

No. 18-36030

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UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT

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CROW INDIAN TRIBE, et al.,  
*Plaintiffs / Appellees,*

v.

UNITED STATES OF AMERICA, et al.,  
*Defendants / Appellants,*

and

STATE OF WYOMING, et al.,  
*Intervenor-Defendants / Appellants.*

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Appeal from the United States District Court for the District of Montana  
Nos. 9:17-cv-00089, 9:17-cv-00117, 9:17-cv-00118, 9:17-cv-00119,  
9:17-cv-00123, 9:18-cv-00016 (Hon. Dana C. Christensen)

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**OPENING BRIEF FOR THE FEDERAL APPELLANTS**

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## GLOSSARY

Add.....	Statutory and Regulatory Addendum
APA.....	Administrative Procedure Act
DPS .....	Distinct Population Segment
E.R. ....	Excerpts of Record
ESA .....	Endangered Species Act
FWS .....	U.S. Fish and Wildlife Service
GYE .....	Greater Yellowstone Ecosystem

## INTRODUCTION

Grizzly bears in the lower 48 states were listed as a threatened species under the Endangered Species Act (Act) in 1975. At that time, the grizzly population in the Yellowstone area had dwindled to as low as 136 bears, and the status of the species was precarious. Thanks to decades of dedicated efforts by a broad coalition of federal, state, and tribal agencies and scientists, the grizzly bear population of the Greater Yellowstone Ecosystem (GYE) has multiplied its numbers and expanded its range; it is now stable and secure with a population conservatively estimated at about 700. The Fish and Wildlife Service (FWS) accordingly published a rule recognizing the GYE grizzly bears as a distinct population segment (DPS) and finding that DPS to be recovered under the Act.

Six separate lawsuits, raising a wide range of issues relating to the FWS rule, were consolidated in the District of Montana. The district court granted summary judgment for the plaintiffs and vacated the rule. The court held that FWS failed to consider the effect of delisting the GYE DPS on the rest of the listed species; failed to conduct a “comprehensive review” of the entire listed species; arbitrarily found that the GYE grizzly bears were not threatened by inadequate regulatory mechanisms, and arbitrarily found that the GYE grizzly bears were not threatened by insufficient genetic diversity.

FWS does not appeal from the district court’s rulings on the adequacy of regulatory mechanisms or on the need to consider the effect of delisting the GYE DPS on the rest of the species, and it has already started working on the

remand. The district court erred, however, in ruling that FWS must conduct a “comprehensive review” of the entire listed species, because the Act imposes no such requirement and because courts may not impose procedures not required by statute. The court further erred in substituting its scientific judgment for FWS’s on the matter of the bears’ genetic fitness, in violation of the foundational principles of judicial review of agency decisionmaking. Accordingly, the district court’s decision should be reversed in part.

### **STATEMENT OF JURISDICTION**

(a) The district court had subject matter jurisdiction under 28 U.S.C. § 1331 because Plaintiffs’ claims arose under the Endangered Species Act, 16 U.S.C. § 1540(g), and the Administrative Procedure Act (APA), 5 U.S.C. §§ 551 et seq.

(b) The district court’s judgment was final because it granted all plaintiffs’ motions for summary judgment and vacated the rule under review. 1 E.R. 1, 48-49. This Court has jurisdiction under 28 U.S.C. § 1291.

(c) The district court entered judgment on October 23, 2018. 1 E.R. 1. The federal defendants filed a notice of appeal on December 21, 2018, or 59 days later. 2 E.R. 58. The appeal is timely under Federal Rule of Appellate Procedure 4(a)(1)(B).

### **STATEMENT OF THE ISSUES**

1. Whether the district court erred in holding that the Act requires FWS, in determining the conservation status of a DPS of a listed species, to perform a “comprehensive analysis of the entire listed species.”

2. Whether the district court impermissibly substituted its scientific judgment for FWS's in holding that FWS arbitrarily concluded that the GYE grizzly bear is not threatened by insufficient genetic diversity.

### **PERTINENT STATUTES AND REGULATIONS**

All pertinent statutes and regulations are set forth in the addendum following this brief.

### **STATEMENT OF THE CASE**

#### **A. Statutory background—the Endangered Species Act**

Congress enacted the Act in 1973 to “provide a program for the conservation of . . . endangered species and threatened species” and to conserve “the ecosystems upon which [such species] depend.” 16 U.S.C. § 1531(b). The Act directs the Secretary of the Interior to maintain a list of threatened and endangered species, and it defines “endangered species” to mean “any species which is in danger of extinction throughout all or a significant portion of its range.” *Id.* § 1532(6); *cf.* 50 C.F.R. § 402.01(b) (delegating the Secretary’s responsibilities under the Act to FWS). A “threatened species” is one “which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1532(20). “Species” is defined to include “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.” *Id.* § 1532(16).

Section 4(a)(1) of the Act enumerates the five exclusive criteria by which FWS must determine whether any species is endangered or threatened:

- (A) the present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) overutilization for commercial, recreational, scientific, or educational purposes;
- (C) disease or predation;
- (D) the inadequacy of existing regulatory mechanisms; or
- (E) other natural or manmade factors affecting its continued existence.

16 U.S.C. § 1533(a)(1). The Act requires FWS to make that determination “solely on the basis of the best scientific and commercial data available . . . after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices, within any area under its jurisdiction.” *Id.* § 1533(b)(1)(A); 50 C.F.R. § 424.11(b).

The goal and purpose of the Act is to recover species to the point at which the protections of the Act can be removed. 16 U.S.C. §§ 1531(b), 1532(3). Accordingly, the Act requires the Secretary to periodically re-evaluate listed species to see if they should be removed from the list (delisted), changed from threatened to endangered (uplisted), or changed from endangered to threatened (downlisted). *Id.* § 1533(c)(2). Interested persons may petition for the listing, delisting, uplisting, or downlisting of a species. *Id.* § 1533(b)(3). The criteria for changes in a species’ conservation status are the same as those for listing: the five statutory factors govern all determinations of “whether any

species is an endangered species or a threatened species,” regardless of whether or how the species is currently listed. *Id.* § 1533(a).

**B. Factual background**

**1. The fall and rise of the Greater Yellowstone Ecosystem grizzly bears**

Although an estimated 50,000 grizzly bears once roamed the western United States, their numbers declined precipitously with the westward expansion of the nation. Government-sponsored eradication programs led to grizzly bears being poisoned, trapped, or shot wherever they were found, reducing the population in the lower 48 states to 2% of its former level by the 1930s. 2 E.R. 89. The lower-48 grizzly population continued to decline until, in 1975, the grizzly bear was listed as a threatened species. At that point, the grizzly population in the greater Yellowstone area was estimated to be as low as 136 bears. *Id.* Thanks to decades of “unprecedented efforts” by state, federal, and tribal land managers and scientists, “the Yellowstone grizzly population has rebounded.” *Greater Yellowstone Coalition v. Servheen*, 665 F.3d 1015, 1019 (9th Cir. 2011). Grizzly bears occupied 92% of the suitable habitat in the GYE by 2014, and the population has since continued to expand. 2 E.R. 92, 206. FWS and independent experts determined that the population is approaching the area’s carrying capacity, and it has remained stable and secure at about 700 bears since the early 2000s. 2 E.R. 87-88; 90; *cf. id.* at 87 (“Carrying capacity” is “the maximum number of individuals a particular

environment can support over the long term without resulting in population declines caused by resource depletion.”).

That resurgence was brought about through implementation of a recovery plan that FWS first issued in 1982 and updated in 1993, 2007, and 2017. The recovery plan prescribed a three-pronged approach to recovery: protecting habitat; establishing population thresholds, reproduction targets, and mortality limits; and creating a Conservation Strategy to ensure that appropriate habitat and demographic protections will remain in force after recovery. 2 E.R. 90-96. Recognizing that different grizzly populations would recover at different rates, the plan contemplated that those “populations may be listed, recovered, and delisted separately.” 3 E.R. 436.

## **2. The 2007 rule and previous litigation**

By 2006, the grizzly population of the Greater Yellowstone Area had grown to more than 500 bears and had satisfied all of the demographic and habitat-based recovery criteria of the then-current recovery plan. *Greater Yellowstone Coalition*, 665 F.3d at 1020. In 2007, eight federal and state agencies finalized a Conservation Strategy that set forth the measures and mechanisms that would assure the conservation of a recovered grizzly population after delisting. *Id.* at 1021. Accordingly, in 2007, FWS published a final rule recognizing the Greater Yellowstone Area grizzly population as a DPS, finding it recovered, and removing it from the list of threatened species. 72 Fed. Reg. 14,866 (Mar. 29, 2007).

Three challenges were filed. The District Court for the District of Montana granted summary judgment for the plaintiffs and vacated the rule, holding that FWS arbitrarily concluded that the grizzly bears would not be threatened after delisting by inadequate regulatory mechanisms and by the decline in whitebark pine, an important food source for the population. *Greater Yellowstone Coalition v. Servheen*, 672 F. Supp. 2d 1105 (D. Mont. 2009).

On appeal, this Court reversed the district court on the inadequacy of regulatory mechanisms, holding that FWS reasonably concluded that the regulatory framework applicable on federal lands alone—which comprise 98% of the primary conservation area—were “sufficient to sustain a recovered Yellowstone grizzly bear population.” *Greater Yellowstone Coalition*, 665 F.3d at 1032. This Court rejected the notion that post-delisting regulatory mechanisms must mirror the “stalwart protections of the ESA,” explaining: “After all, the ESA expressly aims for species recovery to the point where its own measures are ‘no longer necessary,’ 16 U.S.C. § 1532(3), thus contemplating that something less can be enough to maintain a recovered species.” *Id.* But this Court affirmed the district court’s judgment of vacatur, holding that there was insufficient data for the conclusion that the Greater Yellowstone Area grizzly bears are not likely to be imperiled by a decline in whitebark pine. *Id.* at 1030.

### **3. The 2017 rule**

After five years of further study by FWS and independent experts, FWS published a proposed rule on March 11, 2016; the rule would recognize the Greater Yellowstone Ecosystem population of grizzly bears as a DPS, find that

DPS to be recovered, and remove it from the list of threatened wildlife. 81 Fed. Reg. 13,174.<sup>1</sup> Following peer review and two rounds of public comment, FWS completed the remand and published the final rule on June 30, 2017.

The rule first determined that all three prongs of the recovery plan for the GYE grizzly population have been satisfied. The plan's habitat-based and demographic recovery criteria, the rule explained, have been fully met since 2007 at the latest. 2 E.R. 91 (habitat-based criteria met since 2007); 2 E.R. 95 (the three demographic criteria met since 2003, 2001, and 2004, respectively).

The capstone of the recovery plan—the establishment of a robust Conservation Strategy for post-delisting management and conservation of the population—has also been satisfied. 2 E.R. 96-97. Representing more than 20 years of collaborative interagency and intergovernmental work, the 2016 Conservation Strategy establishes “objective, measurable habitat and population standards, with clear State and Federal management responses if deviations occur.” 2 E.R. 96. It incorporates the grizzly bear management plans of all three affected states (Idaho, Montana, and Wyoming), and its requirements have been incorporated into the Forest Plans and National Park management plans of the two national parks and five national forests that collectively manage 98% of the land in the primary conservation area. 2 E.R. 96-97. All of the state and federal agencies party to the 2016 Conservation

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<sup>1</sup> FWS considers “the terms ‘Greater Yellowstone Area’ and ‘Greater Yellowstone Ecosystem’ to be interchangeable,” but it used the latter (abbreviated to GYE) in the 2017 final rule “to be consistent with the 2016 Conservation Strategy.” 2 E.R. 84.

Strategy signed a Memorandum of Understanding committing to implement that strategy; all have agreed that any future changes or updates to the Conservation Strategy may occur only if they are based upon the best available science and are subject to public notice and comment and approval by the Yellowstone Grizzly Bear Coordinating Committee, an interagency group overseeing implementation of the Conservation Strategy. 2 E.R. 97.

The rule then explained that the GYE grizzly bear population meets the regulatory definition of a DPS because it is discrete from other grizzly populations, 2 E.R. 98-99, and because it is significant to the taxon as a whole, 2 E.R. 99-100. Having concluded that the GYE grizzly bear population is a separately listable entity under the Act, 2 E.R. 100, the rule then assessed its conservation status, applying the five-factor test set forth in the Act for “determin[ing] whether any species is an endangered species or a threatened species.” 16 U.S.C. § 1533(a)(1).

The rule examined the effects of livestock allotments, mineral and energy development, recreation, climate change, and habitat fragmentation, among other impacts, 2 E.R. 101-07, and it concluded that those impacts to the bears’ habitat and range have been managed to the point where they do not constitute a threat to the GYE grizzly bear now or in the foreseeable future, 2 E.R. 108. Similarly, the rule assessed the impacts of disease, predation, and human-caused mortality on the grizzly population, including mortality due to defense of life and property, management removals, accidents, poaching, and post-delisting legal hunting. 2 E.R. 108-116. Considering the Conservation Strategy

and existing state and federal laws and regulations, the rule concluded that disease, natural predation, human-caused mortality, and the inadequacy of existing regulations do not pose a threat to the GYE grizzly bears now or in the foreseeable future. 2 E.R. 116.

Under the Act's fifth factor, which examines any "other natural or manmade factors affecting [the species'] continued existence," the rule analyzed changes in food resources (including a thorough analysis of the effects of the decline in whitebark pine), climate change, the risk of catastrophic events, the bears' genetic health, and public attitudes towards grizzly bears. 2 E.R. 116-25. The rule noted that the heterozygosity (a measure of genetic diversity) of the population had increased between 2003 and 2010, 2 E.R. 116, and that a 2015 study indicated that the effective population (that is, the actual number of bears available for of breeding) was more than four times higher than previously estimated in a 2003 study, 2 E.R. 117. The rule outlined measures to monitor the population's genetic health and to facilitate the natural migration of bears from other populations, which would "maintain or enhance" the GYE grizzly population's genetic health. Should natural migration fail and monitoring indicate a decrease in genetic diversity, translocation of bears between ecosystems would be implemented "as a last resort." *Id.* As a result of those studies and protective measures, the rule concluded that "long-term genetic diversity is not a continued threat to the GYE grizzly bear DPS." *Id.*

The rule then thoroughly considered and responded to comments from peer reviewers and the public, 2 E.R. 126-206, and outlined the monitoring measures that will be implemented under the Conservation Strategy to protect against unanticipated declines after delisting, 2 E.R. 209-11. The rule listed four circumstances that would trigger a status review to consider re-listing the GYE grizzly bear DPS. Among those triggers were “any changes in Federal, State, or Tribal laws, rules, regulations, or management plans that depart significantly” from the Conservation Strategy and that would significantly increase the threat to the population. 2 E.R. 211. Finally, the rule updated the list of endangered and threatened wildlife at 50 C.F.R. § 17.11(h) by revising the geographic description of where the grizzly bear is listed as threatened. 2 E.R. 213-14.

### **C. Proceedings below**

The Crow Indian Tribe and others filed suit in the District of Montana on the day the final rule was published. Five other challenges were later filed, and were consolidated there. The States of Idaho, Montana, and Wyoming intervened as defendants, as did several farming and hunting interest groups.

One month after the rule was published, the D.C. Circuit issued its opinion in *Humane Society v. Zinke*, 865 F.3d 585 (D.C. Cir. 2017), a case concerning a rule delisting a DPS of wolves. As detailed below (pp. 17-21), the D.C. Circuit held that FWS may designate and delist a DPS of a listed species, but it also held that when FWS does so, it must explain whether the rest of the listed species continues to qualify as a “species” under the Act. *Id.* at 600.

Because the grizzly bear rule was published before the *Humane Society* decision, it did not contain that explanation. Consequently, FWS published a notice of regulatory review, seeking public comment on the impact of the *Humane Society* decision on the GYE grizzly bear rule. 82 Fed. Reg. 57,698 (Dec. 7, 2017). That review was completed and published on April 30, 2018. 83 Fed. Reg. at 18,737 (Addendum (Add.) 5a). The regulatory review assessed the impact, both legal and biological, of the DPS delisting on the rest of the species that remains listed. Legally, the review concluded that “the Final Rule delisting the GYE DPS does not require modification and that the remainder of the [lower 48] population will remain protected under the Act as a threatened species unless we take further regulatory action.” *Id.* Biologically, the review concluded that the “impacts of delisting the GYE DPS on the lower-48-States entity are minimal, do not significantly impact the lower-48-States entity, and do not affect the recovery of the GYE grizzly bears.” Add. 9a.

The parties filed cross-motions for summary judgment. The district court granted summary judgment for the plaintiffs on September 24, 2018, holding that FWS had violated the Act in three ways. First, the final rule and the regulatory review, taken together, failed to adequately consider the impact of delisting the GYE grizzly bear DPS on the other grizzly bear populations in the lower 48 states. The court stated in this context that FWS must conduct a “comprehensive review of the entire listed species and its continuing status.” 1 E.R. 30. Second, the court held that FWS’s conclusion that the GYE grizzly

bear is not threatened by inadequate regulatory mechanisms was arbitrary and capricious because FWS did not ensure that mortality limits and other regulatory mechanisms that vary with estimated population would be recalibrated if a new method of estimating population were to be adopted. Finally, the court held that FWS's conclusion that the GYE grizzly bear population is not threatened by genetic isolation was arbitrary. The district court issued a final judgment on October 23, 2018.

### **SUMMARY OF ARGUMENT**

1. FWS has accepted a remand in this case and is already working on some of the issues identified by the district court. But the district court's remand order improperly imposes procedures not required by the Act; without this Court's correction, that order will hinder the ability of the agency to do its job on remand. The court stated that FWS must conduct a "comprehensive review of the entire listed species" on remand—an unwarranted, burdensome directive that goes well beyond requiring that FWS address the effect, if any, that delisting a DPS has on the rest of the species. FWS is entitled to address, in the first instance, whether delisting a DPS affects the legal status of the rest of the species; until FWS does so, it is premature to direct what further inquiry may be required on remand. This Court should reverse the district court's decision to the extent that it goes beyond simply vacating the rule for failure to address the delisting's impact on the legal status of the rest of the species.

2. FWS's conclusion that the GYE grizzly bear population is not threatened by genetic factors was supported by the best available science,

which FWS accurately interpreted and explained. FWS articulated a rational basis for its decision that the long-term genetic health of the population would be assured (1) because of the population’s large size, and (2) because the Conservation Strategy will facilitate the natural migration of bears into the GYE from other ecosystems—with translocation of bears as a “last resort” measure if monitoring indicates a decline in the GYE grizzly bears’ genetic diversity. The district court erred in substituting its scientific judgment for FWS’s and thereby imposing the court’s policy preference for a date-certain commitment to translocation.

The judgment of the district court should be reversed with respect to its holdings that FWS must conduct a “comprehensive review of the entire listed species” and that FWS arbitrarily concluded that the grizzly bears are not threatened by insufficient genetic diversity.

### **STANDARD OF REVIEW**

This Court reviews the district court’s grant of summary judgment *de novo*. *Greater Yellowstone Coalition*, 665 F.3d at 1023. Because this is a record-review case, this Court conducts its “own review of the administrative record,” *San Luis & Delta-Mendota Water Authority v. Locke*, 776 F.3d 971, 991 (9th Cir. 2014), without deference to the district court.

The Administrative Procedure Act (APA), 5 U.S.C. §§ 701-706, governs judicial review of whether agency action complies with the Endangered Species Act. *San Luis & Delta-Mendota Water Authority v. Jewell*, 747 F.3d 581, 601 (9th Cir. 2014). Under that “highly deferential” standard, *id.*, a reviewing

court “may not substitute [its] judgment for that of the agency,” but must uphold the agency’s decision as long as the agency has considered the relevant data, articulated a satisfactory explanation for its action, and made no clear error of judgment. *See Motor Vehicle Manufacturer’s Ass’n v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 43 (1982). A reviewing court “must generally be at its most deferential” when reviewing scientific determinations within the agency’s area of expertise. *San Luis & Delta-Mendota Water Authority v. Jewell*, 747 F.3d at 602.

## ARGUMENT

### **I. The district court’s order goes beyond the appropriate remedy to impose procedures not required under the Act.**

FWS is already working on the issues remanded in this case. If, after completion of its work, FWS decides to designate the Greater Yellowstone Ecosystem grizzly bear population as a DPS and to delist it, and to leave some or all of the remaining grizzly bears in the lower 48 states listed under the existing 1975 listing rule, then FWS will address the impact of the DPS delisting on that listed species. That analysis will include the legal issue of whether and how the rest of the species remains a “species” protectable under the Act. FWS therefore does not appeal from the district court’s order to the extent that it requires FWS to “consider the legal and functional effect of delisting a newly designated population segment on the remaining members of a listed entity.” 1 E.R. 31-32. That consideration is underway.

Without explanation, however, the district court also held that the Act requires FWS to undertake a “comprehensive review” of the entire listed species. 1 E.R. 30. The Act, however, imposes no such requirement, and the district court identifies no statutory basis for its holding. The “comprehensive review” prescribed by Section 4(a)(1) of the Act, 16 U.S.C. § 1533(a)(1) governs FWS’s decision whether a species is threatened or endangered; it has no bearing on whether a listed species continues to qualify as a “species” under the Act when a DPS is delisted. Section 4(a)(1)’s five-factor analysis applies *only* to decisions to list, delist, uplist, or downlist a species. Therefore, unless FWS determines that delisting a DPS entails listing, delisting, downlisting, or uplisting the rest of the species, the Act requires no five-factor analysis of the rest of the species.

**A. *Humane Society* held that FWS may delist a DPS of a listed species, but it must ensure that doing so does not render the rest of the species ineligible for the Act’s protections.**

The D.C. Circuit’s decision in *Humane Society v. Zinke* addressed a challenge to a rule recognizing and delisting a DPS of gray wolves in the upper Midwest, while leaving wolves listed as endangered elsewhere. The principal question in that case was whether FWS has the authority under the Act to recognize a recovered segment of a listed species as a DPS and to delist it. *Humane Society* held that the FWS does indeed have that authority, as long as FWS addresses whether the rest of the listed species remains protectable under the Act.

The plaintiffs in *Humane Society* argued that once a species has been listed, no part of it may be delisted or downlisted until all of the species may be delisted or downlisted. The district court in that case agreed, holding that once a species is listed, FWS may take action only with respect to the *entire* listed species, not with respect to any subspecies or DPS within that listed species. *Humane Society v. Jewell*, 76 F. Supp. 3d 69, 123-24 (D.D.C. 2014). Somewhat contradictorily, that district court acknowledged that FWS *may* recognize a DPS within a larger listed species in order to *uplist* it from threatened to endangered; in that court's view, the Act operates as a "one-way ratchet," allowing the separate recognition of a DPS to increase (but never to decrease) the protections provided. *Id.* at 112.

The D.C. Circuit reversed the district court's decision on that issue, holding that sound textual and policy reasons supported FWS's interpretation of the Act as permitting the recognition and delisting of a recovered segment of a listed species. As a textual matter, the Act defines "species" to include DPSs, 16 U.S.C. § 1532(16), and "plainly allows—actually, requires—the Service to periodically revisit and, as warranted, revise the status of a listed species." *Humane Society*, 865 F.3d at 596 (citing 16 U.S.C. § 1533(c)(1)). Because "the Service's initial listing of all gray wolves in North America necessarily listed all possible segments and subspecies within that grouping," it follows that FWS may revise the status of a DPS (or subspecies) of animals that are already listed at a broader level to reflect changes in its conservation status, whether that entails uplisting, downlisting, or delisting. *Id.* at 597.

Turning to policy, the D.C. Circuit explained that FWS's interpretation is "consonant with the purposes of the Endangered Species Act, which is to devote needed resources to the protection of endangered and threatened species, while abating the Act's comprehensive protections when a species—defined to include a distinct population segment—is recovered." *Id.* at 598. When one part of a listed species recovers while the rest continues to require protection, delisting a recovered DPS furthers "Congress's intent to target the Act's provisions where needed, rather than to require the woodenly undifferentiated treatment of all members of a taxonomic species regardless of how their actual status and condition might change over time." *Id.*

The D.C. Circuit also recognized that delisting recovered DPSs furthers the Act's purpose of fostering cooperation with states in the conservation of endangered and threatened species. "[E]mpowering the Service to alter the listing status of segments rewards those States that most actively encourage and promote species recovery within their jurisdictions," while "continuing to rigidly enforce the Act's stringent protections in the face of such success just because recovery has lagged elsewhere would discourage robust cooperation." *Id.* at 599. Accordingly, *Humane Society* concluded that the Act "allows the identification of a distinct population segment within an already-listed species, and further allows the assignment of a different conservation status to that segment if the statutory criteria for uplisting, downlisting, or delisting are met." *Id.* at 600.

The *Humane Society* court was troubled, however, about the potential legal impact that delisting a DPS could have on the rest of the previously listed species. Its concern was prompted by a proposed rule published by FWS in 2013 but never finalized. At the time the proposed rule was published, the two major wolf populations in the lower 48 states (the Northern Rocky Mountains DPS and the Western Great Lakes DPS) had been delisted, and a small and endangered experimental population of Mexican wolves (*Canis lupus baileyi*) inhabited the Southwest. The proposed rule proposed to list the Mexican wolf as an endangered subspecies and to delist all other wolves still listed in the lower 48 states because the “currently listed entity is not a valid species under the Act.” 78 Fed. Reg. 35,664 (June 13, 2013).

The proposal to list Mexican wolves separately as an endangered subspecies was finalized, 80 Fed. Reg. 2488 (Jan. 16, 2015), but FWS took no further action on the 2013 proposal to delist the rest of the listed gray wolves in the lower 48 states. Nevertheless, the specter of that abandoned proposal loomed large over the *Humane Society* case. By the time *Humane Society* was decided, the delisting of the Northern Rocky Mountains wolf DPS had been completed and was no longer subject to judicial review. *Defenders of Wildlife v. Zinke*, 849 F.3d 1077 (D.C. Cir. 2017) (upholding rule delisting wolves in Wyoming); *Alliance for the Wild Rockies v. Salazar*, 672 F.3d 1170 (9th Cir. 2012) (upholding constitutionality of statute directing delisting of Northern Rocky Mountain wolves except in Wyoming). The rule before the D.C. Circuit in *Humane Society* delisted wolves in the Western Great Lakes DPS. Although

that rule did not alter the endangered status of listed wolves outside the boundaries of the Western Great Lakes DPS, the court was concerned that those wolves might become “an orphan to the law,” ultimately losing their protections under the Act not due to recovery but because they no longer qualified as a protectable species. 865 F.3d at 603.<sup>2</sup> Such a “backdoor route to the *de facto* delisting,” the court stated, would impermissibly deprive a listed species of the Act’s protections without ensuring that the Act’s “specifically enumerated requirements for delisting” were satisfied. *Id.* at 602 (citing 16 U.S.C. § 1533(a)(1)).

To ensure that a rule delisting a DPS does not tacitly entail the delisting of the rest of the species, *Humane Society* held that when FWS delists a DPS of listed animals, it “must make it part and parcel of its segment analysis to ensure that the remnant, if still endangered or threatened, remains protectable under the Endangered Species Act.” *Id.* at 602.

**B. The district court rejected FWS’s attempt to provide the analysis required under *Humane Society* in the regulatory review.**

Because the GYE grizzly bear final rule was published before *Humane Society* was decided, it naturally did not contain the analysis that *Humane*

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<sup>2</sup> Although the 2013 proposed rule had not been revoked or superseded at the time of the D.C. Circuit’s decision, it has since been formally superseded. 84 Fed. Reg. 9648, 9654 (Mar. 15, 2019). The superseding rule proposes to delist the remaining listed wolves in the United States (other than the separately listed Mexican wolves) on the grounds of recovery, not on the grounds that they do not constitute a valid species.

*Society* later deemed necessary. Consequently, when the D.C. Circuit issued its decision, FWS decided to conduct a regulatory review, soliciting public comment, to examine the impact of that new decision on the GYE grizzly bear rule and to undertake the additional analysis required by that opinion. 82 Fed. Reg. 57,698 (Dec. 7, 2017).

FWS published the regulatory review on April 30, 2018. 83 Fed. Reg. 18,737 (Add. 5a). The review noted FWS's disagreement with *Humane Society's* premise that delisting a DPS might implicitly delist the rest of the species as well. FWS explained that (as *Humane Society* acknowledged) when a species is listed, that listing includes all lower taxonomic units and populations, including DPSs. When FWS identifies and delists a DPS, it is simply "separately recognizing an already-listed entity for the first time because it now has a different conservation status than the whole." Add. 6a (quoting Interior [Solicitor's Opinion M-37018](#) at 7). Separately recognizing a DPS whose conservation status has diverged from the rest of the listed species, "does not automatically split or carve up a taxonomic entity, but merely recognizes that a DPS is a population within a taxonomic entity." *Id.* Thus, FWS reasoned, the rest of the species is unaltered by the separate recognition and reclassification of a DPS.

Despite its disagreement with *Humane Society* on that issue, FWS nevertheless proceeded to analyze the impact of the DPS delisting on the lower-48 listing of the grizzly bear, examining whether "removing the Act's protections from one population could impede recovery of other still-listed

populations.” Add. 7a. After discussing possible impacts to dispersal of grizzly bears between populations and consequent impacts on genetic diversity, FWS concluded that the “impacts of delisting the GYE DPS on the lower-48-States entity are minimal, do not significantly impact the lower-48-States entity, and do not affect the recovery of the GYE grizzly bears.” Add. 9a. The regulatory review further concluded that the “Act’s protections will continue outside the DPS boundaries until subsequent regulatory action is taken on the 1975 listing rule or specific DPSs” within the lower 48 states, concluding that “this is the most precautionary and protective approach to grizzly bear recovery.” Add. 9a. Grizzly bears outside the boundary of the GYE DPS thus remain fully protected as threatened under the Act.

The district court rejected the regulatory review’s analysis as inadequate, opining that FWS “look[ed] no further than to note the continued listing of the lower-48 grizzly post-delisting of the Greater Yellowstone grizzly.” 1 E.R. 26. That characterization of the review is inaccurate. Although the review does note the continued listing of the lower-48 grizzly bears, it also explains that under the Act, DPSs are *parts* of a species, and are not automatically “cleaved” or “carved out” of that species when they are designated. Add. 6a.

But the regulatory review’s statutory analysis is brief and leaves some questions unanswered. Specifically, the regulatory review does not resolve the legal question of whether, when a DPS of a listed species is delisted, the rest of the species continues to qualify as a “species” within the meaning of the Act. That question will be addressed by FWS on remand if it again designates and

delists a GYE grizzly bear DPS while leaving intact the rest of the lower-48 grizzly listing.

**C. The district court erroneously held that FWS must conduct a “comprehensive review of the entire listed species”**

As noted, if on remand FWS again decides to delist the GYE grizzly bears while leaving grizzly bears listed in the rest of the lower 48 states, then it will explain the impact (if any) of that delisting on the rest of the listed species. The district court erred, however, in holding that FWS’s analysis of the rest of the species must go beyond assessing the impact of delisting.

The district court stated that when FWS delists a DPS of a listed species, the Act “requires a comprehensive review of the entire listed species and its continuing status.” 1 E.R. 30. The court held that the rule’s analysis was inadequate because “the Service did not undertake the comprehensive review mandated by the ESA.” *Id.* The Act, however, contains no such mandate. The court provided no reasoning in support of the supposed duty to conduct a “comprehensive review” of the entire listed species when designating a DPS, nor did it identify any provision of the Act that imposed such a requirement. The sole support offered in support of the purported duty to conduct a “comprehensive review of the entire listed species” is a citation to the D.C. Circuit’s decision in *Humane Society*. *Id.* (citing 865 F.3d at 601).

It is unclear whether *Humane Society*’s reference to “comprehensive analysis” meant to require the five-factor analysis prescribed under the ESA when FWS determines whether a species is endangered or threatened, 16

U.S.C. § 1533(a)(1), or whether it meant to require a different (but nonetheless comprehensive) examination of the entire listed species. But in either case, the court's discussion of that issue is erroneous and should not be followed. The principal question before the court in *Humane Society* was whether it is possible for FWS to delist a DPS of a listed species, not what procedures apply when FWS does so. Therefore, the question of what level of consideration of the full species *would be* required *if* FWS were to delist a DPS of a larger listed species, was no more than glancingly touched on by the parties. The “crucible of adversarial testing is crucial to sound judicial decisionmaking. We rely on it to yield insights (or reveal pitfalls) we cannot muster guided only by our own lights.” *Sessions v. Dimaya*, 138 S. Ct. 1204, 1232-33 (2018) (Gorsuch, J., concurring) (internal quotation marks omitted). Without the benefit of a full adversary presentation of the issue, *Humane Society's* discussion succumbed to hidden pitfalls, and it should not be followed.

*Humane Society* contended that Solicitor's Opinion M-37018 supports its view that the Act “requires a comprehensive review of the entire listed species and its continuing status,” but the court's reasoning is flawed. The court correctly noted that the Solicitor's Opinion explains that when a species is listed, that listing includes all lower taxonomic units and populations. 865 F.3d at 601 (citing [Solicitor's Opinion M-37018](#) at 7-8 & n.10). Thus, a DPS may be “delisted” even if it was never separately “listed,” because it was included in the listing of the larger taxonomic unit. But the court wrongly inferred that the converse is also true; that is, it seems to have reasoned that if the listing of a

full species includes DPSs within it, then the listing of a DPS must include the entire listed species of which it is a part, and thus the delisting of a DPS must analyze the entire listed species. *Id.* That is simply legally and logically incorrect. A DPS is a “species” under the Act. 16 U.S.C. § 1532(16) (“The term ‘species’ includes . . . any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.”) When FWS evaluates whether a DPS is endangered or threatened, the “species” it is evaluating is the DPS, not the entire listed species. The DPS does not include the entire listed species, and therefore the Act does not require analysis of the entire listed species to determine the conservation status of a DPS. The whole includes the part, but the part does not include the whole.

Next, *Humane Society* claimed that FWS’s policy interpreting the term “distinct population segment” likewise requires analysis of the full species. 865 F.3d at 601 (citing Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act, 61 Fed. Reg. 4722 (Feb. 7, 1996) (DPS Policy), 3 E.R. 437). The DPS Policy defines a DPS as a population that is discrete from and significant to the species to which it belongs. 3 E.R. 440. The court noted that assessing a population’s discreteness and significance in relation to the remainder of the taxon requires consideration of both the population and the taxon. That is true enough, but it does not follow that a “comprehensive analysis of the entire listed species” is required in order to make the required comparisons.

The DPS Policy “guides the evaluation of distinct vertebrate population segments for the purposes of listing, delisting, and reclassifying under the Act.” *Id.* It contains no suggestion that a “comprehensive analysis of the entire listed species” is necessary in order to evaluate the discreteness or significance of a population segment in relation to the taxon. The DPS Policy explicitly provides that if a population is found to be discrete and significant, then “its evaluation for endangered or threatened status will be based on the Act’s definition of those terms and a review of the factors enumerated in section 4(a).” *Id.* It contains no such requirement, however, for the larger species to which the DPS is being compared.

Nor does the Act itself impose such a requirement. Section 4(a) directs FWS to “determine whether any species is an endangered species or a threatened species because of any of” the five listed factors. 16 U.S.C. § 1533(a). The statute’s plain language requires an analysis of the species whose conservation status is being determined—here, the GYE grizzly bear DPS. As long as FWS ensures that delisting a DPS does not amount to a “*de facto* delisting” of the rest of the species—a conclusion that does not require reference to the Section 4(a) factors—then nothing in the Act requires a Section 4(a) analysis of the larger listed subspecies or species when FWS determines whether a DPS is an endangered or threatened species.

In suggesting that the DPS Policy requires a comprehensive analysis of the entire listed species, therefore, the D.C. Circuit misconstrued both the DPS Policy and the Act itself. Rather than adhere to an out-of-circuit case with

erroneous reasoning, this Court's decision should instead be guided by the Act and the DPS Policy, which this Court has held is entitled to *Chevron* deference. *Northwest Ecosystem Alliance v. U.S. Fish & Wildlife Service*, 475 F.3d 1136, 1143 (9th Cir. 2007).

Because the Act does not require a "comprehensive analysis" of the entire listed species when evaluating a DPS, it was error for the district court to require such analysis. Courts may not "impose procedural requirements not explicitly enumerated in the pertinent statutes." *Lands Council v. McNair*, 537 F.3d 981, 993 (9th Cir. 2008) (en banc) (internal alterations omitted); accord *Vermont Yankee v. NRDC*, 435 U.S. 519, 543 (1978). Such a requirement, moreover would frustrate the purposes of the Act. This Court has recognized that the "ability to designate and list DPSs allows the FWS to provide different levels of protection to different populations of the same species." *National Ass'n of Home Builders v. Norton*, 340 F.3d 835, 842 (9th Cir. 2003). But if FWS were precluded from listing, delisting, uplisting, or downlisting a DPS without conducting the extremely time-consuming, resource-demanding Section 4(a) review of the entire listed species, or any other comprehensive review of the entire listed species, then that flexibility would be severely curtailed in practice. And that burden would apply equally to attempts to uplist DPSs of animals, such as plaintiff Alliance for Wild Rockies' pending petition to uplist the grizzly bears of the Cabinet-Yaak Ecosystem from threatened to endangered.

The district court's erroneous directive to conduct a "comprehensive review" may have been based on an assumption that, on remand, FWS will

interpret the Act to provide that when a DPS of a listed species is recognized, the rest of the listed species either ceases to qualify as a species at all, or is reborn as a new species requiring a new listing decision. But it is by no means assured that FWS will interpret the Act in that manner, and the court may not impose procedures not required by law based on a premature and speculative assumption about the outcome of FWS's future decision on remand.

Therefore, to the extent that the district court directed FWS to conduct a "comprehensive analysis" of the rest of the species, that portion of its decision should be vacated.

**II. The district court erred in rejecting FWS's conclusion that the GYE grizzly bears are not threatened by genetic factors.**

The district court held that FWS arbitrarily and capriciously found that the GYE grizzly bears are not threatened by insufficient genetic diversity. The district court acknowledged that FWS relied on the best available science, but it asserted that FWS "misread the scientific studies" and "did not interpret that science rationally." 1 E.R. 41-42. In fact, however, FWS correctly interpreted the multiple studies documenting the GYE grizzly bears' robust genetic health, and the record supports its scientific judgment that the GYE grizzly bears' isolation is not a threat to the population's genetic health for the foreseeable future. "Because the Service has articulated reasoned connections between the record and its conclusion, its genetic analysis was not arbitrary or capricious." *Northwest Ecosystem Alliance*, 475 F.3d at 1150.

**A. The record supports FWS’s finding that the GYE grizzly bears are not threatened by insufficient genetic diversity and do not require a fixed-date commitment to translocate bears from other populations.**

When the grizzly bear was listed as a threatened species in 1975, the isolation of the Yellowstone grizzly bear population was recognized as a threat to its genetic health. But after decades of cooperative efforts by multiple state and federal agencies and Indian tribes, the GYE grizzly bear population has rebounded from as low as 136 to roughly 700, conservatively estimated.<sup>3</sup> With that surge in population, naturally, came a dramatic increase in the number of breeding individuals, which in turn led to an increase in genetic diversity. Current levels of genetic diversity have been shown to be “capable of supporting healthy reproductive and survival rates, as evidenced by normal litter size, no evidence of disease, high survivorship, an equal sex ratio, normal body size and physical characteristics, and a relatively constant population size.” 2 E.R. 116. Those indicators of genetic fitness will continue to be monitored after delisting. *Id.*

Effective population size—that is, the number of bears available to reproduce at any given time—is one measure of genetic health. FWS

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<sup>3</sup> Contrary to plaintiffs’ claims below, the population did not significantly drop after the 2002-2014 period examined in the rule. Population estimates in the Demographic Monitoring Area were 718, 741, 757, 717, 695, 718, and 709 from 2012 to 2018. Those numbers indicate a population that has stabilized and is fluctuating above and below its carrying capacity, as the rule explained. 2 E.R. 88; 3 E.R. 420 (2012), 418 (2013), 416 (2014), 399 (2015), 2 E.R. 216 (2017); [2017 Annual Report](#), p.17; [2018 Annual Report Summary](#).

considered two studies in determining that the effective population size of the GYE grizzly bear population is “sufficiently large to avoid substantial accumulation of inbreeding depression, thereby reducing concerns regarding genetic factors affecting the viability of GYE grizzly bears.” *Id.* at 117. A 2003 study by Craig Miller and Lisette Waits found that the effective population of GYE grizzly bears in the late 1990s was likely around 100, and that at that level, “it is unlikely that genetic factors will have a substantial effect on the viability of the Yellowstone grizzly over the next several decades.” 3 E.R. 426. To ensure the population’s genetic health “over longer time periods (decades and centuries),” Miller & Waits suggested that “one to two effective migrants per generation” from the Northern Continental Divide Ecosystem into the GYE “is an appropriate level of gene flow.” *Id.*

A 2015 study by Pauline Kamath and others, using a newer technique, concluded that the effective population size in 2007 was 469—a more than four-fold increase from 1982, when the effective population (derived by applying the same method to historical data) was 82. 3 E.R. 405. Applying the older “temporal” method used by Miller and Waits produced lower estimates of effective population size, but it still showed a significant increase to about 280 in the 2007 population. 3 E.R. 407; 2 E.R. 191. The Kamath study noted that the population “could benefit from increased fitness following the restoration of gene flow,” but it concluded that “current effective population sizes are sufficiently large . . . to avoid substantial accumulation of inbreeding

depression, reducing concerns regarding genetic factors affecting the viability of Yellowstone grizzly bears.” 3 E.R. 410.

Based on both studies, FWS reasonably concluded that the current effective population “is adequate to maintain genetic health in this population,” and that “1 to 2 effective migrants from other grizzly bear populations every 10 years would maintain or enhance this level of genetic diversity and, therefore, ensure genetic health in the long term.” 2 E.R. 117. Because current levels of genetic diversity indicate that there is “no immediate need for new genetic material,” *id.* at 116, FWS determined that it was no longer necessary to set a fixed date for translocation of bears from the Northern Continental Divide Ecosystem into the GYE, as the 2007 Conservation Strategy had required. Instead, “the 2016 Conservation Strategy identifies and commits to a protocol to encourage natural habitat connectivity between the GYE and other grizzly bear ecosystems,” *id.* at 191, relying on translocation only as a “last resort” if monitoring indicates a decrease in genetic diversity. *Id.* at 117.

Thus, FWS provided a reasoned explanation for its conclusions that the GYE grizzly bear is not threatened by insufficient genetic diversity and that facilitating natural connectivity, with translocation as a backstop, is sufficient to maintain or enhance the bears’ genetic health over the long term. Relying on the best scientific data available, FWS “considered the relevant factors and articulated a rational connection between the facts found and the choices made.” *Baltimore Gas & Electric Co. v. NRDC*, 462 U.S. 87, 105 (1983).

**B. The district court improperly substituted its own interpretation of the scientific evidence for that of FWS.**

This Court has uniformly held that a reviewing court may “not substitute its judgment for that of the agency,” *Protect Our Communities Foundation v. Jewell*, 825 F.3d 571, 583 (9th Cir. 2016), and “must generally be at its most deferential” when reviewing scientific determinations within the agency’s area of expertise, *San Luis & Delta-Mendota Water Authority v. Jewell*, 747 F.3d at 602; accord *Trout Unlimited v. Lohn*, 559 F.3d 946, 958 (9th Cir. 2009) (“Where scientific and technical expertise is necessarily involved . . . a reviewing court must be highly deferential to the judgment of the agency.”); *Northwest Ecosystem Alliance*, 475 F.3d at 1150 (holding, in challenge to Service’s genetic analysis, that “we must defer to the agency’s interpretation of complex scientific data”).

The district court acknowledged those precepts but failed to follow them. The court blatantly substituted its interpretation of the genetic studies for that of FWS’s biologists, opining that the scientists at FWS “misread the scientific studies” and “did not interpret that science rationally.” 1 E.R. 41-42. The court purported to find two errors in FWS’s interpretation of the genetic studies. But as explained below, FWS’s understanding was correct, and its conclusions about the population’s genetic fitness were consistent with those studies. The court erred in failing to “defer to the agency’s interpretation of complex scientific data.” *Northwest Ecosystem Alliance*, 475 F.3d at 1150.

**1. The district court misinterpreted the Miller and Waits study.**

The first alleged error found by the district court concerned the 2003 study by Miller and Waits. The district court faulted FWS for citing that study in support of the proposition that an effective population of 100 is sufficient for short-term genetic fitness. 1 E.R. 46. According to the court, “Miller and Waits stated that it ‘is not known’ what is an effective population size to prevent the ‘short term effects’ of inbreeding; it only determined that the *current* (circa 2003) effective population size is likely to be near or greater than 100.” *Id.*

The district court misread the Miller and Waits study. The paragraph cited by the court states that the minimum effective population is not known, but cites a study suggesting that it “should remain > 50.” 3 E.R. 426. It then states that the effective population of the greater Yellowstone area is “likely to be near or > 100” and—in the next sentence—concludes that “it is unlikely that genetic factors will have a substantial effect on the viability of the Yellowstone grizzly over the next several decades.” *Id.* From the study’s adjacent conclusions that the effective population was 100 and that genetic factors are unlikely to be a problem for decades, it was logically valid for FWS to infer that an effective population size of 100 is sufficient to prevent adverse impacts to genetic health in the short term. 2 E.R. 116 (citing Miller and Waits, 3 E.R. 426). Indeed, in its decision on the 2007 rule, the district court explicitly affirmed FWS’s reliance on Miller and Waits for the proposition that an effective population of 100 grizzly bears is sufficient to avoid negative

genetic consequences “over the next several decades.” *Greater Yellowstone Coalition v. Servheen*, 672 F. Supp. 2d at 1121.

## **2. The district court misinterpreted the Kamath study**

The district court also misinterpreted the 2015 Kamath study, asserting that it “only states that effective population size may equal 42 to 66 percent of the local population.” The court claimed that “the Service applied the high end of the range listed in Kamath—66 percent—to determine that the Greater Yellowstone grizzly’s current effective population size is 469.” 1 E.R. 46-47. That is simply not correct: the Kamath study, not FWS, found that the effective population was 469, and it did so not by applying a ratio to the total population but by analyzing genetic samples taken from 729 Yellowstone grizzly bears between 1982 and 2007. 3 E.R. 400, 403. Kamath then applied a method called the Estimator of Parentage Assignment to calculate how many breeding individuals it would take to produce the genetic variability found in the samples. The calculated answer is 469. *Id.* at 405.

The Kamath study then compared the effective population of 469 to the total population to derive the ratio of effective population to “census” (i.e., total) population, using two different estimates of census population. Using the conservative Chao2 estimate of census population, the ratio was 0.66. *Id.* at 406. Using a different census population estimator known as Mark-Resight, the ratio was 0.42. *Id.* FWS explained that the “high ratio of effective population size to census population size ( $N_e/N_c$ ) of 0.66 reported by Kamath et al. (2015,

p.5513) most likely reflects the underestimation bias of the Chao2 estimator.” 2 E.R. 191.

Thus, FWS correctly read the Kamath study as finding an effective population of 469. The district court erred in suggesting that the effective population size of 469 was a questionably derived estimate by FWS rather than a scientifically supported conclusion by the six scientists who authored the Kamath study. 1 E.R. 47.

**3. The district court wrongly substituted its judgment for FWS’s on what measures are necessary to maintain long-term genetic health.**

The district court asserted that FWS “ignored the clear concerns expressed by the studies’ authors about long-term viability of an isolated grizzly population,” 1 E.R. 45, and that FWS “offer[ed] no data supporting its conclusion” that facilitating natural connectivity (with translocation as a last-resort back-up plan) is sufficient to maintain the greater GYE grizzly bears’ genetic health over the long term, 1 E.R. 47. But the rule disproves the court’s charge that FWS ignored concerns about the need for gene flow to ensure long-term genetic health. The rule explicitly cited and agreed with the Miller and Waits finding that “1 to 2 effective migrants from other grizzly bear populations every 10 years would . . . ensure genetic health in the long term.” 2 E.R. 117 (citing Miller and Waits 2003, 3 E.R. 426); *see also* 2 E.R. 191 (“Based on the best available science (Miller and Waits 2003, p. 4338), the Service concludes that the genetic diversity of the GYE grizzly bear population will be

adequately maintained by the immigration or relocation of one to two effective migrants from the NCDE every 10 years.”); 2 E.R. 160 (“connectivity or the lack thereof has the potential to impact this population’s genetic fitness”).

Equally unfounded is the district court’s claim that the lack of a fixed date for translocation renders FWS’s conclusion that the GYE grizzly bears are not threatened by insufficient genetic diversity arbitrary and capricious. First of all, FWS offered abundant evidence that the population’s current genetic health is excellent and that “there is no immediate need for new genetic material.” 2 E.R. 116. Second, FWS also explained that, due to the grizzly bears’ expansion of their range in both the GYE and the NCDE, “the two populations are now only 71 miles apart,” and “there have been multiple confirmed sightings” between them. 2 E.R. 161. The rule listed several recent documented grizzly sightings “demonstrating that bears are moving into the area between the GYE and the NCDE and that natural connectivity is likely forthcoming.” 2 E.R. 162. Third, the rule explained that all “Federal and State agencies are committed to facilitating” that natural connectivity through measures as varied as highway planning, 2 E.R. 161; managing discretionary mortality between the populations, 2 E.R. 162; regulating food storage in Forest Service lands to minimize human-grizzly bear conflicts, 2 E.R. 117; and partnering with “nongovernmental organizations who work to conserve important habitat linkage areas, including Vital Grounds and Yellowstone to Yukon,” 2 E.R. 161. Finally, if natural connectivity fails to occur, translocation of bears from the NCDE “will be implemented” if ongoing

monitoring by the Interagency Grizzly Bear Study Team detects a decrease in genetic diversity. 2 E.R. 117.

The district court reasoned that because natural connectivity has “not yet occurred, . . . it is illogical to conclude that the same opportunities for connectivity will produce different results in the future.” 1 E.R. 47. But FWS articulated a rational basis for its view that “connectivity is likely forthcoming,” including the documented sightings of bears moving into areas between the GYE and the NCDE, the narrowing of the gap between those two ecosystems as both populations expanded their ranges, and the Conservation Strategy’s measures for facilitating connectivity. 2 E.R. 162, 117. And the Conservation Strategy provides for translocation of grizzly bears if monitoring indicates a decrease in genetic diversity. The district court obviously disagreed with FWS’s decision to facilitate natural connectivity rather than committing to translocate bears by a fixed date. But where, as here, FWS has “provided a reasoned explanation for why it did not view lack of genetic diversity as a threat,” the district court’s “difference of opinion does not warrant a contrary conclusion.” *Center for Biological Diversity v. Zinke*, 900 F.3d 1053, 1074 (9th Cir. 2018).

In sum, the district court erred in rejecting FWS’s conclusion that the GYE grizzly bears are not threatened by genetic factors.

## CONCLUSION

For the foregoing reasons, the judgment of the district court should be reversed with respect to its holdings that FWS must conduct a “comprehensive review of the entire listed species” and that FWS did not rationally support its conclusion that the grizzly bears are not threatened by insufficient genetic diversity.

Respectfully submitted,

s/ Joan M. Pepin

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U.S. Department of the Interior

May 24, 2019

90-8-6-08116

**STATEMENT OF RELATED CASES**

The undersigned is aware of no related cases within the meaning of  
Circuit Rule 28-2.6.

s/ Joan M. Pepin

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Counsel for Federal Appellants

## ADDENDUM

Endangered Species Act, § 3, 16 U.S.C. § 1532, excerpts.....	1a
Endangered Species Act, § 4, 16 U.S.C. § 1533, excerpts.....	2a
Regulatory Review: Review of 2017 Final Rule, Greater Yellowstone Ecosystem Grizzly Bears, 83 Fed. Reg. 18,737 (Apr. 30, 2018) .....	5a

**Endangered Species Act, § 3, 16 U.S.C. § 1532**

§ 1532 Definitions

(6) The term “endangered species” means any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this chapter would present an overwhelming and overriding risk to man.

\* \* \*

(16) The term “species” includes any subspecies of fish or wildlife or plants and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.

\* \* \*

(20) The term “threatened species” means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**Endangered Species Act, § 4, 16 U.S.C. § 1533**

§ 1533 Determination of endangered species and threatened species

(a) Generally

(1) The Secretary shall by regulation promulgated in accordance with subsection (b) of this section determine whether any species is an endangered species or a threatened species because of any of the following factors:

(A) the present or threatened destruction, modification, or curtailment of its habitat or range;

(B) overutilization for commercial, recreational, scientific, or educational purposes;

(C) disease or predation;

(D) the inadequacy of existing regulatory mechanisms; or

(E) other natural or manmade factors affecting its continued existence.

\* \* \*

(b) Basis for determinations

(1)(A) The Secretary shall make determinations required by subsection (a)(1) of this section solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species and after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and

food supply, or other conservation practices, within any area under its jurisdiction; or on the high seas.

\* \* \*

(c) Lists

(1) The Secretary of the Interior shall publish in the Federal Register a list of all species determined by him or the Secretary of Commerce to be endangered species and a list of all species determined by him or the Secretary of Commerce to be threatened species. Each list shall refer to the species contained therein by scientific and common name or names, if any, specify with respect to each such species over what portion of its range it is endangered or threatened, and specify any critical habitat within such range. The Secretary shall from time to time revise each list published under the authority of this subsection to reflect recent determinations, designations, and revisions made in accordance with subsections (a) and (b) of this section.

(2) The Secretary shall—

(A) conduct, at least once every five years, a review of all species included in a list which is published pursuant to paragraph (1) and which is in effect at the time of such review; and

(B) determine on the basis of any such review whether any such species should—

(i) be removed from such list;

(ii) be changed in status from an endangered species to a threatened species; or

(iii) be changed in status from a threatened species to an endangered species.

Each determination under subparagraph (B) shall be made in accordance with the provisions of subsections (a) and (b) of this section.

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

[Docket No. FWS–R6–ES–2017–0089; FXES1113090000C6–178–FF09E42000]

**Endangered and Threatened Wildlife and Plants; Review of 2017 Final Rule, Greater Yellowstone Ecosystem Grizzly Bears**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Regulatory review; determination.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce our determination that our 2017 final rule to designate the population of grizzly bears in the Greater Yellowstone Ecosystem (GYE) as a distinct population segment and remove that population from the Endangered Species Act’s List of Endangered and Threatened Wildlife does not require modification. After considering the best scientific and commercial data available and public comments on this issue received during a regulatory review, we affirm our decision that the GYE population of grizzly bears is recovered and should remain delisted under the Act. Accordingly, the Service does not plan to initiate further regulatory action for the GYE grizzly bear population.

**DATES:** This determination is made April 30, 2018.

**ADDRESSES:** Supplementary documents to this determination, including public comments received, can be viewed online at <http://www.regulations.gov> in Docket No. FWS–R6–ES–2017–0089.

**FOR FURTHER INFORMATION CONTACT:** Hilary Cooley, Grizzly Bear Recovery Coordinator, U.S. Fish and Wildlife Service, University Hall, Room 309, Missoula, MT 59812; by telephone (406) 243–4903. Persons who use a telecommunications device for the deaf may call the Federal Relay Service at (800) 877–8339.

**SUPPLEMENTARY INFORMATION:** We, the U.S. Fish and Wildlife Service (Service), are issuing this document as a followup to a prior **Federal Register** document regarding Greater Yellowstone Ecosystem (GYE) grizzly bears published on December 7, 2017 (82 FR 57698). In that **Federal Register** document, we asked for public comments on the impact of a court ruling on our final rule (82 FR 30502, June 30, 2017) designating the GYE population of grizzly bears as a distinct population segment (DPS) and removing

that population from the protections of the Endangered Species Act (Act; 16 U.S.C. 1531 *et seq.*). Hereafter referred to as the “Final Rule,” the June 2017 rule removed the GYE population of grizzly bears from the List of Endangered and Threatened Wildlife (List) in title 50 of the Code of Federal Regulations (50 CFR 17.11(h)).

The referenced court opinion from the United States Circuit Court of Appeals for the D.C. Circuit, *Humane Society of the U.S. v. Zinke*, 865 F.3d 585 (D.C. Cir. 2017), addressed the analysis undertaken to designate a DPS from a previously listed entity and remove that DPS from the List (*i.e.*, “delist” it). We believe that the 2017 decision to remove the GYE population of grizzly bears from the List complies with the Act, but we decided to consider issues relating to the remainder of the grizzly bear population in the lower 48 States in light of the *Humane Society* opinion. After considering the best scientific and commercial data available regarding the grizzly bear population in the lower 48 States, the species’ historical range, and public comments received, the Service has determined that the Final Rule delisting the GYE DPS does not require modification and that the remainder of the population will remain protected under the Act as a threatened species unless we take further regulatory action. We affirm our decision that the GYE population of grizzly bears is recovered and should remain delisted under the Act.

**Background**

In 1975, the Service listed the grizzly bear (*Ursus arctos horribilis*) in the lower 48 United States as a threatened species under the Act (40 FR 31734, July 28, 1975). In designating the GYE population of grizzly bears as a DPS in 2017 and removing the population from the List, the Service did not reopen the 1975 listing rule through the Final Rule. Rather, the Service identified the GYE grizzly bears as a DPS, concluded that the GYE population was stable, threats were sufficiently ameliorated, and a post-delisting monitoring and management framework had been developed and incorporated into regulatory mechanisms or other operative documents. The best scientific and commercial data available, including our detailed evaluation of information related to the population’s trend and structure, indicated that the GYE grizzly bear DPS had recovered and threats had been reduced such that it no longer met the definition of a threatened or endangered species under the Act. The Final Rule became effective on July 31, 2017, and remains in effect, as does

the 1975 listing that applies to the lower 48 States population except for the GYE DPS.

On August 1, 2017, the Court of Appeals for the District of Columbia Circuit issued a ruling, *Humane Society of the United States, et al. v. Zinke*, 865 F.3d 585 (D.C. Cir. 2017), that affirmed in part the prior judgment of the district court vacating the 2011 delisting rule (76 FR 81666, December 28, 2011) for wolves in the Western Great Lakes (WGL). The 2011 rule designated the gray wolf population in Minnesota, Wisconsin, and Michigan, as well as portions of six surrounding States, as the WGL DPS, determined that the WGL DPS was recovered, and delisted the WGL as a DPS. The D.C. Circuit ruled that, while the Service had the authority to designate a DPS and delist it in the same rule, the Service violated the Act by designating and delisting the WGL wolf DPS without evaluating the implications for the remainder of the listed entity of wolves after delisting the DPS. The court also ruled that the Service failed to analyze the effect of lost historical range on the WGL wolf DPS. In light of this ruling, we asked for public input to aid our consideration of whether the GYE delisting determination should be revisited and what, if any, further analysis was necessary regarding the remaining grizzly bear populations and lost historical range.

**Regulatory Approach in the Final Rule**

The Service’s determination to designate the GYE population as a DPS and delist it, while deciding not to revisit the 1975 listing and leaving it in place for the remainder of the population, was consistent with the Act, with Service policies, and with the Department’s longstanding legal interpretation. In section 4(a) of the Act, the Service is authorized to identify and evaluate “any species.” (16 U.S.C. 1533(a)(1)). This includes any DPS of any species of vertebrate fish or wildlife. (16 U.S.C. 1532(16)). The Service determines a species’ status, *i.e.*, whether it is threatened or endangered, after considering the five factors listed in section 4(a)(1) of the Act. (16 U.S.C. 1533(a)(1)(A)–(E)). The Act imposes a mandatory duty on the Secretary to notify the public of these determinations by maintaining a list. Specifically, section 4(c)(1) of the Act requires the Secretary to “publish in the **Federal Register** a list of all species determined by him or the Secretary of Commerce to be endangered species and a list of all species determined by him or the Secretary of Commerce to be threatened species.” (16 U.S.C.

1533(c)(1)). The Act requires the Secretary, “from time to time,” to revise the lists “to reflect recent determinations, designations, and revisions. . . .” (16 U.S.C. 1533(c)(1)).

This framework is addressed in detail in a Memorandum Opinion from the Department of the Interior’s Office of the Solicitor (M–37018, U.S. Fish and Wildlife Service Authority under Section 4(c)(1) of the Endangered Species Act to Revise Lists of Endangered and Threatened Species to “Reflect Recent Determinations,” December 12, 2008 (M–Opinion)). The M–Opinion explained that, when the Service lists an entire species, the Service may be effectively listing several smaller separately listable entities because, as set forth in Service regulations, listing a particular taxon includes all lower taxonomic units. (M–Opinion, p. 7; *see also* 50 CFR 17.11(g)). The M–Opinion states that “when identifying and removing a DPS from a broader species listing, . . . [the Service] is separately recognizing an already-listed entity for the first time because it now has a different conservation status than the whole.” *Id.* As explained above, once that DPS is identified as being separate from the listed whole, the Act requires the Service to update the List. *Id.* at p. 3. The *Humane Society* court considered the M–Opinion and upheld the Solicitor’s interpretation of the Act: “We hold that the Service permissibly concluded that the Endangered Species Act allows the identification of a distinct population segment within an already-listed species, and further allows the assignment of a different conservation status to that segment if the statutory criteria for uplisting, downlisting, or delisting are met.” *Humane Society*, 865 F.3d at 600.

Some commenters on the December 7, 2017, **Federal Register** document argued that section 4(c)’s requirements to maintain the lists of endangered and threatened species, and to review those lists periodically, prohibit the Service from focusing a regulatory action on a DPS (one part of a broader entity). We reject this view as inconsistent with the Act. As explained above, and in the referenced M–Opinion, section 4(c)(1) of the Act imposes a mandatory duty on the Secretary of the Interior to publish and maintain the lists of all of the species that either the Secretary of the Interior or the Secretary of Commerce has determined to be endangered species or threatened species under section 4(a)(1). The regulations (50 CFR 17.11(a)) contemplate that a single taxonomic species, or components thereof, can be the subject of multiple

listing actions under section 4(a)(1) and, therefore, can have more than one entry on the lists. Thus, section 4(c)(1), consistent with section 4(a)(1) and 50 CFR 17.11(a), allows the Secretary of the Interior, through the Service, to document the legal effect of multiple listing entries for a taxonomic species, for instance by including multiple entries for a taxonomic species or by revising a list to reflect that a recent determination superseded all or part of a previous listing action.

Nothing in section 4(c)(2) is to the contrary. It requires the “Secretary” to periodically review the species on the List. Thus, at least every 5 years, the lists must be reviewed to determine if a species over which the Secretary has authority should be removed, downlisted from endangered to threatened, or uplisted from threatened to endangered. (16 U.S.C. 1533(c)(2)). This requirement incorporates the listing determination provisions at sections 4(a) and 4(b), and is separate from the requirement to revise the lists in section 4(c)(1). The requirement in section 4(c)(2) that both Secretaries review the species on the lists at least once every 5 years does not limit or add to the section 4(c)(1) requirement for the Secretary of the Interior to revise the lists to reflect recent determinations made by either Secretary. Nothing in the Act requires the Service to undertake a 5-year review of a listed species contemporaneously with taking an action on a lower taxonomic unit within the species. Simply put, sections 4(a)(1) and 4(c)(2) of the Act respectively require both Secretaries to make and periodically review listing determinations with respect to species, subspecies, and DPSs, while section 4(c)(1) creates a separate and independent regulatory obligation for the Secretary of the Interior to revise the lists to reflect listing determinations.

Targeted rulemaking on a DPS, without also reopening prior listing rules or expanding our inquiry to other species, furthers the purposes and objectives of the Act. The approach allows the Service the flexibility to either uplist or downlist a DPS of an already-listed entity without diverting agency resources to determining the overall status of the broader entity. In addition, targeted rulemaking furthers Congress’s intent to focus the Act’s protections and Service resources on those species that truly qualify as threatened or endangered or that require another change in regulatory status. Focusing on recovered DPSs serves other policy objectives. The principal goal of the Act is to return listed species to a point at which protection under the

Act is no longer required. Once a species is recovered, its management should be returned to the States. Our approach furthers that objective. It also creates incentives for Federal–State cooperative efforts to achieve recovery. This approach also avoids needless expenditure of scarce Federal funds on populations that are no longer threatened or endangered.

Following the framework in section 4 of the Act, the Service can determine the status of a DPS consistent with the Service’s DPS policy. (61 FR 4722 (February 7, 1996)). We can proceed in different ways when addressing a DPS. For example, we can revisit the listing of a taxonomic species and designate multiple DPSs of that species or we can keep the listing of the taxonomic species in place and reclassify one or more of its DPSs. The latter course is permissible, as a DPS designation identifies a population *within* a taxonomic species or subspecies. (16 U.S.C. 1532(16); defining a DPS as a “segment of” a species). Under the Act, designating a DPS does not automatically split or carve up a taxonomic entity, but merely recognizes that a DPS is a population within a taxonomic entity. Thus, focused regulatory action on listing or delisting a DPS is appropriate under the Act and consistent with the Act’s purposes of providing the Service with discretion to order priorities and take regulatory action that best serves the policies and purposes of the Act.

In the GYE DPS rulemaking action, the Service designated a valid species, the GYE DPS, that is a segment of the 1975 listed entity, and then applied the five factors to the DPS. The Service determined that the species did not qualify as threatened or endangered. Once the determination regarding the GYE grizzly bear DPS was made, the Secretary had made a decision for purposes of the listing requirements in section 4(c) and he was *required* to modify the list to reflect his new determination. There is no corresponding requirement to modify the original listed entity or to separately assess its status.

By taking regulatory action on the DPS itself and not revisiting the 1975 rulemaking, we did not reopen the lower-48–States listing, which does not now include the GYE DPS. All of the grizzly bears in the lower 48 States remain listed as threatened, except where superseded by the GYE DPS delisting. (82 FR 30503, 30546, 30552, 30623, 30624, 30628, June 30, 2017). We concluded that “it is not an efficient use of our limited resources to initiate a rulemaking process to revise the lower-

48-States listing. Such a rulemaking would provide no more information about our intentions for grizzly bear recovery than the parameters and documents already guiding our existing grizzly bear recovery program.” (82 FR 30623, June 30, 2017).

The regulatory action in the Final Rule is consistent with our recovery strategy for all grizzly bears in the coterminous lower 48 States. The Final Rule discusses the recovery strategy for lower-48-States grizzly bears, including the Recovery Plan, which provided management goals for six different grizzly bear populations identified by ecosystems. The Recovery Plan identifies unique demographic recovery criteria for each ecosystem population, and states that it is the Service’s goal to delist individual populations as they recover. Thus, the Service’s action in delisting the GYE DPS is consistent with the Recovery Plan. The GYE population is the first of the six populations to recover. We note, however, that the population in the Northern Continental Divide Ecosystem may be eligible for delisting in the near future. The Service’s data indicates that this population has likely met recovery goals. Other populations may be uplisted, downlisted, or delisted based on their overall health and numbers.

In summary, the Service has appropriately considered the impact of the GYE delisting on the lower-48-States population of grizzly bears. The Final Rule properly implemented the recovery strategy by employing discrete rulemaking with respect to the GYE population of grizzly bears. The Service has the discretion under the Act to engage in targeted rulemaking for a DPS—a species as defined under the Act—and to determine its status based on the five factors set forth in section 4(a)(1). While the Service must revise its lists of endangered and threatened species from time to time to reflect new determinations, section 4(c)(2) imposes no corollary obligation to revisit past rules affecting that species at the same time. The Service can designate a DPS from a prior listing and take action on that DPS without reopening the prior listing. Therefore, we disagree with *Humane Society* to the extent it can be read to impose an obligation with respect to the broader listing when designating a DPS from that listing. However, as explained below, we decided to further consider the impact of the GYE DPS delisting on the lower-48-States grizzly bear population and whether further regulatory action is required for the GYE DPS delisting.

### Response to Comments

The Service received more than 3,600 comments on the adequacy of the Final Rule in light of *Humane Society*. A number of comments were outside the scope of our request for public comments. Responsive comments ranged from contentions that the Final Rule is adequate in light of *Humane Society* and further evaluation is not needed to assertions that *Humane Society* renders the Final Rule invalid. Issues and new information raised during the public comment period were incorporated into the analysis presented in this document and were analyzed in more detail in a supporting document. For detailed summaries of and responses to public comments, see the Supporting Documents in Docket No. FWS–R6–ES–2017–0089 at <http://www.regulations.gov>.

### Assessment

Commenters responding to the December 7, 2017, **Federal Register** document expressed concern about the protections and status of grizzly bears located outside of the GYE DPS boundaries. We did address these concerns in our Final Rule, explaining that grizzly bears outside the DPS boundaries remain fully protected as a threatened species under the Act, that our recovery strategy will continue to focus on ecosystem-wide recovery zones, and that the DPS delisting does not affect the status or likely recovery of other grizzly bear recovery zone populations (through connectivity, exchange, etc.). However, in view of the *Humane Society* decision and the public comments received, we address these issues in greater detail below, including the status of the GYE DPS, the status of the lower-48-States entity, the impact of the GYE delisting on the lower-48-States entity, the impact of the lower-48-States entity on the GYE DPS, and the impact of lost historical range.

### Status of the GYE DPS

In our Final Rule, we found that the GYE grizzly bear population is discrete from other grizzly bear populations and significant to the remainder of the taxon (*i.e.*, *Ursus arctos horribilis*). Therefore, it is a listable entity under the Act and under our DPS Policy (61 FR 4722, February 7, 1996). The Service concluded that the GYE grizzly bear population has recovered to the point at which protection under the Act is no longer required. The best scientific and commercial data available indicate that the GYE grizzly bear DPS is not endangered or threatened throughout all or a significant portion of its range. We

are aware of no information that would warrant revisiting this determination.

### Status of the Lower-48-States Entity

The 1975 final rule listed grizzly bears in the lower 48 States as threatened (40 FR 31734, July 28, 1975). In the Final Rule, we noted that the grizzly bears occurring outside of the boundary of the GYE DPS in the lower 48 States remain threatened and therefore protected by the Act (82 FR 30503, 30546, 30552, 30623, 30624, 30628, June 30, 2017). The Service has the discretion to revisit this determination at a later time, although it is not required now as explained above, and we may do so as we consider other populations within the lower-48-States entity.

### Impact of GYE Delisting on the Lower-48-States Entity

As explained above, the Final Rule did not reopen the 1975 listing rule, although it no longer covers the GYE DPS. The 1975 listing remains valid. Although the ESA does not require an analysis of the Final Rule’s impact on the 1975 listing, we conduct that analysis here in response to public comments. It is possible that delisting a DPS of an already-listed species could have negative effects on the status of the remaining species. For example, removing the Act’s protections from one population could impede recovery of other still-listed populations (82 FR 30556–30557, June 30, 2017). For grizzly bear, delisting the GYE DPS could have implications for the remaining populations that have not yet achieved recovery. One possible implication could be that delisted grizzly bears inside the GYE DPS may be subject to increased mortality, which could reduce grizzly bear dispersal into other recovery zones. A map of grizzly bear recovery areas is available at <https://www.fws.gov/mountain-prairie/es/species/mammals/grizzly/GBdistributions.jpg>. While natural connectivity between recovery zones is not a recovery criterion for any of the recovery zones, it is one of our long-term objectives (USFWS 1993, p. 24, entire) as it would likely speed the achievement of recovery goals and increase genetic variability, and any increase in mortality inside the GYE DPS could limit such benefits.

The Bitterroot Ecosystem (BE) could be impacted most by changes in dispersal from the GYE DPS because it is within potential dispersal distance (120 km (75mi)) from the GYE DPS (Blanchard and Knight 1991, pp. 54–55; Proctor et al. 2004, p. 1113), as well as the Northern Continental Divide Ecosystem (NCDE) (35 km (21 mi);

Costello 2018, *in litt.*). Although the BE is unoccupied and isolated from other populations, there is a potential that dispersal from the GYE DPS could lead to the development of a grizzly population in the BE. Federal and State management agencies that make up the Interagency Grizzly Bear Study Team accounted for potential connectivity to the BE by extending a portion of the Demographic Monitoring Area (DMA) boundary to the western edge of the GYE DPS boundary to include suitable grizzly bear habitat in the Centennial Mountains (82 FR 30504, June 30, 2017). The Centennial Mountains lie inside both the GYE DPS and DMA and provide an east-west corridor of suitable habitat from the GYE to the BE ecosystem. The extended DMA is still a significant distance from the BE, but the mortality limits are in effect inside the DMA, ensuring that mortalities will be limited in this area of potential connectivity between the two ecosystems if dispersal were to occur. However, despite protections of the Act, we have no evidence of grizzly bears successfully dispersing from the GYE into the BE. Therefore, we conclude that any effect on dispersal in this area due to the Final Rule would likely be minimal. It is more likely that the BE will be recolonized by the NCDE population, as the distance between the two ecosystems is shorter and there is more suitable habitat in the interstitial area.

Connectivity between the GYE DPS and the NCDE has the greatest potential due to proximity (110 km (68 mi)) of currently occupied range in both ecosystems (Peck *et al.* 2017, p. 2). The Tobacco Root mountain range may be a particularly important dispersal pathway between these two ecosystems (Peck *et al.* 2017, p. 15). The Tobacco Roots fall in the northwest corner of the GYE DPS, outside the DMA and associated mortality limits. Delisting of the GYE population may reduce the potential for GYE grizzly bears to disperse through the Tobacco Roots (or other pathways) to the NCDE, or for NCDE grizzly bears to disperse into the GYE due to potential increased mortality inside the GYE DPS. However, genetic isolation is not a concern for the NCDE or the GYE. Due to its relatively large population size, high level of heterozygosity, and continued connection with Canada, the NCDE does not need immigrants from the GYE to reach recovery (Kendall *et al.* 2009, pp. 8, 12; Costello *et al.* 2016, p. 2). To date, we have no evidence of grizzly bears successfully dispersing from the GYE into the NCDE or any other recovery

zone, despite protections of the Act. Genetic analysis confirms that the GYE DPS remains isolated, with no evidence of recent immigrants from other populations (Haroldson *et al.* 2010, p. 8; Proctor *et al.* 2012, pp. 16–17). Furthermore, no recent observations of grizzly bears in the Tobacco Roots have been confirmed either through non-invasive surveys (Lukins *et al.* 2004, p. 171) or surveillance of observation reports (K. Frey 2017, *pers. comm.*).

The Selkirk Ecosystem and Cabinet-Yaak Ecosystem are currently occupied and connected to grizzly bear populations in Canada. They, along with the North Cascades Ecosystem, are also beyond any known expected dispersal distance from the GYE. Therefore, any potential increased mortality in the GYE would not impact these populations.

Mortality limits for independent females and males and dependent young in the GYE DMA, adopted into regulation by each State, are in place and will reduce potential for impacts to dispersal. Regulatory mechanisms are in place and adequately address threats in a manner necessary to maintain a recovered population into the foreseeable future (82 FR 30528–30535, June 30, 2017). The mortality limits were calculated as those needed to maintain the population at a stable level, and take into account all sources (human-caused, natural, unknown) of mortality. They are calculated as annual mortality rates on a sliding scale depending on the annual population size estimate. Idaho, Montana, and Wyoming have committed to these mortality limits in the 2016 Conservation Strategy (YES 2016) and in a Memorandum of Agreement (MOA; Wyoming Game and Fish Commission *et al.* 2016, entire) and are set forth in State regulations. The agreed-upon mortality limits will maintain the population within the DMA around the long-term average population size for 2002–2014 of 674 grizzly bears, consistent with the revised demographic recovery criteria (USFWS 2017, entire) and the MOA (Wyoming Game and Fish Commission *et al.* 2016, entire). Montana's State management plan includes a long-term goal of allowing grizzly bear populations in southwestern and western Montana to reconnect through the maintenance of non-conflict grizzly bears in areas between the ecosystems. The State of Montana has indicated that, while discretionary mortality may occur, the State will manage discretionary mortality to retain the opportunity for natural movements of grizzly bears

between ecosystems (MFWP 2013, p. 9; 82 FR 30556, June 30, 2017).

Mortality limits do not exist for areas outside the DMA within the GYE DPS; however, we do not expect grizzly bears to establish self-sustaining populations there due to a lack of suitable habitat, land ownership patterns, and the lack of traditional, natural grizzly bear foods. Instead, grizzly bears in these peripheral areas will likely always rely on the GYE grizzly bear population inside the DMA as a source population (82 FR 30510–30511, June 30, 2017). The current distribution of grizzly bears within the GYE DPS includes areas outside of the DMA, and, as such, grizzly bears in these areas may be exposed to higher mortality. However, grizzly bears throughout the GYE DPS are classified as a game species by all three affected States and the Eastern Shoshone and Northern Arapaho Tribes of the Wind River Reservation, and, as such, cannot be taken without authorization by State or Tribal wildlife agencies (82 FR 30530, June 30, 2017; W.S. 23–1–101(a)(xii)(A); W.S. 23–3–102(a); MCA 87–2–101(4); MCA 87–1–301; MCA 87–1–304; MCA 87–5–302; IC 36–2–1; IDAPA 13.01.06.100.01(e); IC 36–1101(a); Idaho's Yellowstone Grizzly Bear Delisting Advisory Team 2002, pp. 18–21; MFWP 2013, p. 6; Eastern Shoshone and Northern Arapahoe Tribes 2009, p. 9; WGFD 2016, p. 9; YES 2016a, pp. 104–116).

The primary potential impact of delisting the GYE DPS on the status of the listed species is the potential to limit dispersal from the GYE into other unrecovered ecosystems due to increased mortality within the DPS. However, we do not expect mortalities to increase significantly because the vast majority of suitable habitat inside the GYE DPS is within the DMA where bears are subject to mortality limits. Grizzly bears remain protected by the Act outside the DPS. Additionally, food storage orders on public lands provide measures to limit mortality and promote natural connectivity through a reduction in conflict situations. (82 FR 30536, 30580, June 30, 2017). Despite these protections, successful dispersal events remain rare and play a very minor role in population dynamics because of the large amounts of unsuitable habitat between ecosystems. The probability of successful dispersal is low despite recent expansion of the GYE and NCDE populations (Peck *et al.* 2017, p. 15); accordingly, we have no recent evidence of successful dispersal from the GYE into any other ecosystem. However, populations in both ecosystems are currently expanding into new areas, and the GYE is expanding beyond the DMA.

If populations continue to expand, decreasing the distance between populations, the likelihood of successful immigration will increase (Peck *et al.* 2017, p. 15). In short, we find that impacts of delisting the GYE DPS on the lower-48-States entity are minimal, do not significantly impact the lower-48-States entity, and do not affect the recovery of the GYE grizzly bears. This analysis does not warrant any revision or amendment of the Final Rule.

Finally, we believe there is sufficient evidence that the currently listed species (grizzly bears in the lower 48 States) contains more than one DPS. For example, preliminary data indicates the NCDE population is a DPS; the Service intends to evaluate that population to determine if it qualifies for DPS designation and, if so, consider its status. The Act's protections will continue outside the DPS boundaries until subsequent regulatory action is taken on the 1975 listing rule or specific DPSs within the boundaries of the entity listed in 1975. We believe this is the most precautionary and protective approach to grizzly bear recovery.

#### *Impact of the Lower-48-States Entity on the GYE DPS*

The lower-48-States entity that remains listed may have implications for the delisted GYE DPS. Throughout the range of the grizzly bear in the lower 48 States, human-caused mortality is limited and habitat is managed to promote recovery, which may increase the potential for the remaining grizzly bear population to act as a source population for the delisted GYE DPS. The lower 48 States contain several populations that are increasing in number and distribution, and may, at some point, provide dispersers into the GYE DPS. Although connectivity is not necessary for the current genetic health of the GYE grizzly bear population, it would deliver several benefits to the GYE, including increases in genetic diversity and increased long-term viability of the population (82 FR 30535–30536, 30544, 30581, 30610–30611, June 30, 2017). However, while successful dispersal is possible, the likelihood is low due to large areas of unsuitable habitat between populations. Currently, the effective population size and heterozygosity levels in the GYE are adequate to maintain genetic health of the GYE population for at least the next several decades (Miller and Waits 2003, p. 4338; Kamath *et al.* 2015, entire). The States have committed to a variety of measures to maintain genetic diversity. Wyoming has acknowledged that translocation of bears may take place in the future if necessary (WGFD 2016, p.

13). As described above, Montana has committed to managing discretionary mortality to retain the opportunity for grizzly bears to migrate between ecosystems. (MFWP 2013, p. 9; 82 FR 30556, June 30, 2017). Therefore, while the protected status of the lower-48-States grizzly bear population theoretically could engender several beneficial effects on the GYE DPS, those benefits will likely be minimal in the near term.

#### *Impact of Lost Historical Range*

When reviewing the current status of a species, we can also evaluate the effects of lost historical range on the species. As noted above, the Final Rule did not revisit the 1975 rule or perform a status review of grizzly bears in the lower 48 States. Therefore, the Final Rule was not required to assess the loss of historical range on the lower-48-States entity. However, in response to public comments suggesting that a historical range analysis for the lower-48-States population is required, we elaborate on the analysis of historical range and the status of the lower-48-States entity as previously addressed in the Final Rule.

*Ursus arctos horribilis* is a widely recognized subspecies of grizzly bear that historically existed throughout much of continental North America, including most of western North America from the Arctic Ocean to central Mexico (Hall 1984, pp. 4–9; Trevino and Jonkel 1986, p. 12). The continental range of the grizzly bear began receding with the arrival of Europeans to North America, with rapid extinction of populations from most of Mexico and from the central and southwestern United States and California (Craighead and Mitchell 1982, p. 516). Current populations continue to thrive in the largely unsettled areas of Alaska and northwestern Canada, while populations within the contiguous 48 States are much more fragmented.

Grizzly bears in the lower 48 States experienced immense losses of range primarily due to human persecution and reduction of suitable habitat (82 FR 30508, June 30, 2017). Prior to the arrival of Europeans, the grizzly bear occurred throughout much of the western half of the contiguous United States, central Mexico, western Canada, and most of Alaska (Roosevelt 1907, pp. 27–28; Wright 1909, pp. vii, 3, 185–186; Merriam 1922, p. 1; Storer and Tevis 1955, p. 18; Rausch 1963, p. 35; Herrero 1972, pp. 224–227; Schwartz *et al.* 2003, pp. 557–558). Pre-settlement population levels for the western contiguous United States are believed to have been in the

range of 50,000–100,000 animals (Servheen 1989, pp. 1–2; Servheen 1999, pp. 50–51; USFWS 1993, p. 9). In the 1800s, with European settlement of the American West and government-funded bounty programs aimed at eradication, grizzly bears were shot, poisoned, and trapped wherever they were found (Roosevelt 1907, pp. 27–28; Wright 1909, p. vii; Storer and Tevis 1955, pp. 26–27; Leopold 1967, p. 30; Koford 1969, p. 95; Craighead and Mitchell 1982, p. 516; Servheen 1999, pp. 50–51). Many historical habitats were converted into agricultural land (Woods *et al.* 1999, entire), and traditional food sources such as bison and elk were reduced, eliminated, or replaced with domestic livestock, such as cattle, sheep, chickens, goats, pigs, and agricultural products from bee hives and crops.

The resulting declines in range and population were dramatic. We have estimated that the range and numbers of grizzly bears were reduced to less than 2 percent of their former range in the lower 48 States and numbers by the 1930s, approximately 125 years after first contact with European settlers (USFWS 1993, p. 9; Servheen 1999, p. 51). Of 37 grizzly bear populations present in 1922 within the lower 48 States, 31 were extirpated by the time of listing in 1975, and the estimated population in the lower 48 States was 700–800 animals (Servheen 1999, p. 51).

For the Final Rule and this review, we considered historical range of grizzly bears circa 1850. We determined that this timeframe is appropriate for measuring grizzly bear range because it is a period for which published faunal records document grizzly bear range, descriptions of grizzly bear occurrence, and/or local extirpation events (Mattson and Merrill 2002, p. 1125). It precedes the major distribution changes in response to excessive human-caused mortality and habitat loss (Servheen 1999, p. 51). We define the physical boundaries of the relevant historical range as the lower 48 States, primarily west of the Mississippi River. Approximately 50,000–100,000 grizzly bears were historically distributed in one large contiguous area throughout portions of at least 17 western States (*i.e.*, Washington, Oregon, California, Idaho, Montana, Wyoming, Nevada, Colorado, Utah, New Mexico, Arizona, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas (Servheen 1989, pp. 1–2; Servheen 1999, pp. 50–51; USFWS 1993, p. 9)).

Significant loss of historical range has resulted in fewer individuals distributed in several small, fragmented, and isolated populations. Today, grizzly

bears in the lower 48 States primarily exist in 4 populations spanning portions of 4 States. Total numbers are estimated at 1,810 individuals (700 in the GYE DPS and 1,110 additional grizzly bears in the lower-48-States entity). Grizzly bear range in the lower 48 States collapsed into small, fragmented, and isolated populations by the mid-1900s (Mattson and Merrill 2002, p. 1134). These alterations have increased the vulnerability of lower-48-States grizzly bears to a wide variety of threats that would not be at issue without such massive range reduction. Several of these threats were identified in the 1975 original listing (40 FR 31734, July 28, 1975), including range loss and isolation, the construction of roads and trails into formerly secure areas, human persecution, and increasing numbers of livestock on national forests.

We considered these threats thoroughly in the Final Rule (82 FR 30520–30535, June 30, 2017), along with other vulnerabilities caused by loss of historical range, such as changes in available food sources, carrying capacity, changes in metapopulation structure, and reductions in genetic diversity and gene flow (see discussion below). Aside from informing the current status of and threats to the GYE DPS, the lost historic range within the United States is informative only for future rulemakings or regulatory actions in the lower 48 States, as the Service did not undertake regulatory action for grizzly bears outside the GYE DPS boundaries.

#### *Impact of Lost Historical Range on the GYE DPS*

*Humane Society* held that the WGL wolf delisting did not adequately consider the impact of lost historical range on the current threats facing the WGL wolf DPS, including reduced genetic variability and vulnerability to catastrophic events. The Final Rule for the GYE DPS thoroughly addressed the current threats to the grizzly bear in light of the lost historical range. We further explain the analysis in the Final Rule in response to public comments.

Grizzly bears historically occurred throughout the area of the GYE DPS (Stebler 1972, pp. 297–298), but they were less common in prairie habitats (Rollins 1935, p. 191; Wade 1947, p. 444). Today many of these habitats are no longer biologically suitable for grizzly bears (82 FR 30510–12, 30551, 30558, June 30, 2017). Grizzly bear presence in these drier, grassland habitats was associated with rivers and streams where grizzly bears used bison carcasses as a major food source (Burroughs 1961, pp. 57–60; Herrero

1972, pp. 224–227; Stebler 1972, pp. 297–298; Mattson and Merrill 2002, pp. 1128–1129). Most of the shortgrass prairie on the east side of the Rocky Mountains has been converted into agricultural land (Woods et al. 1999, entire), and high densities of traditional food sources are no longer available due to land conversion and human occupancy of urban and rural lands (82 FR 30510, 30551, 30558, June 30, 2017). Traditional food sources such as bison and elk have been reduced and replaced with domestic livestock such as cattle, sheep, chickens, goats, pigs, and bee hives, which can become anthropogenic sources of prey for grizzly bears (82 FR 30510, 30551, 30558, 30624, June 30, 2017).

Range reduction within the GYE DPS boundary has resulted in potential threats specific to isolated and small populations, including genetic health, changes in food resources, climate change, and catastrophic events (82 FR 30533–44, June 30, 2017). Small and isolated populations are susceptible to declines in genetic diversity, which can result in population-limiting effects such as inbreeding, genetic abnormalities, birth defects, low reproductive and survival rates, and susceptibility to extinction (Frankham 2005, entire). However, current levels of genetic diversity in the GYE DPS are capable of supporting healthy reproductive and survival rates, as evidenced by normal litter size, no evidence of disease, high survivorship, an equal sex ratio, normal body size and physical characteristics, and a relatively constant population size within the GYE (van Manen 2016, *in litt.*). We concluded that genetic diversity does not constitute a threat to the GYE DPS (82 FR 30535–36, 30609–11, June 30, 2017).

Changes in availability of highly energetic food resources as a result of lost historical range, such as whitebark pine, army cutworm moths, ungulates, and cutthroat trout could influence grizzly bear reproduction, survival, or mortality risk (Mealey 1975, pp. 84–86; Pritchard and Robbins 1990, p. 1647; Craighead et al. 1995, pp. 247–252). Grizzly bears are dietary generalists, consuming more than 266 distinct plant and animal species, and are resilient to changes in food resources (Servheen and Cross 2010, p. 4; Gunther et al. 2014, p. 1). Additionally, whitebark pine loss has not caused a negative population trend or declines in vital rates (IGBST 2012, p. 34; van Manen 2016a, *in litt.*), and there is no known relationship between mortality risk or reproduction and any other food (Schwartz et al. 2010, p. 662). We

concluded in the Final Rule that changes in food resources do not constitute a threat to the GYE DPS (82 FR 30536–40, June 30, 2017).

Climate change may result in a number of changes to grizzly bear habitat, denning times, shifts in the abundance and distribution of natural food sources, and changes in fire regimes. Changes in denning times may increase the potential for conflicts with humans; however, regulatory mechanisms are in place to limit human-caused mortality (see discussion above under *Impact of GYE Delisting on the Lower-48-States Entity*). Grizzly bears have shown resiliency to changes in vegetation resulting from fires (Blanchard and Knight 1996, p. 121), and diets are flexible enough to absorb shifts in food distributions and abundance (Servheen and Cross 2010, p. 4; IGBST 2013, p. 35). We concluded in the Final Rule that climate change is unlikely to pose a threat to the GYE DPS (82 FR 30540–42, June 30, 2017).

The GYE DPS is vulnerable to various catastrophic and stochastic events, such as fire, volcanic activity, earthquakes, and disease. Most of these types of events are unpredictable and unlikely to occur within the foreseeable future, would likely cause only localized and temporary impacts that would not threaten the GYE DPS (82 FR 30542, June 30, 2017), or have never been documented to affect mortality in grizzly bears (disease: IGBST 2005, pp. 34–35; Craighead et al. 1988, pp. 24–84) (82 FR 30533–30534, June 30, 2017).

While range reduction has reduced both numbers of bears and amount of available habitat, the GYE currently supports a population of grizzly bears that meets our definition of recovered, and does not meet our definition of an endangered or threatened species (82 FR 30514, June 30, 2017). Further, we found that potential threats resulting from lost historical range are manageable through conflict prevention, management of discretionary mortality, and the large amount of suitable, secure habitat within the GYE and are not a threat to the GYE grizzly bear DPS now or likely to become a threat in the foreseeable future (82 FR 30544, June 30, 2017). Our regulatory review therefore confirmed that the Service appropriately analyzed the historic range and current status/threats to the GYE DPS, as required under the Act.

#### **Conclusion**

After considering the GYE Final Rule in light of the *Humane Society* opinion, along with the best available scientific information, we affirm the determinations of our Final Rule: The

GYE grizzly bear population is discrete from other grizzly bear populations and significant to the remainder of the taxon (*i.e.*, *Ursus arctos horribilis*) and, therefore, a listable entity under the Act in accordance with our DPS Policy; the GYE population has recovered to the point at which protection under the Act is no longer required; and the best scientific and commercial data available indicate that the GYE grizzly bear DPS is not endangered or threatened throughout all or a significant portion of its range. Finally, we determined in the Final Rule, and affirm here, that we will not revisit the 1975 final rule, and grizzly bears, outside the GYE DPS, in the lower 48 States remain listed as threatened. Accordingly, the Service does not plan to initiate further regulatory action for the GYE grizzly bear population, or for the lower 48 States population at this time.

#### References Cited

A complete list of all reference cited herein is available at <https://www.regulations.gov> in Docket No. FWS-R6-ES-2017-0089, or upon request from the Grizzly Bear Recovery Office (see **FOR FURTHER INFORMATION CONTACT**).

#### Authority

This document is published under the authority of the Endangered Species Act, as amended (16 U.S.C. 1531 *et seq.*).

Dated: April 24, 2018.

#### James W. Kurth

*Deputy Director, U.S. Fish and Wildlife Service, Exercising the Authority of the Director, U.S. Fish and Wildlife Service.*  
[FR Doc. 2018-09095 Filed 4-27-18; 8:45 am]

**BILLING CODE 4333-15-P**

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 679

[Docket No. 170817779-8161-02]

RIN 0648-XG193

### Fisheries of the Exclusive Economic Zone Off Alaska; Greenland Turbot in the Aleutian Islands Subarea of the Bering Sea and Aleutian Islands Management Area

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Temporary rule; closure.

**SUMMARY:** NMFS is prohibiting directed fishing for Greenland turbot in the Aleutian Islands subarea of the Bering Sea and Aleutian Islands management area (BSAI). This action is necessary to prevent exceeding the 2018 Greenland turbot initial total allowable catch (ITAC) in the Aleutian Islands subarea of the BSAI.

**DATES:** Effective 1200 hrs, Alaska local time (A.l.t.), May 1, 2018, through 2400 hrs, A.l.t., December 31, 2018.

**FOR FURTHER INFORMATION CONTACT:** Steve Whitney, 907-586-7228.

**SUPPLEMENTARY INFORMATION:** NMFS manages the groundfish fishery in the BSAI according to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson-Stevens Fishery Conservation and Management Act. Regulations governing fishing by U.S. vessels in accordance with the FMP appear at subpart H of 50 CFR part 600 and 50 CFR part 679.

The 2018 Greenland turbot ITAC in the Aleutian Islands subarea of the BSAI is 144 metric tons (mt) as established by the final 2018 and 2019 harvest specifications for groundfish in the BSAI (83 FR 8365, February 27, 2018). The Regional Administrator has determined that the 2018 ITAC for Greenland turbot in the Aleutian Islands subarea of the BSAI is necessary to

account for the incidental catch of this species in other anticipated groundfish fisheries for the 2018 fishing year. Therefore, in accordance with § 679.20(d)(1)(i), the Regional Administrator establishes the directed fishing allowance for Greenland turbot in the Aleutian Islands subarea of the BSAI as zero mt. Consequently, in accordance with § 679.20(d)(1)(iii), NMFS is prohibiting directed fishing for Greenland turbot in the Aleutian Islands subarea of the BSAI.

After the effective date of this closure the maximum retainable amounts at § 679.20(e) and (f) apply at any time during a trip.

#### Classification

This action responds to the best available information recently obtained from the fishery. The Assistant Administrator for Fisheries, NOAA (AA), finds good cause to waive the requirement to provide prior notice and opportunity for public comment pursuant to the authority set forth at 5 U.S.C. 553(b)(B) as such requirement is impracticable and contrary to the public interest. This requirement is impracticable and contrary to the public interest as it would prevent NMFS from responding to the most recent fisheries data in a timely fashion and would delay the directed fishing closure of Greenland turbot in the Aleutian Islands subarea of the BSAI. NMFS was unable to publish a notice providing time for public comment because the most recent, relevant data only became available as April 5, 2018.

The AA also finds good cause to waive the 30-day delay in the effective date of this action under 5 U.S.C. 553(d)(3). This finding is based upon the reasons provided above for waiver of prior notice and opportunity for public comment.

This action is required by § 679.20 and is exempt from review under Executive Order 12866.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: April 25, 2018.

#### Kelly L. Denit,

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. 2018-09018 Filed 4-27-18; 8:45 am]

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I hereby certify that I electronically filed the foregoing/attached document(s) with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit using the Appellate Electronic Filing system on May 24, 2019.

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