FOR PUBLICATION

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

GREATER YELLOWSTONE COALITION, INC.,
Plaintiff-Appellee,

v.

CHRISTOPHER SERVHEEN, U.S. Fish and Wildlife Service Grizzly Bear Recovery Coordinator; H. DALE HALL, U.S. Fish and Wildlife Service Director; KEN SALAZAR, Secretary of the Interior; U.S. FISH AND WILDLIFE SERVICE,
Defendants,

SAFARI CLUB INTERNATIONAL; SAFARI CLUB INTERNATIONAL FOUNDATION; NATIONAL WILDLIFE FEDERATION; IDAHO WILDLIFE FEDERATION; MONTANA WILDLIFE FEDERATION; WYOMING WILDLIFE FEDERATION; STATE OF MONTANA; MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS,
Defendant-Intervenors,

and

STATE OF WYOMING,
Intervenor-Defendant-Appellant.

No. 09-36100

D.C. No. 9:07-cv-00134-DWM

GREATER YELLOWSTONE COALITION, INC.,
Plaintiff-Appellee,

v.

CHRISTOPHER SERVHEEN, U.S. Fish and Wildlife Service Grizzly Bear Recovery Coordinator; H. DALE HALL, U.S. Fish and Wildlife Service Director; KEN SALAZAR, Secretary of the Interior; U.S. FISH AND WILDLIFE SERVICE,
Defendants,

NATIONAL WILDLIFE FEDERATION; IDAHO WILDLIFE FEDERATION; MONTANA WILDLIFE FEDERATION; WYOMING WILDLIFE FEDERATION; STATE OF MONTANA; MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS; STATE OF WYOMING,
Defendant-Intervenors,

and

SAFARI CLUB INTERNATIONAL; SAFARI CLUB INTERNATIONAL FOUNDATION,
Defendant-Intervenors-Appellants.

No. 10-35043

D.C. No. 9:07-cv-00134-DWM

GREATER YELLOWSTONE COALITION, INC.,

Plaintiff-Appellee,

v.

CHRISTOPHER SERVHEEN, U.S. Fish and Wildlife Service Grizzly Bear Recovery Coordinator; H. DALE HALL, U.S. Fish and Wildlife Service Director; KEN SALAZAR, Secretary of the Interior; U.S. FISH AND WILDLIFE SERVICE,

Defendants-Appellants,

and

SAFARI CLUB INTERNATIONAL; SAFARI CLUB INTERNATIONAL FOUNDATION; NATIONAL WILDLIFE FEDERATION; IDAHO WILDLIFE FEDERATION; MONTANA WILDLIFE FEDERATION; WYOMING WILDLIFE FEDERATION; STATE OF MONTANA; MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS; STATE OF WYOMING,

Defendant-Intervenors.

No. 10-35052

D.C. No. 9:07-cv-00134-DWM

GREATER YELLOWSTONE COALITION, INC.,
Plaintiff-Appellee,

v.

CHRISTOPHER SERVHEEN, U.S. Fish and Wildlife Service Grizzly Bear Recovery Coordinator; H. DALE HALL, U.S. Fish and Wildlife Service Director; KEN SALAZAR, Secretary of the Interior; U.S. FISH AND WILDLIFE SERVICE,
Defendants,

SAFARI CLUB INTERNATIONAL; SAFARI CLUB INTERNATIONAL FOUNDATION; NATIONAL WILDLIFE FEDERATION; IDAHO WILDLIFE FEDERATION; MONTANA WILDLIFE FEDERATION; WYOMING WILDLIFE FEDERATION; STATE OF WYOMING,
Defendant-Intervenors,

and

STATE OF MONTANA; MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS,
Defendant-Intervenors-Appellants.

No. 10-35053

D.C. No. 9:07-cv-00134-DWM

GREATER YELLOWSTONE COALITION, INC.,
Plaintiff-Appellee,
v.
CHRISTOPHER SERVHEEN, U.S. Fish and Wildlife Service Grizzly Bear Recovery Coordinator; H. DALE HALL, U.S. Fish and Wildlife Service Director; KEN SALAZAR, Secretary of the Interior; U.S. FISH AND WILDLIFE SERVICE,
Defendants,
SAFARI CLUB INTERNATIONAL; SAFARI CLUB INTERNATIONAL FOUNDATION; STATE OF WYOMING; STATE OF MONTANA; MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS,
Defendant-Intervenors,
and
NATIONAL WILDLIFE FEDERATION; IDAHO WILDLIFE FEDERATION; MONTANA WILDLIFE FEDERATION; WYOMING WILDLIFE FEDERATION,
Defendant-Intervenors-Appellants.

No. 10-35054
D.C. No. 9:07-cv-00134-DWM
OPINION

Appeals from the United States District Court
for the District of Montana
Donald W. Molloy, District Judge, Presiding

Argued and Submitted
March 7, 2011—Portland, Oregon

Filed November 22, 2011

Before: Sidney R. Thomas, Susan P. Graber, and
Richard C. Tallman, Circuit Judges.

Opinion by Judge Tallman;
Partial Concurrence and Partial Dissent by Judge Thomas

COUNSEL

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Thomas France (argued), National Wildlife Federation, Missoula, Montana; David K.W. Wilson, Jr., Reynolds, Motl, and Sherwood, Helena, Montana, for defendant-intervenor-appellant National Wildlife Federation.

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Andrew E. Wetzler, Natural Resources Defense Council, Chicago, Illinois, for amicus curiae Natural Resources Defense Council, Inc.

Robert H. Aland, Winnetka, Illinois, pro se amicus curiae.

OPINION

TALLMAN, Circuit Judge:

This case involves one of the American West's most iconic wild animals in one of its most iconic landscapes. The grizzly bear (*Ursus arctos horribilis*)—so named for the gray-tipped hairs that give it a "grizzled" appearance—is both revered and feared as a symbol of wildness, independence, and massive strength. But while grizzlies may inspire some sense of human vulnerability, history has shown that it is the bears who have often been the more vulnerable ones. During the nineteenth and early twentieth centuries, widespread hunting, trapping, poisoning, and habitat destruction associated with American expansion decimated the grizzly population in the West and relegated the bears to increasingly remote and rugged terrain. Since then, their survival has depended both on their own ability to adapt to their surroundings and on human ability to adapt to their presence. These seemingly irreconcilable tensions have come to a head before us in this appeal.

The Yellowstone region of northwestern Wyoming, southern Montana, and northeastern Idaho is home to a grizzly population, two popular national parks—Yellowstone and Grand Teton—and a network of rural communities built on indus-

tries such as natural resource extraction, ranching, agriculture, and tourism. As such, it has served as a kind of living laboratory for the coexistence of people and grizzlies in close proximity. For much of the twentieth century, Yellowstone National Park's open-pit garbage dumps provided a reliable food source for the bears as well as a convenient bear-viewing opportunity for tourists. After the dumps were closed in the early 1970s due to concerns about encouraging the bears' attraction to human foods, however, grizzly mortality rates skyrocketed. By 1975 the grizzly population decline at Yellowstone and elsewhere prompted the U.S. Fish and Wildlife Service (the "Service") to list the grizzly as "threatened" in the lower 48 states under the Endangered Species Act (ESA).

Since then, the Yellowstone grizzly population has rebounded, as scientists, conservationists and land managers have made unprecedented efforts to study the bear and to change those human attitudes and behaviors that unnecessarily threaten it. These efforts, spearheaded by the Service's Grizzly Bear Recovery Coordinator Dr. Christopher Servheen, culminated in the "Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area" (the "Strategy"), an impressive inter-agency, multi-state cooperative blueprint for long-term protection and management of a sustainable grizzly population. Interagency Conservation Strategy Team, *Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area* (Mar. 2007) *available at* http://www.fws.gov/mountain-prairie/species/mammals/grizzly/Final_Conservation_Strategy.pdf. Shortly after the Strategy's finalization, the Service removed the Yellowstone grizzly from the threatened species list.

The Service's delisting decision, the subject of this appeal, raises a host of scientific, political, and philosophical questions regarding the complex relationship between grizzlies and people in the Yellowstone region. We emphasize at the outset that those are not the questions that we grapple with here. We, as judges, do not purport to resolve scientific

uncertainties or ascertain policy preferences. We address only those issues we are expressly called upon to decide pertaining to the legality of the Service's delisting decision: first, whether the Service rationally supported its conclusion that a projected decline in whitebark pine, a key food source for the bears, does not threaten the Yellowstone grizzly population; and second, whether the Service rationally supported its conclusion that adequate regulatory mechanisms are in place to maintain a recovered Yellowstone grizzly population without the ESA's staunch protections.

As to the first issue, we affirm the district court's ruling that the Service failed to articulate a rational connection between the data in the record and its determination that whitebark pine declines were not a threat to the Yellowstone grizzly, given the lack of data indicating grizzly population stability in the face of such declines, and the substantial data indicating a direct correlation between whitebark pine seed availability and grizzly survival and reproduction. As to the second issue, we reverse the district court and hold that the Service's determination regarding the adequacy of existing regulatory mechanisms was reasonable.

I

Grizzly bears once thrived in a variety of habitats across the western coterminous United States, from the West Coast and Southwest to the Great Plains and Texas. By the time of ESA listing in 1975, however, the grizzly population in the lower 48 states was confined to a few fragments amounting to less than 2% of its formerly contiguous historic range, and its numbers had dwindled from about 50,000 in 1800 to less than 1,000 today. The Yellowstone area grizzly population—unique because it is entirely isolated from larger populations in Canada—was estimated to number between 136 and 312 bears at the time of listing.

As required by the ESA, a Grizzly Bear Recovery Plan was developed by the Service and issued in 1982. The Recovery

Plan aimed to foster viable, self-sustaining grizzly populations in areas known to have been occupied by grizzlies within the preceding ten years, including the Greater Yellowstone Area (GYA) as well as the Northern Continental Divide Ecosystem area of northern Montana, the North Cascades area of northern Washington, and the Selkirk and Cabinet-Yaak areas of northern Idaho, northwestern Montana, and northeastern Washington. Because the Plan's ultimate goal was the delisting of the grizzly, demographic recovery criteria were established in each identified area.

When the Service revised the Recovery Plan in 1993, it delineated a "Recovery Zone" for each region, defined as "an area large enough and of sufficient habitat quality to support a recovered bear population within which habitat and population would be monitored." The revised Plan also included updated demographic recovery criteria and mandated the development of a "conservation strategy" for each grizzly population to guide long-term management after delisting. Habitat-based recovery criteria were appended to the Plan following a successful legal challenge to its adequacy under the ESA. *See Fund for Animals v. Babbitt*, 903 F. Supp. 96 (D.D.C. 1995). The Plan's demographic- and habitat-based recovery criteria continued to be refined during the 1990s and 2000s.

The Plan has been widely regarded as a success and a model for grizzly recovery plans elsewhere. Scientists estimate that the GYA's grizzly population increased at an average rate of 4.2% to 7.6% per year between 1983 and 2002 and expanded its range by 48% between the 1970s and 2000. By 2006, the Service had determined that the Plan's demographic- and habitat-based recovery criteria were being met. Total grizzly population in the GYA was estimated at more than 500 bears, and scientists concluded that grizzlies were approaching Yellowstone National Park's carrying capacity.

Pursuant to the Recovery Plan, the Strategy was developed in order to "guid[e] management and monitoring of the Yellowstone grizzly bear population and its habitat upon recovery and delisting." Its stated purpose was to:

> describe and summarize the coordinated efforts to manage the grizzly bear population and its habitat to ensure continued conservation in the GYA[;] . . . specify the population, habitat, and nuisance bear standards to maintain a recovered grizzly bear population for the foreseeable future; document the regulatory mechanisms and legal authorities, policies, management, and monitoring programs that exist to maintain the recovered grizzly bear population; and document the commitment of the participating agencies.

After undergoing notice and comment, as well as scientific peer review, the Strategy was finalized in March 2007. Eight federal and state entities signed a Memorandum of Understanding agreeing to implement it: the Service; the U.S. Forest Service (the "Forest Service"); the National Park Service (the "Park Service"); the U.S. Geological Survey (USGS); the Bureau of Land Management; the Montana Department of Fish, Wildlife, and Parks; the Wyoming Game and Fish Department; and the Idaho Department of Fish and Game. In addition, the Strategy formally incorporated as appendices the grizzly bear management plans of Montana, Wyoming, and Idaho, each of which was developed in conjunction with the Strategy.

The Strategy redesignated the Yellowstone Recovery Zone as the "Primary Conservation Area" (PCA). The PCA is a 9,210-square-mile area within the GYA, divided into 18 "Bear Management Units," encompassing Yellowstone National Park and surrounding public and some private land. The PCA, which is 98% managed by the Park Service and the Forest Service, includes approximately 51% of all suitable

habitat for the grizzly population in the entire GYA and an estimated 84% to 90% of the GYA's population of female grizzlies with cubs. According to the Strategy, "[t]he PCA will be a secure area for grizzly bears, with population and habitat conditions that have allowed the grizzly bear population to achieve recovery and expand outside the PCA." Outside the PCA, the bears "will be allowed to expand into biologically suitable and socially acceptable areas." These are areas "that are not managed solely for bears but in which their needs are considered along with other uses." According to the Service, the suitable grizzly habitat outside the PCA is roughly 84% federally owned, 6% tribally owned, 1.6% state owned, and 9.5% privately owned.

The Strategy's key mechanisms for maintaining a recovered Yellowstone grizzly population are its population and habitat standards, which are based on the recovery criteria originally set forth in the Recovery Plan. Its population standards are (1) a total population of more than 500 bears; (2) at least 16 of 18 Bear Management Units occupied by at least one female with cubs over a six-year period, with no two adjacent Bear Management Units unoccupied; and (3) annual mortality limits of 9% of adult females (not exceeded in two consecutive years), 15% of adult males (not exceeded in three consecutive years), and 9% of cubs under two years old (not exceeded in three consecutive years). *Final Conservation Strategy*, *supra* at 27.

The Strategy's habitat standards apply only inside the PCA. They are designed to maintain habitat conditions as they existed in 1998, because those conditions were found to have adequately supported a growing bear population throughout the 1990s. The percentage of "secure habitat," defined as contiguous area of at least 10 acres that is more than 500 meters from a motorized access route or helicopter flightline, must be maintained at or above 1998 levels. The number and capacity of developed sites (including campgrounds, visitor services facilities, and resource development operations) and grazing

allotments must be maintained at or below 1998 levels. The Strategy also requires monitoring of vegetation, food availability, and human activities compared to a 1998 baseline.

As for lands outside the PCA, the Strategy notes that the state bear management plans of Wyoming, Montana, and Idaho "recommend and encourage land management agencies to maintain or improve habitats that are important to grizzly bears and to monitor habitat conditions." It also indicates that on national forest land outside the PCA the Forest Service will assess projects that potentially affect the grizzly against the Strategy's habitat standards.

In addition to population and habitat standards, the Strategy establishes protocols for the management of "bear/human conflicts," defined as "incidents in which bears injure people, damage property, kill or injure livestock, damage beehives, obtain anthropogenic foods, or damage or obtain garden and orchard fruits and vegetables." Such conflicts, which ranged in number from 24 to 165 per year in the GYA between 1992 and 2001, are harmful to bears as well as humans because bears involved in serious or repeated conflicts may be killed, captured, or relocated. In the case of conflicts inside the PCA, the Strategy emphasizes the removal of the human cause of the conflict rather than the removal or relocation of the bear. In general, a bear may be removed from the population only if it is involved in repeated conflicts or displays "unnatural aggression," defined as aggression toward humans that is not provoked or defensive. Outside the PCA, conflicts are to be handled in accordance with state management plans, and "more consideration will be given to existing human uses." All bear removals in the GYA, both inside and outside the PCA, must be consistent with the Strategy's mortality limits. To minimize conflicts, the Strategy calls for a coordinated information and education campaign that "facilitates changing inappropriate human behaviors and helps people learn to coexist with bears."

Implementation of the Strategy is to be overseen by the Yellowstone Grizzly Coordinating Committee (the "Committee"), consisting of representatives from each of the Strategy's signatories. Scientific research and monitoring data collection will be conducted by the Interagency Grizzly Bear Study Team (the "Study Team"), a USGS-led team of scientists that has studied the Yellowstone grizzly since 1973. Based on periodic reports from the Study Team, the Committee will evaluate the status of the grizzly population. Any deviations from the Strategy's standards will trigger a six-month investigation by the Study Team known as a "Biology and Monitoring Review," which may result in recommendations for changes to the Strategy or, in the case of a serious threat to the grizzly population, a petition for relisting under the ESA.

Based on the attainment of the Recovery Plan's demographic- and habitat-based recovery criteria and the finalization of the Strategy as a long-term conservation plan, the Service proposed the removal of the Yellowstone grizzly from the ESA's threatened species list. After notice and comment, the Service published its "Final Rule Removing the Yellowstone Distinct Population Segment of Grizzly Bears From the Federal List of Endangered and Threatened Wildlife" (the "Rule") in March 2007. 72 Fed. Reg. 14,866-01 (Mar. 29, 2007). The delisting determination applied only to the Yellowstone grizzly population, which was designated as a "distinct population segment" of North American grizzly in the same Rule. *Id.*

On November 13, 2007, the Greater Yellowstone Coalition (GYC), a non-profit conservation organization based in Bozeman, Montana, filed a lawsuit in the United States District Court for the District of Montana challenging the Service's Rule as arbitrary, capricious, and unlawful under the ESA. GYC claimed that (1) there were not adequate regulatory mechanisms in place to protect the grizzly; (2) the Service failed to consider the grizzly's historic range, rather than its current range, when it assessed whether the grizzly was

threatened by habitat loss; (3) the Service failed to adequately consider the impacts of global warming and mountain pine beetle infestation on the vitality of the region's whitebark pine trees; and (4) the Yellowstone grizzly population is too small to be delisted because it lacks sufficient genetic diversity to be self-sustaining. The States of Wyoming and Montana intervened as defendants, as did the National Wildlife Federation, a non-profit wildlife conservation organization, and Safari Club International, a non-profit hunters' rights and wildlife conservation organization.

On September 21, 2009, the district court granted summary judgment to GYC on its first and third claims, holding that the Service had failed to rationally support its conclusions that adequate regulatory mechanisms were in place to protect the grizzly and that declines in whitebark pine did not threaten the grizzly.[1] Based on these rulings, the district court vacated and remanded the Rule. The Service appeals.

II

We have jurisdiction under 28 U.S.C. § 1291. We review de novo a district court's grant of summary judgment. *Suever v. Connell*, 579 F.3d 1047, 1055 (9th Cir. 2009). Our review of an agency's compliance with the ESA is governed by the Administrative Procedure Act (APA). *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 901 (9th Cir. 2002). Under the APA, we hold unlawful and set aside only those agency actions found to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). Under this deferential standard, our job is not to substitute our judgment for that of the agency, but "is simply to ensure that the agency considered the relevant factors and articulated a rational connection between the facts found and the choices made." *Nw. Ecosystem Alliance v. U.S. Fish &*

[1]The district court granted summary judgment to the Service on the other two claims, which are not at issue in this appeal.

Wildlife Serv., 475 F.3d 1136, 1140 (9th Cir. 2007) (internal quotation marks omitted); *see Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983) ("[A]n agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.").

III

[1] The ESA, enacted in 1973, directs the Secretary of the Interior to maintain a list of all "threatened" and "endangered" species. 16 U.S.C. § 1533(c)(1). An endangered species is one that is "in danger of extinction throughout all or a significant portion of its range." *Id.* § 1532(6). A threatened species is one that is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." *Id.* § 1532(20). A species must be listed if it is determined to be endangered or threatened because of any one or a combination 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.

Id. § 1533(a)(1); 50 C.F.R. § 424.11(c). Listed species receive near-absolute legal protection against "taking," which includes harassment, harm, hunting, killing, and significant habitat modification or degradation. 16 U.S.C. §§ 1532(19), 1538(a)(1)(B); 50 C.F.R. § 17.3. A major goal of the ESA's protections is recovery of threatened and endangered species such that they can be removed from the list. 16 U.S.C. § 1533(f)(1); 50 C.F.R. § 424.11(d)(2). Delisting requires a determination that none of the above five factors threatens or endangers the species. 50 C.F.R. § 424.11(d). Both listing and delisting determinations must be made "solely on the basis of the best available scientific and commercial information regarding a species' status, without reference to possible economic or other impacts of such determination." *Id.* § 424.11(b).

The Secretary of the Interior has delegated to the Service the authority to administer the ESA. *Id.* § 402.01(b). In this appeal, GYC challenges the Service's determinations in its delisting Rule that the Yellowstone grizzly bear is not threatened by (1) whitebark pine declines under § 1533(a)(1)(E) ("Factor E"); or (2) inadequate existing regulatory mechanisms under § 1533(a)(1)(D) ("Factor D"). We consider both issues.

A

In the Rule's analysis of Factor E, "other natural or man-made factors affecting [the grizzly's] continued existence," the Service concluded that "any changes in whitebark pine production . . . are not likely to impact the [Yellowstone grizzly] to the point where [it] is likely to become endangered within the foreseeable future throughout all or a significant portion of its range." 72 Fed. Reg. at 14,929. The district court ruled that the Service failed to articulate a rational connection between the science it relied upon and its conclusion.

Based on our review of the Rule and the record before the agency at the time it was published,[2] we agree.

[2] On the basis of the information the Service presents in the Rule, it cannot reasonably be denied that whitebark pine loss presents at least a potential threat to the Yellowstone grizzly population. First, whitebark pine seeds are identified as one of four food sources "important to grizzly bear survival and reproductive success" in the GYA, along with winter-killed ungulates (hoofed mammals), spawning cutthroat trout, and army cutworm moths. 72 Fed. Reg. at 14,867. The pine seeds "serve as an important fall food due to their high fat content and abundance as a pre-hibernation food," and the bears consume them "extensively" and even "predominantly" when they are available. *Id.* at 14,867, 14,868. This food source permits the bears to efficiently add weight and store fat before they hibernate for the winter.

[3] Second, the Service acknowledges "concern[ ] that there will be future changes in whitebark pine abundance" because of stresses on the trees from mountain pine beetles and white pine blister rust, both of which may be exacerbated by climate change. *Id.* at 14,929. According to the Rule, "[d]uring the last 2 to 4 years, there has been an epidemic of mountain pine beetles in whitebark pine in the GYA" and aerial survey data have indicated that approximately 16% of the GYA's whitebark pine has experienced "some level of mortality" as a result. *Id.* at 14,928. In addition, the Rule notes that blister rust "also contributes to whitebark pine declines" and reports a study estimating that "roughly 25 percent of all

[2]Of course, we cannot and do not consider any reports or studies that have been compiled since the Rule was published in March of 2007. Under the APA, we may consider only the record that was before the agency at the time the challenged decision was made. *See* 5 U.S.C. § 706; *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 420 (1971), *overruled on other grounds by Califano v. Sanders*, 430 U.S. 99, 105 (1977).

whitebark pine trees in the GYA are currently infected to some level." *Id.* at 14,928-29.

As to climate change, the Rule refers to "a general consensus among the world's best scientists that climate change is occurring" and points out that "[t]he magnitude of warming in the northern Rocky Mountains has been particularly great." *Id.* at 14,927. According to the Rule, "[t]he most substantial way in which changing climate conditions may affect whitebark pine is through outbreaks of native mountain pine beetles that might not continue to be regulated by extremely cold winters, and an increased prevalence of white pine blister rust." *Id.* at 14,929. Thus, "a changing climate may shift the overall distribution of whitebark pine north and higher in elevation, resulting in local extinction and reduced overall distribution in the GYA." *Id.* While the Service does not anticipate that whitebark pine will disappear entirely from the GYA in the foreseeable future, *id.*, one of the studies upon which it relies concludes that "as long as climate warming continues, whitebark pine as a species and ecosystem is at high risk for loss over much of its geographic distribution," including the Yellowstone area. Jesse A. Logan, *Climate Change Induced Invasions by Native and Exotic Pests*, USFS Rocky Mountain Research Station (2006).

Finally, of critical importance here, the Rule repeatedly acknowledges a "well-documented association" between reduced whitebark pine seed abundance and increased grizzly mortality. 72 Fed. Reg. at 14,899; *see, e.g.*, *id.* at 14,933 (noting that whitebark pine "has been linked to grizzly bear survival and reproduction"); *id.* at 14,868 ("During poor whitebark pine years, grizzly bear/human conflicts are more frequent, resulting in higher numbers of human-caused grizzly bear mortalities due to defense of life or property and management removals of nuisance bears."); *id.* at 14,929 (noting that "studies suggest a decrease in whitebark pine can change both grizzly bear spatial distribution and the number of bear/human conflicts"). In short, when whitebark pine seeds

are scarce, grizzlies range more widely in search of food, and contacts between bears and humans increase substantially. Numerous scientific studies and reports cited in the Rule document this connection.[3] The Rule also reports that pine seed unavailability can result in reduced female reproductive success. *Id.* at 14,932.

[4] Based on the evidence of a relationship between reduced whitebark pine seed availability, increased grizzly mortality, and reduced grizzly reproduction, it is logical to conclude that an overall decline in the region's whitebark pine population would have a negative effect on its grizzly bear population. The Service advances several rationales in the Rule to support its conclusion that food shortages caused by whitebark pine declines are nonetheless "not a threat" to the Yellowstone grizzly. *Id.* at 14,932. Below, we explain why we find all of them lacking.

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[3]*See* Laura A. Felicetti et al., *Use of Sulfur and Nitrogen Stable Isotopes to Determine the Importance of Whitebark Pine Nuts to Yellowstone Grizzly Bears*, 81 Canadian J. Zoology 763, 763 (2003) ("Grizzly bear survival in the Greater Yellowstone Ecosystem is strongly linked to variation in pine-nut availability."); David J. Mattson et al., *Yellowstone Grizzly Bear Mortality, Human Habituation, and Whitebark Pine Seed Crops*, 56 J. Wildlife Mgmt. 432, 436 (1992) (in years of low whitebark pine seed use by bears, 1.9 times as many human-caused bear deaths occurred); David J. Mattson et al., *Food Habits of Yellowstone Grizzly Bears, 1977-1987*, 69 Canadian J. Zoology 1619, 1627 (1991) ("[D]uring years when pine seed production is low, grizzly bears come into greater contact with humans and more bears are killed."); Charles C. Schwartz et al., *Grizzly Bear*, in Wild Mammals of North America 556, 569 (G.A. Feldhammer et al. eds., 2003) ("[M]ost [bear/human] conflicts occur during years when important natural foods fail."); John L. Weaver et al., *Resilience and Conservation of Large Carnivores in the Rocky Mountains*, 10 Conservation Biology 964, 971 (1996) ("During years of poor production of berries and pine seeds, bears respond by substituting lower quality foods. . . . In the face of a shortfall in nutritious foods, bears move widely in search of food, which may bring them into contact with humans. This substantially increases the risk of direct human-caused mortality.").

First, the Service points out that grizzlies "are notoriously resourceful omnivores that will make behavioral adaptations regarding food acquisition." *Id.* at 14,932. While this uncontroversial assertion is adequately supported by science, it fails to address the heart of the threat that whitebark pine loss poses to the bears: increased proximity to humans when bears *do* adapt to seed shortages by seeking substitute foods. As the Rule itself recognizes just a few paragraphs later, "[t]he potential threat from decreases in whitebark pine cone production is not one of starvation, but one of larger home range size and movements," which "may result in increased conflicts with humans and increased mortality, as well as lower reproductive success the following year as females produce smaller litters." *Id.* That the bears are likely to seek alternate foods in the face of whitebark pine decline is a part of the problem, not an answer to it.

Second, the Service suggests that, even if there is a link between whitebark pine seed unavailability and *individual* mortality, there is no indication that the grizzly *population* will be negatively affected by seed shortages, because it has increased over the past three decades despite the fact that whitebark pine cone production has "varied dramatically" from year to year. *Id.* As explained by the Rule, "[b]ecause of the life history strategy of whitebark pine, which naturally exhibits extreme annual variability in cone production, grizzly bears have always had to cope with a high degree of uncertainty regarding this food resource." *Id.* The problem with this rationale is that the study on which the Service relied to demonstrate long-term grizzly population growth included data only until 2002, *before* the "epidemic of mountain pine beetles" began to kill the region's whitebark pines. *Id.* at 14,871, 14,928. It is not rational for the Service to rely on grizzly population trend data from a time of natural pine seed *variability* in order to predict the effect on the grizzly population of an overall whitebark pine tree *decline*.[4]

[4]Two other studies warrant mention here. First, the Rule cites to "Schwartz *et al.* 2006b" to support its assertion that the Yellowstone griz-

Another rationale presented in the Rule for why whitebark pine loss does not threaten the Yellowstone grizzly population is that a different grizzly population in the Northern Continental Divide Ecosystem in northern Montana "has continued to increase and thrive since the 1980s despite severe declines in whitebark pine communities in the last 50 years." *Id.* at 14,932. However, the force of this comparison is undercut by the fact that, in the very same Rule, the Service designates the Yellowstone grizzly as a "distinct population segment" of North American grizzly, based in part on its unique dependence on whitebark pine rather than, for example, berry-producing shrubs, which are relatively uncommon in the

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zly population "has continued to increase and expand" as whitebark pine seed production has varied. *Id.* at 14,932. But that study, entitled "Distribution of grizzly bears in the Greater Yellowstone Ecosystem in 2004," is about changing population distribution, not changing population size. *See* Charles C. Schwartz et al., *Distribution of grizzly bears in the Greater Yellowstone Ecosystem in 2004*, 17 Ursus 63 (2006). In fact, it specifically cautions that the bear distribution map it presents "is not a reflection of bear density within this area." *Id.* The Service does not explain how a wider population distribution is indicative of a population increase, especially given that the Rule explicitly states that "home range expansion" as bears range more widely in search of food represents a potential threat from low whitebark seed production. *See* 72 Fed. Reg. at 14,932.

Second, the federal defendants' reply brief points to a modeling study suggesting that poor whitebark pine seed years lead only to a decline in the rate of grizzly population *growth*, and not a decline in overall population. *See* Charles C. Schwartz et al., *Impacts of Spatial and Environmental Heterogeneity on Grizzly Bear Demographics in the Greater Yellowstone Ecosystem*, in Demographics of the Yellowstone Grizzly 57 (Schwartz et al., eds., 2006). Putting aside the fact that poor whitebark pine seed years are not necessarily analogous to overall loss of whitebark pine trees, this study is nowhere mentioned or cited in the Rule's discussion of Factor E. "It is well-established that an agency's action must be upheld, if at all, on the basis articulated by the agency itself," not post-hoc rationalizations. *State Farm*, 463 U.S. at 50. If the Service relied on this study in making its determination, it did not adequately connect the dots in the Rule such that its "path may reasonably be discerned." *Id.* at 43 (internal quotation marks omitted).

GYA compared to other regions. *Id.* at 14,878. Indeed, the record before us includes a 2007 fact sheet authored by Recovery Coordinator Servheen noting that the difference in the range of foods eaten by the bears in these two regions "makes direct comparisons of the impacts of the loss of [whitebark pine] uncertain."

We recognize that the Service is the best judge of how comparable these two regions might ultimately be. However, we think it irrational for the Service to determine on the one hand that the Yellowstone grizzly population is sufficiently distinct to warrant independent delisting consideration, and then on the other base its delisting determination on observations pertaining entirely to a different population. We therefore conclude that this comparison is insufficient to support the Service's determination that whitebark pine declines do not threaten the Yellowstone grizzly.

The Service also claims that even if projected whitebark pine losses occur, there will still be adequate habitat in the Yellowstone region to support a recovered grizzly population. Specifically, the Rule notes that whitebark pine is expected to persist in high-elevation areas such as the eastern half of the PCA and 1,138 square miles of protected habitat in the Wind River Mountains. *Id.* at 14,929. According to the Rule, these "reserve" areas provide suitable grizzly habitat and "increase[ ] the resiliency of the Yellowstone [grizzly population] to future changes in whitebark pine availability." *Id.* at 14,929, 14,930. But heavy reliance on some subset of the habitat within the PCA, or on habitat outside the PCA, to mitigate the impact of widespread whitebark pine decline is simply not rational given that the Service has defined the entire 9,210-square-mile PCA as the area "*necessary* to support the recovered grizzly population." *Id.* at 14,914 (emphasis added). Having determined what is "necessary," the Service cannot reasonably rely on something less to be enough.

The Service's ultimate (and understandable) conclusion is that it simply does not yet know what impact whitebark pine

declines may have on the Yellowstone grizzly. As the Rule acknowledges, "the specific amount of decline in whitebark pine distribution and the rate of this decline are difficult to predict with certainty. The specific response of grizzly bears to declines in whitebark cone production is even more uncertain." *Id.* at 14,929. We recognize that scientific uncertainty generally calls for deference to agency expertise. *See Lands Council v. McNair*, 537 F.3d 981, 993 (9th Cir. 2008) (en banc) ("We are to be most deferential when the agency is making predictions, within its area of special expertise, at the frontiers of science." (internal quotation marks and brackets omitted)).

But we nonetheless have a responsibility to ensure that an agency's decision is not arbitrary. *See id.* It is not enough for the Service to simply invoke "scientific uncertainty" to justify its action. As the Supreme Court has explained, "[r]ecognizing that policymaking in a complex society must account for uncertainty . . . does not imply that it is sufficient for an agency to merely recite the terms 'substantial uncertainty' as a justification for its actions." *State Farm*, 463 U.S. at 52. The Service must rationally explain why the uncertainty regarding the impact of whitebark pine loss on the grizzly counsels in favor of delisting now, rather than, for example, more study. *See id.* Otherwise, we might as well be deferring to a coin flip.

The Service relies heavily on "adaptive management" to justify its decision to delist the grizzly despite the scientific uncertainty.[5] According to the Rule, the Study Team and other

[5]The Service has defined "adaptive management" as "a structured process for learning by doing" and "a method for examining alternative strategies for meeting measurable biological goals and objectives, and then, if necessary, adjusting future conservation management actions according to what is learned." Notice of Availability of a Final Addendum to the Handbook for Habitat Conservation Planning and Incidental Take Permitting Process, 65 Fed. Reg. 35,242-01, 35,252 (June 1, 2000). Commentators

scientists "will continue to monitor the abundance and distribution of major grizzly bear foods such that any decline in the grizzly bear population as a result of these declines is detected in a sufficient time and addressed through adaptive management actions by the Coordinating Committee." 72 Fed. Reg. at 14,933. The Service explains that any biologically significant decline in an important food such as whitebark pine would be reflected in changes in mortality rates of independent females, litter size, and cub survival. If food declines occur and the Study Team "concludes these are related to significant increases in known and probable bear mortalities, and that such increases could threaten the grizzly population, the Study Team would recommend appropriate management responses to the Coordinating Committee, or submission of a relisting petition." *Id.*

[5] First of all, we reject out of hand any suggestion that the future possibility of relisting a species can operate as a reasonable justification for delisting. Whatever comfort may be taken in relisting as a safety net, it is no answer to conclude that a species is not threatened simply because it can be relisted if it is threatened. But there is no explanation of what the other "management responses" referred to might be, or why they would be reasonably likely to mitigate population declines caused by whitebark loss.[6] For adaptive management

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have noted that, while adaptive management has become the dominant agency response to scientific uncertainty, it can be difficult to evaluate against the substantive requirements of environmental laws such as the ESA. *See* J.B. Ruhl & Robert L. Fischman, *Adaptive Management in the Courts*, 95 Minn. L. Rev. 424, 472 (2010).

[6]Elsewhere in the Rule, the Service discusses "short-term" management responses to "poor whitebark pine production years," including:

> immediate limitation on all discretionary mortalities; enhanced outreach and education to minimize bear/human conflicts and the availability of attractants in bear habitat that might promote such conflicts; notice to residents and users of bear habitat about the

of a potential threat to suffice as a basis for a delisting determination, we believe that more specific management responses, tied to more specific triggering criteria, are required. *See, e.g.*, *Natural Res. Def. Council v. Kempthorne*, 506 F. Supp. 2d 322, 341 (E.D. Cal. 2007) (rejecting an adaptive management plan under the ESA when it did not include "defined action criteria"). Just as it is not enough simply to invoke "scientific uncertainty" to justify an agency action, it is not enough to invoke "adaptive management" as an answer to scientific uncertainty.

The Strategy establishes an intensive management and monitoring framework but, unfortunately, it was not developed to be responsive to whitebark pine declines. In fact, it does not even specifically discuss them. The Strategy grew out of the successful management regime that was developed during the 1980s, 1990s, and early 2000s, and it may be entirely reasonable to conclude that it adequately addresses potential threats that were apparent during that time, such as natural resource extraction, tourism, and annual variation in whitebark pine seed production. However, widespread whitebark pine loss, which did not begin until approximately 2002, was simply not one of those threats. Because the Strategy was

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> possible increased foraging of bears in peripheral habitats; detailed monitoring of food habit shifts and possible changes in home range size and locations . . . ; limitation of human activities in new or expanded feeding areas . . . ; and requests for a status review and/or immediate emergency relisting.

72 Fed. Reg. at 14,891. The only proposed responses to an overall loss of whitebark pine are replanting and recruitment of whitebark pine and enhancement of habitat outside the PCA where healthy whitebark pine may be available. As to the first, the Service provides no explanation as to why replanted whitebark pine is not subject to the same landscape-wide threats as existing whitebark pine, such as pine mountain beetle infestation. Moreover, there necessarily is a time lag before newly planted trees mature. As to the second, as previously explained, reliance on habitat outside the PCA contradicts the Service's own definition of the PCA as the area necessary to support a recovered grizzly population.

not developed to address whitebark pine declines, its effectiveness as a response is speculative.

The Yellowstone grizzly has been the focus of a laudable, decades-long cooperative research effort—one that we hope continues. It may be that scientists will compile data demonstrating grizzly population stability in the face of whitebark pine declines. Such information, however, simply is not in the record before us. The lack of any data showing a population decline due to whitebark pine loss is not enough. *See Tucson Herpetological Soc'y v. Salazar*, 566 F.3d 870, 879 (9th Cir. 2009) ("If the science on population . . . trends is undeveloped and unclear, the Secretary cannot reasonably infer that the absence of evidence of population decline equates to evidence of persistence."). The Rule presents no data indicating that whitebark pine declines will not threaten the Yellowstone grizzly population, and considerable data—demonstrating a relationship between pine seed shortages, increased bear mortality, and decreased female reproductive success—pointing in the opposite direction. *See State Farm*, 463 U.S. at 57 (rejecting agency rationale when "every indication in the record points the other way" (internal quotation marks omitted)).

[6] Perhaps the Service's delisting process, based on two decades of grizzly population growth, was well underway before the whitebark pine loss problem appeared on the radar and could be studied. But now that this threat has emerged, the Service cannot take a full-speed ahead, damn-the-torpedoes approach to delisting—especially given the ESA's "policy of institutionalized caution." *Ariz. Cattle Growers' Ass'n v. Salazar*, 606 F.3d 1160, 1167 (9th Cir. 2010) (internal quotation marks omitted), *cert. denied*, 131 S. Ct. 1471 (2011). The Rule did not articulate a rational connection between the data before it and its conclusion that whitebark pine declines were not likely to threaten the Yellowstone grizzly bear. Therefore, we affirm the decision of the district court on this ground.

B

The ESA's five-factor listing and delisting framework also requires the Service to determine whether a species is threatened because of "the inadequacy of existing regulatory mechanisms." 16 U.S.C. § 1533(a)(1)(D). The Service concluded that adequate regulatory mechanisms were in place to maintain a recovered Yellowstone grizzly population after delisting. 72 Fed. Reg. at 14,923. The district court held that the Service relied on too many measures that were not legally binding and failed to explain adequately how the legally binding measures would protect the grizzlies. Because we find adequate support in the Rule for the Service's conclusion, we reverse the district court on this ground.

The parties dispute whether the Strategy or associated state plans are themselves appropriately considered "regulatory mechanisms." We have previously held that the Service could consider protective measures in a multi-agency, multi-state conservation agreement in its assessment of delisting Factor A, "the present or threatened destruction, modification, or curtailment of [a species'] habitat or range." 16 U.S.C. § 1533(a)(1)(A); *see Tucson Herpetological Soc'y*, 566 F.3d at 879. Although this holding suggests that measures implemented pursuant to such agreements are not a legal nullity, we have never squarely considered whether a conservation agreement qualifies as a "regulatory mechanism" under Factor D. District courts have held that voluntary, unenforceable measures in conservation plans are not "regulatory mechanisms." *See Or. Natural Res. Council v. Daley*, 6 F. Supp. 2d 1139, 1153-56 (D. Or. 1998).

[7] But we need not decide whether the Strategy itself, as a whole, constitutes a "regulatory mechanism." Even assuming that the Service's consideration of the Strategy's voluntary or unenforceable components was error, its consideration of components of the Strategy that have been made legally binding adequately supports its Factor D determination. *See*

Tucson Herpetological Soc'y, 566 F.3d at 880 (proceeding to assess agency's delisting determination after setting aside those portions of the determination found to be erroneous).

Most importantly, the Service has pointed to the incorporation of certain of the Strategy's standards into the National Park Superintendents' Compendia and National Forest Plans (NFPs). For example, the Rule explains that the Park Service "has incorporated the habitat, population, monitoring, and nuisance bear standards described in the Strategy into their Superintendent's Compendium for each affected National Park." 72 Fed. Reg. at 14,924. Judge Thomas's contention that "there is not a single federal or state law or regulation that provides the means for enforcing the Strategy's morality standards," *see Dissent* at 20360, ignores the import of this fact. A Park Superintendent's Compendium "operat[es] as a summary of the rulemaking implemented under the discretionary authority of the Park Superintendent" in a particular National Park, and consists of regulations which augment the generally applicable Park Service regulations published in Title 36 of the Code of Federal Regulations. *Mausolf v. Babbitt*, 125 F.3d 661, 664 n.4 (8th Cir. 1997); *see* 36 C.F.R. §§ 1.5(a), 1.7(b). Therefore, the incorporation of the Strategy's population standards into the Yellowstone and Grand Teton National Park Superintendent's Compendia gives these standards—which include mortality limits, *see Final Conservation Strategy*, *supra*, at 173-74, 178-81-federal regulatory force, and the Park Service must adhere to them. *See Nat'l Ass'n of Home Builders v. Norton*, 340 F.3d 835, 852 (9th Cir. 2003) (noting that federal agencies must follow their own rules).

The situation is similar on National Forest lands, because the Strategy's habitat standards will be incorporated into legally enforceable National Forest Plans for all national forest land within the PCA upon delisting. 72 Fed. Reg. at 14,923. Management of national forest lands "must be consistent with the governing forest plan." *See Greater Yellowstone Coal. v. Lewis*, 628 F.3d 1143, 1149 (9th Cir. 2010) (citing 16

U.S.C. § 1604(i)). *See, e.g., Greater Yellowstone Coal.*, 628 F.3d at 1149-50 (legal challenge against the Forest Service for failure to comply with an NFP).

That the Forest and Park Services are legally bound to uphold key Strategy standards within the PCA is highly significant because these agencies collectively own and manage 98% of the land there. 72 Fed. Reg. at 14,874. And as the Rule indicates, the PCA has been shown to support the vast majority of the Yellowstone grizzly population. *Id.* Furthermore, even beyond the boundaries of the PCA, binding regulatory mechanisms protect a significant portion of the suitable grizzly habitat. In particular, the Rule explains that

> roughly 30 percent of all suitable habitat outside of the PCA is within a designated Wilderness Area . . . . The Wilderness Act of 1964 does not allow road construction, new livestock allotments, or new oil, gas, and mining developments within designated Wilderness areas; therefore, about 6,799 sq km (2,625 sq mi) will remain secure habitat . . . . This secure suitable habitat is biologically significant to the Yellowstone [grizzly] because it will allow population expansion into these areas that are minimally impacted by humans.

Id. at 14,924.

The Rule also cites to a wide range of other rules, regulations, and laws, both state and federal, which could facilitate the protection of the grizzly bear and the implementation of the Strategy.[7] The breadth of these measures is a tribute to the

[7]Judge Thomas faults the Service for citing to state laws that "allow the killing of bears." *Dissent* at 20363. We simply point out that these laws "allow the killing of bears" only under state regulation—such as with hunting licenses that are subject to annual limits—and thus enable the state to exercise some control over grizzly mortality. Therefore, we think it entirely appropriate that the Service considered them in its discussion of laws that facilitate the implementation of the Strategy.

comprehensive multi-jurisdictional cooperative effort between federal and state agencies, as well as private interest groups. The multi-state commitment to implement the Strategy represents a substantial wildlife conservation planning achievement —and one that, we have no doubt, ultimately improves the lot of the Yellowstone grizzly bear. For purposes of the Factor D determination, however, we need not, and do not, consider those measures, some or all of which may not be binding, because we hold that the clearly binding regulatory mechanisms discussed above suffice.

[8] The National Forest Plans and National Park Compendia make legally binding the Strategy's standards on 98% of the critical PCA and are buffered by the legal protections afforded by the Wilderness Act on a significant portion of grizzly habitat outside the PCA. In light of these measures, we believe the Service could reasonably conclude that adequate regulatory mechanisms exist to protect the Yellowstone grizzly bear. Importantly, we recognize that delisting cannot require the imposition of legal protections commensurate with those provided by the ESA itself. 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. It is therefore reasonable to conceive of "adequate" regulatory mechanisms as offering a recovered species something less than the stalwart protections of the ESA, but considerably more than no special protection at all. We believe that the Service could rationally conclude that the regulatory framework described in the Rule is sufficient to sustain a recovered Yellowstone grizzly bear population. On this issue, we reverse the district court.

IV

We affirm the district court's grant of summary judgment in favor of Greater Yellowstone Coalition on the issue of whether the Service rationally supported its determination that

potential whitebark pine declines did not threaten the Yellowstone grizzly bear. This is sufficient to affirm the district court's judgment vacating the Rule. However, we reverse the district court's grant of summary judgment in favor of Greater Yellowstone Coalition as to the Service's determination that existing regulatory mechanisms are adequate to protect a recovered Yellowstone grizzly population, and we direct the district court to enter summary judgment in favor of the governmental Appellants on that issue. We remand to the district court for further proceedings consistent with this Opinion.

Costs are awarded to Plaintiff-Appellee.

AFFIRMED in part; REVERSED AND REMANDED in part

THOMAS, Circuit Judge, concurring in part and dissenting in part:

I agree with the majority that the U.S. Fish and Wildlife Service (the "Service") did not, in its delisting rule,[1] articulate a rational connection between the record data and its determination that whitebark pine declines were not likely to threaten the Yellowstone grizzly bear. Unlike the majority, I would hold that the agency also erred in concluding the Yellowstone grizzly is not threatened by "the inadequacy of regulatory mechanisms." 16 U.S.C. § 1533(a)(1)(D) ("Factor D").[2]

[1]Final Rule Removing the Yellowstone Distinct Population Segment of Grizzly Bears From the Federal List of Endangered and Threatened Wildlife. 72 Fed. Reg. 14,866 (Mar. 29, 2007) ("Rule").

[2]The whitebark pine holding suffices to affirm the district court's judgment vacating the Rule. *Greater Yellowstone Coal., Inc. v. Servheen*, 672 F. Supp. 2d 1105 (D. Mont. 2009). Therefore, it is unnecessary to assess the Service's Factor D analysis. However, because the majority has opined on the issue, I will as well.

Therefore, I would affirm the district court's decision in its entirety.

I

The Service did not fulfill its regulatory responsibility in determining that existing regulatory mechanisms were sufficient to protect the Yellowstone grizzly. Not only did the Service rely on voluntary, rather than "regulatory," measures, but it did not explain adequately how existing regulatory mechanisms actually prevent grizzly bear mortality. *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *Pac. Coast Fed'n of Fishermen's Ass'ns v. U.S. Bureau of Reclamation*, 426 F.3d 1082, 1091 (9th Cir. 2005).

A

In response to dramatic grizzly bear population declines, the Service listed the grizzly as "threatened" under the Endangered Species Act in 1975. Since that time, the Service has repeatedly recognized the need for binding conservation measures that safeguard grizzlies from the threats which led to their decline. Amendment Listing the Grizzly Bear of the 48 Conterminous States as a Threatened Species, 40 Fed. Reg. 31,734, 31,734 (July 23, 1975); 72 Fed. Reg. at 14,922.

In the Greater Yellowstone Area, where grizzly populations were in jeopardy, the need for binding conservation measures and mortality controls has remained paramount. *See* 72 Fed. Reg. at 14,868, 14,871, 14,922. As the Service explained in its brief:

> Because the lack of adequate mortality and habitat standards contributed to the grizzly bears decline and ultimate listing, the Service and its State and federal partners spent over a decade developing the Conservation Strategy, which, among its other protections,

> imposes *strict mortality limits* and many *legally enforceable habitat standards* on its state and federal signatories.

(Emphasis added.)

In its Factor D determination, however, the Service relied on a number of voluntary, rather than "regulatory," measures. Chief among these is the "Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area" ("Strategy"),[3] upon which the Service tells us it "largely based" its analysis.[4] Indeed, the Service lauds the Strategy's "strict mortality limits" as one of its "key tenets." But under the Rule, compliance with the Strategy is purely voluntary. *See* 72 Fed. Reg. at 14,904 ("[T]he Strategy cannot legally compel any of the signatories to implement management policies or obligate funding."). There is not a single federal or state law or regulation that provides a means for enforcing the Strategy's mortality standards.[5] *Id.* at 14,922-26. Rather, if the grizzly population becomes threatened, the agency is to review the situation and call a committee meeting.[6] And that only occurs if the mortal-

[3]Interagency Conservation Strategy Team, *Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area* (Mar. 2007) *available at* http://www.fws.gov/mountain-prairie/species/mammals/grizzly/yellowstone.htm.

[4]Because the Service offered the Strategy as a primary basis for its Factor D determination, "we cannot readily say" that this error "clearly had no bearing on the Secretary's ultimate decision" to delist. *Tucson Herpetological Soc'y v. Salazar*, 566 F.3d 870, 880 (9th Cir. 2009).

[5]The Service claims the incorporation of the Strategy's standards into National Forest Plans and National Park Superintendent's Compendia afford the Strategy the force of law. But the National Forest Plans only incorporate the Strategy's habitat standards and contain no mechanism to enforce mortality limits.

[6]More specifically, when a deviation from the Strategy's mortality standards occurs, it triggers a non-binding "Biological and Monitoring Review," to be completed and made public within six months of initiation. 72 Fed. Reg. at 14,925. Then, the "multi-agency Yellowstone Grizzly

ity limits are exceeded for at least two years. 72 Fed. Reg. at 14,925.

The Service's reliance on voluntary action is contrary to law. The phrase "regulatory mechanism" plainly does not encompass voluntary, unenforceable measures such as the Strategy and many of its components. *Or. Natural Res. Council v. Daley*, 6 F. Supp. 2d 1139, 1155 (D. Or. 1998) (interpreting 16 U.S.C. § 1533(a)(1)(D) to mean that "the [agency] must base its decision on current, enforceable measures"). The Service therefore erred by considering the Strategy's voluntary and unenforceable components in its Factor D determination. Good intentions are not rules of law. Unenforceable aspirational goals are not regulatory mechanisms. Promises to monitor, review, and convene committees do not satisfy the statutory requirement. *See Norton v. So. Utah Wilderness Alliance*, 542 U.S. 55, 72 (2004) (noting that monitoring is not a legally binding commitment under the APA). Thus, the Rule must be vacated for non-compliance with 16 U.S.C. § 1533(a)(1)(D). *See State Farm*, 463 U.S. at 43 ("[A]n agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider . . . .").

B

The Service's analysis of existing laws and regulations is also flawed. Notably, the Rule does not explain how these measures prevent excessive grizzly bear mortality. Given the Service's view that mortality control is "a key part of any successful management effort," 72 Fed. Reg. at 14,871; *see also*

Coordinating Committee" responds to the Review, and "if the desired population and habitat standards specified in the Strategy cannot be met . . . the Coordinating Committee will petition [the Service] for relisting." *Id.* However, as the majority also recognizes, the "suggestion" of a future relisting does not "operate as a reasonable justification for delisting."

Strategy, *supra* note 3, at 31, its failure to account for regulatory mechanisms addressing mortality renders the Rule arbitrary and capricious. *See State Farm*, 463 U.S. at 43 ("[A]n agency rule would be arbitrary and capricious if the agency has . . . entirely failed to consider an important aspect of the problem.").

Citing to the Strategy, the Rule refers to 40 "Federal laws, rules, guidelines, strategies, and reports and 33 State laws, statutes, and regulations" applicable to management of the Yellowstone grizzly population. 72 Fed. Reg. at 14,922-23. The list sounds impressive, but the Rule is silent as to how these measures actually protect the grizzly. In fact, the vast majority of the cited laws and regulations predate the original listing and thus failed to protect the grizzly 35 years ago. The Service does not explain why these old laws now offer sufficient protection, despite the fact that the Service is required to consider the same factors in delisting as when listing. 16 U.S.C. § 1533(a)(1); 50 C.F.R. § 424.11(d).

Moreover, most of the listed laws and regulations do not specifically relate to grizzly protection; rather, they involve generic environmental and resource management. For example, one does not often think of a federal act establishing a highway between national parks as a statute aimed at protecting the grizzly, and yet this law is among those cited by the Strategy.[7] So is the Sikes Act of 1960, which provides for cooperative resource management on military reservations.[8]

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[7] *See* Appendix J *in* Strategy, *supra* note 3, at 157 (referencing Act to Establish John D. Rockefeller, Jr., Memorial Parkway, Pub. L. No. 92-404, 86 Stat. 619, 619 (1972)).

[8] *Id.* (referencing Sikes Act of 1960, 16 U.S.C. § 670a). The other federal statutes cited in the Strategy are similarly tangential or generic: Yellowstone National Park Act of 1872, ch. 24, § 1, 17 Stat. 32, 32-33 (1872); National Park Service Organic Act of 1916, 16 U.S.C. § 1; Lacey Act of 1900, 16 U.S.C. § 701; Fish & Wildlife Coordination Act of 1934, 16 U.S.C. §§ 551-664; Grand Teton National Park Expansion Act of 1950, 16

The listed state laws and regulations provide no more comfort. These provisions do not require the states to control grizzly mortality in accordance with the Strategy, and they only apply outside of the Primary Conservation Area. Further, the cited state laws do not necessarily protect the grizzly. Indeed, most of the statutes cited are laws that allow the killing of bears. For example, Wyoming statutes define a grizzly bear as a "[t]rophy game animal," Wyo. Stat. Ann. § 23-1-101(a)(xii)(A), and require a hunting license, *id.* at § 23-3-102(b). The Wyoming Grizzly Bear Management Plan allows regulated hunting of grizzlies. It also flatly states that it will not allow grizzlies to reoccupy certain mountain ranges, and that it will enforce that policy through sport hunting and removal.[9] Idaho's Grizzly Bear Management Plan similarly recognizes the grizzly as a "game animal" and further acknowledges that a large portion of potential grizzly habitat is beyond the reach of state law because it is located on the Shoshone-Bannock reservation, which is governed by tribal law.[10] The Tribe has not spoken on how it intends to proceed.[11]

U.S.C. § 406d-1; Multiple-Use Sustained-Yield Act of 1960, Pub. L. No. 86-517, 74 Stat. 215 (codified as amended in scattered sections of 26 U.S.C.); National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370; Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1536; Forest and Rangeland Renewable Resources Planning Act of 1974, Pub. L. 93-378, 88 Stat. 476 (codified as amended in scattered sections of 16 U.S.C.); National Forest Management Act of 1976, Pub. L. No. 94-588, 90 Stat. 2949 (codified as amended in scattered sections of 16 U.S.C.); Federal Land Policy and Management Act of 1976, 43 U.S.C. §§ 1701-1787; Fish & Wildlife Improvement Act of 1978, 16 U.S.C. § 742; and Fish and Wildlife Conservation Act of 1980, 16 U.S.C. §§ 2901-2911.

[9]Wyoming Game and Fish Department, *Wyoming Grizzly Bear Management Plan* 15 (Feb. 2002, as amended, July, 2005).

[10]Idaho's Yellowstone Grizzly Bear Delisting Advisory Team, *State of Idaho Yellowstone Grizzly Bear Management Plan* 18 (Mar. 2002).

[11]The Idaho Management Plan states: "The hunting of grizzly bears by members of the Shoshone-Bannock Tribes is a traditional and cultural issue, which will be determined by the Governing Body of the Shoshone-Bannock Tribal Council after delisting of the grizzly bear is finalized." *Id.*

The Montana plan also allows regulated hunting of grizzlies and states that "[r]egulated harvest will be a part of Montana's long-term conservation plan.[12]

Neither the Rule nor the Strategy adequately explains how these 70-odd federal and state laws and regulations will affect the Yellowstone grizzly. The only reference is contained in Appendix J to the Strategy,[13] where a simple grid lists each federal and state provision and an "X" beside the provisions that purport to address Factor D. There is no explanation or rationale provided. It is difficult to imagine a less illuminating document.

Merely compiling a list of potentially applicable statutes and regulations is not sufficient; the agency must explain why these laws and regulations constitute adequate regulatory mechanisms for grizzly protection. In short, the Service has not met its obligation to "articulate a satisfactory explanation" for its determination that adequate regulatory mechanisms exist to protect the Yellowstone grizzly. *State Farm*, 463 U.S. at 43; *Ctr. for Biological Diversity v. U.S. Dep't of Interior*, 623 F.3d 633, 648 (9th Cir. 2010) (noting that this circuit has "insisted that agencies support and explain their conclusions with evidence and reasoned analysis").

C

In sum, the district court correctly determined that the Rule did not comply with 16 U.S.C. § 1533(a)(1)(D). As a matter of law, unenforceable, voluntary promises do not constitute "regulatory mechanisms." Mere citation to potentially applicable statutes and regulations without analysis does not fulfill the Service's obligation to explain how they act as adequate

[12]Montana Department of Fish, Wildlife & Parks, *Grizzly Bear Management Plan for Southwestern Montana 2002-2012* 56 (Oct. 2002).

[13]Appendix J is entitled "The Relationship Between the Five Factors in Section 4(a)(1) of the ESA and the Existing Laws and Authorities."

regulatory mechanisms for protection of the grizzly. Neither the Rule nor the Strategy provide a legally enforceable method by which the Service can impose its mortality limits. The district court was right to reject the Service's Factor D analysis.

II

I do not question, much less criticize, the enormous effort that the Service, the states, and interest groups have made to study and manage the Yellowstone grizzly. However, our task is not to assess those endeavors from a policy viewpoint; it is to apply the law as Congress has directed. In doing so, I reach the same conclusions as the district court. To the extent my colleagues hold otherwise, I respectfully dissent.