bears in the TRC, TRB, and UARB. AR 654; 020095. FWS did not formally assess the probability of long-term viability for the LARB population, nor rely on it to support its finding that Recovery Plan criteria were met. *Id.* at 020051, 020059.

Population size and occupied range area

Based on the means of values provided in the delisting rule, the total number of free-living black bears within the original range of *luteolus* is approximately 692 animals. *Id.* at 020053-020059. However, the UARB bears, and many of those in the TRC and Mississippi, are not actually *luteolus*. AR 659; 020151. Therefore, as *luteolus* once numbered at least 80,000 bears, the current total population is less than 1% of the likely pre-colonial population size. The total current breeding range (including the non-native UARB population) is about 2,820 square miles. *Id.* at 020053. Excluding the UARB (about 450 square miles), the current *luteolus* range is 2,370 square miles, barely 2% of the estimated pre-colonial range of at least 118,000 square miles based on the FWS map of historical range in its 2014 5-Year Review. AR 391; 016868.

⁵ As discussed in the Argument section, *infra*, the AR is replete with documents in which the agency demonstrated awareness of the risk, yet proceeded to ignore or evade it.

Rescission of Critical Habitat designation

When it delisted the LBB, FWS also rescinded its Critical Habitat designation protecting 1,868 square miles of the bear's range, which had been made only seven years earlier. AR 249: 009501-009561. The designation had delineated the area in which actions authorized, funded, or carried out by the federal government were subject to consultation with FWS pursuant to Section 7 of ESA, to ensure they would not adversely affect the bear. Now, post-delisting, all such "adverse effect" actions in LBB habitat that previously would have been subject to scrutiny by FWS can proceed unchecked. As elucidated further below, the AR contains numerous documents showing that such post-delisting actions have in fact occurred.

ARGUMENT

I. INCLUSION OF A NON-LUTEOLUS POPULATION TO SUPPORT DELISTING INVALIDATES THE DECISION

A fundamental basis for listing, or delisting, an ESA-protected species or subspecies is first correctly defining the taxon under consideration, including its population and range. Without that, it is not possible to draw any conclusions about the relevant factors. If, as here, these definitions are incorrect, that alone can invalidate the delisting decision. In *Am. Wildlands v. Norton*, 193 F. Supp. 2d 244, 252 (D.D.C. 2002), the court reversed FWS's finding that listing of a trout subspecies was unwarranted, because FWS's analysis had included hybrid stocks in the "viable" population. The court found that this alone was sufficient to invalidate the decision, and in addition that the agency's consideration of other statutory listing factors "was necessarily affected by its definition of the population to be considered for listing." *Id.* The court noted that in order to make a listing determination, the agency must first identify the relevant population, and then apply the best available science concerning threats to that population and its habitat.

“[T]he identification of the potentially viable – or endangered – population is vital to [the] ultimate listing determination.”). *Id.* at 254.

FWS’s foundational error of including the non-*luteolus* Minnesota-origin UARB population in its analysis affected, and distorted, its definition of the subspecies and its population and range, as well as its analysis of the delisting factors. It also means that the most basic recovery criterion that the agency claims was met – two viable interconnecting populations of LBB – was not in fact met, because one of the populations relied on is not the LBB. It also means that FWS’s efforts to interconnect populations as part of its Recovery Plan actually further threaten the LBB’s survival as a subspecies by facilitating hybridization.

A. The UARB Population Is Not *luteolus*, and Contrary Claims by FWS Are Arbitrary and Capricious

The FWS delisting decision has two contradictory responses to the UARB population and hybridization issue. First, it claims the UARB population actually is *luteolus*, or at least partially *luteolus*, such that counting it as LBB is proper. AR 654; 020091. As shown above and below, this claim is contradicted by FWS itself and numerous other AR sources, showing the UARB population is descended from *americanus* bears imported from Minnesota. Second, the agency claims *luteolus* was already hybridized at the time of listing or may never have been a distinct subspecies, and thus intermixing with UARB bears does not create *new* hybridization and is not a problem. AR 654; 020093. This is contradicted by FWS’s listing of *luteolus* as a legitimate subspecies for the very purpose of preserving its unique genome and by recognizing the same subspecies in the delisting. It is also contradicted by FWS’s admitted concerns about hybridization and its listing of other subspecies of *U. americanus* in the LBB range as lookalikes of, but not the same as, the *luteolus* subspecies. AR 63; 002215-00216. It also is inconsistent

with the first rationale that the UARB population *is luteolus*, a subspecies whose very existence the second rationale doubts.

FWS adds to the contradictions by, on the one hand, listing the LBB to protect its unique genome, and even at delisting asserting that it has not dismissed concerns about hybridization, AR 654; 020073, while on the other hand claiming that gene flow among the various populations, including the UARB, “benefits the Louisiana black bear and has improved its population health.” *Id.* Together, these rationales are not only contradicted by the Record, but are so internally inconsistent that they render the delisting decision arbitrary and capricious.

1. *FWS Listed U. a. luteolus as a Distinct Subspecies that Should be Protected from Hybridization.*

The LBB was legally classified as threatened under the name *U. a. luteolus*, and that name also was used in the final delisting rule, AR 654; 020049-020097, the 2014 FWS 5-Year Review, AR 391; 016804-016877; the 2015 Draft Post-Delisting Monitoring Plan, AR 546; 019135-019184; and the LDWF Management Plan. AR 500; 018791-018876. In fact, the very reason for listing the LBB was to protect its unique genome. AR 63; 002214. Facilitating genetic hybridization/contamination by another subspecies is antithetical to the purpose of the listing.

The possibility that *luteolus* was never a valid subspecies, or was already hybridized, was considered and rejected in both the proposed, AR 548; 019198, and final delisting rules:

“Therefore, although we recognize that there are still questions around the taxonomy, we still consider the Louisiana black bear to be a distinct subspecies described by Hall (1981, pp. 948-951).” AR 654; 020069; *see also, id.* at 020073 (“We listed the taxonomic entity defined as the Louisiana black bear in 1992 to be protective of the subspecies in recognition of those [hybridization] concerns, and we and our many partners have worked to recover this entity.”).

Yet, when it responded to public comments laying out concerns about hybridization, FWS

contradictorily claimed that *luteolus* either may have never existed or was already hybridized at the time of listing, and thus interbreeding with UARB bears was not a concern. *Id.* at 020072-020073. In further self-contradiction and obfuscation, FWS then stated, “However, this position does not mean that we have dismissed concerns regarding the matter of hybridization and the Louisiana black bear” *Id.* at 020073. It then pivoted yet again, citing recent studies published after the Proposed Rule and not subject to public review, suggesting that “the three subspecies in the southeast (*U. a. americanus*, *U. a. floridanus*, and *U. a. luteolus*) represent a single genetic cluster,” and should all be considered *U. a. americanus*. *Id.*⁶

2. *UARB Bears are Descendants of U. a. americanus Minnesota Bears and are not luteolus.*

The fact that the UARB bears are descendants of the *americanus* bears shipped from Minnesota in the 1960s is supported by the evidence in the Record that there was no breeding population of *luteolus* in the UARB at the time of the introductions, and that there is no evidence of interbreeding in the UARB with LBB populations after that time (prior to the establishment of the TRC population by FWS, for the very purpose of facilitating such interbreeding). If the UARB contained only Minnesota-origin bears at the time of the introductions, and there was no interbreeding with other populations since then, then there is no evidence of any ancestry for the UARB bears other than Minnesota. This inescapable, logical conclusion is also confirmed by the Laufenberg and Clark study and both prior and subsequent genetic studies.

FWS attempts to obfuscate this clear conclusion with irrelevant speculation. After admitting there was no known breeding population of native bears in the UARB at the time of the Minnesota releases, AR 654; 020073, it postulates the possibility of LBB males traveling

⁶ This claim is based solely on just two specimens, AR 554; 019242, AR 555; 019259. However, those bears were taken not in Louisiana, but in western Mississippi, where, according to the 2018 study, most bears are descended from a non-*luteolus* population in Arkansas. AR 659; 020151.

through the UARB. This theory is based solely on the general male bear behavior of sometimes traveling long distances, with no documentation of actual occurrences in the area of concern. *Id.* Based on this speculation about an occasional traveling bear, FWS leaps to the conclusion that “the UARB is not strictly composed of Minnesota bears” and that it could therefore be included in its assessment as *luteolus*. *Id.* However, there was no attempt to define “strictly,” to estimate the extent to which the UARB group may represent *luteolus*, or to explain how *luteolus* could have interbred with the Minnesota animals in the UARB to any significant extent if it was “very likely there was no known breeding population in that area at the time of the releases.” *Id.* Contrary to FWS’s speculation about traveling males, Laufenberg and Clark’s 2014 study concluded that at the time of the translocations to the TRC, “there was no potential for dispersal of either sex between the TRB and UARB subpopulations . . .” *Id.* at 020056.

Other record evidence confirms there were no *luteolus* in the UARB at the time of the 1960s introduction of Minnesota bears. St. Amant (AR 11; 000672-000679), indicated that although previously present in that area, by 1950 there were no bears in the UARB. Nowak also compiled information showing that at the time of the introductions, native bears had been absent from the area for many years. AR 37; 001832001848. The Record also confirms that the original tagged Minnesota bears did reproduce in the UARB. Taylor 1971, at AR 12; 000680-000776. An official publication of the Louisiana Wildlife and Fisheries Commission (Brunett et al. 1975, at AR 65; 020098-020102), confirmed that the only remaining native populations of *luteolus* in the state then were in the TRB and LARB, and that the UARB population resulted from the introduced Minnesota bears and consisted of *americanus*.

FWS has long been aware that the UARB contained non-native bears and that hybridization could contaminate the LBB genome. During the early stages of listing

consideration, the official Louisiana State position remained that the native LBB survived only as the two isolated TRB and LARB populations. In a June 28, 1988 letter to the FWS Director the Secretary of the LDWF warned of possible hybridization between native and imported Minnesota bears. AR 656; 020103. An official 2002 email exchange among agency officials states that a paper by Csiki et al. concluded that the UARB bear population “. . . should not be protected under the ESA because of interbreeding with introduced American black bears from Minnesota.” The third page of the email chain contains the following quote from Csiki et al.: “Our data indicate that some of the federally-protected bear populations of Louisiana are largely derived from translocated bears.” AR 657; 020105-020106.

Accumulating genetic studies since 2003, including Csiki et al. (2003), AR 136; and Triant et al. (2004), AR 145, confirm the UARB population's descent from Minnesota *U. a. americanus*. Triant et al. warned that gene flow from the UARB via the corridor FWS was attempting to establish between the TRB and the UARB “may alter the genome that original conservation efforts set out to protect from extinction.” AR 45; 004844.

Later, Laufenberg and Clark, in both 2014 and 2018, demonstrated through genetic studies that the UARB population was most closely related to current sampled Minnesota bears, not *luteolus*. Laufenberg and Clark (2014), in Figure 15A, show the individuals of the TRB population (represented by two subgroups) and the LARB population to each form a tight statistical cluster, completely distinct from each other and from the UARB and current Minnesota bears (MINN). AR 362; 016129. The latter two groups (UARB and MINN), in contrast, partly overlap one another. Remarkably, the UARB population is, on average, even more distant genetically from the TRB and LARB populations than is the MINN population. The UARB bears had genetically diverged away from the native Louisiana populations, not towards

them as would be the case if there had been interbreeding. In sum, Laufenberg and Clark showed that: (1) of all the various groups of bears they assessed, the two showing the closest genetic affinity to one another were those of the UARB and current MINN, and (2) there was substantial distinction between the UARB Minnesota-sourced population and both the TRB and LARB populations. *Id.* at 016127.

The 2018 study, co-authored by Laufenberg and Clark, has genetic data obtained after those of the 2014 study, but this research was underway and supported by FWS prior to the delisting decision in 2016. AR 659; 020146-020158. The authors state:

we found no evidence that the 1960s releases of Minnesota bears influenced the Tensas River [TRB] population . . . Our findings also support the conclusions . . . that the Upper Atchafalaya [UARB] population may have descended from the released Minnesota bears. Results . . . suggested similar ancestry of Upper Atchafalaya and Minnesota bears . . . *This collective evidence supports the hypothesis that the contemporary Upper Atchafalaya population is likely the product of the historical translocated Minnesota bears.*

Id. at 020152 (emphasis added). They noted their study supports the much earlier conclusions of Csiki et al. and Triant et al. (both cited above) that the UARB population is not *luteolus*.

B. It Was Arbitrary and Capricious to Count the UARB Population as LBB for Delisting Purposes

Even before reaching issues concerning the Recovery Plan and threats from hybridization discussed below, the mere fact of counting non-*luteolus* bears for the purpose of delisting is enough to invalidate the decision. In *Am. Wildlands v. Norton*, the court reversed a decision not to list a species solely on the basis of including hybrid stocks in the population considered for listing. 193 F. Supp. 2d at 252. The court reasoned that it was illogical, and therefore arbitrary and capricious, to consider hybridization as a threat, and at the same time count hybrid stocks in the population used to rebut the need for listing. *Id.* at 253; *Cf. Am. Wildlands v. Kempthorne*, 530 F.3d 991, 999 (D.C. Cir. 2008) (upholding FWS's use of morphological data where genetic

data were unavailable to determine which fish were hybridized and should not be counted for listing).

Similar to the *Am. Wildlands v. Norton* case, here FWS recognized the threat of hybridization from the UARB bears, but still counted them as LBB to support its recovery finding. The agency recognized hybridization under the category of “other natural or manmade factors affecting its continued existence.” AR 654; 020090-020091. It admitted that at the time of listing, it recognized the threat of hybridization, *id.* at 020091, and that it was still a concern at the time of delisting. *Id.* at 020073. Thus, the inclusion of the UARB in the population considered for delisting alone invalidates the delisting decision.

C. The Recovery Plan Criteria Are Not Met Because the UARB Population is Not *luteolus*

Including the UARB bears in the delisting analysis does far more harm than improperly add to the very modest current population and range of the LBB. It is the linchpin for meeting the Recovery criteria calling for: “At least two viable subpopulations, one each in the Tensas and the Atchafalaya River Basins” with “Immigration and emigration corridors between the two viable subpopulations.” AR 79; 002615. FWS did not analyze the viability of the LARB population or include it in the LBB “metapopulation.” AR 654; 020051. FWS found that because of its location, the LARB population has little or no potential for interconnection with the other populations. *Id.* at 020057. The Laufenberg and Clark viability analysis, upon which FWS relied, did not find the translocated TRC population viable, and in fact found indications that “that population may not yet be self-sustaining.” AR 362; 016157.⁷ Thus, *only* the TRB population is left as an assessed viable population of true LBB. Moreover, the TRB is not connected with *any*

⁷ In addition, the recent 2018 study finds that the TRC population, though originally translocated from *luteolus* populations in the TRB and LARB, is already becoming hybridized. *See* Sec. I.D below.

population of true *luteolus* – viable or not – as FWS found that it did not have potential to connect with the LARB. Once the UARB population is recognized as not the listed subspecies, the claim of recovery based on two viable interconnected populations, on which the delisting rests, evaporates. Elimination of the UARB as an LBB population also means FWS cannot claim there is a TRB-TRC-UARB “metapopulation,” AR 654; 020050, of true LBBs.

FWS did not explore the implications of having only one viable but isolated population in its decision. It is clear the agency recognized the need for more than one population and interconnection in order to achieve a minimum recovery threshold. As shown below, in other ESA contexts FWS and the courts have frequently opined that one isolated population is a dangerous and untenable situation for a species.

Laufenberg and Clark, on whose work FWS primarily relied in the delisting decision, found that genetic and demographic interchange between LBB populations “*is essential to long-term viability.*” AR 362; 016083 (emphasis added). Their 2018 study recognized that the LBB populations at the time of listing, including the TRB, were vulnerable due to “low genetic diversity or small effective population sizes” and that more translocations might be needed to improve genetic diversity and increase effective population size. AR 659; 020155.⁸

The delisting decision itself recognized that habitat fragmentation prior to the 1992 listing had “caused isolation of the already small subpopulations, subjecting them to threats from such factors as demographic stochasticity and inbreeding.” AR 654; 020052. As FWS stated in the 5-Year Review, “The requirement for two viable populations was based on that fact that having

⁸ While these authors advocate more interbreeding between the various populations, including those that are not *luteolus*, they were not considering the issues inherent in the need to preserve the subspecies that was listed under the ESA and avoid hybridization.

multiple viable populations with exchange of individuals (see Criteria 2) increases the likelihood of achieving a long-term viable Louisiana black bear population.” AR 391; 016808.

[T]he establishment of effective corridors increases the viability potential of small populations by reducing such things as demographic stochasticity and inbreeding and is a necessary component to achieving Criterion 3. This is directly related to Factor A (*the present or threatened destruction, modification, or curtailment of habitat or range; Recovery Plan Tasks 1.1-1.5*).

Id. at 016810.

Case law interpreting the listing provisions of the ESA amply supports the need for multiple and connected populations. *See Ctr. for Biological Diversity v. Zinke*, 900 F.3d 1053, 1074 (9th Cir. 2018) (noting that FWS recognized the importance of having multiple populations as genetic reservoirs in case of unexpected stochastic events or catastrophes that may wipe out one or more populations and concluded the lack of multiple populations constituted a threat to the species); *Ctr. for Biological Diversity v. Jewell*, No. CV-15-00019-TUC-JGZ (I), 2018 U.S. Dist. LEXIS 56436, at *46 (D. Ariz. 2018) (finding provision for a single, isolated population of 300 to 325 Mexican wolves, with one to two effective migrants per generation, “does not further the conservation of the species and is arbitrary and capricious,” especially because the final rule did not account for the fact that the population was not connected to a metapopulation); *Survivors v. Dep’t of Interior*, 321 F. Supp. 3d 1011, 1023 (N.D. Cal. 2018) (“Isolated populations are typically at greater risk of extinction due to genetic and demographic concerns such as inbreeding depression, loss of genetic diversity, and Allee effect (the difficulty of individuals finding one another), particularly where populations are small”) (quoting FWS 2015 Species Report on the Bi-State Sage-Grouse); *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, 246 F. Supp. 3d 1272, 1285 (N.D. Cal. 2017) (listing decision was flawed because FWS failed to acknowledge the small, declining, and isolated nature of the coastal marten

populations); *Def. of Wildlife v. Jewell*, 176 F. Supp. 3d 975, 1005-06 (D. Mont. 2016) (granting summary judgment against FWS for failing to consider small population size and lack of genetic diversity); *Am. Wildlands*, 193 F. Supp. 2d at 256 (isolation of populations is a factor to be considered in making a listing determination, either as a “modification or curtailment of [the species'] habitat or range,” 16 U.S.C. § 1533(a)(1)(A), or as a “natural or manmade factor[] affecting its continued existence,” 16 U.S.C. § 1533(a)(1)(E)).

In sum, the Recovery Plan criteria have not been met. Although recovery plans are not regulatory documents and do not necessarily determine suitability for delisting, here FWS relied on its claim the Recovery Plan criteria were met as a central pillar of its decision. AR 654; 020061. Its decision cannot stand without it. Even beyond whether or not the recovery criteria were met, FWS has not analyzed the implications for delisting of what is the reality of isolated and relatively small populations of true *luteolus*. Based on FWS’s own statements and the case law, it is apparent that delisting *luteolus* could not be justified under current actual conditions.

D. FWS Has Increased the Threat of Hybridization by Creating the TRC

In its haste to achieve delisting by meeting the recovery plan criteria of two viable interconnected populations, FWS more than cut corners and actually caused the bears to be even more threatened by its translocation project intended to connect the *luteolus* population in the TRB with the non-*luteolus* population in the UARB.⁹ The hybridization that will destroy the

⁹ FWS has also interfered with a subspecies of *americanus* in the White River Basin (WRB) of southeastern Arkansas, participating in translocations of WRB bears to Felsenthal National Wildlife Refuge, some of which then migrated into Louisiana. AR 654; 020074. Although this non-*luteolus* population of bears has had some natural contact and modest intergradation with TRB *luteolus*, AR 362; 016131, excessive contact and interbreeding as a result of manipulation and translocation can disrupt the normal genetic balance between two such groups. In the delisting, FWS inexplicably refers to this group of WRB migrant bears as “Louisiana black bear.” AR 654; 020053, table 1, and there are reports of dispersal of bears from Felsenthal to the TRB, AR 352; 016160, adding to the hybridization concerns facing *luteolus* in the TRB.

natural genome of an animal that played a major role in the history, ecology, and culture of a vast region of the southern United States is literally happening before our eyes.

Although the 1960s importation of Minnesota bears into LBB range made hybridization possible, in fact that threat was not realized at that time, due to distances and geographic features that separated the imported bears from the native populations. Laufenberg and Clark found no potential for dispersal between the UARB and the nearest population, the TRB, before creation of the TRC. AR 654; 020056. But the previously unrealized threat is now reality due to FWS creating the TRC closer to the UARB. Genetics data show that gene flow has occurred. *Id.* In fact, 20 of the 35 cubs in the TRC showed evidence of being sired by UARB males. *Id.*; *see also*, AR 438; 017789-017794 (another Laufenberg and Clark paper stating that genetic analysis showed that UARB bears bred with TRC bears). Laufenberg and Clark's 2014 genetics study, figure 16A, AR 362; 016130, shows that while many TRC individuals are genetically similar to the TRB population, a substantial group is genetically intermediate between the TRB and the UARB populations. Thus, the TRC is already partially hybridized and continued interchange with the UARB will further hybridize this population over time.

Fortunately, there is not yet evidence of significant hybridization between the UARB and the TRB bears directly or via the intermediate TRC, but it is imminent. Three males were captured in the TRB that had dispersed from the TRC. AR 654; 020058. At least one male with UARB ancestry was captured in the TRB. *Id.* at 020056. According to the delisting rule, recent LDWF capture records documented the presence of additional resident breeding females between the TRC and the TRB, "which may significantly increase the probabilities for interchange." *Id.* at 020055. Of course, the whole purpose of translocating bears to the TRC was

to facilitate interchange between the UARB and the TRB, and without further intervention by this Court to reverse the trend, it is likely to eventually succeed.

In sum, FWS's actions to implement its Recovery Plan to connect populations have not benefitted the LBB subspecies, but instead have resulted in hybridization in the TRC and the threat of much more such genetic contamination to come if FWS plan continues unchecked.

II. FWS'S FAILURE TO CONSIDER LOSS OF HISTORICAL RANGE ALSO INVALIDATES THE DELISTING DECISION

While FWS very generally defined the historical range of the LBB as Louisiana, eastern Texas, southern Arkansas, and much of Mississippi, AR 23; 001102, and also generally defined the relatively minute current range, AR 654; 020053, the agency disclaimed the need to consider the loss of historical range for delisting. The historical range was at least 118,000 square miles. AR 391; 016868. However, the current breeding range, excluding the non-*luteolus* UARB (about 450 square miles), is about 2,370 square miles, roughly 2% of the historical range.

The delisting states, “[t]he recovery status of the Louisiana black bear is not contingent upon its occupying a particular portion of suitable habitat within its historical range,” because the subspecies as a whole has reached recovery because the TRB-TRC-UARB “metapopulation” has long-term viability. *Id.* at 020078. While finding that LBB habitat and range has increased since its 1992 listing, *e.g., id.* at 020054 and 020078, FWS conducted no comparative assessment of historical and current ranges, and no analysis of how much habitat is enough to render *luteolus* no longer threatened, or of how the loss of historical range is affecting the subspecies today. This is especially problematic because at the time of listing FWS found that the LBB met “the criteria for protection under the Act on the basis of past habitat loss alone.” AR 63; 002210.¹⁰

¹⁰ FWS relies on the fact that at the time of the delisting decision, the breeding range of the LBB in Louisiana and Mississippi had increased by over 500% since listing, and that forested land in Habitat Restoration and Planning Area (HRPA) has increased by 7.5% to 11.4%. AR 654; 020075. While certainly steps in the right direction, the

FWS is simply wrong that loss of historical habitat need not be addressed if there is a finding that the current population is viable. *Humane Soc’y of the United States v. Zinke*, 865 F.3d 585, 603 (D.C. Cir. 2017), held that a failure to consider the effects of loss of historical range rendered a delisting decision arbitrary and capricious. The court noted that FWS’s own Range Policy “is explicit that a species may be endangered or threatened throughout all or a significant portion of its current range *because* [a] loss of historical range is so substantial that it undermines the viability of the species as it exists today. Range Policy, 79 Fed. Reg. at 37,584 (emphasis added).” *Id.* at 605. The court rejected as a “*non sequitur*” FWS’s claim that it need not consider loss of historical range because it had determined that the current population at issue would “remain viable.” *Id.* at 606. “[W]hatever the Service prognosticates about future viability in certain portions of the current range cannot be reliably reasoned if it was made in a historical vacuum.” *Id.* While a species need not be restored to its entire historical range, FWS must “contend with the implications of massive range loss for the species’ endangered or threatened status within its current environment.” *Id.*; *see also Ctr. for Biological Diversity*, 900 F.3d at 1067 (holding FWS must consider historical range in evaluating other aspects of the listing decision, including habitat degradation). Here, the significance of only 2% of historical range being occupied needed explicit agency consideration.

III. FWS FAILED TO CONSIDER LOSS OF HISTORICAL POPULATION

As with historical range, FWS disclaimed the need to consider any comparison of current and historical population numbers, to analyze the impact of the loss of historical population on the LBB today, or to determine the minimum population that could support delisting. This is true even though the agency acknowledged that population is “an important component in a species’

extremely modest scope of these increases is illustrated by the fact that even with them, LBB still occupies only about 2% of its historical range.

status,” AR 654; 020071, and there is a great deal of historical population data in the AR, *e.g.*, Garshelis et al. (2008) AR 214; 008591-008602, which FWS ignored. But how can the agency properly assess recovery without an official estimation of original population size? It cannot.

The agency claimed that the Laufenberg and Clark viability study is the “best science” for estimating the species’ probability for long-term persistence, and therefore there was no need to estimate a “minimum viable population size.” AR 654; 020071. It further stated:

Regardless of the method used to estimate historical population numbers, it is important to note that the recovery status of the Louisiana black bear is not contingent upon such figures. We determined that the Louisiana black bear has reached recovery because its metapopulation has long-term viability, there is adequate long-term protection of its habitat; and it no longer faces long-term threats to its viability.

Id.

There are serious problems with this approach. FWS essentially put all of its eggs in the basket of the Laufenberg and Clark viability calculations, reasoning that if the UARB-TRB-TRC metapopulation is viable, then there must be adequate population and adequate habitat, without the need to independently analyze these factors or to compare them with historical levels. As noted above, the D.C. Circuit rejected this approach as related to historical range, and the same should logically apply to historical population. In addition, the Laufenberg and Clark viability analysis depends on the inclusion of the non-*luteolus* UARB population, which negates its value in resolving the question of LBB long-term viability. This increases the importance of looking at other factors such as an assessment of the overall loss of the historical population.

According to data in the delisting rule, AR 654; 020053-020059, and a post-delisting study in the TRC, the total number of free-living black bears within the range of *luteolus* is about 692: 296 in the TRB, 164 in the LARB, 73 in the TRC, 69 in the UARB, and 90 in Mississippi. Subtracting the UARB’s non-*luteolus* bears, the total is about 623 animals. That figure would

have to be further reduced because, as discussed above, some of the TRC bears now are hybrids, and the new 2018 genetics study, AR 659; 020151, indicates the majority (63.3 percent) of bears now in Mississippi are migrants from or descendants of the White River Basin (WRB) bear population in southeastern Arkansas, which is not *luteolus*.

As previously noted, the historical population was at least 80,000 bears based on multiple data sources. Actually, in the listing rule, AR 63; 002213, FWS noted: “Black bear populations range in density up to one to two per square mile.” That would indicate as many as 120,000 to 240,000 bears in the original LBB range. In other words, the current LBB population is tiny compared with its historical population. Ignoring the implications of this fact was a “fail[ure] to consider an important part of the problem’ facing FWS and was arbitrary and capricious.” *Am. Wildlands*, 193 F. Supp. 2d at 256 (quoting *Motor Vehicles Mfrs. Ass’n*, 463 U.S. at 43).

IV. FWS’S THREATS ANALYSIS FOR THE LBB WAS ARBITRARY AND CAPRICIOUS.

FWS claimed “recovery” because “all substantial threats . . . have been eliminated or reduced and adequate regulatory mechanisms exist.” AR 654; 020051, 020089. However, these findings fail to consider important ongoing threats to LBB survival and ignore extensive contrary evidence in the record. They are therefore arbitrary and capricious. *Motor Vehicle Mfrs. Ass’n*, 463 U.S. at 43; *Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 698 F.3d 1101, 1127-1128 (9th Cir. 2012) (FWS cannot ignore information that would undercut its conclusions).

A. Destruction of Louisiana Black Bear Habitat Constitutes an Ongoing, Substantial Threat to the Subspecies

When the LBB was listed in 1992, historical and continued habitat loss and fragmentation, particularly in the Atchafalaya River Basin, was the greatest threat facing the subspecies. AR 654; 020080-83. The delisting suggests that habitat gains largely in the Tensas and Upper Atchafalaya River Basins were sufficient to show habitat loss and fragmentation was

no longer a threat to the LBB's survival. AR 654; 020080-81; *see* AR 500; 018836 (Figure 3.4 showing that protected lands largely exclude the area between the LARB and the other populations). FWS's analysis failed to consider information that contradicts its conclusions.

FWS bases its claim that habitat threats have been alleviated on the acquisition, restoration, or protection of habitat in state Wildlife Management Areas (WMA), federal National Wildlife Refuges (NWR), Army Corps of Engineers (Corps) easements and mitigation banks, and voluntary conservation easements on private property. AR 654; 020081, 020083-020084. However, FWS ignored contradictory information questioning the efficacy of purported habitat protections. FWS also fails to adequately address ongoing habitat threats in the LARB.

The record includes evidence of failures to enforce prohibited activities such as construction and conversion of land uses on Corps environmental easements in the Atchafalaya Basin.¹¹ There is also evidence of extensive clearcutting and logging of cypress-tupelo forests on easement land, and photos depicting extensive clearcutting of bottomland hardwood forests in WMAs, and mentioning knowledge of the same on NWRs. AR 584; 019571, 019573, 019575-77, 019580-83; AR 5; 000063-64; AR 30; 001734. The record identifies "selective" – and often failed – enforcement by the Corps in the Atchafalaya Basin, the granting of permits without consulting FWS as required under ESA Section 7, and the Corps' lack of resources to investigate failures to comply with its regulations. AR 584; 019570-71, 019578-79. Moreover, as discussed further in subsection IV.B below, the ecological efficacy of mitigation banks is unknown, and this wetland restoration tactic may actually contribute to further fragmentation and loss of LBB

¹¹ Dean Wilson, on behalf of ten organizations, including plaintiffs Atchafalaya Basinkeeper, Delta Chapter of Sierra Club, Healthy Gulf (formerly Gulf Restoration Network), and the Louisiana Crawfish Producers Association-West, submitted comments on July 13, 2015 on the then-proposed delisting of the Louisiana black bear. AR 584; 019568-019583. These comments articulate several concerns regarding the adequacy of regulatory enforcement, particularly with respect to activities that contribute to habitat loss, degradation, and fragmentation in bear habitat primarily in the Atchafalaya Basin. The concerns raised by Mr. Wilson are reinforced by the plaintiffs' attached declarations, specifically the Eustis, Meche, Schoeffler, and Wilson declarations.

habitat. However, when presented evidence raising serious concerns as to whether these purported habitat protections are being enforced and implemented, FWS ignored it.

Most of the habitat gains now relied on by FWS were not viewed as sufficient to protect the bear prior to delisting. The agency claimed in 2009 that since listing in 1992, over 600,000 acres of land were restored or protected in LBB range in Louisiana. AR 252; 009571-72. In 2015, the LDWF, citing FWS 2013 data, found that “more than 834,000 acres of habitat have been acquired, protected, and/or restored.” Thus, 72% of the habitat gains since listing took place by 2009. Yet, in 2009, FWS still found it necessary to designate lands as critical habitat, providing additional protections. See AR 249; 009521 (identifying existing threats to the LBB and its habitat in Units 2 and 3). In 2014, even with the added critical habitat protections, FWS still found habitat fragmentation between breeding populations, that “[e]xchange between breeding populations is a critical need for long-term viability,” and that habitat loss continued to threaten LBB recovery. AR 391; 016846-47. FWS has not explained how subsequent minimal habitat gains support the now claimed abatement of the habitat threat.

In addition, FWS failed to show how habitat gains, limited to areas around and between the TRB and UARB, address the ongoing threat to the subspecies, particularly in the LARB. The delisting failed to show that habitat loss and fragmentation is no longer a substantial threat in the LARB; in fact, it admitted that it is. FWS recognized that habitat loss and fragmentation contribute to lack of connectivity between bear populations, which in turn affects population demographics, genetic integrity, and long-term survival. AR 249; 009514; AR 654; 020082. FWS admitted that while evidence supports connectivity between the UARB and TRB populations via the TRC, the LARB population remains isolated, and its breeding and connective habitat restricted and threatened by ongoing loss, conversion, and fragmentation. AR 249;

009520-21 (noting threats to Units 2 and 3 remain, including habitat fragmentation from hydrocarbon exploration and development, transportation development, and human-induced mortality from poaching, road kills and nuisance abatement activities, which are exacerbated by fragmentation).

The area most fragmented and subject to ongoing development and destruction includes the cypress-tupelo swamps of the Atchafalaya Basin. Rather than providing any evidence that this area and its bears will be protected, the delisting relies on predicted, unabated sediment filling of the Basin, which it claims will provide better bear habitat than the existing swamps. AR 654; 020057. However, state and federal agencies are working to *prevent* this sediment filling and conversion of swamp habitat, and FWS has itself previously recognized the area as prime LBB habitat.

The Atchafalaya Basin is the nation's largest river swamp and probably the most productive swamp in the world. AR 363; 016188, 016190. The Basin "provide[s] some of the country's most productive wildlife and fish habitats" including the northern bottomland hardwood forests, the middle cypress-tupelo swamps, and the southern marshes. AR 363; 016188. Its economic contribution to Louisiana is vast and includes the renowned wild crawfishing industry. AR 363; 016189 (which, just from January to July 2012, harvested over 5.5 million pounds of crawfish worth more than \$6.6 million). The Basin also functions as a spillway designed by the Corps "to provide an outlet for diverted Mississippi River water in times of flooding." AR 301; 012201. Ultimately, the Corps' manipulation of the natural system has increased sediment input. *Id.* State and federal regulators continue to work to address threats to the floodway system, including projects aimed to alleviate sedimentation, overgrowth of invasive plants, and poor water quality. AR 363; 016190; AR 301; 012212; AR 218; 008218.

FWS's espousal of the benefits of extreme sedimentation fails to consider its impact on the function of the Morganza Spillway, including the containment of floodwaters, the conversion of public waters to private uplands, and the spread of invasive plants (*e.g.*, Chinese Tallow) that outcompete hardwood species. *See* AR 391; 016849. Hydrologic alterations of this scale may also take areas outside of the Clean Water Act (CWA) protections for wetlands that FWS relied on to find adequate existing regulatory mechanisms, and may result in devastating economic, cultural, conservation, and even human loss. FWS also fundamentally overlooked the barrier to the LARB's access to adjacent habitat that it predicted to be filled in – Highway 90. AR 500; 018831 (Highway 90 is a “formidable barrier to bear movement.”).

In addition, 567,361 acres (886 sq miles) of forested wetlands designated critical habitat in the Basin were considered some of “the highest quality bear habitat.” AR 249; 009507. Yet now, FWS's findings suggest it is willing to write off nearly 30,000 acres of forested wetlands, and assume (without support) that the areas impacted by sediment will occur in close enough proximity to existing LARB breeding habitat to support this population. *See* AR 391; 016836.

The delisting's emphasis on habitat quantity gains ignores the need for quality habitat, particularly in the Atchafalaya Basin, to support the LARB population. FWS's reliance on often tenuous, sometimes imaginary, habitat gains and its disregard of known continuing threats of habitat loss render its conclusions on habitat arbitrary and capricious.

B. Existing Regulatory Mechanisms are Inadequate to Protect the Louisiana Black Bear and its Habitat

The delisting found “existing regulatory mechanisms adequate to address the threats to the LBB posed by the other listing factors.” AR 654; 020090. FWS cites state management plans, conservation easements, and federal CWA regulations to support this conclusion. However, the findings are arbitrary and capricious because these mechanisms predated, but did

not obviate the need for, the listing; are not consistently implemented; exclude significant survival needs; or otherwise have not been proven effective to alleviate threats after delisting.

Existing regulatory mechanisms are adequate only if they are enforceable. 16 U.S.C. § 1533(a)(1)(D); *Greater Yellowstone Coalition, Inc. v. Servheen*, 665 F.3d 1015, 1030 (9th Cir. 2011) (measures that are not enforceable or legally binding are not adequate). They must also be sufficiently certain to be implemented and effective. *See Defs. of Wildlife v. Zinke*, 849 F.3d 1077, 1082 (D.C. Circuit 2017); *Ctr. for Biological Diversity v. Jewell*, 815 F.3d 1, 6 (D.C. Cir. 2016); *Save Our Springs v. Babbitt*, 27 F. Supp. 2d 739, 748 (W.D. Texas, 1997) (relying on a conservation agreement with no proven record of effectiveness was not an adequate regulatory mechanism).

State management plans may be adequate, but only if they work. *Crow Indian Tribe v. United States*, 965 F.3d 662, 680 (9th Cir. 2020). The LDWF, the sole agency responsible for post-delisting LBB management in Louisiana, created a management plan for the LBB in 2015, and drafted a post delisting monitoring plan (PDMP) that FWS considered in its delisting analysis. AR 500; AR 642; AR 654; 020086. However, both plans fail to include enforceable measures sufficient to alleviate threats to the LARB population and its habitat.

LDWF's management plan identifies three actions it will implement post-delisting: (1) continued public education and outreach; (2) minimizing human-bear conflicts; and (3) bear harvest to regulate populations. AR 500; 018842. Although the plan suggests that habitat conservation is an agency objective, neither that plan nor the PDMP articulate any enforceable or legally binding measures intended to address ongoing and foreseeable threats to the LARB, including habitat loss and fragmentation, isolation, and human-caused mortality including road kills. *See* AR 500; 018803, 018830-31 (acknowledging these threats to the LARB population).

The PDMP contains triggers for future action, intended to ensure the LBB does not again become threatened or endangered, such as falling below certain viability estimates, reduced habitat to the point of threat, or a combination of the two. These triggers would lead to increased monitoring, status review for relisting, or even emergency relisting. But it is not clear that these triggers would apply to the LARB. Due to the lack of monitoring, it is unclear whether any decline in the LARB population or habitat would be detected or would trigger any responses in the PDMP. *See* AR 500; 018835, and AR 642; 019992 (acknowledging focus on TRB and UARB populations, and noting that monitoring of the TRC and LARB populations “will be less intensive”), 019996-8 (habitat monitoring is almost exclusively focused on land connectivity and supporting the metapopulation, which excludes the LARB). The plans also fail to further investigate the still unknown viability of this population, and lack enforceable and implementable actions to detect and prevent this population’s foreseeable extinction.

Therefore, the LDWF’s management plan is not only not “sufficiently certain” to diminish the ongoing threats of habitat loss, fragmentation, and human-caused mortality, but it may contribute to further harm if LDWF opens a harvest. *See Crow Indian Tribe*, 965 F.3d at 680 (finding state management plan’s failure to provide a measure “sufficiently certain” to address a demonstrated threat was not adequate); *Save Our Springs*, 27 F. Supp. 2d at 748.

Additionally, the delisting alleged that existing federal environmental regulations, including compensatory wetland mitigation, “federal legislation restricting agricultural conversion of wetlands, and . . . conservation easements” provide sufficient long-term protection of LBB habitat and interconnecting corridors. AR 654; 020063.

Although the CWA was initially found to be insufficient to ensure long-term protection of LBB habitat, FWS now suggests otherwise. AR 654; 020063, 020089. FWS relies on a 1981

lawsuit expanding the Corps' authority under the CWA to claim that the Act is now sufficient to protect bear habitat. *Id.* (citing *Avoyelles Sportsmen's League, Inc. v. Alexander*, 511 F. Supp. 278 (W.D. La. 1981)). Yet, that case was decided more than ten years before the listing, and it did not prevent the 2009 designation of critical habitat including wetlands under Corps regulation. Moreover, the delisting failed to refute record evidence showing the Corps' past and present failures to enforce the CWA. *See* Sec. IV.A above; AR 584; 019570-71.

FWS largely ignored these concerns. Instead, it claimed data from the Corps showed that compensatory mitigation under the CWA restores more habitat than is lost to permitted development in wetlands. AR 654; 020063-64. However, the mitigation data reviewed were severely limited,¹² and this measure has not been shown to be ecologically effective or enforced. AR 148; 005031 (“[b]ecause so much of the bottomland hardwood resource has already been lost, the greatest contributions are likely to be made by restoration projects that are not done as mitigation” and there is a “low degree of certainty that a fully functional, sustainable wetland can actually be created on a former upland site.”); AR 433; 017769 (“Even though we try to keep impacts and mitigation within the same watershed, there isn’t always an available bank to do so.”). CWA permit mitigation measures are intended for wetland replacement, not wildlife habitat restoration. A wetland created elsewhere will not necessarily provide accessible, suitable

¹² First, acknowledging that “there is no reliable database” to assess approved mitigation before 2009, FWS relied on data from 2009 to 2015, during the critical habitat designation covering 1,868 square miles of LBB habitat including mostly jurisdictional, forested wetlands. AR 654; 020063-020064, 020089. The critical habitat designation was intended to require additional scrutiny of federal or federally funded or permitted projects in that habitat; therefore, the impact of the CWA during that period cannot be compared to the current period where those protections have been removed. *See* Wilson Decl. ¶ 30-33 (identifying that regulatory compliance was improved during the critical habitat designation).

Second, the mitigation data included in the record only provides figures from the Vicksburg District parishes (areas north in the Basin, in the UARB habitat), and not information from the New Orleans Corps district parishes (including parishes providing habitat for the LARB population). *See* AR 431 through AR 437.

Third, there is no verification on RIBITS, the mitigation data system used by the Corps to record mitigation bank information, and which the Corps used to supply data to FWS, that the mitigation was ecologically effective or enforced, that the habitat was adequately restored or mitigated, or that the areas impacted were in close proximity to the mitigation bank.

habitat for the LBB. The mitigation rule *prefers*, but does not require, that mitigation occur even in the same watershed. 33 C.F.R. § 332.3. Mitigation in the Atchafalaya Basin often includes reclaimed agricultural fields distant from the impacted area. *See e.g.*, Wilson Decl., ¶ 45. In a system comprising 1.4 million acres, there is no guarantee of contiguity, which contributes to further habitat loss and fragmentation, particularly for the LARB population.

Finally, there are continuing threats to the bear that will no longer be addressed by any existing regulatory mechanisms. For example, human caused mortality (poaching, roadkill), hybridization, urban development (such as the proposed upgrade of U.S. Highway 90), and habitat loss from climate change will all increase with time. There are no regulatory mechanisms to alleviate these threats. *See Crow Indian Tribe*, 965 F.3d at 680 (affirming ruling that “the FWS acted contrary to the best available science” in finding the grizzly was not threatened by the lack of genetic diversity, and “in failing to include adequate regulatory mechanisms to protect genetic health.”). Existing mechanisms also do not address the threats from habitat loss and fragmentation that still exist, especially for the LARB population.

Although “adequate regulatory mechanisms” may not be tantamount to the stalwart protection of the ESA, it does require “considerably more than no special protection at all.” *Greater Yellowstone Coalition, Inc.*, 665 F.3d at 1032. The delisting failed to identify regulatory mechanisms that will address the unprecedented destruction of existing hydrology and wildlife habitat as a result of the effects of climate change, including rising seas, land subsidence, increased severe weather, and hydrologic changes in the Atchafalaya Basin. Without the protections stemming from the listing and critical habitat designation, human development will continue to encroach upon bear habitat, there will be less control of illegal killing, climate change will exacerbate existing threats to the LARB population, and the ominous hybridization

process will continue to spread unchecked. Slight recoveries in population cannot reverse the trend toward extinction that existed before the listing of the LBB.

The delisting rule failed to consider relevant aspects of present and foreseeable threats to the LBB, including habitat loss and fragmentation, inadequate regulatory mechanisms, and the manmade threat of hybridization. FWS's threats findings show a "clear error of judgment" and are therefore arbitrary and capricious. *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989).

V. FWS'S CONCLUSION THAT THE LBB IS NOT THREATENED IN A "SIGNIFICANT PORTION OF ITS RANGE" IS ARBITRARY, CAPRICIOUS, AND NOT IN ACCORDANCE WITH LAW

FWS's exclusion of the LARB population from its recovery analysis relies on an invalid policy to unreasonably conclude that the LARB is not a significant population warranting further review under the "significant portion of its range" analysis. To merit ESA protection, a species need not be endangered or threatened throughout all of its range if it is endangered or threatened in a significant portion of its range. If a species is viable in some portion of its range, that does not mean the entire species is not threatened or endangered. 16 U.S.C. §§ 1532(6); 1532(20). FWS promulgated a policy to interpret and apply "significant portion of its range" in the ESA definitions of "endangered species" and "threatened species." AR 415; 017468-017503. The final delisting was made in accordance with that "SPR Policy." AR 654; 020094-020095. However, the SPR Policy applied in the delisting decision has been vacated by the courts.

The SPR Policy provides that "a portion of the range of a species is 'significant' if the species is not currently endangered or threatened throughout all of its range, but the portion's contribution to the viability of the species is so important that, without the members in that portion, the species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range." AR 415; 017469-70. In other words, a portion is "significant"

if removal of that portion would result in the remainder of the species becoming endangered or threatened. However, the SPR Policy’s definition of “significant portion” has been vacated nationwide. *Survivors*, 321 F. Supp. at 1037 (finding SPR Policy’s definition of “significant portion” to be inconsistent with the ESA); *Survivors v. U.S. Dep’t of Interior*, 336 F. Supp. 3d 1131 (N.D. Cal. 2018) (subsequent order vacating the definition nationwide); *see also Ctr. for Biological Diversity v. Jewell*, 248 F. Supp. 3d 946, 958 (D. Ariz. 2017) (holding that the Policy is “not a permissible administrative construction of the ESA’s SPR language.”); *Ctr. for Biological Diversity v. Everson*, 435 F. Supp. 3d 69, 93-96 (D.D.C. 2020) (rejecting the SPR Policy’s definition of “significant portion”).

FWS analyzes the SPR issue by first determining if the species is endangered or threatened in all of its range. If not, it must consider whether it is endangered or threatened in any portion of its range and whether that portion is “significant.” If so, the entire species must remain listed. AR 654; 020094. While plaintiffs disagree that the LBB is no longer threatened in all of its range, it is also the case that the LBB is at the least still threatened in a significant portion of its range – the LARB. Therefore, the entire subspecies must remain listed.

A. The LARB is “significant.”

Even assuming the SPR Policy were valid, the conclusion that the LARB population does not occupy a “significant” portion of LBB range is arbitrary and not supported by the best available science, as it rests on the premise that because the TRB and UARB populations are “viable” and connected, even loss of the entire LARB population would not render the species threatened. But, as explained here, the UARB population is not *luteolus*, and its connection to the TRB only threatens hybridization, so it cannot be relied on for this conclusion. Therefore, the entire species must remain listed unless the LARB is no longer threatened.

Moreover, by concluding that the LARB population is not “significant,” FWS shockingly appears prepared to write off one of the only two true *luteolus* populations, and nearly a third of true LBBs. Loss of the LARB would eliminate the only long-term possibility of eventual connection and beneficial interbreeding between two separated *luteolus* populations.

When FWS has made errors in its analysis of a species (here considering that UARB as *luteolus*), it must revisit its SPR finding with those errors corrected. *Defs. of Wildlife*, 176 F. Supp. 3d at 1007 (granting summary judgment against FWS’s application of the SPR policy because of the flawed premises of its threat analysis). In fact, under the current SPR Policy, even if it had not been rejected by the courts, the LARB would be an SPR because loss of the LARB population would cause the LBB to become endangered or threatened with solely one “viable” true *luteolus* population remaining in the TRB.

B. The LARB Population Remains Threatened.

FWS has no basis to claim the LARB population is recovered. Although it insists that the type of viability analysis that Laufenberg and Clark performed for the TRB, TRC, and UARB populations is the best available science, *e.g.*, AR 654; 020069-020071, no such analysis was done for the LARB.¹³ Instead, FWS relied on unsubstantiated speculation and conjecture to conclude that the LARB is no longer threatened.

FWS recognized that in comparison with the other populations in Louisiana, “the LARB subpopulation . . . may be at greater risk of extinction due to its additional potential threat from future anticipated development and sea level rise,” *id.* at 020090, and that its probability of interchange with the other populations is low (*i.e.*, it is isolated). *Id.*¹⁴ Yet, the delisting decision

¹³ In fact, FWS found: “The probability of long-term persistence for the LARB is unknown.” AR 654; 020059.

¹⁴ FWS’s 5-year review of the LBB, published only slightly more than a year before the delisting proposal, recognized the potential for catastrophic natural events such as hurricanes and tropical storms to affect the habitat of

merely noted that the LARB population was “stable to increasing,” *id.* at 020095, and speculated that the LARB population *may* be able to adapt to loss of coastal habitat by moving to more suitable areas, and that projected changes in the Atchafalaya Basin *may* create more suitable bear habitat by 2030. *Id.* at 020095 and 020091.

However, FWS did not address the fact that the LARB population’s habitat has not expanded since it was listed in 1992, indicating there are likely not other areas the bears could expand into if they lose habitat due to sea level rise, or they would have done so already. In fact, FWS found that the LARB population had little potential for immigration because it was boxed in by poor habitat quality to its north and U.S. Highway 90. *Id.* at 020056-020057. Further, FWS did not consider whether, if parts of the Atchafalaya Basin convert from swamp to uplands as predicted, there could be competition, including from humans, to occupy those areas in ways that would harm or exclude the bears, especially without the protections of the ESA, and perhaps without CWA protections if the wetlands no longer constitute jurisdictional waters under the Act. FWS also did not consider that if the LARB habitat expanded to allow interchange with the UARB as it postulates, AR 654; 020057, it would put the LARB population, which now faces no such threat, in danger of hybridization with the non-native UARB population.

The speculative nature of the assertion that the LARB population may no longer be threatened is also illustrated by the FWS statement that “*if* the current stability or increasing size continues, it is unlikely that the subspecies would be in danger of extinction (or likely to become so) in this portion of its range.” AR 654; 020057 (emphasis added). Moreover, FWS did not find that the factors that caused the species to be listed in the first place, primarily habitat loss, have

the LARB, damaging trees, causing exposure to salt water and replacement of native food source plants, and forcing bears to higher areas where there could be road mortality and nuisance behavior. AR 391; 0168949. It also noted that climate change could result in the need for more frequent openings of the Morganza Spillway, with increased effects on the LARB bears. *Id.* at 016850.

been reduced or eliminated for this population, which, as noted above, has not expanded since its listing, and is hemmed in by barriers. Also, the mean estimated size of the population (164 bears) is barely half that of the TRB population (296), its overall distribution is much smaller, and only 5.8 percent of its breeding habitat is protected, compared to 49.2 percent in the TRB – indicating that its potential for long-term survival is significantly lower than the other *luteolus* population found to be viable. *Id.* at 020053, Table 1; 020054; 020056; 020058, and 020057, Table 3.

VI. PLAINTIFFS HAVE STANDING TO MAINTAIN THIS ACTION

Both the individual and organizational plaintiffs satisfy Article III constitutional standing. The requirements are “injury in fact, causation, and redressability.” *Aransas Project v. Shaw*, 775 F.3d 641, 648 (5th Cir. 2014) (quoting *Steel Co. v. Citizens for a Better Env’t.*, 523 U.S. 83, 103 (1998)). Associational standing allows an organizational plaintiff to bring suit on behalf of its members if “(1) its members would otherwise have standing to sue in their own right; (2) the interests it seeks to protect are germane to the organization’s purpose; and (3) neither the claim asserted nor the relief requested requires the participation of individual members.” *Hunt v. Wash. State Apple Adver. Comm’n*, 432 U.S. 333, 343 (1977); *Gulf Restoration Network, Inc. v. Salazar*, 683 F.3d 158, 166 (5th Cir. 2012).

Here, the individual plaintiffs and members of the organizational plaintiffs have similar interests and injuries that include observing, protecting, restoring, and studying the LBB and its habitat. Moreover, many plaintiffs share economic, recreational, cultural, spiritual, scientific, educational, and aesthetic interests in the Atchafalaya Basin, coastal Louisiana, and specific areas that provide habitat for the LBB. *See* Plaintiffs’ attached declarations. Plaintiffs have established they have a cognizable interest in the protection of the LBB and its habitat, and the members of the organizational plaintiffs would have standing to sue in their own right. *See Lujan*

v. Defs. of Wildlife, 504 U.S. 555, 562-63, 606 n. 2 (1992) (“[T]he desire to use or observe an animal species, even for purely aesthetic purposes, is undeniably a cognizable interest for purposes of standing.”) (citing *Sierra Club v. Morton*, 405 U.S. 727, 734 (1972)).

The organizational plaintiffs have also shown that the interests they seek to protect are germane to their organizational purposes. They are conservation and advocacy groups, and their members’ interests in observing, protecting, and studying the LBB and its habitat, and enforcing ESA protections and compliance, are germane to the organizations’ purposes, as shown in the attached declarations. They have also shown that the claims asserted and relief requested do not require participation of individual members. *See, Gulf Restoration Network, Inc.*, 683 F.3d at 168 (“the participation of individual members is not needed . . . the claims asserted and the relief sought by the petitions are not particular to any individual [... and] ‘are thus properly resolved in a group context.’”) (quoting *Hunt*, 432 U.S. at 344). Resolving this matter will not require or benefit from the participation of the organizations’ individual members. *See Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 861 (9th Cir. 2005); *Public Citizen v. Dep't of Transp.*, 316 F.3d 1002, 1019 (9th Cir. 2003), *rev'd on other grounds*, 541 U.S. 752 (2004).

An injury in fact must be “a harm suffered by the plaintiff that is ‘concrete’” and particularized, as well as “actual or imminent.” *Aransas Project*, 775 F.3d at 648 (finding standing based on the alleged injury or deaths to cranes and harm to those who enjoy them); *Markle Interests, L.L.C.*, 827 F.3d at 452, 462 (finding standing in a landowner’s challenge to critical habitat designation based on the immediate loss in property value caused by the designation). Plaintiffs here allege both actual and imminent injuries traceable to the delisting and its removal of ESA protections for the LBB and its habitat. *Friends of the Earth v. Laidlaw*,

528 U.S. 167, 181 (2000) (requiring a showing that environmental harm has led to actual injury or will lead to imminent harm if the injury has not yet been demonstrated).

The removal of ESA protections injures the plaintiffs. The ESA provides for a statutory cause of action to allow citizens to challenge the basis of the agency’s findings regarding both listing and delisting decisions. 16 U.S.C. § 2540(g); *Gen. Land Office of Tex. v. U.S. Dep’t of Interior*, 947 F.3d 309 (5th Cir. 2020) (choosing not to question standing of plaintiffs challenging FWS 90-day finding’s denial of their delisting petition where the statute subjects these findings to judicial review). Moreover, the Supreme Court “has so long applied a strong presumption favoring judicial review of administrative actions.” *Weyerhaeuser Co. v. U.S. Fish & Wildlife Serv.*, 139 S.Ct. 361, 370 (2018). Across jurisdictions, courts find standing in ESA cases predicated upon the purpose of the ESA to protect species and the understanding that the weakening of these protections causes injury.¹⁵

Plaintiffs are suffering actual injury to their interests in observing, studying, and protecting the LBB because since the delisting, reported annual bear mortality has risen substantially while survival estimates have steadily dropped. *See* Caire Decl. at ¶ 15; Eustis Decl. at ¶ 22; Meche Decl. at ¶ 43; Nowak Decl. at ¶ 37; Wilson Decl. at ¶ 21. The individual plaintiffs

¹⁵ These cases reinforce that in citizen suit cases brought under the ESA, changes in the status or degree of ESA protections impact the species and thus harm a party’s cognizable aesthetic and conservation interest in the species and/or its habitat. To require a showing of actual injury to the species or habitat denies the availability of the citizen suit provision to challenge agency action or inaction in order to ensure that anticipated harm does not come to pass. *See, e.g., California v. Bernhardt*, 460 F. Supp. 3d 875, 888 (N.D. Cal. 2020) (finding that plaintiffs need not wait for actual harm before challenging government actions that weaken protections for species); *Kupaqa Ksanka Xa'lcin v. U.S. Fish & Wildlife Serv.*, No. CV 19-20-M-DWM, 2019 U.S. Dist. LEXIS 176653 at *10-11 (D. Mont. Oct. 10, 2019) (reasoning that alleged violations of the ESA create a reasonable probability of harm that threatens plaintiffs concrete interests in the bull trout because the ESA is designed to protect species); *All. for the Wild Rockies v. Zinke*, 265 F. Supp. 3d 1161, 1174 (D. Mont. 2017) (finding injury in suit challenging the change in ESA protection status of a distinct population segment (DPS) of grizzly bears because the DPS grizzly is no longer eligible to receive the protections of endangered status); *Humane Soc’y of the United States v. Jewell*, 76 F. Supp. 3d 69, 108-09 (D.D.C. 2014) (standing found in delisting challenge due to injury caused by defendants’ actions in removing ESA protections, which authorized practices under state management not allowed under the ESA, *i.e.*, hunting).

also suffer actual and imminent injury to their scientific and conservation interests in studying, observing, and protecting true LBB populations because the delisting's recovery finding and reliance on connecting the native TRB population with alien UARB bears has exacerbated the threat of hybridization, and created pathways to spread genetic contamination to the native TRB population that did not exist prior to FWS intervention. Hybridization in the TRC has already begun as a direct result of FWS's actions. Caire Decl. at ¶¶ 16-20; Nowak Decl. at ¶¶ 16-18, 23, 29. Delisting has essentially made the hybridization threat permanent, insidious, and certain to spread through the TRB population, contaminating the native genome, unless the bear is relisted and protective measures are enacted to correct this harm. *See* Nowak Decl. at ¶¶ 16, 19, 21, 33.

Also, plaintiffs' conservation, recreational, and commercial interests in habitat essential to the LBB, particularly in the Atchafalaya Basin and Louisiana's coast, have been and continue to be injured by unprecedented adverse modifications to former critical habitat in wetlands since the delisting and removal of critical habitat protections. *See* Meche Decl. at ¶¶ 20-27, 31; Schoeffler Decl. at ¶¶ 17-19, 22, 24-26; Wilson Decl. at ¶¶ 28-31, 33-35, 39-41, 46, 49-50. During the seven-year critical habitat designation (2009 to 2016), ESA protections covered 567,316 acres of the Atchafalaya Basin to prevent adverse modifications to essential bear habitat, affording procedural and substantive opportunities for plaintiffs to engage the regulators and to advocate for habitat protection and enforcement in an area with a history of permit noncompliance and relaxed (if not nonexistent) enforcement of environmental laws. Meche Decl. at ¶¶ 23-26; Wilson Decl. at ¶¶ 29, 32, 52-54. Since delisting, plaintiffs have observed unprecedented destruction in forested wetlands, harming both the bear and plaintiffs' conservation interests. Meche Decl. at ¶¶ 27-37; Wilson Decl. at ¶¶ 34, 41-46, 50.

Plaintiffs also fear that, because delisting removed ESA protections prohibiting hunting, they face imminent injury if, as appears to be likely, Louisiana opens a bear hunt. Hunting would reduce the already small LBB population and thus harm Plaintiffs' interests in the bear and in achieving true recovery of this unique subspecies. *See* Eustis Decl. at ¶ 25; Meche Decl. at ¶¶ 17, 42; Nowak Decl. at ¶ 36; Wilson Decl. at ¶¶ 68-71.

Plaintiffs have shown that their injuries are both actual and imminent, and particularized, given their unique interests in the protection of the LBB and its habitat. *See Aransas*, 775 F.3d at 648 (finding under ESA that deaths of multiple whooping cranes supported finding of actual, rather than imminent, harm, and thus not requiring analysis under the imminence standard); *Env't Texas Citizen Lobby, Inc. v. ExxonMobil Corp.*, 968 F.3d 357, 367-68 (5th Cir. 2020) (holding in Clean Air Act suit that plaintiffs' direct encounters with pollution at their home easily satisfied injury in fact). Plaintiffs have set forth "a factual showing of perceptible harm" to satisfy the injury requirement at the summary judgment phase. *Lujan*, 504 U.S. at 566.

These injuries are fairly traceable to the delisting. *See Aransas Project*, 775 F.3d at 648; *Sierra Club v. Glickman*, 156 F.3d 606, 614 (5th Cir. 1998). The causation standard requires a showing of more than conjecture but less than certainty. *Env't Texas Citizen Lobby*, 968 F.3d at 357 (finding causation requires less of a causal connection than tort law; the injury must be fairly traceable, not definitely so); *see also Bennett v. Spears*, 520 U.S. 154, 168-169 (1997). The delisting left the bear more vulnerable to existing threats including vehicular mortality and illegal poaching. Plaintiffs have presented evidence to show that annual reported bear deaths have risen and survival of the bear has steadily declined since the delisting, as well as evidence of development of the habitat that was found to be critical to the LBB's survival. *See e.g. Wilson Decl.* at ¶ 21.

The threat of hybridization is also fairly traceable to FWS's TRC translocations to facilitate interbreeding of the TRB and UARB populations, undertaken as justification for delisting. The delisting has also caused injury in taking away substantive and procedural opportunities for citizens to advocate for habitat protection, and contributed to unprecedented adverse modifications to bear habitat in the Atchafalaya Basin wetland forests. *See Bennett*, 520 U.S. at 168-69 (finding the fairly traceable requirement does not necessitate "injury as to which the defendant's actions are the very last step in the chain of causation."). Delisting has removed the ESA prohibition of hunting listed animals, creating the imminent threat of an LDWF-approved hunt, and consequential loss of individual bears impairing the plaintiffs' conservation, scientific, and observational interests. Plaintiffs have traced their injuries to the delisting decision, the decision's impacts on the bear population, and the exacerbation of harms to the bear and its habitat. *See Lujan*, 504 U.S. at 560-61; *Animal Legal Defense Fund, Inc. v. Glickman*, 154 F.3d 426, 441 (D.C. Cir., 1998) ("The proper comparison for determining causation is not between what the agency did and the status quo before the agency acted," but rather between, "what the agency did and what the plaintiffs allege the agency should have done under the statute.").

Redressability requires "a likelihood that the requested relief will redress the alleged injury." *Aransas Project*, 775 F.3d at 648. All of these injuries are redressable by relisting the bear, redesignating critical habitat, and revising the Recovery Plan to address these recognized, actual and foreseeable harms, and to connect true LBB populations. If the bear is not relisted, the hybridization process will be allowed to proceed unabated, threatening to spread and contaminate the entire native genome in the TRB, unless FWS intervenes to correct its error by relisting with a recovery plan that protects the native genome.

It is not necessary that the entirety of the issues in this case be resolved by a favorable decision. *See Massachusetts v. EPA*, 549 U.S. 497, 525 (2007) (holding that regulating vehicular emissions provided adequate redress although this alone would not completely reverse the injury alleged, global warming). The redress sought by plaintiffs in reinstating ESA protections for the LBB and its habitat, and reviewing the best available science to inform an updated Recovery Plan would eliminate many effects of the improper delisting decision. *See Conservancy of Sw. Fla. v. U.S. Fish & Wildlife Serv.*, Case No. 2:10-cv-106-FTM-SPC, 2011 U.S. Dist. LEXIS 38021 at *16-17 (M.D. Fla. 2011) (“To determine if the redressability prong is satisfied, the Court examines the relief requested in the complaint to determine whether it will compensate for or eliminate any effects of the alleged wrongdoing.”) (quoting *Steel Co.*, 523 U.S. at 105-09).

The removal of ESA protections for the LBB and its habitat, and the delisting’s reliance on flawed fulfillment of an outdated Recovery Plan to create and encourage hybridization and genetic contamination has harmed the bear, its habitat, and the personal and concrete interests of the plaintiffs. Only through relisting the bear can FWS begin to remedy these harms.

CONCLUSION

For the foregoing reasons, Plaintiffs’ Motion for Summary Judgment should be granted.

Respectfully submitted this 19th day of July 2021.

s/ Misha L. Mitchell
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CERTIFICATE OF SERVICE

I hereby certify that the foregoing Memorandum in Support of Plaintiffs' Motion for Summary Judgment was served upon all counsel of record through the ECF system this 19th day of July 2021.

s/ Misha L. Mitchell