



Northwest
1216 Lincoln Street
Eugene, Oregon 97401
(541) 485-2471

Rocky Mountains
103 Reeder's Alley
Helena, Montana 59601
(406) 443-3501

Southwest
208 Paseo del Pueblo Sur #602
Taos, New Mexico 87571
(575) 751-0351

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Western Environmental Law Center

June 30, 2017

SENT VIA HAND DELIVERY AND E-MAIL

Ryan Zinke
Secretary, U.S. Department of the Interior
U.S. Dept. of the Interior
1849 C Street, N.W.
Washington, D.C. 20240
exsec@ios.doi.gov

The U.S. Department of the Interior
U.S. Dept. of the Interior
1849 C Street, N.W.
Washington, D.C. 20240

Greg Sheehan
Acting Director, U.S. Fish and Wildlife Service
1849 C Street N.W., Room 3358
Washington, D.C. 20240
greg_sheehan@fws.gov

The U.S. Fish and Wildlife Service
1849 C Street N.W., Room 3358
Washington, D.C. 20240

Re: Sixty-day notice of intent to sue for violating Section 4 of the Endangered Species Act when designating and delisting the Greater Yellowstone Ecosystem population of grizzly bears.

The Western Environmental Law Center ("WELC") hereby provides this sixty-day notice of intent to sue for violations of Section 4 of the Endangered Species Act ("ESA"), 16 U.S.C. §1533, in designating a Greater Yellowstone Ecosystem population of grizzly bears (*Ursus arctos horribilis*) a distinct population segment ("DPS") and simultaneously removing this population of grizzly bears from protective status under the ESA.

This notice is provided by WELC on behalf of WildEarth Guardians (“Guardians”). Guardians is a non-profit conservation organization headquartered in Santa Fe, New Mexico, with offices in Colorado, Montana, Oregon, Arizona, California, and Wyoming. Guardians has more than 215,000 members and supporters who share their mission to protect and restore the wildlife, wild places, wild rivers, and health of the American West. This mission encompasses ensuring the long-term survival and recovery of grizzly bears throughout their historic range. Guardians’ members, supporters, and staff have a significant, concrete interest in ensuring the long-term survival and recovery of grizzly bears in the contiguous United States and the Greater Yellowstone Ecosystem and in ensuring the U.S. Fish and Wildlife Service (“Service”) complies with the law and utilizes the best available science when making listing and delisting decisions.

On June, 30, 2017, the Service published a notice in the Federal Register (Docket No. FWS-R6-ES-2016-0042) announcing its final decision to designate a Greater Yellowstone Ecosystem population of grizzly bears a DPS and remove the population from the Federal list of threatened and endangered species (hereinafter “the decision” or “the Service’s decision”).

With this letter, Guardians hereby puts the Service on notice that this decision to designate a Greater Yellowstone Ecosystem population of grizzlies a DPS and simultaneously remove this population from protective status under the ESA is arbitrary and capricious, conflicts with the best scientific and commercial data available (hereinafter “best available science”), and is not in accordance with the ESA (and other laws) for the following reasons:

1. *The ESA does not authorize the Service to simultaneously create and delist a DPS.*

Under the ESA, the Service has the authority to delist a protected species, subspecies, or DPS when the best available science reveals recovery is obtained and the species, subspecies, or DPS is no longer threatened by the five factors outlined in Section 4(a)(1) of the ESA, 16 U.S.C. § 1533(a)(1). 50 C.F.R. § 424.11(d). But it is axiomatic that the species, subspecies, or DPS deemed recovered and no longer threatened must first be listed and protected under the ESA *before* it can be delisted. In other words, listing a DPS is a precondition to delisting a DPS. *Humane Society of the United States v. Jewell*, 76 F.Supp.3d 69, 93 n.11 (D.D.C. 2014)(quotation omitted).

As explained in *Humane Society*, this interpretation is supported by the plain language, history, and purpose of the ESA and in accordance with the Service’s own policies and opinions. *Id.* at 111–12. “Unless and until a species of organisms is designated an ‘endangered species’ or a ‘threatened species,’ the enforcement mechanisms under the ESA . . . do not apply.” *Id.* at 111 (citation omitted). A DPS must first have been protected, or more specifically, “listed as a ‘threatened’ or ‘endangered’ species before the covered vertebrates may be declared ‘recovered,’ as that term is used in the ESA.” *Id.* at 113 (citing 16 U.S.C. § 1533(g)).

Here, the Service never designated a Greater Yellowstone Ecosystem population of grizzlies as a DPS by listing that DPS as either a threatened or endangered species under the ESA. Instead, the Service skipped this critical step and chose to simultaneously designate and delist the Greater Yellowstone Ecosystem DPS. The Service chose to designate the Greater Yellowstone Ecosystem population as a DPS for the sole purpose of delisting. As correctly recognized by the court in *Humane Society*, this approach directly conflicts with the plain language and structure of the ESA. “The ESA makes no provision for creating a DPS and removing protections from the covered vertebrates at the same time because, by definition, a DPS cannot be protected under the ESA unless the vertebrates have been identified as ‘threatened’ or ‘endangered’ species first.” *Id.* at 113 (citing 16 U.S.C. §§ 1536; 1538).

2. *Delisting isolated populations of a broader listed species conflicts with the structure and purposes of the ESA and the grizzly bear’s original listing.*

In 1975, the grizzly bear in the contiguous United States occurred in three isolated ecosystems: (1) the Selway-Bitterroot Ecosystem; (2) the Bob Marshall Ecosystem (now commonly referred to as the Northern Continental Divide Ecosystem); and (3) the Greater Yellowstone Ecosystem. 40 Fed. Reg. 31734 (July 28, 1975). Notably, the Service chose to list the entire metapopulation of grizzly bears inhabiting the contiguous United States in 1975, *i.e.*, all three isolated ecosystems, as a single threatened species under the ESA. 40 Fed. Reg. 31734. As such, the duty to conserve and recover this species under the ESA applied to all three isolated populations as a single listed entity. Healthy numbers in one population would not justify recovery of the entire listed entity in the contiguous United States. Nor would the species be managed in a piecemeal fashion.

Indeed, in the 1975 listing rule, the Service explained that even though grizzly bear numbers are high in one of the three ecosystems – the Bob Marshall Ecosystem – listing was still necessitated by: (a) the confined and isolated nature of the grizzly bear population in the lower 48 which “cannot be reinforced either genetically or by movement of individual bears;” (b) too much human access into previously inaccessible areas; and (c) too much mortality from poaching, hunting and conflicts. *Id.* This decision to list a single population of grizzly bears at the “species” taxonomic level throughout the grizzly bear’s range in the contiguous United States was the result of careful deliberation, defended by the Service, and determined to be the best way to conserve grizzlies in the lower 48. *Id.* As recognized by the court in *Humane Society*, the scope of this original listing decision “has obvious and significant repercussions” for how the species is to be managed under the ESA and how much “regulatory flexibility” the Service has for protection. 76 F. Supp. 3d at 121.

In this case, however, instead of conserving this species – as a whole – and ensuring its survival and recovery across its range in the contiguous United States as directed by the ESA and envisioned by the 1975 listing rule, the Service is attempting to focus on the viability of and delist a single, isolated population of grizzlies in only a very small portion of its historic range. This piecemeal approach to “recovering” and then delisting small, isolated populations of

grizzlies ignores the larger picture and status of the original listed entity – the metapopulation of grizzlies in the entire contiguous United States – conflicts with the Service’s own policy and previous consultations on grizzlies in the contiguous United States, and undermines the purposes of the ESA.

As explained in *Humane Society*, the structure, history, and purpose of the ESA “makes plain that cherry-picking healthy populations of a listed species for delisting subverts the review and delisting process.” *Id.* at 123. Indeed, an interpretation to the contrary would render meaningless the ESA’s directive to list and conserve species at risk “throughout all or a significant portion of its range” and allow the Service to delist any endangered species whose remaining populations are clustered in isolated pockets, thereby undermining the overarching goals of the ESA. Here, just as in *Humane Society*, by listing the grizzly bear at the general taxonomic level of species, the Service “obligated itself to address the [grizzly] in the conterminous United States as a general species in any future decisions regarding reclassification or delisting of members of the species.” *Id.* at 125 (citing 16 U.S.C. § 1533; 50 C.F.R. § 424.11).

3. The ESA does not allow the Service to designate a sub-DPS.

The Service’s designation of a Greater Yellowstone Ecosystem DPS fails additionally because it constitutes an arbitrary classification of a sub-DPS. The ESA allows the Service to designate a DPS of a population to allow for varying levels of protection but does not allow for classifications below the DPS level, i.e., the creation of a sub-DPS or a DPS of a DPS. *Defenders of Wildlife v. Salazar*, 729 F. Supp. 2d 1207, 1211 (D. Mont. 2010) (“The plain language of the ESA does not allow the agency to divide a DPS into a smaller taxonomy.”). The ESA “stops at a designated DPS—nothing smaller.” *Id.* at 1215–16. As explained in *Alesea Valley v. Evans*, “[l]isting distinctions below that of a subspecies or a DPS of a species are not allowed under the ESA.” 161 F.Supp.2d 1154, 1162 (D. Or. 2001) (citation omitted).

In this case, the original grizzly bear listing pre-dated the 1978 amendments to the ESA (which replaced “population” with “distinct population segment”) and the Service’s 1996 DPS policy defining the term “distinct population segment.” But as explained by the Service in its’ 2011 status review, the original listing rule of the grizzly bear in the contiguous United States is in effect a DPS of the larger taxonomic classification of the grizzly bear in North America, which includes those residing elsewhere on the continent, including grizzly bears in Alaska. Indeed, the Service expressly confirmed that the original 1975 listing of grizzly bears as threatened in the contiguous United States complies with the 1978 changes to the ESA and the 1996 DPS policy. The Service explains that grizzly bears in the contiguous United States qualify as a DPS because they are: (1) discrete from other populations (due to the international border with Canada); (2) significant to the remainder of the taxon (the loss of the lower 48 population would result in a significant gap); and (3) qualify as threatened under the ESA. Grizzly bears in the contiguous United States thus “warrant[] recognition as a DPS under the ESA.” 2011 status review at 12.

Having made this determination and chosen to list a single grizzly bear DPS in the contiguous United States, the Service cannot now make further distinctions below this taxonomic level. The Service cannot make listing distinctions between members of an already designated DPS by protecting some populations and not others. *Alesea Valley*, 161 F. Supp. 2d at 1162. In the ESA, “Congress expressly limited the [Service’s] ability to make listing distinctions among species below that of subspecies or a DPS of a species. *Id.* at 1163. The Service therefore violated the plain language of the ESA and ignored underlying Congressional intent when it created a smaller Greater Yellowstone Ecosystem DPS of the larger lower 48 states grizzly bear DPS.

4. *The grizzly population in the Greater Yellowstone Ecosystem does not qualify as a DPS.*

In order to qualify as a valid DPS, the grizzly population in the Greater Yellowstone Ecosystem must satisfy three factors: (1) the population segment must be discrete from the remainder of the taxon to which it belongs, i.e., markedly separate from the other populations of the same taxon or separated by international governmental boundaries; (2) the population segment must be biologically or ecologically significant to the taxon as whole; and (3) the population segment must qualify as an endangered or threatened species based on the ESA’s definition. All three factors must be satisfied before a population segment qualifies as a valid DPS.

Here, the best available science and evidence in the record reveals the population of grizzlies in the Greater Yellowstone Ecosystem is not, and likely will not, continue to be “discrete” from other grizzlies in the contiguous United States, as that word is defined by the Service in its 1996 DPS Policy and understood and interpreted by the Courts. Nor did the Service evaluate and determine whether the population segment in the Greater Yellowstone Ecosystem qualifies for endangered or threatened status.

5. *The Service’s determination that grizzlies in the Greater Yellowstone Ecosystem are “recovered” is premature, arbitrary, and inconsistent with the best available science.*

The Service maintains that the Greater Yellowstone Ecosystem population of grizzlies is a “biologically recovered population” and a population that has “recovered to the point at which protection under the Act is no longer required.” For support, the Service relies on the three demographic parameters outlined in the 1993 recovery plan (as modified and supplemented) that are used to assess recovery: (1) a minimum population size of at least 500 bears and at least 48 females with cubs in the demographic monitoring area (“DMA”) as indicated by established peer-reviewed methods (currently, the Chao2 population estimator method); (2) females with young distributed across the Greater Yellowstone Ecosystem in at least 16 of 18 bear management units within the primary conservation area (“PCA”), with no

two adjacent units unoccupied, during a six-year sum of operations; and (3) total mortality limits that would allow a population to achieve recovery which, according to the Service, requires sustaining a population of around 674 (based on the model-averaged Chao2 population estimation method from 2002-2014 (95% confidence interval = 600–747)).

The Service’s determination that the isolated Greater Yellowstone Ecosystem population of grizzly bears: (a) has met its carrying capacity; (b) is now fully “recovered” and will remain “recovered” (even at lower numbers) as that term is defined by the Service’s regulations (50 C.F.R. 402.02) and understood by the courts; and (c) meets the three criteria for recovery outlined in the recovery plan (as supplemented), conflicts with the best available science (including the peer review findings of the Service’s proposed rule) and is not supported by evidence in the record. The Service’s determination is also premised on incomplete and inaccurate information and faulty assumptions, faulty models and inaccurate monitoring, misleading demographic averages (as well as arbitrary, multi-year demographic averages to measure compliance with thresholds), and fails to account for the long-term “recovery” (as opposed to mere survival) of grizzly bears as that word is defined and understood in the ESA.

Under the ESA, grizzly bears in the Yellowstone region could only be deemed “recovered” if they are no longer threatened, i.e., “not likely” to become endangered in the foreseeable future throughout all or a significant portion of their range. The best available science reveals the isolated grizzly bear population in the Greater Yellowstone Ecosystem remains “likely” to become endangered in the “foreseeable future” as those terms are defined and understood. In addition, in deeming the population “recovered,” the Service never evaluated whether grizzlies are likely to become endangered in the foreseeable future in a significant portion of the grizzlies’ range within the DPS boundary. In fact, as discussed below, no “significant portion of its range” analysis is undertaken for the grizzly bear delisting at all in the Greater Yellowstone Ecosystem.

The Service’s determination also fails to account for: (a) other explanations for increases in grizzly distribution besides carrying capacity, including reductions in available food sources (i.e., the loss of white bark pine and cutthroat trout and decline in elk numbers); and (b) the lack of connectivity (and gene flow) which the best available science reveals is critical to recovery of the isolated Greater Yellowstone Ecosystem population as well as the larger metapopulation of grizzly bears in the contiguous United States.

Moreover, the 1993 recovery criteria upon which the Service relies conflicts with the most recent, updated best available science on what is needed for grizzly bear recovery in the contiguous United States and what is needed for the Yellowstone population. Not a single, published peer-reviewed paper supports the Service’s finding that an isolated population of approximately 500-800 grizzly bears in the Yellowstone region – by itself – qualifies as “recovered” and/or achieves the requisite number of grizzlies needed to maintain minimum population viability in the foreseeable future.

6. *The Service's threats assessment is arbitrary and conflicts with the best available science.*

Pursuant to Section 4(a)(1) of the ESA, 16 U.S.C. § 1533(a)(1), and the Service's implementing regulations, the Service is required to determine whether a species is threatened or endangered because of any of the following factors: (A) the present or threatened destruction, modification, or curtailment of the species' range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; and (E) other manmade factors affecting the species' continued existence. *Tucson Herpetological Soc'y v. Salazar*, 566 F.3d 870, 873 (9th Cir. 2009) (citing 16 U.S.C. § 1533(a)(1); 50 C.F.R. § 424.11(c)). These factors are listed in the disjunctive, such that anyone or combination of them can be sufficient for a finding that a species qualifies as threatened or endangered under the ESA.

In deciding to delist the Greater Yellowstone Ecosystem subpopulation of grizzly bears, the Service determined that threats to the Greater Yellowstone Ecosystem population of grizzly bears have been reduced such that the DPS no longer meets the definition of threatened or endangered under the ESA. In making this determination, the Service failed to utilize the best available science and failed to carefully consider and adequately apply Section 4(a)(1)'s threat factors in accordance with the ESA and the Service's implementing regulations and policy.

a. *The present or threatened destruction, modification, or curtailment of the species' range.*

The Service determined the grizzly population in the Greater Yellowstone Ecosystem is not threatened by the present or threatened destruction, modification or curtailment of its habitat or range from motorized access, livestock grazing, developed sites, mineral and energy development, recreation, snowmobiling, climate change, vegetation management (*i.e.*, logging, prescribed fire, and salvage logging), or habitat fragmentation.

This decision is arbitrary and fails to incorporate the best available science on the grizzly's habitat requirements, range (historic and current), and threats to the DPS from motorized access, livestock grazing, vegetation management, timber operations, mining, development, developed sites (including administrative and dispersed sites), and climate change. The Service's finding also fails to assess the cumulative impacts from these threats to habitat (see below) and fails to assess and account for the additional and combined threats to grizzly bears and grizzly bear habitat: (a) outside the PCA but within the DMA; and (b) outside the DMA but inside the DPS boundary. The Service's finding focuses largely on habitat inside the PCA, as opposed to all habitat inside the DPS boundary. This is a significant oversight. The Service's continued reliance on the "1998 baseline" to assess and measure impacts to grizzly bear habitat – especially in the face of likely climate change impacts – is also arbitrary and contrary to the best available science.

b. *Overutilization for commercial, recreational, scientific, or educational purposes.*

The Service determined that allowing the states of Montana, Idaho and Wyoming to authorize trophy hunting of grizzly bears inside the Greater Yellowstone Ecosystem DPS boundary is not a threat to the DPS and is fully compatible with a “recovered” population. The hunting seasons and individual quotas for grizzlies have yet to be set by all the States, but the Service maintains that allowing trophy hunters to kill grizzlies at certain, set levels (*i.e.*, 7.6% mortality for females, 15% for males, and 7.6% for dependent young when the population is estimated to be at or below 674 (using the model-averaged Chao2 population estimator for 2002-2014 (95% confidence interval = 600–747)) and more or less than this percentage as the population increases or decreases) is not a threat to the species and is consistent with conserving the DPS. Notably, the limits set by the Service only apply to mortalities inside the DMA and do not cover all mortalities that may occur from hunting inside the DPS (but outside the DMA). Mortalities that occur outside the DMA but inside the DPS are not counted toward the mortality limits.

The Service’s determination that trophy hunting the Greater Yellowstone Ecosystem grizzlies (at the levels authorized in the final rule and by the States pursuant to the monitoring regime approved by the Service) is not a threat to the DPS and is consistent with recovery is arbitrary and contrary to the best available science. The numbers and triggers authorized by the Service are also too high, arbitrarily set, inaccurate, incompatible with conservation directives for an already small and isolated population, fail to take into account recent and expected high levels of “background mortality” (*e.g.*, the hunting season in many states will begin in March, immediately after hibernation) and the monitoring program used to oversee compliance is unreliable and inaccurate. The Service’s threat assessment for trophy hunting also fails to account for all grizzly mortalities from trophy hunting inside the DPS boundary (mortalities outside the DMA but inside the DPS boundary will not be considered or counted), fails to account for the impacts trophy hunting would have on population dynamics and the impacts to dispersal, movements, and connectivity, and fails to account for the cumulative effects facing the population (see below). In addition, the Service’s threats assessment for trophy hunting is rushed and premature, as the States have yet to finalize their grizzly hunting regulations.

c. *Disease and predation.*

The Service determined that disease and predation – which the agency interprets to include all forms of human-caused mortality (other than intentional hunting) – does not constitute a threat to the Greater Yellowstone Ecosystem population of grizzly bears and is not anticipated to be a threat in the foreseeable future. The Service maintains that grizzly bear mortality averaging 23.9 grizzlies per year from human causes (*i.e.*, poaching, agency removal, accidental death due to mistaken identity, electrocution, research, vehicle collision, self-defense or defense of others and property) are not now, or anticipated to be, a threat to the isolated population of grizzlies in the Greater Yellowstone Ecosystem.

The Service's finding is arbitrary, based on incomplete and inaccurate data on grizzly bear mortalities (including the number of female mortalities), fails to account for unreported deaths, and is contrary to the best available science. The Service also failed (as discussed below) to analyze the cumulative impact of such human-caused mortality on grizzlies in the Greater Yellowstone Ecosystem. Notably, the Service relies on outdated average mortality levels. The numbers are now much higher. The Service concedes that the average mortality from 2012 to 2015 is now 37 and this number will only increase as the population of people living in and visiting the Greater Yellowstone region continues to increase (*e.g.*, 2016 saw record numbers of visitors). In 2015, at least 61 grizzly bear mortalities were reported to have occurred in the Greater Yellowstone Ecosystem – a record breaking year that is likely to become the new norm. This was never considered by the agency. Nor did the Service consider and analyze the age and sex of the grizzlies killed, *i.e.*, how many females, how many cubs, and how many cubs indirectly impacted (thereby unable to mature into adulthood), or whether this amount of mortality exceeds replacement rates. The Service also asserts that the majority of grizzly bear deaths are effectively mitigated by outreach efforts, adequate enforcement, monitoring, and “science-based” management. This is an unsupported assertion that conflicts with the best available science and the Service's own evidence.

d. Inadequacy of existing regulatory mechanisms.

Prior to delisting, the Service must evaluate whether a species warrants protective status due to the “inadequacy of *existing* regulatory mechanisms.” 16 U.S.C. § 1533(a)(1)(D) (emphasis added). This factor alone is sufficient to warrant listing. 50 C.F.R. § 424.11(c). In addition, pursuant to Section 4 (b)(1)(A), 16 U. S.C. § 1533 (b)(1)(A), and the Service's implementing regulations, the Service must make listing determinations only after “conducting a review of the status of the species and after taking into account those efforts, if any, being made by any State” to protect such species.

The Service determined that existing regulatory mechanisms and “those that would be enacted” in the future, before the final rule is issued, including non-binding state management plans and regulations (that can be changed and amended by the States), National Forest management plans, National Park Service operating plans, and the recently finalized Conservation Strategy, are adequate to protect the isolated population of grizzlies in the Greater Yellowstone Ecosystem. The Service therefore concluded that the inadequacy of existing regulatory mechanisms does not constitute a threat to the DPS now or in the future.

The Service's finding that the recently finalized Conservation Strategy, non-binding state management plans and regulations, and the Forest Service's outdated National Forest management plans and National Park Service plans are adequate regulatory mechanisms pursuant to section 4(a)(1)(D) and section 4(b)(1)(A) of the ESA is arbitrary, unsupported by evidence before the agency, and premature (many of those mechanisms relied upon are not “existing” and have not been finalized or adopted by the States, or incorporated into legally

binding frameworks and, as such, are not even “regulatory” in nature, let alone *existing* regulations). The Service’s finding is also contrary to the best available science and conflicts with the ESA. Under the ESA, the Service can rely on conservation efforts, including state-initiated efforts, so long as they are binding and current, not voluntary or future, and have a proven track record of success. See *Save Our Springs v. Babbitt*, 27 F. Supp. 2d 739, 748 (W.D. Tex. 1997); *Oregon Natural Res. Council v. Daley*, 6 F. Supp. 2d 1139, 1153 (D. Or. 1998); *Fed'n of Fly Fishers v. Daley*, 131 F. Supp. 2d 1158, 1165 (N.D. Cal. 2000); *Ctr. for Biological Diversity v. Morgenweck*, 351 F. Supp. 2d 1137, 1141 (D. Colo. 2004). A sufficient track record of success is two years. *Save Our Springs*, 27 F. Supp. 2d at 748. Any and all aspects of a conservation effort relied upon by the Service – including the Conservation Strategy relied on here -- must also have been (but was not) submitted for public notice and comment. *Id.*; see also *Morgenweck*, 351 F. Supp. 2d at 1141.

e. Other manmade factors affecting the species’ continued existence.

In terms of other manmade factors, the Service failed to adequately consider and analyze threats from low genetic diversity, changes to food sources, climate change, and human attitudes toward grizzly bear conservation in the Greater Yellowstone Ecosystem.

The Service concluded that the DPS is not threatened by low genetic diversity now or in the future, based on recent papers and findings and its commitment to promote natural connectivity in the region to prevent future reductions in genetic diversity. The Service also concluded that changes to food sources, in particular declines (and changes) in the availability of critical food sources such as white bark pine seeds, army cutworm moths, cutthroat trout, and ungulates (elk and bison) are not a threat to the DPS or an impediment to long-term population decline now or in the future. The Service recognized that declines in such food sources “can have some influence” on population vital rates but concluded that grizzlies are finding sufficient alternative food sources to maintain healthy body conditions.

Regarding climate change, the Service recognized that climate change may result in a number of changes to grizzly bear habitat in the Greater Yellowstone Ecosystem (*i.e.*, reduced snowpack, shifts in denning times, shifts in food sources, and changes in fire regimes) but concluded such changes do not constitute a threat to the DPS now or in the foreseeable future. The same is true with respect to human attitudes and public support. The Service maintains that public perceptions and human attitudes towards grizzlies in the Greater Yellowstone Ecosystem are not and will not become a threat to the DPS due to effective outreach programs and established regulatory frameworks.

The Service’s findings regarding genetic diversity, changes in food sources, the likely impacts of climate change, and human attitudes are unsupported by evidence before the agency, based on incomplete information or misinterpretations of the data, and cannot be justified. The Service’s findings are arbitrary, limited in scope, and conflict with the best available science. The Service also failed to provide a sufficient and scientifically justified

response to Dr. David Mattson's detailed comments on the likely impacts associated with declines in the grizzly bear's primary food sources.

f. Cumulative impact of the threats.

Under the ESA, the Service must consider each of the threat factors addressed above by themselves and in combination with one another before delisting a species. 50 C.F.R. § 424.11(c). The Service must carefully consider and analyze the cumulative or combined effect from all of the threat factors, including but not limited to: the loss or destruction of habitat, increased mortality from hunting, other forms of human caused mortality (*e.g.*, poaching, self-defense, agency removal due to conflicts with livestock, etc.), low reproductive rates, an inherently low resilience to excessive human-caused mortality, disease, increased human development and access to grizzly habitat, the lack of legally-binding State management plans containing meaningful conservation provisions, climate change, the small and isolated population with a low number of effective breeders in the DPS, and the continued decline of critical, high-caloric food sources like white bark pine seeds, army cutworm moths, cutthroat trout, and winter carrion from ungulates.

Individually, each of these threats may not threaten the DPS now or in the foreseeable future. But collectively, the loss of individual grizzlies (especially females) in the small, isolated population from trophy hunting, vehicle collisions, poaching, self-defense actions of ungulate hunters, and other sources, combined with the anticipated impacts of climate change and the loss of key food sources, as well as increased development and visitation in the Greater Yellowstone Ecosystem and extremely low reproductive rates, may threaten the DPS. A "small amount here, a small amount there, and still more at another point could add up to something with a much greater impact, until there comes a point where even a marginal increase will mean the species does not survive." *Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 994 (9th Cir. 2004).

In deciding to delist the Greater Yellowstone Ecosystem population of grizzlies, the Service discussed (and downplayed) the individual threats facing the DPS and only evaluated them in isolation, without analyzing the total combined or cumulative impacts and without addressing or correctly interpreting the best available science on the collective threats. The Service stated only that the principle threats assessed "may cumulatively impact" the DPS beyond the scope of the individual threat, but concluded that any cumulative impacts "have been adequately mitigated" and do not impact or threaten the DPS. No evaluation or analysis of the cumulative threats was undertaken by the Service or provided in the final rule. This is arbitrary and a violation of the ESA. *See* 50 C.F.R. § 424.11(c); *WildEarth Guardians v. Salazar*, 741 F. Supp. 2d 89 (D.D.C. 2010) (holding Service violated ESA by failing to consider cumulative impact of listing factors).

The Service's decision to use its population trend estimates as the "ultimate metric" to assess cumulative impacts to the population is also arbitrary. An analysis of cumulative effects

must occur *before* delisting, not as part of a post-decisional monitoring scheme. In addition, the population trend estimates used by the Service are not accurate or reliable because the Service has and continues to use different methods to document trends. The range from using the estimated minimum population size in 1975, to estimating to total population size using a .64:1 sex ratio and the Choa2 method, to using a 1:1 sex ratio and the Choa2 method, to estimating total population size issuing a 1:1 ratio and the Mark-Resight method. Such methods are not comparable to one another and certainly cannot be used – as the Service is attempting to do in this case – as a basis for documenting population trends and estimating impacts.

7. *The final Conservation Strategy constitutes a substantial deviation from the draft Conservation Strategy released for public review and comment, and the public was never given the opportunity to meaningfully review and comment on the final Conservation Strategy in violation of the APA and ESA.*

The Service’s reliance on a final Conservation Strategy that differs substantially from the draft Conservation Strategy released alongside the proposed rule without reopening the comment period on the final document violates the notice and comment requirements of the Administrative Procedure Act (“APA”), 5 U.S.C. § 553, and the ESA. Although the Service may consider new information in its promulgation of a final rule, the Service must reopen the comment period if the new information is “critical” to the agency’s ultimate decision. *Aina Nui Corp. v. Jewell*, 52 F. Supp. 3d 1110, 1120 (D. Haw. 2014). The Service must provide an opportunity to comment on conservation agreements that are critical to the final listing determination. *Save Our Springs v. Babbitt*, 27 F. Supp. 2d 739, 748 (W.D. Texas 1997). Additional opportunity for public comment is particularly crucial if the accuracy of the new information considered is in question. *Idaho Farm Bureau v. Babbitt*, 58 F.3d. 1392, 1403 (9th Cir. 1995); *Ober v. EPA*, 84 F.3d. 304, 313 (9th Cir. 1996). The Service cannot publish a final rule that constitutes a substantial deviation from its proposal. *Nat’l Wildlife Fed’n v. Norton*, 386 F. Supp. 2d 553 (D. Vt. 2005).

Here, the Service’s decision to delist the Greater Yellowstone Ecosystem population of grizzly bears was based primarily on the formal adoption of a final Conservation Strategy by federal and State land managers in December 2016. However, the final Conservation Strategy contains critical changes from the draft originally released alongside the Service’s proposed rule.

For example, the final Conservation Strategy eliminates references to maintaining a stable population, changes the timescale of the document’s relevance from that of being effective into “perpetuity” to instead being effective only into the “foreseeable future,” removes references to important concepts such as managing the population to foster genetic connectivity with neighboring ecosystems, and contains changes made in response to post-comment period politically-motivated requests from State officials. Individually and collectively, these and other critical changes in the final document constitute a substantial deviation from the draft released for public review. These changes were critical to the Service’s ultimate

decision, and are questionable from a scientific standpoint upon consideration of the best available science. Accordingly, the Service violated the notice and comment requirements of the APA and ESA by failing to reopen an opportunity for the public to comment on the final Conservation Strategy and the controversial changes therein.

8. *The Service failed to consult on how its decision to delist the Greater Yellowstone Ecosystem population of grizzlies may affect the remnant population of grizzlies inhabiting the contiguous United States.*

To achieve the ESA's recovery goal, Section 7 of the ESA directs federal agencies to engage in consultation with the Service to ensure any actions it funds, authorizes or carries out are "not likely to jeopardize the continued existence" of any listed species. 16 U.S.C. §1536(a)(2). The "actions" subject to this consultation requirement include "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies" 50 C.F.R. § 402.02. Examples of such actions "include but are not limited to: (a) actions intended to conserve listed species or their habitat; (b) the promulgation of regulations; (c) the granting of licenses, contracts, leases, easements, rights of way, permits, or grants-in-aid; or (d) actions directly or indirectly causing modifications to the land, water, or air." *Id.*

Actions that are "likely to adversely affect a listed species" must obtain a biological opinion from the Service discussing the effects of the action and including a finding whether the action "is likely to jeopardize the continued existence" of the species. 16 U.S.C. §1536(a)(2); 50 C.F.R. § 402.14. The phrase "jeopardize the continued existence of" means to engage in an action that appreciably reduces the likelihood of the survival and recovery of a listed species in the wild. 50 C.F.R. § 402.02. Impacts to both survival and recovery must be addressed in the biological opinion's jeopardy finding. *National Wildlife Federation*, 524 F.3d at 931. The jeopardy finding must also be based on the best available science. *Id.*; 50 C.F.R. § 402.14(g)(8). This standard does not require the Service to conduct "new tests or make decisions on data that does not yet exist," *Center for Biological Diversity v. USFWS*, 807 F.3d 1031, 1047 (9th Cir. 2015) (citation omitted), but it does prohibit the agency from "disregarding available scientific evidence that is in some way better than the evidence [it] relies on." *Kern County Farm Bureau v. Allen*, 450 F.3d 1072, 1080 (9th Cir. 2006).

Here, the Service has and continues to violate Section 7 of the ESA by failing to initiate and complete consultation on how its decision to designate a Greater Yellowstone Ecosystem population of grizzlies as a DPS and simultaneously delist this DPS may affect the survival and recovery of the remaining listed grizzlies in the contiguous United States. The Service also violated Section 7 of the ESA by failing to consult on how the final conservation strategy (as approved), supplement to the Recovery Plan, and State (Montana, Idaho, and Wyoming) grizzly bear management plans and regulations for grizzly bear hunting may affect the survival and recovery of the remaining grizzlies in the contiguous United States. The Service also violated Section 7(d) of the ESA by making an irreversible and irretrievable commitment of resources in furtherance of its decision to designate and delist the Greater Yellowstone Ecosystem grizzly

bear DPS and approve the final Conservation Strategy, State management plans, and supplement to the recovery plan before completing the consultation process.

9. *The Service's decision conflicts with the best available science.*

Pursuant to Section 4(b)(1)(A), 16 U.S.C. § 1533 (b)(1)(A), the Service's implementing regulations, and the Service's 2011 policy on scientific integrity, the Service must make all listing determinations "solely on the basis of the best scientific and commercial data available." As described above, the Service failed to do so in applying the ESA's five threat factors. See *supra* Section 5. The Service also failed to apply the best available science in a number of other, significant respects.

First, the Service's decision downplayed, undermined, or ignored the best available science on climate change impacts by insisting on fine scale data and proof of the precise mechanisms demonstrating how climate change will negatively directly impact grizzlies in the Greater Yellowstone Ecosystem. This is an impracticable and impossible approach that conflicts with the ESA's "best available science" standard. The ESA's "best available science" standard does not require scientific certainty (assuming it even exists) or prohibit the Service from making listing decisions in the face of uncertainty or even scientific disagreement. On the contrary, reliance upon the best available science, as opposed to requiring absolute scientific certainty, "is in keeping with congressional intent" that an agency "take preventive measures before a species is 'conclusively' headed for extinction." *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679–80 (D.D.C. 1997)(emphasis in original); see also *American Wildlands v. Norton*, 193 F.Supp.2d 244, 251 (D.D.C. 2002)(same). Accordingly, "definitive conclusions" are not required.

Second, the Service inappropriately manipulated its decision by relying on certain, select sources of information and "cloner" comments from certain individuals and states like Wyoming, Idaho, and Montana (not made available for public review and comment) to the exclusion of other, more reliable sources including, but not limited to, the peer-reviewed studies and comments submitted by Guardians and independent biologists, including Dr. David Mattson.

Third, and discussed throughout this notice and others' comments on the proposed rule, the Service disregarded scientifically superior evidence on threats to grizzlies in the Greater Yellowstone Ecosystem. The Service's unexplained disregard of scientifically superior, peer-reviewed papers while relying on non-peer reviewed, irrelevant, and politically motivated comments and concerns from Wyoming, Idaho, and Montana and others conflicts with the ESA's best available science standard.

Fourth, and related to the discussion above, the Service's listing decision – as discussed above – mistakenly requires the "best data possible" on climate change and how it may impact grizzlies, when the standard under the ESA only requires the best data "available."

Fifth, the Service's listing decision mistakenly insists on having "conclusive" data or the ability to draw "definitive conclusions" on how climate change will affect grizzlies in the Greater Yellowstone Ecosystem when, as mentioned above, this is not required or expected by Section 4 of the ESA. Nor is the Service required to conduct or obtain new, independent research to improve the pool of existing, available data. The ESA anticipates and expects that in certain situations, like those circumstances presented for grizzlies, the Service must and should rely on even inconclusive or uncertain information if that is the "best available science" at the time the decision is made. "Definitive conclusions" and "precise mechanisms" are not required, likely possible, or expected under the ESA.

Sixth, under the "best available science" standard and in accordance with the precautionary principle and Congress' intent in the ESA to be proactive, any ambiguity or uncertainty should weigh in favor of keeping a species listed. In other words, the "benefit of the doubt" should go to providing protective ESA status to grizzlies while additional studies and research is obtained. Based on the best available science, the Service should adopt a precautionary approach, maintain the grizzly bear's protective ESA status in the Greater Yellowstone Ecosystem, and then seek to better understand the grizzly's habitat needs and how climate change and other threats will impact the species. Once this information is obtained, the Service could then decide to maintain the grizzly's listing status, upgrade the species' status, or delist the entire species in response to the information and data obtained. In the meantime, however, grizzlies would be protected in the face of scientific "uncertainty" over the degree of threats.

Finally, under the ESA's "best available science" standard, the Service must manage and consider all the evidence and data submitted to the Agency in an open and transparent manner. This did not occur with respect to the Service's decision to delist grizzlies in the Greater Yellowstone Ecosystem. Nor did the Service provide sufficient response to the substantive comments submitted.

10. *The Service misapplied and incorrectly defined the ESA's terms and standards.*

As described above, the Service's decision to delist a Greater Yellowstone Ecosystem population of grizzly bears is premised on a misapplication of the term "best available science." The Service's decision is also premised on a misapplication of the term "threatened" and "endangered" as used and applied in the ESA.

Pursuant to the ESA, a species is "threatened" if it 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). A species is "endangered" if it is "in danger of extinction throughout all or a significant portion of its range." 16 U.S.C. § 1532(6). Construction of this language must be based on the best available science. *See Trout Unlimited v. Lohn*, 645 F. Supp. 2d 929, 947, 948 (D. Or. 2007); *Western Watersheds Project v. Foss*, 2005 WL 2002473, *15–17 (D. Id. 2005).

“Likely to become endangered” means “likely” to be “in danger of extinction.” *Lohn*, 645 F. Supp. 2d at 948. “[L]ikely’ clearly means something less than 100% certain, but how much less is not as clear.” *Id.* at 945. A reasonable construction of “likely” is at least a 50% chance (more likely than not). *Id.* at 949. In any case, the level of certainty relied upon by the Service must be based on consideration of the relevant statutory factors using the best available science. *Id.* at 947.

Likewise, “in danger of extinction” is not a fixed term, but its construction must be grounded in the best available science. *See id.* at 948. Certainly, “in danger of extinction” does not mean a “high risk of extinction.” *Western Watersheds Project*, 2005 WL 2002473, *17 (D. Id. 2005). “Instead, the required danger level for extinction necessarily depends on the applicable scientific viability assessments for the particular species.” *Lohn*, 645 F. Supp. at 948. For example, a 1-5% risk of extinction in 100 years can create a discernible risk of extinction. *Foss*, 2005 WL 2002473, *15 (citing *Center for Biological Diversity v. Lohn*, 296 F.Supp.2d 1223, 1232 (W.D. Wash. 2003)).

The term “foreseeable future” must also be defined by reference to the best available science. *See Foss*, 2005 WL 2002473, *15-17. As the Service recognized in a 2009 Solicitor Memorandum, “[t]he Secretary’s analysis of what constitutes the foreseeable future for a particular listing determination must be rooted in the best available data that allow predictions into the future, and the foreseeable future extends only so far as those predictions are reliable. ‘Reliable’ does not mean ‘certain’; it means sufficient to provide a reasonable degree of confidence in the prediction, in light of the conservation purposes of the Act.” M-Opinion 37021 at 13. What must be avoided is “speculation.” *Id.* at 8. The corollary is that the Service may not dismiss a risk of extinction that may be reasonably forecasted by science. *See Foss*, 2005 WL 2002473, *15–17. It “defies common sense” to define “foreseeable future” to exclude the timeframe in which [the best available science] predict[s] extinction. *Id.* at 15. Prediction of the future is necessarily grounded in the “data and logic” of today. M-Opinion 37021 at 8. As one court reasoned, if a species will be endangered in the future if current circumstances continue, “it is clearly threatened today.” *Biodiversity Legal Found. v. Babbitt*, 943 F. Supp. 23, 25 n.5 (D.D.C. 1996).

When deciding to delist a population of grizzlies in the Greater Yellowstone Ecosystem, the Service failed to properly apply the ESA’s standards for “threatened” and “endangered” and the underlying terms included therein. The Service also failed to properly define and apply the term “conservation” and “recovery” under the ESA when finding that the Yellowstone population is a “biologically recovered population.” Recovery means no longer sufficiently at risk of extinction in the foreseeable future and, thus, in need of the ESA’s protections. A self-sustaining wild population must be established and the risk of extinction must be reduced to an acceptable level into the foreseeable future. The best available science reveals such “recovery” has yet to be obtained for the isolated population of grizzlies in the Greater Yellowstone Ecosystem. In addition, the Service has yet to adequately evaluate “recovery” of grizzlies, as

that term is defined and understood under the ESA. The 1993 Recovery Plan's criteria for recovery (as revised and amended) also conflicts with the best available science. Not a single peer-reviewed paper suggests that an isolated population of 500-900 grizzlies is "recovered" such that the risk of extinction is reduced to acceptable levels into the foreseeable future.

11. The Service's significant portion of its range analysis is flawed.

Pursuant to the ESA, the Service must evaluate whether a species, subspecies, or DPS is endangered or threatened "throughout all or a significant portion of its range." 16 U.S.C. §1532(6). Thus, there are two situations under which a species, subspecies, or DPS may qualify for listing: a species may be listed throughout all of its range or a "significant portion of its range." 79 Fed. Reg. 37578, 37609 (July 1, 2014).

The ESA does not define "significant portion of its range" but the Ninth Circuit explained one way a species may qualify for listing throughout "a significant portion of its range" is if there are "major geographical areas in which it is no longer viable but once was." *Defenders of Wildlife v. Norton*, 258 F.3d 1136, 1145 (9th Cir. 2001). This requires the Service to: (a) quantify the species' historic range in order to establish a temporal baseline; and (b) then determine whether the lost or no longer viable area, measured against the baseline, amounts to a significant portion. If a species is "expected to survive" in an area that is much smaller than its historic range, the Service must explain its conclusion that the lost area is not a "significant portion of its range." *Defenders*, 258 F.3d at 1145. An "adequate explanation" why territory, which was part of a species' historic range but is no longer occupied or considered viable, is not a "significant portion" of the species' range is required. If the lost area qualifies as a "significant portion" then the Service must complete a threats assessment to determine if the species qualifies for listing throughout a "significant portion of its range." 16 U.S.C. §§ 1532(6)(20).

Here, prior to delisting the Greater Yellowstone Ecosystem population of grizzlies, the Service failed to properly define and adequately consider, quantify, and evaluate: (a) whether the grizzly's lost historic range in the contiguous United States – which includes large portions of the western United States (approximately 98% of the grizzlies historic range has been lost) – amounts to a "significant" portion of its range and, if so, what the threats to grizzlies are in this area; and (b) whether the grizzly's lost historic range inside the DPS amounts to a significant portion of its range within the DPS and, if so, what the threats are to grizzlies in this area.

The Service's definition of "significant" also conflicts with the ESA. The Service states that "significance" for the purposes of defining "significant portion of its range" will only be determined based the portion's biological contribution to the larger species. A portion of the species' range will only be deemed "significant" if its "contribution to the viability of the species is so important that, without members in that portion, the species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range." Having adopted this definition, however, the Service never applied it to grizzlies in the contiguous United States or within the DPS. The Service's definition also reads lost historic range out of the

equation. The Service's definition also raises the threshold too high and fails to give the term "significant portion of its range" the independent meaning that Congress intended. The Service also fails to properly evaluate a portion of the grizzlies' range for significance *by itself*, irrespective of how it may or may not impact the larger species. This too is a violation of the ESA. The Service's decision to narrowly define "significance" as a biological inquiry also conflicts with the ESA, Ninth Circuit caselaw, and the Service's policy. When evaluating "significance" there are a number of factors and criteria that must be evaluating and carefully considered. These are biological as well as geographic factors and threats based factors that include, but are not limited to, the size the area, the percentage of the species' range (current and/or historic), the unique or ecological features of the portion of the range, the importance of the area for connectivity, how the area will response to climate change, etc. . .It is a site specific analysis that encompasses factors and criteria above and beyond those evaluated by the Service in this case.

The Service also mistakenly relies on its 2014 "significant portion of its range" or "SPR" policy, 79 Fed. Reg. 37578 (July 1, 2014), which was recently vacated by the Court in *Center for Biological Diversity v. Jewell*, No. CV-14-02506-TUC-RM (Doc. 72)(D. Ariz. March 29, 2017) because it was deemed an unreasonable interpretation of the statutory term. Specifically, the Court found that the "significant portion of its range" language "cannot permissibly be interpreted 'to mean that a species is eligible for protection under the ESA' only 'if it faces threats in enough key portions of its range that the *entire* species is in danger of extinction, or will be within the foreseeable future.'" *Center for Biological Diversity*, No. CV-14-02506-TUC-RM, Doc. 72 at 11. Such an interpretation would render the ESA's reference to "significant portion of its range" superfluous. *Id.* The Service's definition in this case does the same thing by insisting that the portion be so important to the larger species that without it, the species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all its range.

The Service notes that it is aware of the District of Arizona's decision in the *Center for Biological Diversity* case and is considering appropriate next steps. The Service notes, however, that its decision does not hinge on the "SPR analysis" because under any definition of "significant portion of its range" it is "clear" that the grizzly bear population in the Greater Yellowstone Ecosystem "is not in danger of extinction throughout all or a significant portion of its range, nor is it likely to become so in the future." This, however, is merely an unsupported conclusion made in the absence of any analysis. In sum, the Service has yet to conduct a legally and biologically adequate significant portion of its range analysis before deciding to delist grizzlies in the Greater Yellowstone Ecosystem.

12. The Service is not implementing an "effective monitoring" program post-delisting.

Section 4(g) of the ESA directs the Service to implement a system, in cooperation with the States, to effectively monitor – for no less than five years – the status of any species which

is delisted. 16 U.S.C. § 1533(g). As described in this notice letter and Guardians' comments on the proposed rule and reopening of the comment period, the Service's post-delisting monitoring plan outlined in the 2016 Conservation Strategy and included in the State grizzly bear management plans does not qualify as "effective" monitoring for conservation reliant species such as grizzlies, which have a low resiliency to excessive human-caused mortality. This is true for the Service's monitoring plan within the PCA, within the DMA, and outside the DMA but within the DPS boundary. Notably, many of the most serious threats to grizzlies in the Greater Yellowstone Ecosystem will be monitored over a multiple-year period, will take years (if not decades or more) to translate into detectable changes, and will not trigger changes until certain multiple year averages are met. By then, it will likely be too late to make any meaningful changes that benefit grizzlies, and too late to restore and recover the DPS.

In closing, this sixty-day notice letter serves to put the Service on notice of its liability for violating the ESA and inform the agency of our intent to file a citizen suit under the ESA seeking the appropriate relief. We would, however, welcome the opportunity to meet and confer with the Service to discuss the issues raised in this notice letter in an attempt to avoid litigation. Please let me know at your earliest convenience if you would be amenable to such a meeting.

Thank you in advance for taking the time to consider the issues outlined in this notice letter.

Sincerely,

/s/ Matthew Bishop
Matthew Bishop
Western Environmental Law Center
103 Reeder's Alley
Helena, MT 59601
(406) 324-8011 (tel.)
bishop@westernlaw.org



John R. Mellgren
Western Environmental Law Center
1216 Lincoln Street
Eugene, Oregon 97401
(541) 359-0990
mellgren@westernlaw.org

On *behalf* of:

WildEarth Guardians

Contact: Kelly Nokes

P.O. Box 7516

Missoula, Montana 59807

(406) 209-9545

knokes@wildearthguardians.org