

# PETITION

**TO ESTABLISH THE GREATER YELLOWSTONE  
ECOSYSTEM (GYE) GRIZZLY BEAR (*Ursus arctos horribilis*)  
DISTINCT POPULATION SEGMENT (DPS) AND REMOVE  
THE GYE GRIZZLY BEAR DPS FROM THE FEDERAL LIST  
OF ENDANGERED AND THREATENED WILDLIFE**

State of Wyoming,  
Office of the Governor

**PETITION:**

**To Establish the Greater Yellowstone Ecosystem (GYE) Grizzly Bear (*Ursus arctos horribilis*) Distinct Population Segment (DPS) and Remove the GYE Grizzly Bear DPS from the Federal List of Endangered and Threatened Wildlife**

SUBMITTED BY: The Honorable Mark Gordon  
Governor  
State of Wyoming

DATE: January 10, 2022

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ADMINISTRATIVE REMEDIES SOUGHT:

In accordance with the procedures set forth in Section 4 of the Endangered Species Act of 1973 (the Act or ESA) and 50 C.F.R. § 424, Petitioner hereby requests that the United States Fish and Wildlife Service (Service):

- 1) Establish the Greater Yellowstone Ecosystem (GYE) Grizzly Bear (*Ursus arctos horribilis*) Distinct Population Segment (DPS) in the states of Wyoming, Idaho and Montana as a species that is neither a threatened species nor an endangered species under the Act; and
- 2) Revise the List of Endangered and Threatened Wildlife under the Act by removing the GYE grizzly bear DPS.

## **DETAILED NARRATIVE**

### **Introduction**

The recovery of the grizzly bear population in the Greater Yellowstone Ecosystem is a monumental ESA success story. Removing the GYE grizzly bear DPS from the List of Endangered and Threatened Wildlife (List) is the obligatory next chapter to this success story.

For far too long, the public debate over grizzly bear delisting gave voice to an opinion that the GYE grizzly bear DPS should never be removed from the List. Many expressing an opinion demonized the State of Wyoming as anti-grizzly bear and insinuated that the State cannot be trusted to responsibly manage grizzly bears if the GYE grizzly bear DPS is removed from the List.

These naysayers could not be more wrong.

For nearly half a century, the State of Wyoming demonstrated unwavering commitment to advance the recovery of the GYE grizzly bear DPS. From the listing of the grizzly bear as a threatened species in 1975 until now, the State invested a significant amount of time, effort, and money annually to protect and manage the grizzly bear population in Wyoming. These investments resulted in the GYE grizzly bear DPS to expand from as few as 136 bears to more than 1,000 by scientifically credible estimates, an almost eightfold increase.

Without question, the other sovereigns within the geographic reach of the Greater Yellowstone Ecosystem played an essential role in the recovery of the GYE grizzly bear DPS. But the recovery of this population would not have been possible without the considerable efforts taken by the State of Wyoming through its Executive and Legislative Branch policymakers, the Wyoming Game and Fish Commission, and the Wyoming Game and Fish Department. One benefit of these considerable efforts is that the GYE grizzly bear DPS now must be removed from the List.

To facilitate GYE grizzly bear DPS conservation efforts, the State of Wyoming remains committed to the existing regulatory mechanisms and conservation measures that passed legal muster in the litigation over the 2007 and 2017 delisting rules. In particular, the State is a signatory to the Conservation Strategy and will continue to work with the other signatories after delisting to manage the population and its habitat to conserve and protect a recovered grizzly bear population in the GYE.

The State of Wyoming is also making additional legal and policy commitments necessary to satisfy the Act's requirements for the post-delisting management of the GYE grizzly bear DPS. The States of Idaho, Montana, and Wyoming amended the 2016 Tri-State Memorandum of Agreement to adopt new annual management targets and mortality thresholds established using the refined Chao2 estimator. These management targets and mortality thresholds will allow the three States to manage discretionary mortality after delisting so that the GYE grizzly bear DPS remains well above the minimum recovery level. To provide further regulatory assurance, the State of Wyoming will amend its grizzly bear management regulations to address management targets and mortality thresholds consistent with the amended Tri-State Memorandum of Agreement.

Importantly, the States of Wyoming, Idaho, and Montana amended the Tri-State Memorandum of Agreement to address post-delisting management concerns identified in the litigation over the 2017 delisting rule. In that litigation, the courts noted two concerns that require additional state action – recalibration and the management of potential future threats to the long-term genetic health of the GYE grizzly bear DPS.

To address the concern about recalibration, the three States amended the Tri-State Memorandum of Agreement to include an explicit commitment to adjust the annual management targets and mortality thresholds if a new population estimator replaces the refined model-averaged Chao2 estimator in the future. To address the concern about long term genetic health, the States amended the Tri-State Memorandum of Agreement to include an explicit commitment to translocate grizzly bears into the GYE grizzly bear DPS as needed to maintain or augment genetic diversity. And, to provide further regulatory assurance, the State of Wyoming will amend its grizzly bear management regulations to address recalibration and translocation consistent with the amended Tri-State Memorandum of Agreement.

Together, these new actions will foster the long-term genetic health, viability, and sustainability of the GYE grizzly bear DPS. They are actions not previously considered by the Service. These new actions combined with the Service’s previous findings regarding the GYE grizzly bear DPS are substantial. They are so substantial that a reasonable person would conclude that the petitioned actions – the establishment of the GYE grizzly bear DPS as a species that is neither a threatened nor endangered species and the revision of the List by removing the GYE grizzly bear DPS – are warranted.

There is no biological or legal reason why the GYE grizzly bear DPS should not be removed from the List. From the biological perspective, the population is recovered and its removal from the List will not further threaten the existence of the other grizzly bear populations in the conterminous United States. Moreover, the amendments to the Tri-State Memorandum of Agreement and the anticipated amendments to the State of Wyoming’s grizzly bear management regulations also eliminate the only remaining legal concerns about post-delisting management. Therefore, consistent with the ESA, the GYE grizzly bear DPS should be removed from the List.

Removing the GYE grizzly bear DPS from the List will signify the ultimate achievement of success under the ESA. It is time to write the next chapter to this monumental ESA success story.

## **I. The Delisting History of the Grizzly Bear Population in the Greater Yellowstone Ecosystem**

In July 1975, the United States Fish and Wildlife Service adopted a final rule to list the grizzly bear populations in the conterminous forty-eight states of the United States as a threatened species under the Endangered Species Act. 40 Fed. Reg. 31734-36 (July 28, 1975). This federal action extended ESA protections to the grizzly bear population in the Greater Yellowstone Ecosystem. By the early 2000s, the number of grizzly bears in the Greater Yellowstone population increased to the point where the Service deemed it to be biologically recovered and eligible to be

delisted. The Service delisted the population twice (in 2007 and in 2017) but, both times, the delisting rule was set aside by judicial action.

In 2007, the Service adopted a final rule to establish the Greater Yellowstone Area (GYA) distinct population segment (DPS) of the grizzly bear and to delist the GYA DPS. 72 Fed. Reg. 14866-938 (March 29, 2007). In 2009, the United States District Court for the District of Montana set aside the 2007 delisting rule. *Greater Yellowstone Coal. v. Servheen*, 672 F. Supp. 2d 1105 (D. Mont. 2009). On appeal, the Ninth Circuit Court of Appeals affirmed the part of the district court judgment that set aside the 2007 delisting rule. *Greater Yellowstone Coal. v. Servheen*, 665 F.3d 1105 (9th Cir. 2011). As a result of the Ninth Circuit opinion, the Greater Yellowstone population was once again listed as threatened under the ESA.

In 2017, the Service adopted a final rule to establish the Greater Yellowstone Ecosystem (GYE) DPS of the grizzly bear and to delist the GYE DPS. 82 Fed. Reg. 30502-633 (June 30, 2017). In 2018, the United States District Court for the District of Montana set aside the 2017 delisting rule. *Crow Indian Tribe v. United States*, 343 F. Supp. 3d 999 (D. Mont. 2018). While the district court judgment was on appeal to the Ninth Circuit, the Service relisted the Greater Yellowstone population as threatened under the ESA. 84 Fed. Reg. 37144-37145 (July 31, 2019). The Ninth Circuit then affirmed the district court judgment that set aside the 2017 delisting rule. *Crow Indian Tribe v. United States*, 965 F.3d 662 (9th Cir. 2020).

In affirming the district court judgment, the Ninth Circuit identified three actions that either the Service or the affected states must take before the GYE DPS can be delisted. First, the Ninth Circuit directed the Service to conduct a “further examination of the delisting's effect on the remnant grizzly population” living in the conterminous United States outside of the GYE DPS. *Crow Indian Tribe*, 965 F.3d at 678. In conducting this examination, the Service “must determine on remand whether there is a sufficiently distinct and protectable remnant population, so that the delisting of the DPS will not further threaten the existence of the remnant.” *Id.*

Second, the Ninth Circuit determined that the states must adopt “concrete, enforceable mechanisms” that will “ensure long term genetic health of the Yellowstone grizzly.” *Crow Indian Tribe*, 965 F.3d at 680. In particular, the states must adopt regulatory mechanisms that make a commitment “to take action if natural connectivity of grizzly bear populations does not occur.” *Id.* The states’ regulatory mechanisms must be “sufficiently certain and effective to alleviate a threat of endangerment” to the long-term genetic health of the Greater Yellowstone population. *Id.* (citation and internal quotation marks omitted).

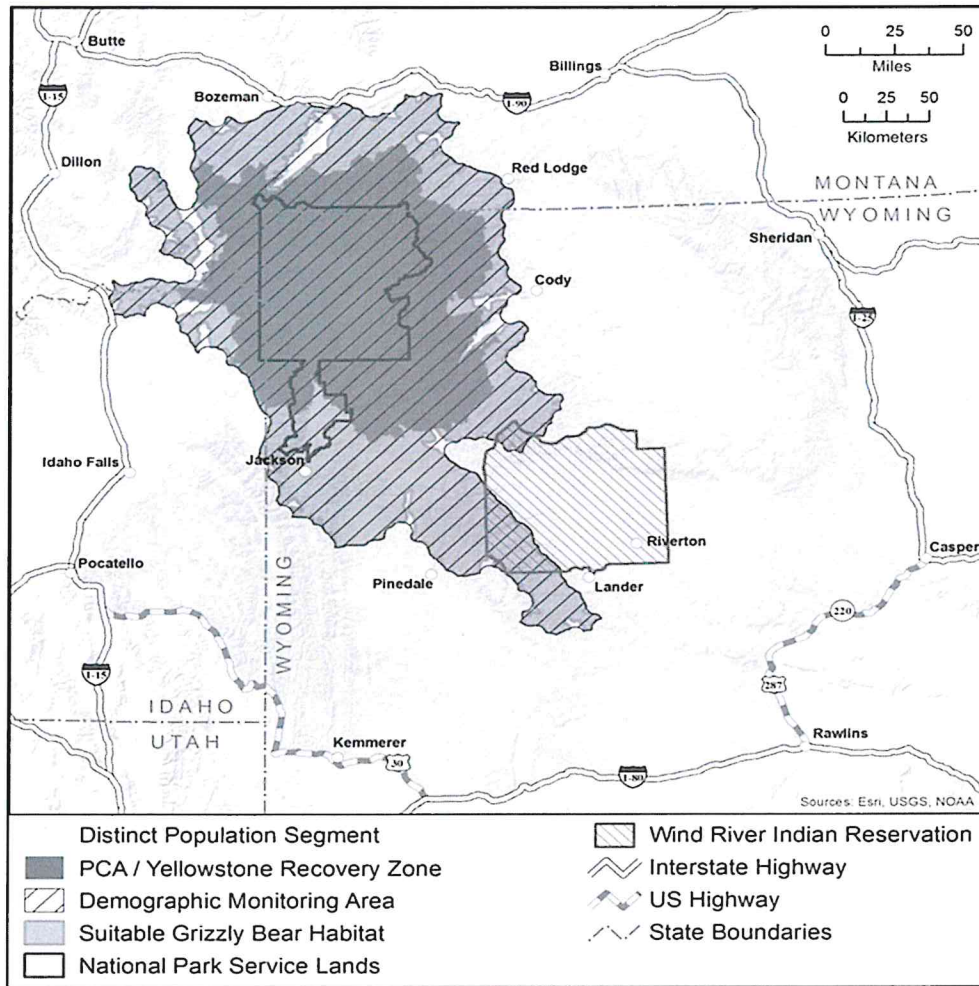
Third, the Ninth Circuit held that “[r]ecalibration is needed in the event the FWS changes its method of estimating the Yellowstone grizzly bear population.” *Crow Indian Tribe*, 965 F.3d at 680. The court explained that “[a] commitment to recalibration is necessary in the event that the states adopt a new estimator, or else the effect of any future change will never be known.” *Crow Indian Tribe*, 965 F.3d at 681.

## II. Current and Historic Range

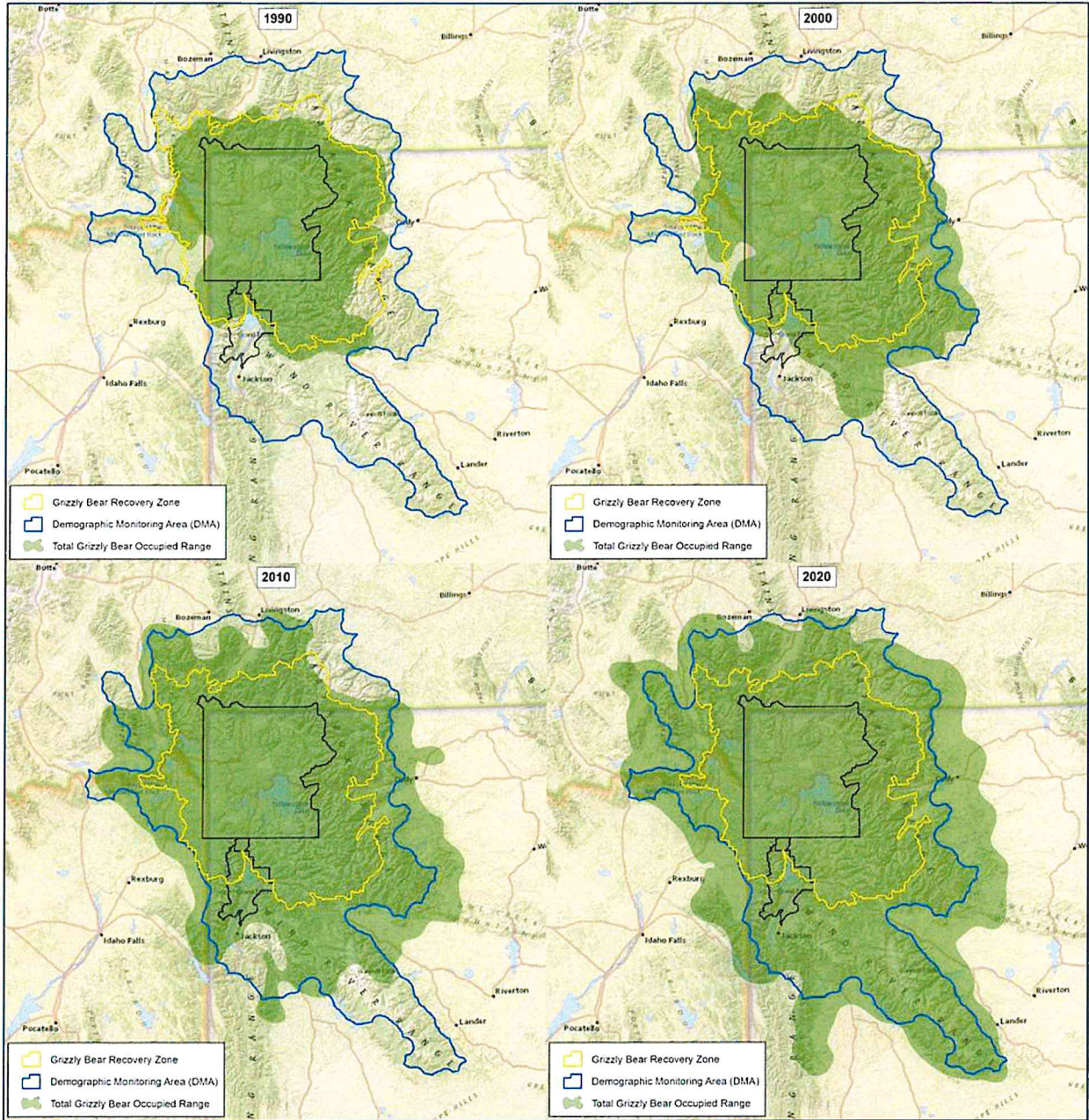
Historically, grizzly bears occupied the western half of what is now the Lower 48 states from the northern Great Plains southward to western Texas and westward to the West Coast (Haroldson et al. 2021). This area was thought to hold approximately 50,000 grizzly bears prior to European settlement (USFWS 2021; pages 4, 49). Rapid population declines began with the arrival of European settlers to the region, and grizzly bear range was reduced to approximately 2% of its original range by the 1930s (USFWS 2021; page 142). By the time of federal Act listing in 1975, grizzly bears in the lower-48 states were limited to a few protected areas of Idaho, Montana, Washington, and Wyoming (USFWS 2021). At that time, the Greater Yellowstone Ecosystem likely held an estimated 136-300 grizzly bears in an area centered on Yellowstone National Park (USFWS 2021; page 142).

Since ESA listing, the Greater Yellowstone grizzly bear population's range has expanded well beyond the range documented in 1975. The most recent estimate of occupied range for GYE grizzly bears from 2020 was 70,468 km<sup>2</sup>, a more than four-fold increase from the estimated 16,160 km<sup>2</sup> of the 1970s occupied range (Figure 2; Bjornlie and Haroldson 2021, IGBST unpublished data). The 2020 GYE occupied range includes 97.9% of the Demographic Monitoring Area (DMA) and 98.7% of the suitable habitat area designated by the Service in 2013 (USFWS 2013). In fact, 30.6% of the 2020 grizzly bear occupied range is now outside of the DMA (Figures 2, 3; Bjornlie and Haroldson 2021), a far more human-dominated landscape of private lands, agricultural practices, and developed areas. From 1990 to 2020, the area of private lands within GYE grizzly bear occupied range had increased from just over 600 km<sup>2</sup> to over 12,000 km<sup>2</sup>, an area 20% larger than Yellowstone and Grand Teton National Parks and the John D. Rockefeller Parkway combined (Figure 4; Bjornlie and Haroldson 2021). The expansion into private lands and human-dominated landscapes results in increased potential for human-grizzly bear conflicts (WGFD 2020).

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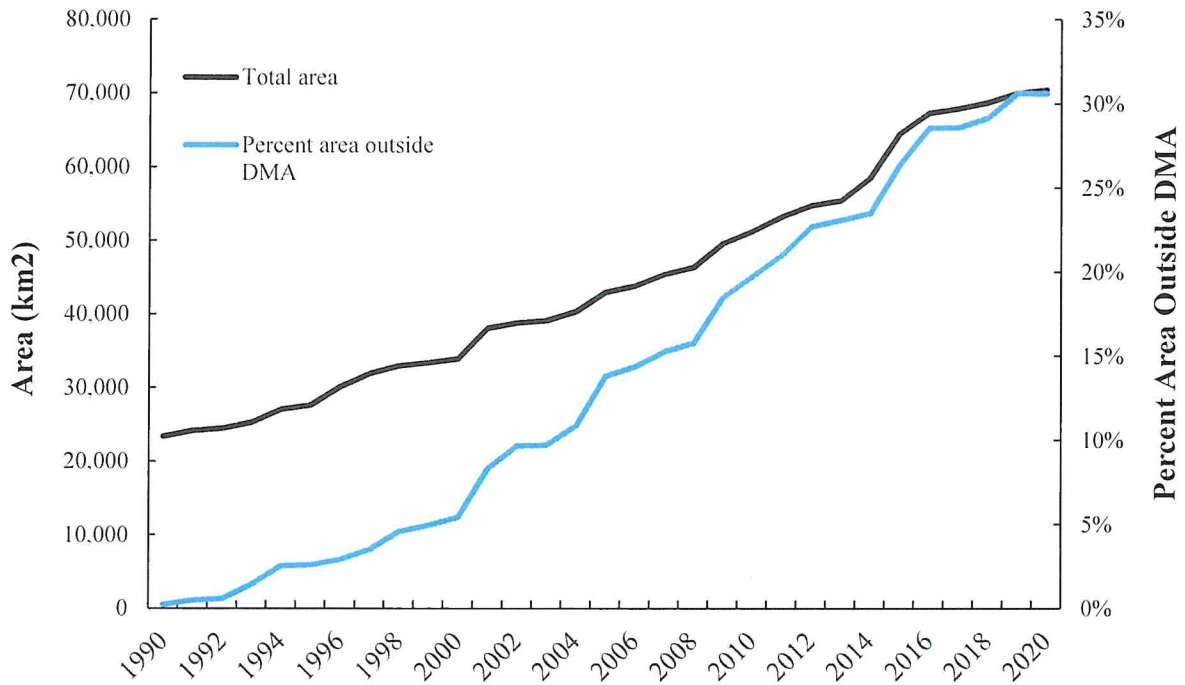


**Figure 1.** Map of the Greater Yellowstone Ecosystem (USFWS 2021). Relevant boundaries include: (1) the GYE grizzly bear Distinct Population Segment; (2) the Recovery Zone/Primary Conservation Area; (3) biologically suitable habitat; (4) the Demographic Monitoring Area; and (5) National Park Service and Tribal lands.

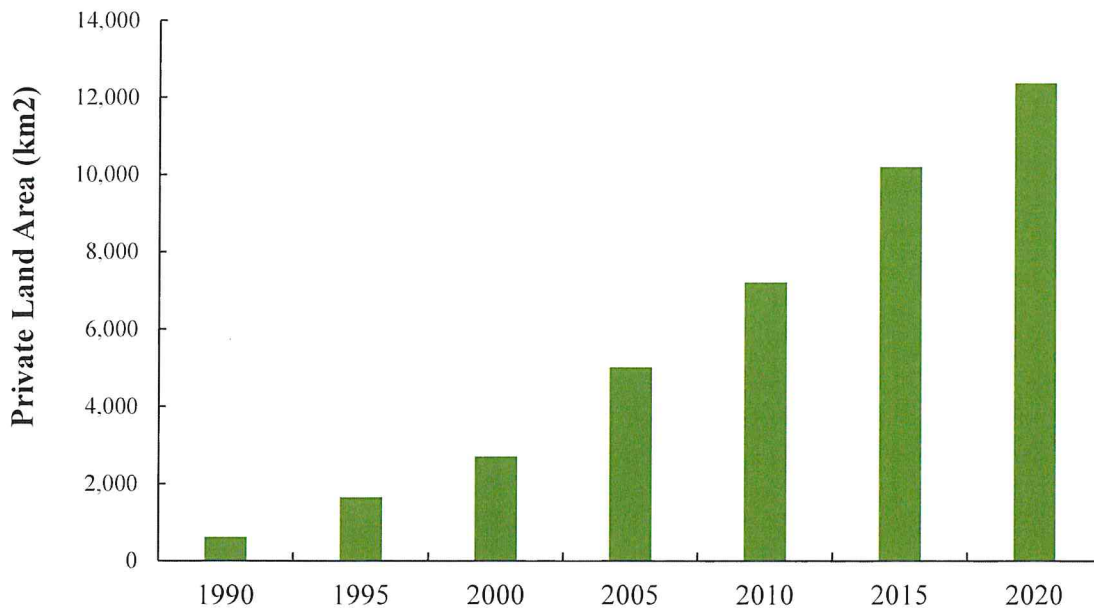


**Figure 2.** Grizzly bear occupied range (green shaded area) in the Greater Yellowstone Ecosystem, 1990, 2000, 2010, and 2020 (Bjornlie and Haroldson 2021).





**Figure 3.** Total area of grizzly bear occupied range and percent of area of occupied range outside the Demographic Monitoring Area (DMA) in the Greater Yellowstone Ecosystem, 1990–2020 (Bjornlie and Haroldson 2021, WGFD 2021).



**Figure 4.** Area of private land within grizzly bear occupied range in the Greater Yellowstone Ecosystem in 5-year intervals, 1990–2020 (Bjornlie and Haroldson 2021, WGFD 2021).

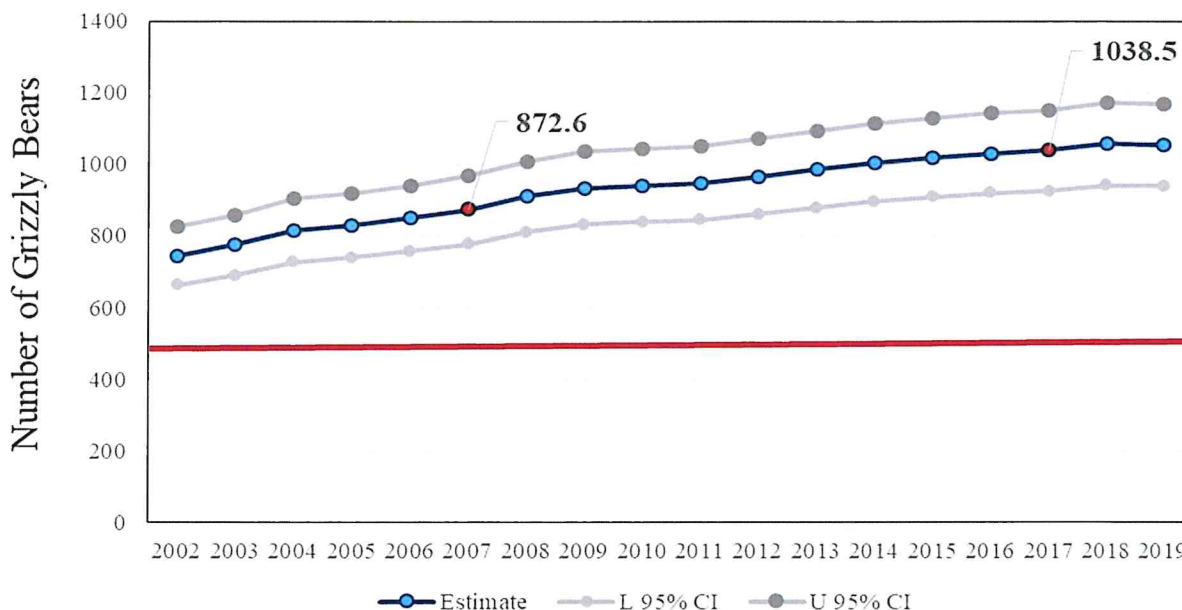
### III. Current Population Status and Trends

The 1993 Grizzly Bear Recovery Plan established specific demographic recovery criteria for all six designated recovery zones in the lower 48 states: a minimum population size, well-distributed reproductive females within the recovery zone, and mortality limits that allow for population recovery and persistence (USFWS 2021). For the GYE grizzly bear DPS, there have been several updates to this recovery plan, including a 2013 definition of biologically suitable habitat and subsequent designation of the Demographic Monitoring Area (DMA) based upon a smoothing of the suitable habitat boundary where all demographic recovery criteria apply (USFWS 2013, USFWS 2021). Outside this DMA boundary, grizzly bears “are not biologically necessary to the GYE grizzly bear population and a lack of occupancy outside the DMA boundaries in peripheral areas will not impact the resiliency of the GYE grizzly bear population. Grizzly bear recovery in these portions of the species’ historical range is unnecessary, because there is more than enough suitable habitat to support a viable grizzly bear population as set forth in the demographic recovery criteria” (USFWS 2021, Appendix C p. 306), thus demographic recovery criteria do not apply in these areas.

All demographic (using current monitoring methodologies) and habitat-based recovery criteria laid out by the 1993 Recovery Plan and subsequent updates have been met or exceeded since 2003, and in the case of some demographic criteria, since 2001 (USFWS 2007a, 2017, 2021). Specifically, demographic recovery criteria established to 1) ensure maintenance of a minimum population size of 500 grizzly bears in the demographic monitoring area, 2) maintain a relatively even distribution of reproductive females throughout the recovery zone, and 3) establish limits on allowable mortality were met or exceeded by 2003, 2001, and 2012, respectively. Recovery criterion 3 was recently adopted, however it has been met since 2012 (USFWS 2021). Habitat-based criteria to maintain secure habitats at levels observed in 1998 have been met since they were established in 2007 (USFWS 2007b, 2017, 2021).

Additionally, recent updates to the currently approved Chao2 population estimation model result in more accurate population estimates for the population in the DMA. The more accurate rule-set parameters result in a realistic reflection of grizzly bears on the ground in suitable habitat, with estimates exceeding 1,000 individuals in the DMA (Figure 5), more than double the required minimum population to demonstrate recovery for genetic and reproductive purposes (USFWS 2017). Additional work evaluating the use of integrated population modeling (IPM), which incorporates survival and reproduction data with the Chao2 abundance estimates corroborate this estimate (IGBST 2019, 2021). This technique allows for managers to evaluate parameters that influence population trajectories and uses the same or similar inputs that are currently in the Chao2 population methodology (IGBST 2021). Regardless of technique (IPM or Chao2), the more accurate, empirically based ruleset parameters and modeling techniques (generalized additive models versus model average) demonstrate a population that is annually increasing more than 2% (mean annual  $\lambda$  (2002-2019) = 1.021, signifying an annual population increase of 2.1%; derived from IGBST 2021).

### Annual GYE Grizzly Bear Population Estimate (16km Chao2 GAM Methodology)



**Figure 5.** Projected population estimates using updated rule-set parameters and revised model averaging methodology (Generalized Additive Models or GAMs) to estimate abundance of GYE grizzly bears in the DMA (derived from IGBST 2021). Point estimates noted for 2007 and 2017 when the DPS of GYE grizzly bears was removed from the Federal list of threatened and endangered species, (subsequently relisted in both cases), red line represents minimum number of grizzly bears to ensure genetic and reproductive health of the population (500 individuals).

Another method used by the Interagency Grizzly Bear Study Team (IGBST) to estimate population trend, known fate survival analysis and reproductive data derived from actively monitoring bears over multiple decades since ESA listing, further supports the interpretation that the GYE grizzly bear DPS has experienced steady population growth throughout the entirety of rigorous evaluation of the population by trained scientists, encompassing more than 40 years of data (IGBST 2021). These annual population growth data have been summarized in the past in static 10 and 19 year windows (i.e., 1983-2001, 2002-2011) and suggested population stability occurring since the early 2000s, however, new more accurate analyses of these data, in addition to updated more accurate population metrics, demonstrate continued population growth into recent years (Figure 5; IGBST unpublished data, IGBST 2021). Reported “flattening” of population estimates within the DMA since ~ 2001 was primarily related to the conservative bias inherent in the Chao2 ruleset methodology, and statements regarding a stable population since that time frame have been misconstrued as a negative impact to the population. Annual growth rates did slow in the core of the population (recovery zone or primary conservation area) starting after 2000, however all empirical evidence suggest any trajectory changes in the population are due to density dependent effects (van Manen et al. 2016), and resultant proposal to delist the population, again, in 2016.

**IV. The Greater Yellowstone Ecosystem grizzly bear population is a distinct population segment and is a “species” under the Act.**

**A. The Requirements of the 1996 DPS Policy**

Along with the National Marine Fisheries Service (now the National Oceanic and Atmospheric Administration — Fisheries), the Fish and Wildlife Service developed the Policy Regarding the Recognition of Distinct Vertebrate Population Segments (DPS policy) to provide assistance in determining what constitutes a DPS. 61 Fed. Reg. 4722-25 (Feb. 7, 1996). Under the DPS policy, the Service considers three elements to determine whether the population segment is a valid DPS:

1. Discreteness of the population segment in relation to the remainder of the taxon to which it belongs;
2. The significance of the population segment to the taxon to which it belongs; and
3. The population segment’s conservation status in relation to the Act’s standards for listing.

61 Fed. Reg. at 4725.

For the discreteness element, “[a] population segment of a vertebrate species may be considered discrete if it satisfies either one of the following conditions:

1. It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors. Quantitative measures of genetic or morphological discontinuity may provide evidence of this separation.
2. It is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D) of the Act.”

61 Fed. Reg. at 4724-25.

For the significance element, “[i]f a population segment is considered discrete under one or more of the above considerations, its biological and ecological significance will then be considered in light of Congressional guidance (see Senate Report 151, 96th Congress, 1st Session) that the authority to list DPSs be used ‘sparingly’ while encouraging the conservation of genetic diversity. In carrying out this examination, the Service will consider available scientific evidence of the discrete population segment’s importance to the taxon to which it belongs. This consideration may include, but is not limited to, the following:

1. Persistence of the discrete population segment in an ecological setting unusual or unique for the taxon.
2. Evidence that loss of the discrete population segment would result in a significant gap in the range of a taxon.
3. Evidence that the discrete population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historic range, or
4. Evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics.”

61 Fed. Reg. at 4725.

For the status element, “[i]f a population segment is discrete and significant (i.e., it is a distinct population segment) its evaluation for endangered or threatened status will be based on the Act’s definitions of those terms and a review of the factors enumerated in section 4(a). It may be appropriate to assign different classifications to different DPS’s of the same vertebrate taxon.” 61 Fed. Reg. at 4725.

**B. The Greater Yellowstone Ecosystem grizzly bear population satisfies all of the requirements of the 1996 DPS Policy and is a “Species” under the Act.**

Petitioner incorporates by reference the findings of the Service in the delisting rule that established the GYE grizzly bear DPS. 82 Fed. Reg. at 30516-30519. These findings establish that the Greater Yellowstone Ecosystem grizzly bear population qualifies as a DPS both biologically and legally. 82 Fed. Reg. at 30519. The boundaries for the GYE grizzly bear DPS are defined as:

“... the GYE grizzly bear DPS consists of: that portion of Idaho that is east of Interstate Highway 15 and north of U.S. Highway 30; that portion of Montana that is east of Interstate Highway 15 and south of Interstate Highway 90; and that portion of Wyoming that is south of Interstate Highway 90, west of Interstate Highway 25, west of Wyoming State Highway 220, and west of U.S. Highway 287 south of Three Forks (at the 220 and 287 intersection, and north of Interstate Highway 80 and U.S. Highway 30) (see DPS boundary in figure 1). Due to the use of highways as easily described boundaries, large areas of unsuitable habitat are included in the DPS boundaries.”

82 Fed. Reg. at 30517.

As defined in the ESA, “[t]he term ‘species’ **includes** any subspecies of fish or wildlife or plants, and **any distinct population segment** of any species of vertebrate fish, or wildlife which interbreeds when mature.” 16 U.S.C. § 1532(16) (emphasis added). Thus, the GYE grizzly bear DPS is a “species” as that term is defined in the ESA.

**V. The list of endangered and threatened wildlife must be revised by removing the GYE grizzly bear DPS.**

Petitioner does not intend to truncate or alter the Service’s analyses or findings with regard to the five factors. Petitioner adopts the majority of the analyses presented in the 2017 Final Rule to establish and delist the GYE grizzly bear DPS (2017 delisting rule) as rationale for concluding factors A-E no longer threaten the GYE grizzly bear DPS, and, where appropriate, provide augmentation of our rationale through addition of more recent data and science supporting the recovered status of grizzly bears since the population was delisted in 2017. In this petition, “all or a significant portion of its range” refers to the range of the GYE grizzly bear DPS.

**A. Key Terms in the ESA**

The ESA has several specifically defined terms that control its application. Section 3(20) defines the term “threatened species” to mean “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Similarly, section 3(6) defines the term “endangered species” to mean “any species which is in danger of extinction throughout all or a significant portion of its range.” Thus, to be properly included on the List, the Secretary of the Interior, or her designee, must determine that the GYE grizzly bear DPS meets either of these two specific definitions using five specific factors that are contained in Section 4(a)(1) of the Act:

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

16 U.S.C. § 1533(a)(1).

If the Secretary determines that the GYE grizzly bear DPS is not either a “threatened species” or an “endangered species” after evaluating these five factors, the List must be revised to remove the GYE grizzly bear DPS.

**B. The GYE grizzly bear DPS is neither an “Endangered Species” nor a “Threatened Species” when the five factors are examined.**

**1. The Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range (Factor A)**

Petitioner incorporates by reference the findings of the Service regarding Factor A set forth in the 2017 delisting rule. *See* 82 Fed. Reg. at 30520-30527.

*Current Status of Factor A*

Further documentation regarding habitat security in regard to Factor A was provided in the Species Status Assessment for Lower 48 Grizzly Bears (USFWS 2021; pages 103-104):

The GYE recovery zone is 23,853 km<sup>2</sup> (9,210 mi<sup>2</sup>) in size. Ninety-eight percent of the Recovery Zone is federally-managed land, including all of YNP, as well as portions of GTNP, the Shoshone, Beaverhead-Deerlodge, Bridger-Teton, Caribou-Targhee, and Custer Gallatin NFs. Approximately 82 percent (19,642 km<sup>2</sup> of 23,853 km<sup>2</sup> (7,583 mi<sup>2</sup> of 9,210 mi<sup>2</sup>)) of lands inside of the GYE recovery zone are considered “protected lands.” These protected lands include Congressionally-designated Wilderness Areas (36 percent: Absaroka-Beartooth, Jedediah Smith, Lee Metcalf, North Absaroka, Teton, Washakie, and Winegar Hole Wilderness Areas), other Wilderness (35 percent; e.g., Recommended, Potential, and Eligible Wilderness in YNP, GTNP, and the John D. Rockefeller, Jr. Memorial Parkway), and IRAs [Inventoried Roadless Areas] (11 percent of the recovery zone).

Specifically, 16,950 km<sup>2</sup> (6,544 mi<sup>2</sup>) of the recovery zone is Wilderness (8,610 km<sup>2</sup> (3,324 mi<sup>2</sup>)), recommended wilderness (8,253 km<sup>2</sup> (3,187 mi<sup>2</sup>)), or eligible wilderness (87 km<sup>2</sup> (33 mi<sup>2</sup>)). This secure suitable habitat is biologically significant to the GYE grizzly bear population because it allows for protections against human activities inside the recovery zone, in addition to the 1998 baseline (for further details on the protections provided by the 1998 baseline, see *Motorized Access in the GYE*, *Developed Sites in the GYE*, and *Livestock Allotments in the GYE*, below). Recommended wilderness in YNP and GTNP will be managed as wilderness until Congress has either formally designated the lands as wilderness or releases them to non-wilderness multiple use management (NPS 2006, pp. 79–80).

IRAs currently provide 2,239 km<sup>2</sup> (864 mi<sup>2</sup>) of secure habitat for grizzly bears inside the recovery zone. This amount of secure habitat is less than the total area contained within IRAs (2,692 km<sup>2</sup> (1,039 mi<sup>2</sup>)) because some motorized use occurs due to roads that existed before the area was designated as roadless.

In addition, a large proportion of suitable habitat outside the recovery zone remains secure for grizzly bears into the future without the development of new roads, extractive industries, or other human structures because of lasting designation as Wilderness, WSAs [Wilderness Study Areas], and IRAs. Of the 23,131 km<sup>2</sup> (8,931

mi<sup>2</sup>) of suitable habitat outside of the recovery zone in the GYE, 59 percent (13,685 km<sup>2</sup> (5,284 mi<sup>2</sup>)) is managed and protected by the USFS as Congressionally-designated Wilderness (6,799 km<sup>2</sup> (2,625 mi<sup>2</sup>)), WSAs (708 km<sup>2</sup> (273 mi<sup>2</sup>)), or IRAs (6,179 km<sup>2</sup> (2,386 mi<sup>2</sup>)). This area of secure habitat is less than the total area contained within IRAs (8,871 km<sup>2</sup> (3,425 mi<sup>2</sup>)) because some motorized use occurs due to roads that existed before the area was designated as roadless.

In summary, the additional analysis provided through the Species Status Assessment for the grizzly bear in the lower 48 states specific to the GYE grizzly bear DPS since the 2017 delisting rule was adopted provides further credence to the security of habitat for the population and support that habitat related issues are not a threat to the GYE grizzly bear DPS.

## **2. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes (Factor B)**

Petitioner incorporates by reference the findings of the Service regarding Factor B in the 2017 delisting rule. *See* 82 Fed. Reg. at 30527-30535. However, information provided in Tables and Figures regarding allowable “take” through hunting (82 Fed. Reg. at 30531-30533) need to be updated with current methodologies for revised model averaging techniques and population abundance metrics to accurately reflect current science demonstrating a higher estimate of grizzly bears and updated metrics throughout that portion. Petitioner provides language to update for accuracy in the following comments for Factor D analysis. For the sake of clarity, Petitioner points out that the Service combined their analysis and results for Factors B and C in the 2017 delisting rule.

The only additional form of take that could be anticipated with a delisted population would be in the form of a highly regulated hunt that may occur at the discretion of each state and tribal entity. While the decision to use hunting as a conservation tool lies at the discretion of each separate management entity, requirements have been established to maintain a recovered population (e.g., any hunting mortality would not exceed pre-approved mortality thresholds derived on an ecosystem basis). The regulatory mechanisms alluded to and recognized as further demonstration of recovery for Factors B and D ensure the GYE grizzly bear DPS would not be threatened through inclusion of any hunting. As stated by regulation, hunting would be considered a portion of total mortality and rigorously quantified and evaluated on an annual basis, in essence serving as a form of compensatory mortality (versus additive) when evaluating the population as a whole.

### ***Current Status of Factor B***

Based on analysis from Petitioner and the Service, no grizzly bears have been legally removed from the GYE in the last 40+ years for commercial, recreational, or educational purposes (USFWS 2017, 2021). All three states and the Wind River Reservation within the grizzly bear recovery area have management plans setting forth rigorous, quantitative criteria that assure any potential hunting of grizzly bears would not threaten the persistence of GYE grizzly bears. When grizzly bears were proposed to be delisted in 2016, the Service required the states to develop hunting regulations to serve as regulatory mechanisms to further ensure codified mechanisms were



in place to serve as adequate regulatory mechanisms (WGFC 2016). These Commission approved hunting and management regulations also fulfilled obligations in Factor B that demonstrate hunting would not pose a threat to the GYE grizzly bear DPS. These regulations were developed following Wyoming Administrative Procedure Act guidelines and use of full public comment processes and procedures.

The State of Wyoming has continued to develop its outreach and education program (*Bear Wise Wyoming*) to reduce conflict potential and thereby decrease grizzly bear mortality risk. For a detailed synopsis of the realized reductions in conflict potential, the Wyoming Game and Fish provides an annual report of *Bear Wise Wyoming* activities within the Department's Annual Grizzly Bear Job Completion Reports (WGFD 2014-2020).

The Service provided further details regarding outreach and education for GYE grizzly bears in their Species Status Assessment (SSA) (USFWS 2021; page 158):

In the GYE, all three States have been actively involved in I&E outreach for several decades, and their respective management plans contain chapters detailing efforts to continue current programs and expand them when possible. For example, the WGFD created a formal human-grizzly bear conflict management program in July 1990 and has coordinated an extensive I&E program since then. Similarly, since 1993, MFWP has implemented countless public outreach efforts to minimize human-bear conflicts, and the IDFG has organized and implemented education programs and workshops focused on private and public lands on the western periphery of the grizzly bear's range. To address public attitudes and knowledge levels, I&E programs present grizzly bears as a valuable public resource while acknowledging the potential dangers associated with them and ways to avoid conflicts. I&E programs are integral components of the 2016 GYE Conservation Strategy and will continue to be implemented by all partners whether the GYE grizzly bear is listed or not (YES 2016a, pp. 92–95).

### **3. Disease or Predation (Factor C)**

Petitioner incorporates by reference the findings of the Service regarding Factor C in the 2017 delisting rule. *See* 82 FR at 30527-30535.

#### ***Current Status of Factor C***

No substantive issues related to disease or natural predation have been detected through extensive monitoring since the final delisting rule was published in 2017. As previously stated, increased intraspecific strife has been documented as the population saturates and increased densities result in territorial disputes between males for mates and instances of infanticide (IGBST 2020). The systems established to monitor and manage human-caused mortality remain in place and identify annually any mortality perturbations in relation to disease or natural predation that would negatively impact the population.

#### **4. The Inadequacy of Existing Regulatory Mechanisms (Factor D)**

Petitioner incorporates by reference the findings of the Service regarding Factor D in the 2017 delisting rule. *See* 82 Fed. Reg. at 30535. In light of those findings, the Service concluded that, “based on the best available information and on continuation of current regulatory commitment, we do not consider inadequate regulatory mechanisms to constitute a threat to the GYE grizzly bear DPS now or in the foreseeable future.” *Id.* In addition to those findings, Petitioner explains below how the State of Wyoming will address recalibration and translocation as a part of the State of Wyoming’s regulatory mechanisms.

##### ***Current Status of Factor D***

In the 2017 delisting rule, the Service listed multiple regulatory mechanisms in place to ensure a recovered grizzly bear population and stated: “Therefore, based on the best available information and on continuation of current regulatory commitment, we do not consider inadequate regulatory mechanisms to constitute a threat to the GYE grizzly bear DPS now or in the foreseeable future.” 82 Fed. Reg. at 30535.

Since the 2017 delisting rule was adopted, Wyoming has adopted further regulatory framework for future management of the species (Chapter 67: Grizzly Bear Management regulations) and hunting seasons of grizzly bears (Chapter 68: Grizzly Bear Hunting Seasons), which set forth highly regulated mechanisms in regards to allocation of take, assurances that pre-determined mortality thresholds are not exceeded, checks and balances to account for unknown population perturbations and cessation of hunting should unforeseen reductions in the population occur.

##### **Long-Term Genetic Health**

The Service offered the following regarding genetic viability of GYE grizzly bears in their Species Status Assessment (USFWS 2021; page 174):

The current estimated effective population size of approximately 280 to 469 animals (Kamath *et al.* 2015, p. 5512) in the GYE is sufficiently large to avoid substantial accumulation of inbreeding depression and maintain genetic health over the short term. However, the long-term capacity of the GYE grizzly bear population to respond to future changes in selective pressures would improve by occasional gene flow (one to two effective migrants per generation interval (10–15 years)) from nearby grizzly bear populations, such as the NCDE. ...

Efforts mentioned above (I & E programs, attractant storage rules, highway crossing structures, and habitat protection) to facilitate natural connectivity between the NCDE and GYE will continue. These efforts, however, cannot ensure connectivity. Translocation of bears between these ecosystems could act as a precautionary measure to maintain or enhance genetic diversity (Miller and Waits 2003, p. 4338). Translocation has been successfully deployed in the CYE (Kasworm *et al.* 2020a, pp. 24–25). Kasworm *et al.* (2020a, pp. 24–25) documented

reproduction of three of the 10 individuals that stayed in the target area and survived for more than 4 months after release[.]...

To address potential threats to the long-term genetic health of the GYE grizzly bear DPS, the States of Idaho, Montana, and Wyoming have adopted the foregoing translocation language as part of the Tri-State Memorandum of Agreement (Tri-State MOA at 5):

By 2025, the Parties will translocate at least two grizzly bears from outside the GYE into the GYE, unless migration from outside the GYE is detected in the interim. Genetic monitoring of the GYE population will continue, and genetic diversity and effective population size ( $N_e$ ) will be re-assessed at least every 14 years (*i.e.*, one generation). If effective migration is not detected, the Parties will continue to make additional translocations from outside the GYE.

After the Service issues a positive ninety day finding on this Petition, the State of Wyoming will amend the applicable Commission regulations through the Wyoming Administrative Procedure Act process to address translocation and genetic diversity consistent with the amended Tri-State Memorandum of Agreement.

### **Recalibration**

Petitioner proposes the following language to replace Recovery Criterion 3 in the 2016 Conservation Strategy and 2017 Recovery Plan. This proposed recovery criterion language is based on new information and the best available science, indicative of a more accurate estimate of the population using empirical data from more than 40 years of research and monitoring:

#### **Proposed Substitution to Current Recovery Criterion 3 (USFWS 2017):**

Maintain the population within the DMA around the 2002–2019 population estimate (average = 932; 95% CI = 831–1033), through the use of prescribed annual mortality limits for independent females, independent males, and dependent young. These adjustable mortality rates are calculated as those necessary to manage the population at or above 932 bears, based on updated model set parameters (IGBST 2021), which occurred during the time period that the population had a trajectory that was a positively increasing trend of ~ 2% annually. If mortality limits are exceeded for any sex/age class for three consecutive years, the IGBST will produce a Biology and Monitoring Review to determine causation and inform the appropriate management response.

If the population of grizzly bears in the demographic monitoring area is estimated to be less than 831 individuals (lower 95% confidence interval of the mean population estimate from 2002-2019), grizzly bear hunting within the DMA will be suspended. This temporary halt would conclude once the population estimate exceeded 831 grizzly bears, whereby state agencies may initiate harvest management of grizzly bears based on their individual management strategies. Management agencies (States and Tribes) would retain full management authority

for agency actions regarding the take of grizzly bears (e.g., conflict management) if the population is between 600 to 831 grizzly bears. If the annual population estimate is below 600 grizzly bears (in relation to Recovery Criterion 1) there would be no discretionary mortality on grizzly bears in the DMA, except as necessary for human safety.

If the annual population estimate falls below 831 grizzly bears, the IGBST will produce a Biology and Monitoring Review to inform the appropriate management response (e.g., if unforeseen instances of increased non-discretionary mortality occurs resulting in a decline below 831 grizzly bears, the team of scientists will evaluate population status to illuminate cause of any unexpected population decline).

Should a new population estimation method be incorporated to estimate abundance and evaluate survival/mortality of the GYE grizzly bear DPS, managers will recalibrate population metrics and mortality thresholds.

The States of Idaho, Montana, and Wyoming amended the Tri-State Memorandum of Agreement to address population metrics, mortality thresholds, and recalibration consistent with this proposed language. Hunting allocation (should hunting occur) is based on each jurisdictional proportion within the DMA and, to ensure a recovered grizzly bear population, hunting would not occur if previous year's mortality exceeded pre-agreed upon mortality rates. It is understood that hunting mortality would not threaten grizzly bears in the GYE, but rather incorporate this conservation tool in instances when mortality limits have not been exceeded in a given year, considering all forms of mortality. The allocation and concepts behind hunting management prescriptions are outlined in Chapters 67 and 68 of the Wyoming Game and Fish Commission Regulations, promulgated by authority of Wyo. Stat. §§ 23-1-103 and -302.

After the Service issues a positive ninety day finding on this Petition, the State of Wyoming will amend the applicable Commission regulations through the Wyoming Administrative Procedure Act process to address population metrics, mortality thresholds, and recalibration consistent with the amended Tri-State Memorandum of Agreement.

## **5. Other Natural or Manmade Factors Affecting Its Continued Existence (Factor E)**

Petitioner incorporates by reference the findings of the Service regarding Factor E in the 2017 delisting rule. *See* 82 Fed. Reg. at 30535- 30545.

### ***Current Status of Factor E***

Since the 2017 delisting rule was adopted, no additional science or new information would nullify the Service's original findings with respect to genetic concerns; invasive species, disease, and other impacts to food supply; or human attitudes toward grizzly bear recovery. The State of Wyoming provided further assurance of maintaining genetic diversity through genetic augmentation as explained in Section V. 4 above.

## Summary of Five Factor Analysis

Given the overwhelming evidence for each of the five factors, the Secretary cannot conclude that the GYE grizzly bear DPS is either a “threatened species” or an “endangered species.” Therefore, the Service must revise the List to remove the GYE grizzly bear DPS. This species is recovered and warrants delisting. Litigation over the 2017 delisting rule required that recalibration and issues related to genetic health and translocation be addressed in order to delist the GYE grizzly bear DPS. The State of Wyoming has addressed those issues and provided a path forward to ensure the population remains recovered.

### VI. Other Relevant Considerations

#### A. The Effect of Delisting the GYE grizzly bear DPS on Other Grizzly Bear Populations in the Conterminous United States

Petitioner incorporates by reference the regulatory review and determination issued by the Service on April 30, 2018. *See* 83 Fed. Reg. 18737-741 (April 30, 2018). The Ninth Circuit directed that, on remand, the Service “must determine on remand whether there is a sufficiently distinct and protectable remnant population, so that the delisting of the DPS will not further threaten the existence of the remnant.” *Crow Indian Tribe*, 965 F.3d at 678. The Court explained that

[T]his analysis requires a review of the “implications for both the segment and the remnant during the delisting ... process,” in order to ensure that the remnant is not “divest[ed] ... of legal force.” If, after such an inquiry, the FWS determines that delisting the DPS would render the remnant population no longer viable, no partial delisting can take place.

*Id.* (citation omitted) (alterations in original).

In the regulatory review, the Service analyzed the impact that delisting the GYE grizzly bear DPS would have on the other grizzly bear populations in the lower-48 States. 83 Fed. Reg. at 18739-741. The Service determined that “impacts of delisting the GYE DPS on the lower-48-States entity are minimal, do not significantly impact the lower-48-States entity, and do not affect the recovery of the GYE grizzly bears.” 83 Fed. Reg. at 18741. The Service then concluded that delisting the GYE grizzly bear DPS did not require it to “revisit the 1975 final rule, and grizzly bears, outside the GYE DPS, in the lower 48 States remain listed as threatened.” 83 Fed. Reg. at 18743.

#### B. Species Status Rankings

In 2021, the Service published a Species Status Assessment for grizzly bears in the conterminous (Lower 48) United States (USFWS 2021). Part of that assessment resulted in an analysis of all DPSs of grizzly bears and a ranking of their status, whereby several categories were ordinally ranked as High-Medium-Low with regard to their capacity for recovery and/or maintaining recovery. The metrics for evaluation are outlined in the SSA (USFWS 2021; pages

212-217). The following excerpt provides the ranking by category for the GYE grizzly bear DPS by the Service.

Evaluation of “Current Condition” of the GYE grizzly bear DPS (USFWS 2021; page 218). Italicized text is verbatim from the SSA, standard text represent inclusions from Petitioner based on best available science or updated information:

***Overall Current Condition: HIGH***

*High-Caloric Foods: HIGH*

- *High-caloric foods are readily available and diverse.*

*Large Intact Blocks of Land: HIGH*

- *A variety of land protections influence the current condition of these habitat factors (Chapters 2 and 5).*

*Adult Female Survival: HIGH*

- *Adult female survival = 0.94.*

*Fecundity: HIGH*

- *Females with cubs occupy 18 of 18 BMUs.*

*Population Trend: HIGH*

- *Population growth rate = 1.003–1.022 (IGBST 2012, p. 34). The population trajectory that includes the most recent data are based on Chao2 estimates of females with cubs for the period 2002 to 2019, which indicates a relatively constant population size for this reproductive segment of the population within the DMA, but with some evidence in recent years of an increasing trend (Haroldson et al. 2020b, p. 13). Updated methodologies to increase accuracy of the Chao2 estimation method and revised model averaging methods indicate the population has been increasing an average of 2.01% annually since 2002.*

*Population Target: HIGH*

- *Population size = 737 individuals (target = 674, Service 2017, p. 5) inside the DMA (Haroldson et al. 2020b, p. 13), as estimated by conservative model-averaged Chao2 method (Schwartz 2008, entire). See explanation as to the next point “Number of Bears”.*

*Number of Bears: MODERATE*

- *737 individuals falls short of the 800 individuals needed for high condition for the number of bears, however this is likely an underestimate due to the way that the population size is estimated (Cherry et al. 2007, entire; Schwartz et al. 2008, figure 5). Petitioner notes the details provided in the current status of GYE grizzly bears (page 11) and reference the methodology provided by the IGBST (2021) whereby updated more accurate population estimates (see Figure 5, page 11) suggest the population has been >800 individuals since 2004 and therefore would transition this rating to HIGH in the most current SSA (USFWS 2021).*

*Genetic Diversity: MODERATE*

- *Heterozygosity is moderate and the population remains isolated. Petitioner references language provided for human-facilitated translocation to incur genetic augmentation (Pages 15-16) that would increase genetic diversity and alter this ranking by the Service to HIGH.*

*Inter-Ecosystem Connectivity: FUNCTIONALLY EXTIRPATED*

- *Population is currently isolated, but given the increased distributions of the GYE ... if current trends continue we expect that natural immigration into the GYE will occur in the future and improve the condition of inter-ecosystem connectivity. As explained above, the proposed grizzly bear translocation process will provide genetic augmentation and thereby enhance the genetic diversity and health of the grizzly bear population in the GYE grizzly bear DPS over both the short term and the long term.*

**COMPLIANCE WITH 50 C.F.R. § 424.14(b)**

In 50 C.F.R. § 424.14(b), the Service requires anyone who intends to submit a petition to delist to notify the wildlife management agency for any state affected by the petition. This notice must be given at least thirty days before the petition to delist is submitted to the Service. *Id.* The Service also requires the petitioner to attach written documentation of the notice required by § 424.14(b) to the petition to delist. 50 C.F.R. § 424.14(c)(9).

The Ninth Circuit Court of Appeals recently held that the notice requirement in 50 C.F.R. § 424.14(b) “is inconsistent with the statutory scheme of the ESA[.]” *Friends of Animals v. Haaland*, 997 F.3d 1010, 1018 (9th Cir. 2021). This judicial holding notwithstanding, the State of Wyoming provided the required notice via email on October 12, 2021. (*See* Attachment I).

**Conclusions**

- 1) The GYE grizzly bear DPS is a “species” under the Act. It meets the requirements of a DPS based on the population’s discreteness and significance.
- 2) The GYE grizzly bear DPS is neither a “threatened species” nor an “endangered species” under the Act. The application of the five factor analysis supports this conclusion. The GYE

grizzly bear DPS has been fully recovered since at least 2003 when evaluating all current metrics of conservation status and recovery criteria.

- 3) No new data or information available since 2017 would nullify the Service's finding that the GYE grizzly bear DPS is recovered and no longer meets the Act's definition of a threatened or endangered species (82 Fed. Red at 30502).
- 4) The State of Wyoming accepts Recovery Criterion 1 and 2 from the most recent recovery plan (WGFC 2016; USFWS 2017) and further proffer an updated Recovery Criterion 3 that addresses concerns regarding recalibration.
- 5) The State of Wyoming has provided further assurance of genetic management of the GYE grizzly bear DPS through genetic augmentation procedures that will occur if natural population movement from extant grizzly bear populations to the GYE grizzly bear DPS is not documented.
- 6) The List of Endangered and Threatened Wildlife must be revised to remove the GYE grizzly bear DPS.
- 7) The most compelling case to support delisting the GYE grizzly bear DPS is that throughout all the histrionics and conjecture about the population, regardless of whether science based or emotionally driven for or against, the GYE grizzly bear DPS has persistently and indifferently increased, expanded its distribution, and remained healthy and robust. The GYE grizzly bear DPS has increased despite all ecological and human-caused perturbations since being listed as a threatened population in 1975; increases in abundance and distribution were the result of concerted efforts of managers and the public, strengthened by a cooperative collective in the states of Wyoming, Idaho and Montana to foster a recovered population into the future. The GYE grizzly bear DPS is fully recovered and its management is now best entrusted to the experienced and capable institutions of the three state wildlife agencies, tribal partners, National Park Service and federal land management agencies.

Respectfully submitted this 10th day of January 2022



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Mark Gordon, Governor  
State of Wyoming



## REFERENCES

**As required by 50 C.F.R. § 424.14(c)(6), Petitioner has provided the Service with electronic copies of the supporting materials to this Petition to the extent permitted by United States copyright law.**

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# Attachment I