

Billing Code 4333–15

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**[Docket No. FWS–R6–ES–2024–0186; FXES1111090FEDR–256–FF09E21000]**

**RIN 1018–BI14**

**Endangered and Threatened Wildlife and Plants; Grizzly Bear Listing on the List of  
Endangered and Threatened Wildlife with a Revised Section 4(d) Rule**

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

**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service or FWS), propose to revise the listing of the grizzly bear (*Ursus arctos horribilis*) in the lower-48 States under the Endangered Species Act of 1973, as amended (Act or ESA). After a review of the best scientific and commercial data available, we affirm that the currently listed grizzly bear population meets our requirements for consideration as a distinct population segment (DPS) under the Act and that the population remains likely to become an endangered species within the foreseeable future. However, we find that clarification of the geographic areas included within the DPS is warranted. Therefore, we propose to revise the listing by defining the boundaries of the contiguous U.S. grizzly bear DPS. The revised entity would include all geographic portions of the currently listed lower-48 entity that contain suitable habitat and where grizzly bears are currently found or are likely to be found in the future as populations recover. This area includes all of Washington and portions of Idaho, Montana, and Wyoming. The contiguous U.S. grizzly

bear DPS would retain threatened species status. This proposed rule would promote conservation of the grizzly bear by ensuring that the listing under the Act explicitly reflects the areas where grizzly bears currently occur and are likely to occur in the future. Clarifying that the listing does not include areas outside of the grizzly bear's historical range will assist as recovery proceeds. We are also proposing to revise protective regulations for the grizzly bear issued under section 4(d) of the Act.

**DATES:** *Written comments:* We will accept comments received or postmarked on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. eastern time on the closing date.

*Public informational meetings and public hearings:* Four public hearings will be held on this proposed rule on the following dates:

- On January 30, 2025, a virtual public informational meeting will run from 6 p.m. to 8 p.m.
- On January 29, 2025, in Coeur d'Alene, Idaho. The public informational meeting will run from 3 p.m. to 5 p.m., and the public hearing will run from 6 p.m. to 8 p.m.
- On January 28, in Missoula, Montana. The public informational meeting will run from 3 p.m. to 5 p.m., and the public hearing will run from 6 p.m. to 8 p.m.
- On February 10, 2025, in Cody, Wyoming. The public informational meeting will run from 3 p.m. to 5 p.m., and the public hearing will run from 6 p.m. to 8 p.m.

**ADDRESSES:** *Comment submission:* You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

<https://www.regulations.gov>. In the Search box, enter FWS–R6–ES–2024–0186, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on “Comment.”

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn:

FWS–R6–ES–2024–0186, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on <https://www.regulations.gov>. This generally means that we will post any personal information you provide us (see **Information Requested**, below, for more information).

*Availability of supporting materials:* Supporting materials, such as the species status assessment report, are available at <https://www.fws.gov/species/grizzly-bear-ursus-arctos-horribilis> or at <https://www.regulations.gov> at Docket No. FWS–R6–ES–2024–0186.

*Public informational meetings and public hearings:* The public information meetings and public hearings will be held on the dates and the times listed above in **DATES** at the following locations:

- Coeur d'Alene, Idaho. Kootenai County Fairgrounds, 4056 N. Government Way, Building 19.
- Missoula, Montana. Hilton Garden Inn, 3720 N. Reserve St.
- Cody, Wyoming. Holiday Inn, 1701 Sheridan Ave.
- Virtual: We will announce the details regarding how to participate on our website at <https://www.fws.gov/grizzlyrulemaking>.

For more information on the public informational meetings and public hearings, see *Public Hearings*, below.

**FOR FURTHER INFORMATION CONTACT:** Hilary Cooley, Grizzly Bear Recovery Coordinator, U.S. Fish and Wildlife Service, #356 Corbin, University of Montana, Missoula, MT 59812; telephone 406-243-4903. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States. Please see Docket No. FWS-R6-ES-2024-0186 on <https://www.regulations.gov> for a document that summarizes this proposed rule.

## **SUPPLEMENTARY INFORMATION:**

### **Executive Summary**

*Why we need to publish a rule.* On July 28, 1975, we published in the *Federal Register* (40 FR 31734) a final rule to list the grizzly bear in the lower-48 States as a threatened species under the Act (16 U.S.C. 1531 et seq.). According to our “Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the

Endangered Species Act” (DPS policy; 61 FR 4722, February 7, 1996), the appropriate application of the policy to pre-1996 DPS listings will be considered in our 5-year status reviews. We conducted a DPS analysis as part of our 2011 5-year status review, and concluded that the population segment of the grizzly bear in the lower-48 States is discrete from other grizzly populations and significant to the remainder of the taxon (i.e., *Ursus arctos horribilis*) and that it meets the 1996 DPS Policy’s standards for recognition as a DPS under the Act.

We now reaffirm that the currently listed grizzly bear population satisfies the elements of our 1996 DPS Policy and that the population meets the Act’s definition of a threatened species. However, we find that clarification of the DPS boundary is warranted, and we propose to revise the listing by defining the geographic extent of the contiguous U.S. DPS of the grizzly bear (hereafter, “grizzly bear DPS”) and to retain its threatened status. Pursuant to the Administrative Procedure Act, we must initiate a rulemaking to revise the listing (5 U.S.C. 551 et seq.). In a February 22, 2024, settlement agreement in *Save the Yellowstone Grizzly v. U.S. Fish and Wildlife Service*, No. 23-363 (D. Id), we committed to submit a final rule to the Office of the Federal Register on or before January 31, 2026.

*What this document does.* This document proposes to revise the current listing of the grizzly bear in the lower-48 States by defining the geographic extent of the grizzly bear DPS, to retain its status as a threatened species, and to revise its protective regulations under section 4(d) of the Act (a revised “4(d) rule”). As such, this action would revise the listing of the grizzly bear in title 50 of the Code of Federal Regulations

(CFR) at § 17.11(h) (50 CFR 17.11(h)) and the grizzly bear's protective regulations under section 4(d) of the Act at 50 CFR 17.40(b).

*The basis for our action.* Under our 1996 DPS policy, in any proposed or final rule affecting the status of a possible DPS as an endangered or threatened species under the Act we analyze the following three elements: (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 conservation status of the population segment in relation to the Act's standards for listing (61 FR 4725, February 7, 1996).

Under the Act, we determine whether a species is an endangered species or a threatened species because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We have determined that the proposed grizzly bear DPS, which includes all of the grizzly bears in the currently listed entity, is a threatened species due to the following threats: habitat destruction and modification (Factor A); human-caused mortality (Factors B and C); and the isolated nature of some populations (Factor E).

### **Information Requested**

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other governmental

agencies, Native American Tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

- (1) The proposed geographic boundary of the DPS;
- (2) The species' biology, range, and population trends, including:
  - (a) Biological or ecological requirements of the species, including habitat requirements for feeding, breeding, and sheltering;
  - (b) Genetics and taxonomy;
  - (c) Historical and current range, including distribution patterns and the locations of any additional populations of this species;
  - (d) Historical and current population levels, and current and projected trends; and
  - (e) Past and ongoing conservation measures for the species, its habitat, or both.
- (3) Threats and conservation actions affecting the species, including:
  - (a) Factors that may be affecting the continued existence of the species, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or manmade factors;
  - (b) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to this species; and
  - (c) Existing regulations or conservation actions that may be addressing threats to this species.
- (4) Additional information concerning the historical and current status of this species.

(5) Information to assist with applying or issuing protective regulations under section 4(d) of the Act that may be necessary and advisable to provide for the conservation of the grizzly bear. In particular, we seek information concerning:

(a) The extent to which we should include or clarify any of the section 9 prohibitions in the 4(d) rule;

(b) Whether we should consider any additional or different exceptions from the prohibitions in the proposed 4(d) rule, such as: (i) incidental take resulting from legal trapping for other species conducted consistent with State and Tribal trapping rules or guidelines that contain steps to minimize the potential for capture and injury of grizzly bears; (ii) incidental take from issuance of State or Tribal hunting permits for other species; (iii) incidental take resulting from legal hunting of other species; and (iv) take from regulated State or Tribal grizzly bear hunting in areas where grizzly bear populations are expanding.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, do not provide substantial information necessary to support a determination. Section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or a threatened species must be made solely on the basis of the best scientific and commercial data available.



You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

If you submit information via <https://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <https://www.regulations.gov>.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <https://www.regulations.gov>.

Our final determination may differ from this proposal because we will consider all comments we receive during the comment period as well as any information that may become available after this proposal. Based on the new information we receive (and, if relevant, any comments on that new information), we may conclude that the species is endangered instead of threatened, or we may conclude that the species does not warrant listing as either an endangered species or a threatened species. We may also change the geographic area included within the proposed DPS as the result of new information we receive. In addition, we may change the parameters of the prohibitions or the exceptions to those prohibitions in the protective regulations under section 4(d) of the Act if we conclude it is appropriate in light of comments and new information received. For example, we may expand the prohibitions if we conclude that the protective regulation as

a whole, including those additional prohibitions, is necessary and advisable to provide for the conservation of the species. Conversely, we may establish additional or different exceptions to the prohibitions in the final rule if we conclude that the activities would facilitate or are compatible with the conservation and recovery of the species. In our final rule, we will clearly explain our rationale and the basis for our final decision, including why we made changes, if any, that differ from this proposal.

### *Public Hearings*

We will hold four public informational meetings and public hearings on the dates and at the locations listed above in **DATES**. The public informational meetings allow the public the opportunity to interact with Service staff, who will be available to provide information and address questions on the proposed rule and its supporting documents. In contrast to the public informational meetings, we are holding the public hearings to provide interested parties an opportunity to present verbal testimony (formal, oral comments) or written comments regarding the proposed rule and its supporting documents. A formal public hearing is not, however, an opportunity for dialogue with the Service; it is only a forum for accepting formal verbal testimony.

We cannot accept verbal testimony at any of the public informational meetings; verbal testimony can only be accepted at the public hearings. Anyone wishing to make an oral statement at a public hearing for the record is encouraged to provide a written copy of their statement to us at the hearing. In the event there is a large attendance, the time allotted for oral statements may be limited. Speakers can sign up at a hearing if they desire to make an oral statement. Oral and written statements receive equal consideration. There are no limits on the length of written comments submitted to us.

Persons with disabilities needing reasonable accommodations to participate in a public informational meeting or public hearing should contact the person listed under **FOR FURTHER INFORMATION CONTACT**. Reasonable accommodation requests should be received at least 3 business days prior to the public informational meeting or public hearing to help ensure availability; American Sign Language or English as a second language interpreter needs should be received at least 2 weeks prior to the public informational meeting or public hearing.

### **Previous Federal Actions**

#### *Listing as Threatened and Recovery Plans*

On July 28, 1975, we published in the *Federal Register* (40 FR 31734) a final rule to list the grizzly bear as a threatened species in the conterminous United States (lower-48 States). Accordingly, we developed a Grizzly Bear Recovery Plan (USFWS 1982) and have updated that plan several times (USFWS 1993, 1996, 1997, 2007a, 2007b, 2017, 2018). The 1993 recovery plan identified recovery ecosystems, each containing a recovery zone at its core, within the lower-48 States thought to be capable of supporting grizzly bears. The 1993 recovery plan, and subsequent supplements, outlined three demographic recovery criteria for each ecosystem (in their entirety: Service 1993, 1996, 1997, 2007a, 2017).

#### *Petitions Regarding Grizzly Bear Ecosystems (1990s)*

In the 1990s, we received a number of petitions to change the status on the List of Endangered and Threatened Wildlife (the List) of grizzly bear populations in three ecosystems: the North Cascades, Selkirk, and Cabinet-Yaak.

We determined that reclassifying grizzly bears in those ecosystems to endangered was warranted but precluded by higher priorities beginning in 1991 for the North Cascades ecosystem (56 FR 33892, July 24, 1991), 1993 for the Cabinet-Yaak ecosystem (CYE) (58 FR 8250, February 12, 1993), and 1999 for the Selkirk ecosystem (SE) (64 FR 26725, May 17, 1999).

However, in 2014, the Service determined that the CYE and SE populations had recovered to the point that they were no longer warranted for uplisting as endangered and should instead remain listed as threatened (79 FR 72450 at 72487 and 72488, December 5, 2014).

In 2017, in *Alliance for the Wild Rockies v. Zinke et al.*, the District Court of Montana remanded the 2014 determination for the CYE grizzly bear back to the Service for further consideration.

In 2022, the Service again determined that the CYE population had recovered to the point that it was no longer warranted for uplisting to endangered, and therefore should remain listed as threatened (87 FR 26152 at 26153 and 26171–26172, May 3, 2022).

In 2023, we determined that the North Cascades population was no longer warranted for uplisting to endangered because the population in that area of the United States is extirpated (88 FR 41560 at 41562, 41577, and 41579–41580, June 27, 2023).

#### *Bitterroot Ecosystem*

On December 18, 2000, we designated the Bitterroot Ecosystem (BE) as a nonessential experimental population under section 10(j) of the Act and published a final environmental impact statement (EIS) and record of decision (ROD) to release an

experimental population of grizzly bears in that ecosystem (65 FR 69624, November 17, 2000; 65 FR 69644, November 17, 2000; Service 2000a and 2000b, entire).

On June 22, 2001, we indicated a change of position and published a notice to propose the no action alternative as the preferred alternative (66 FR 33623) and a proposed rule to remove the section 10(j) regulations for grizzly bears in the BE 10(j) population (66 FR 33620). However, no further action was taken on the notice, and the proposed rule was never finalized. The 2000 ROD remains in effect, but it has never been implemented. Because we have not released or reintroduced any grizzly bears into the area, the current section 10(j) rule for grizzly bears in the Bitterroot grizzly bear nonessential experimental population area (50 CFR 17.84(1)) does not apply to grizzly bears that have dispersed into the area on their own. Grizzly bears that have dispersed into the area on their own, including all recent verified sightings, are not covered by the section 10(j) rule and receive the protection associated with the threatened status of the lower-48 States listed entity and associated section 4(d) regulations (50 CFR 17.40(b)).

In November 2021, the Service was challenged in Federal district court for alleged unreasonable delay in implementing nondiscretionary actions described in the action alternative selected in the 2000 final EIS (*Alliance for the Wild Rockies et al. v. Cooley et al.*, 9:21-cv-136-DWM (D. Mont. 2021)). The court remanded this matter to the Service and ordered the Service to propose a timeline and plan for completion of a supplemental EIS and, if warranted, a new ROD and final rule. On April 26, 2023, the court issued an order approving the Service's proposal and timeline to complete this process within 43 months (*Alliance for the Wild Rockies et al. v. Cooley et al.*, 9:31-cv-

136-DWM). On January 18, 2024, the Service published a notice to initiate the public scoping process to evaluate restoration of grizzly bears to the BE (89 FR 3411).

#### *Greater Yellowstone Ecosystem*

On March 29, 2007, we published in the *Federal Register* (72 FR 14866) a final rule recognizing the Greater Yellowstone Ecosystem (GYE) population of grizzly bears as a DPS and removing it from the List (i.e., delisting it).

This final determination was vacated and remanded by the U.S. District Court for the District of Montana on September 21, 2009, in *Greater Yellowstone Coalition v. Servheen, et al.*, 672 F.Supp.2d 1105 (D. Mont. 2009). The District Court ruled against the Service on two of the claims: (1) that the Service was arbitrary and capricious in its evaluation of whitebark pine; and (2) that the identified regulatory mechanisms were inadequate because they were not legally enforceable. In compliance with the court's order, we issued a final rule reinstating the Act's protections for the GYE grizzly bear population (see 75 FR 14496, March 26, 2010).

The Service appealed the 2009 district court decision, and on November 15, 2011, the U.S. Court of Appeals for the Ninth Circuit issued an opinion affirming in part and reversing in part the District Court's decision vacating and remanding the final rule delisting grizzly bears in the GYE (*Greater Yellowstone Coalition v. Servheen, et al.*, 665 F.3d 1015 (9<sup>th</sup> Cir. 2011)). The Ninth Circuit held that the Service's consideration of regulatory mechanisms was permissible because the elements of the 2007 GYE conservation strategy were incorporated into binding regulatory documents, specifically national forest (NF) plans and National Park Service (NPS) Superintendent's compendia. However, the Ninth Circuit found that the Service did not adequately explain why the

loss of whitebark pine was not a threat to the GYE grizzly bear population. Therefore, the GYE population of grizzly bears remained federally listed as part of the lower-48 State threatened species listing under the Act, and the Interagency Grizzly Bear Study Team (IGBST) initiated more thorough research into the potential impact of whitebark pine decline on GYE grizzly bears.

On June 30, 2017, we published in the *Federal Register* (82 FR 30502) a final rule recognizing the GYE population of grizzly bears as a DPS and removing it from the List (i.e., delisting it). In that final rule, among the other findings, we responded to the District Court's remand and the Ninth Circuit's determination that the Service failed to support its conclusion that whitebark pine declines did not threaten GYE grizzly bears.

That final determination was vacated and remanded by the U.S. District Court for the District of Montana on September 24, 2018, in *Crow Indian Tribe, et al. v. United States, et al.*, 343 F. Supp.3d 999 (D. Mont. 2018). The District Court cited three main deficiencies in support of vacatur: (1) the Service did not sufficiently assess the effect of delisting the GYE population on the recovery of grizzly bears in the rest of the lower-48 States; (2) the Service and its partners did not commit to recalibration of potential new population estimators in the future to ensure the ongoing applicability of the 2016 GYE conservation strategy's mortality limits; and (3) the Service inadequately analyzed the genetic health of the GYE grizzly bear population. In compliance with this order, we again issued a final rule reinstating the Act's protections for the GYE grizzly bear population (see 84 FR 37144, July 31, 2019).

The Service appealed the district court decision, and on July 8, 2020, the Ninth Circuit issued an opinion affirming the district court's decision vacating and remanding

the final rule delisting grizzly bears in the GYE (*Crow Indian Tribe v. United States*, 965 F.3d 662 (9th Cir. 2020)).

#### *North Cascades Ecosystem*

On January 13, 2017, North Cascades National Park (NCNP) and the Service jointly released a North Cascades Draft Restoration Plan and EIS to evaluate the impacts of a range of alternatives for restoring grizzly bears to the North Cascades Ecosystem (NCE) (82 FR 4336).

On July 10, 2020, the Service and NPS announced their decision to discontinue the proposal to develop and implement a grizzly bear restoration plan for the NCE and to terminate the EIS process (85 FR 41624).

On November 14, 2022, the Service and NPS announced initiation of a new EIS process to evaluate options for restoring and managing grizzly bears in the North Cascades, including a section 10(j) experimental population designation (87 FR 68190). On September 29, 2023, NPS and the Service opened a public comment period on a draft EIS to evaluate restoration of grizzly bears to the North Cascades (88 FR 67277; NPS and Service 2024, entire) and on a proposed section 10(j) rule that would allow management flexibility for a reintroduced population (88 FR 67193). On March 21, 2024, the Service and NPS released a final EIS identifying translocation of grizzly bears to the North Cascades with an experimental designation as the preferred alternative (NPS and Service 2024, entire). On April 25, 2024, NPS and the Service published a ROD to release an experimental population of grizzly bears in the NCE with the goal of establishing an initial population of 25 grizzly bears and then continuing to monitor and adaptively manage the population (NPS and Service 2024, pp. v–vi). In addition, the



Service designated the North Cascades as a nonessential experimental population under section 10(j) of the Act (89 FR 36982, May 3, 2024, codified at 50 CFR 17.84(y)).

*Petitions Regarding the Grizzly Bear Listing (2020s)*

On December 17, 2021, we received a petition from the State of Montana to establish and delist a Northern Continental Divide Ecosystem (NCDE) DPS of the grizzly bear under the Act. On January 21, 2022, we received a petition from the State of Wyoming to establish and delist a GYE DPS of the grizzly bear under the Act. On March 9, 2022, we received a petition from the State of Idaho to delist the grizzly bear in the lower-48 States.

On February 6, 2023, we announced our 90-day findings on these three petitions (88 FR 7658). Based on our review, we found that the petitions pertaining to the NCDE and GYE presented substantial scientific or commercial information indicating that the petitioned actions may be warranted, and we initiated status reviews to determine whether the petitioned actions are warranted. We found that the petition from the State of Idaho to delist the grizzly bear in the lower-48 States on the basis of it not being a valid listable entity did not present substantial scientific or commercial information indicating that the petitioned action may be warranted; therefore, we took no further action on that petition.

In today's issue of the *Federal Register*, we announce our 12-month findings on the petitions to establish and delist GYE and NCDE DPSs of grizzly bears, respectively. Based on a thorough review of the best scientific and commercial data available, we found that the petitioned GYE and NCDE DPS grizzly bear populations were not valid listable entities. We acknowledge that this determination differs from our 2017

determination that the GYE population was discrete because it was markedly, physically separated from other grizzly bear populations and was significant due to its persistence in an ecological setting unique for the taxon and because the loss of the population would result in a significant gap in the range (82 FR 30502 at 30517–30519, June 30, 2017). However, estimated occupied range now extends beyond the 2017 GYE DPS western boundary, and we expect this trend to increase over time. Similarly, the estimated occupied range for the NCDE population extends beyond the boundary proposed by the petitioner. As populations expand, individual grizzly bears are dispersing into new areas outside the estimated occupied range (see figure 1, below). Thus, we found that the petitioned actions to establish and delist GYE and NCDE DPSs were not warranted.

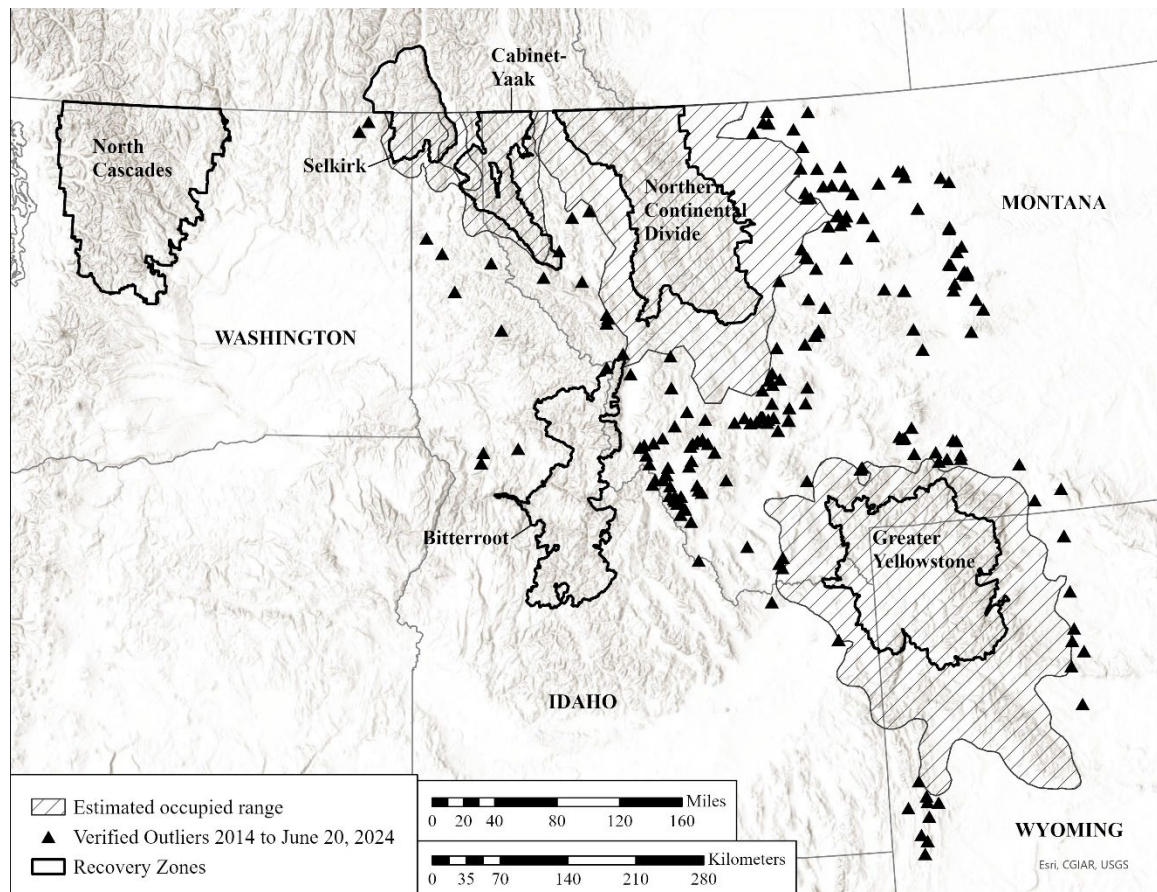


Figure 1—Map of recovery zone boundaries, estimated occupied range of grizzly bears in the NCDE (2008–2022 data; Costello et al. 2023, p. 14), GYE (2008–2022 data; Dellinger et al. 2023, p. 23), CYE (2000–2022 data, Kasworm et al.

2024a, p. 74), and SE (2000–2022 data, Kasworm et al. 2024b, p. 50), and verified grizzly bear outlier observations between the ecosystems based on data from 2014 to June 20, 2024.

In 2023, the State of Idaho, a co-defendant in *Save the Yellowstone Grizzly v. U.S. Fish and Wildlife Service*, No. 23-363 (D. Id), raised counter-claims against the Service alleging that: (1) the lower-48 listing is invalid and the Service has exceeded the Act's jurisdiction by keeping the listing in place; (2) the Service unlawfully denied Idaho's petition to delist grizzlies in the lower-48 United States; and (3) take of the three grizzly bears at issue in the case was consistent with the grizzly bear's section 4(d) rule (50 CFR 17.40(b)). As part of a February 22, 2024, settlement with the plaintiff, Save the Yellowstone Grizzly, and the State of Idaho, the Service agreed to submit to the Office of the Federal Register by January 31, 2026, a final rule complying with the Act and its implementing regulations that revises or removes the entire listing of grizzly bears in the lower-48 States.

#### *Relationship of Grizzly Bear Listing to Legislative Changes to the Act*

The grizzly bear subspecies was first listed in its entirety in North America in 1967 under the Endangered Species Preservation Act, which only allowed the listing of species or subspecies. When the Act was passed in 1973, it allowed for listing of “any other group of fish or wildlife of the same species or smaller taxa in common spatial arrangement that interbreed when mature.” The 1975 listing was “designed to ensure the species' conservation” within the Yellowstone (the GYE), Bob Marshall (now the NCDE), and Selway-Bitterroot (the BE) ecosystems, and “to protect any members of the species occurring elsewhere in” the lower-48 States. (40 FR 31734 at 31735, July 28, 1975). It was not an indication that grizzly bears were present in all areas covered by the

listing, or that the Service intended to recover grizzly bears throughout the lower-48 States.

The listing of the grizzly bear as a threatened species in the lower-48 States in 1975 was not predicated upon a formal DPS analysis, because the listing predated the 1978 amendments to the Act, which revised the definition of “species” to include DPSs of vertebrate fish or wildlife. The 1978 amendments revised the definition of “species” by adding the phrase “any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature” (16 U.S.C. 1532(16)). In addition, in 1996, the Service and the National Marine Fisheries Service published our joint “Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act” (DPS Policy; 61 FR 4722, February 7, 1996).

In the 2011 5-year status review of the grizzly bear, we reviewed the application of the DPS Policy to the grizzly bear listing (Service 2011, entire). We concluded that the population segment of grizzly bear in the lower-48 States was discrete from other grizzly populations and significant to the remainder of the taxon and that it met the standards for recognition as a DPS under the Act, but we did not propose to revise the listed entity. In this proposed rule, we are undertaking a new DPS analysis as part of our reevaluation of the current listed entity of grizzly bears in the lower-48 States.

### **Peer Review**

A species status assessment (SSA) team prepared an SSA report for the grizzly bear in the lower-48 States. The SSA team was composed of Service biologists, in consultation with other species experts. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species,

including the impacts of past, present, and future factors (both negative and beneficial) affecting the species.

In accordance with our joint policy on peer review published in the *Federal Register* on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review in listing and recovery actions under the Act (<https://www.fws.gov/sites/default/files/documents/peer-review-policy-directors-memo-2016-08-22.pdf>), we solicited independent scientific review of the information contained in the grizzly bear SSA report. We sent the SSA report to four independent peer reviewers and received three responses. Results of this structured peer review process can be found at <https://www.regulations.gov> and <https://fws.gov/library/categories/peer-review-plans>. In preparing this proposed rule, we incorporated the results of these reviews, as appropriate, into the SSA report, which is the foundation for this proposed rule.

### **Summary of Peer Reviewer Comments**

As discussed in **Peer Review**, above, we received comments from three peer reviewers on the SSA report. We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding the information contained in the SSA report. The peer reviewers generally concurred with our methods and conclusions, and provided additional information, clarifications, and suggestions, including clarifications in discussion of current conservation measures relating to human-caused mortality and habitat, clarifications in the discussion of connectivity and genetic health, additional scientific literature to consider, and other editorial suggestions. There were several comments regarding our assessment of current and future conditions for the

two habitat and six demographic factors for each ecosystem under the current and future condition scenarios, which were further clarified in the SSA report for the species.

## **I. Proposed Revision of Grizzly Bear Listing**

### *Background*

A thorough review of the taxonomy, life history, and ecology of the grizzly bear (*Ursus arctos horribilis*) in the lower-48 States is presented in the SSA report (version 2.2; Service 2024, pp. 39–48), which we summarize here.

Please note that, in this document, we refer to the grizzly bear in the lower-48 States both as a “species,” as it is listed as a threatened species under the Act, and as a “subspecies” because *Ursus arctos horribilis* is a subspecies of *Ursus arctos*. Later in this document (where indicated), we also use the term “the grizzly bear DPS” to refer to the contiguous U.S. grizzly bear DPS.

### *Species Description*

The grizzly bear is a large, long-lived mammal that occurs in a variety of habitat types. It is distributed across large portions of Alaska, as well as western and northern Canada, but its distribution in the lower-48 States is limited to portions of Idaho, Montana, Washington, and Wyoming. Grizzly bears hibernate in the winter, typically in dens; feed on a wide variety of foods; weigh up to 363 kilograms (800 pounds); and live more than 25 years in the wild. Grizzly bears are light brown to nearly black and are so named for their “grizzled” coats with silver or golden tips. Grizzly bears are a member of the brown bear species (*U. arctos*) that occurs in North America, Europe, and Asia. The subspecies *U. a. horribilis* is limited to North America and is the subspecies that occurs in the lower-48 States (Rausch 1963, p. 43; Servheen 1999, pp. 50–53). Grizzly bears

have three life stages: dependent young, subadults, and adults.

### *Habitat and Range*

Grizzly bears use a variety of habitats (LeFranc et al. 1987, p. 120). In general, a grizzly bear's individual habitat needs and daily movements are largely driven by the search for food, water, mates, cover, security, or den sites. The available habitat for bears is also influenced by people and their activities. Adult grizzly bears are normally solitary except when breeding or when females have dependent young (Nowak and Paradiso 1983, p. 971), but they are not territorial and home ranges of adult bears frequently overlap (Schwartz et al. 2003, pp. 565–566). Home range size is highly variable and is affected by resource availability, habitat quality, sex, age, and reproductive status (LeFranc et al. 1987, p. 31; Blanchard and Knight 1991, pp. 48–51; Mace and Waller 1997, p. 48). Grizzly bears hibernate in winter; hibernation is a life-history strategy that bears use to cope with seasons of low food abundance.

Adult bears are 4 years old or older when they reach sexual maturity, although some bears may not breed until they are older. Mating occurs from May through July (Craighead and Mitchell 1982, p. 522; Nowak and Paradiso 1983, p. 971); however, their fertilized embryos do not implant into the uterus for further development until late fall. Cubs are born in the den in late January or early February and nurse for 3 to 4 months inside the den. Offspring typically remain with the female for about 2.5 years. Reproduction may be related to nutritional state and/or density-dependent effects (Stringham 1990, p. 433; McLellan 1994, p. 20; Hilderbrand et al. 1999, pp. 135–136; Schwartz et al. 2006c, p. 21; van Manen et al. 2016, pp. 307–308; Hilderbrand et al. 2019, pp. 115–116). Grizzly bears have one of the slowest reproductive rates among

terrestrial mammals (Nowak and Paradiso 1983, p. 971; Schwartz et al. 2003, p. 564), and it may take a female grizzly bear 10 or more years to replace herself in a population (Service 1993, p. 4).

The lower-48 States provides highly diverse landscapes containing a wide array of habitat types and bear foods across and within the ecosystems. Grizzly bears are opportunistic omnivores and display great diet plasticity within and across populations (Edwards et al. 2011, pp. 883–886), shifting their diet according to foods that are most nutritious (i.e., high in fat, protein, and/or carbohydrates) and available (Mealey 1980, pp. 284–291; Servheen 1981, pp. 99–102; Kendall 1986, pp. 12–18; Mace and Jonkel 1986, p. 108; Martinka and Kendall 1986, pp. 21–22; LeFranc et al. 1987, pp. 111–114; Aune and Kasworm 1989, pp. 63–71; Kasworm and Thier 1993, pp. 38–41; McLellan and Hovey 1995, pp. 706–709; Schwartz et al. 2003, pp. 568–569; Van Daele et al. 2012, pp. 25–27; Gunther et al. 2014, p. 65). The ability to use whatever food resources are available is likely one reason brown bears are the most widely distributed bear species in the world, occupying habitats from deserts to alpine mountains and everything in between. This ability to live in a variety of habitats and eat a wide array of foods makes grizzly bears a generalist species.

#### *Recovery Criteria*

Section 4(f) of the Act directs us to develop and implement recovery plans for the conservation and survival of endangered and threatened species unless we determine that such a plan will not promote the conservation of the species. Under section 4(f)(1)(B)(ii), recovery plans must, to the maximum extent practicable, include objective, measurable criteria that, when met, would result in a determination, in accordance with provisions of



section 4 of the Act, that the species be removed from the Lists of Endangered and Threatened Wildlife and Plants.

Recovery plans provide a roadmap for us and our partners on methods of enhancing conservation and minimizing threats to listed species, as well as measurable criteria against which to evaluate progress towards recovery and assess the species' likely future condition. However, they are not regulatory documents and do not substitute for the determinations and promulgation of regulations required under section 4(a)(1) of the Act. A decision to revise the status of a species or to delist a species is ultimately based on an analysis of the best scientific and commercial data available to determine whether a species is no longer an endangered species or a threatened species, regardless of whether that information differs from the recovery plan.

There are many paths to accomplishing recovery of a species, and recovery may be achieved without all of the criteria in a recovery plan being fully met. For example, one or more criteria may be exceeded while other criteria may not yet be accomplished. In that instance, we may determine that the threats are minimized sufficiently and that the species is robust enough that it no longer meets the Act's definition of an endangered species or a threatened species. In other cases, we may discover new recovery opportunities after having finalized the recovery plan. Parties seeking to conserve the species may use these opportunities instead of methods identified in the recovery plan. Likewise, we may learn new information about the species after we finalize the recovery plan. The new information may change the extent to which existing criteria are appropriate for identifying recovery of the species. The recovery of a species is a

dynamic process requiring adaptive management that may, or may not, follow all of the guidance provided in a recovery plan.

The 1993 recovery plan for the grizzly bear, and subsequent supplements, identified six recovery ecosystems, each containing a recovery zone at its core, within the lower-48 States thought to be capable of supporting grizzly bears (Service 1993, pp. 10–13, 17–18). Today, current grizzly bear distribution is primarily within and around four of these areas identified as recovery zones. The current recovery plan states an objective of “delisting each of the remaining populations by population as they achieve the recovery targets” (USFWS 1993, pp. ii, 33–34). The recovery plan outlines three demographic recovery criteria for each ecosystem. We updated the GYE demographic recovery criteria in 2007, and again in 2017, to reflect the best available science, including expansion of mortality limits in the third criterion to include total mortality (in their entirety: Service 2007b, 2017).

Due to a settlement agreement in *Fund for Animals v. Babbitt*, 967 F.Supp. 6 (D.D.C. 1997) regarding the 1993 recovery plan, the Service agreed to establish habitat-based recovery criteria for each ecosystem prior to publishing any proposed rule to delist that grizzly bear population. In addition, the Service agreed to convene a workshop during the public comment period on the draft habitat-based recovery criteria. Habitat-based recovery criteria were published as supplemental chapters to the 1993 recovery plan for the GYE and the NCDE in 2007 and 2018, respectively (in their entirety: Service 2007a, 2018). As explained in detail in our SSA report, because of the inability to calculate minimum habitat values for a recovered population, we use a “no net loss”

approach by assessing which habitat factors are compatible with a stable to increasing grizzly bear population (Service 2024, pp. 79–82, 87–89).

The following discussion provides a summary and assessment of the recovery criteria as they relate to evaluating the status of the species. Further details about the progress toward achieving recovery criteria can be found in our SSA report (Service 2024, pp. 80–100).

#### Habitat-based Recovery Criteria

For both the GYE and NCDE, habitat-based recovery criteria define threshold levels for habitat security (areas with no motorized access; “secure core” in the NCDE and “secure habitat” in the GYE, as defined in appendix B in the SSA report (Service 2024)), livestock allotments, and developed sites as their habitat-based recovery criteria (Service 2007a, pp. 2–6; Service 2018, pp. 5–8; Yellowstone Ecosystem Subcommittee (YES) 2024, chapter 3 and appendix E). These habitat-based recovery criteria have been met or improved upon since their incorporation into the recovery plan for both the GYE and NCDE (in their entirety: Service 2007a, 2018; Ake 2022, 2023a, 2023b; Grizzly Bear Habitat Monitoring Team 2024). The Service has not yet developed habitat-based recovery criteria for the remaining ecosystems.

#### Demographic Recovery Criterion 1

The first criterion establishes a minimum population size through the monitoring of females with cubs. In the GYE, this criterion has been met since 2003, with an estimated 87 females with cubs and 1,030 individuals in 2023 (Gould et al. 2024c, in prep.). A new trend monitoring program was implemented in the NCDE in 2004 because documenting females with cubs from visual observations is limited due to the forested

nature of the NCDE (see *Mortality Limits* in the SSA report for further details; Service 2024, pp. 176–178). Based on the new methods, the population in the NCDE has likely met this criterion since at least 2004, with an estimated 1,163 individuals in 2023 (Costello et al. 2024, in prep.). Although progress has been made towards recovery in the CYE, this criterion has not yet been met. In 2023, there were an estimated 70 bears in the CYE, below the target of 100 bears (Kasworm et al. 2024a, p. 43). The SE, due to its small size in the United States, is the only population where the population criterion (90 bears) spans the U.S.-Canada border. In the U.S. portion of the SE, there were a minimum of 51 bears as of 2023 (Kasworm et al. 2024b, p. 21). There were an estimated 69 bears in the Canadian portion of the SE population as of 2021 (Proctor et al. 2022, p. 2). However, the U.S. and British Columbia (B.C). population estimates for the SE are not exclusive because numerous bears overlap their home ranges; therefore, adding the estimates together would cause some double counting. An effort to integrate the population estimates from the U.S. and B.C. portions of the SE is ongoing. There is no known population in either the BE or North Cascades; therefore, this criterion has not been met for all ecosystems.

#### Demographic Recovery Criterion 2

The second criterion ensures reproductive females (i.e., females with young) are well distributed across the recovery zone, as measured by bear management units (BMUs), and are not concentrated in one portion of the ecosystem. In the GYE, this recovery criterion has been met since at least 2001, with 18 of 18 BMUs occupied by females with young for the most recent 6-year period of 2018–2023. In the NCDE, this recovery criterion has been met since at least 2009, with 23 of 23 BMUs occupied by

females with young for the most recent 6-year period of 2018–2023. In the SE, this recovery criterion has been met since at least 2014, with 9 of 10 BMUs occupied by females with young for the most recent 6-year period of 2018–2023. Although progress has been made towards recovery in the CYE, this criterion has not yet been met. There is no known population in either the BE or North Cascades; therefore, this criterion has not been met for all ecosystems.

### Demographic Recovery Criterion 3

The third criterion outlines annual human-caused mortality limits that would allow the population to achieve and sustain recovery. In 2017, this criterion was revised for the GYE to implement new scientific methods to estimate the population size and determine sustainable total mortality limits. In the GYE, this recovery criterion has been met for all age and sex classes since 2021. A new population estimation framework, an integrated population model (IPM), was implemented in 2022, which replaces the model-averaged Chao2 population estimation method (Gould et al. 2024a, entire). Demographic recovery criterion 3 relies on the model-averaged Chao2 method; therefore, we cannot assess the mortality limits as set forth in the recovery plan. However, mortality rates in 2023 for independent females, independent males, and dependent young were consistent with a population growth rate from 2020 to 2023 of 3.4 percent. Therefore, the GYE grizzly bear population has likely met the intent of this demographic recovery criterion.

In the NCDE, human-caused mortality has been below the threshold since 2009, but the female proportion of human-caused mortality was above the threshold in 2021, 2022, and 2023. Even though the female mortality exceeded the criterion in these three years, the NCDE likely meets the intent of this criterion. In 1993, the mortality limits

were set conservatively to compensate for unknown/unreported mortality, which we now have the ability to estimate (NCDE Subcommittee 2020, chapter 2 and appendix 2). The NCDE conservation strategy implements a methodology that includes an estimate of total reported and unreported (TRU) mortality, which includes known and probable mortality from all causes (i.e., human-caused, natural, and undetermined) as well as an estimate of unknown/unreported mortality (using the methods of Cherry et al. 2002, entire; Costello et al. 2016, p. 29). As discussed in the NCDE conservation strategy, during the period of 2018–2023, TRU mortalities for independent females and independent males were below the maximum threshold, compatible with an annual 2.3 percent growth in the population since 2004 (Costello et al. 2016, p. 2; Costello et al. 2024, in prep.; Montana Fish, Wildlife and Parks (MFWP), unpublished data).

In the CYE and SE, the known, human-caused mortality threshold is 4 percent of the minimum population size, no more than 30 percent of which shall be females. In the CYE from 2018–2023, the average annual human-caused mortality was 1.7 bears per year and 0.5 female bears per year, which exceeds the calculated mortality limits for total and female bears of 1.4 and 0.4 bears per year, respectively. In the SE from 2018–2023, the average annual human-caused mortality was 2.0 bears per year and 0.5 female bears per year, which is at or below both the total and female mortality limits of 2.0 and 0.6 bears per year, respectively. Although progress has been made towards recovery in the CYE and SE, and this threshold has been met in some recent years, this criterion has not been met consistently. There is no known population in either the BE or North Cascades; therefore, this criterion has not been met for all ecosystems.

*Recovery Criteria Applicability to the Grizzly Bear DPS*

The 1993 recovery plan identified six recovery areas (GYE, NCDE, CYE, SE, BE, and North Cascades), and recommended further evaluation of other potential areas to determine recovery potential (Service 1993, pp. 11, 15–16, 121). As discussed below in “Areas Where Bears Do Not or Are Unlikely To Occur,” the Service has completed this analysis, focusing on habitat security in the historical range outside of the six ecosystems (see Service 2024, appendix A, for further details). Given this analysis, the Service’s approach to grizzly bear recovery under the Act is focused on, and will continue to be focused on, the current six ecosystems, and additional areas, such as the San Juan Mountains and other mountain ranges in the West, are not needed to recover the species.

The current condition of the grizzly bear in the lower-48 States partially meets the recovery criteria set forth in the 1993 recovery plan and its supplements. Demographic criteria have been met for the GYE and NCDE populations and have been partially met for the CYE and SE populations, but the BE and North Cascades are functionally extirpated. Habitat-based recovery criteria have been met where they have been developed (i.e., for the GYE and NCDE populations), but they have not yet been developed for the other four ecosystems.

In recent decades, the amount of available science regarding the grizzly bear has increased, including knowledge about the species and its associated threats. For example, minimum population sizes (i.e., Demographic Recovery Criterion 1) did not consider long-term genetic health and population connectivity. Furthermore, the recovery zone boundaries and the application of annual human-caused mortality limits within them (i.e., Demographic Recovery Criterion 3) did not reflect the need for natural connectivity that

may be necessary for the long-term genetic health of small or isolated populations in order for populations to be self-sustaining. As such, although we are not required to do so under the Act, we expect to revise the recovery plan for the grizzly bear in the future.

### **Distinct Population Segment**

Pursuant to the Act, we must consider for listing any species, subspecies, or, for vertebrates, any DPS of these taxa, if there is sufficient information to indicate that such action may be warranted. To interpret and implement the DPS provision of the Act and Congressional guidance, the Service and the National Marine Fisheries Service published an interagency “Policy Regarding the Recognition of Distinct Population Segments under the Act” (DPS Policy; 61 FR 4722, February 7, 1996). The DPS Policy addresses the recognition of DPSs for potential listing actions. The DPS Policy contemplates that listing DPSs, when appropriate, will help focus conservation efforts on populations that warrant protection under the Act while avoiding unnecessary regulations in other parts of the taxon’s range.

Under our DPS Policy, three elements are considered in a decision regarding the status of a possible DPS as an endangered or threatened species under the Act. These are applied similarly for additions to the Lists of Endangered and Threatened Wildlife and Plants (Lists), reclassification, and removal from the Lists. They are: (1) Discreteness of the population segment in relation to the remainder of the taxon; (2) the biological or ecological 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 (i.e., whether the population segment is, when treated as if it were a species or subspecies, an endangered or threatened species). Discreteness refers to the degree of



isolation of a population from other members of the species, and we evaluate this factor based on specific criteria. If the population segment is considered discrete, we must consider whether the discrete segment is “significant” to the taxon to which it belongs by using the best scientific and commercial data available. When determining if a potential DPS is significant, our policy directs us to sparingly list DPSs while encouraging the conservation of genetic diversity. If we determine that a population segment is both discrete and significant, we then evaluate it for endangered or threatened species status based on the Act’s standards.

*Distinct Population Segment Analysis for Grizzly Bear in the Contiguous United States*  
Background

As discussed above in **Previous Federal Actions**, the listing of the grizzly bear as a threatened species in the lower-48 States occurred before the publication of our DPS Policy on February 7, 1996 (61 FR 4722). However, consistent with our DPS Policy, we evaluate the application of the DPS policy on a case-by-case basis if we consider revising a species’ listing status, and in our 5-year reviews under section 4(c)(2) of the Act (61 FR 4722 at 4725, February 7, 1996). The 1975 grizzly bear listing was intended primarily to conserve grizzly bears in those areas where they occurred at that time, and to protect any individual bears found in other parts of the lower-48 States. It was not an indication that grizzly bears were present in all areas covered by the listing, or that the Service intended to recover them throughout the lower-48 United States. In fact, grizzly bears did not historically occur in the eastern United States and have long been extirpated from a large percentage of their historical range in the lower-48 States. Thus, the 1975 listing of

grizzly bears in the “U.S.A., conterminous (lower 48) States” does not reflect where grizzly bears occur now and are expected to occur in the future as they recover.

In this proposed rule, we are evaluating the currently listed entity of grizzly bears in the lower-48 States under the DPS Policy and revising the current listing to: (1) include all existing grizzly bear populations within the lower-48 States; (2) include any designated experimental populations; (3) encompass areas where the grizzly bear’s range may naturally expand in the future; and (4) use landscape or anthropogenic features (e.g., highways) or administrative boundaries (e.g., State boundary) to clearly define the DPS boundary for the public. Areas outside of historical range of the subspecies and areas within historical range that are no longer suitable to support a grizzly bear population due to human development would not be part of a revised grizzly bear DPS (see below, “Areas Where Bears Do Not or Are Unlikely To Occur”).

#### Proposed DPS Boundaries

We are proposing to revise the existing lower-48 State grizzly bear listing by defining the DPS with the boundary depicted below in figure 2 for the reasons articulated in **Previous Federal Actions** and “Background,” above.

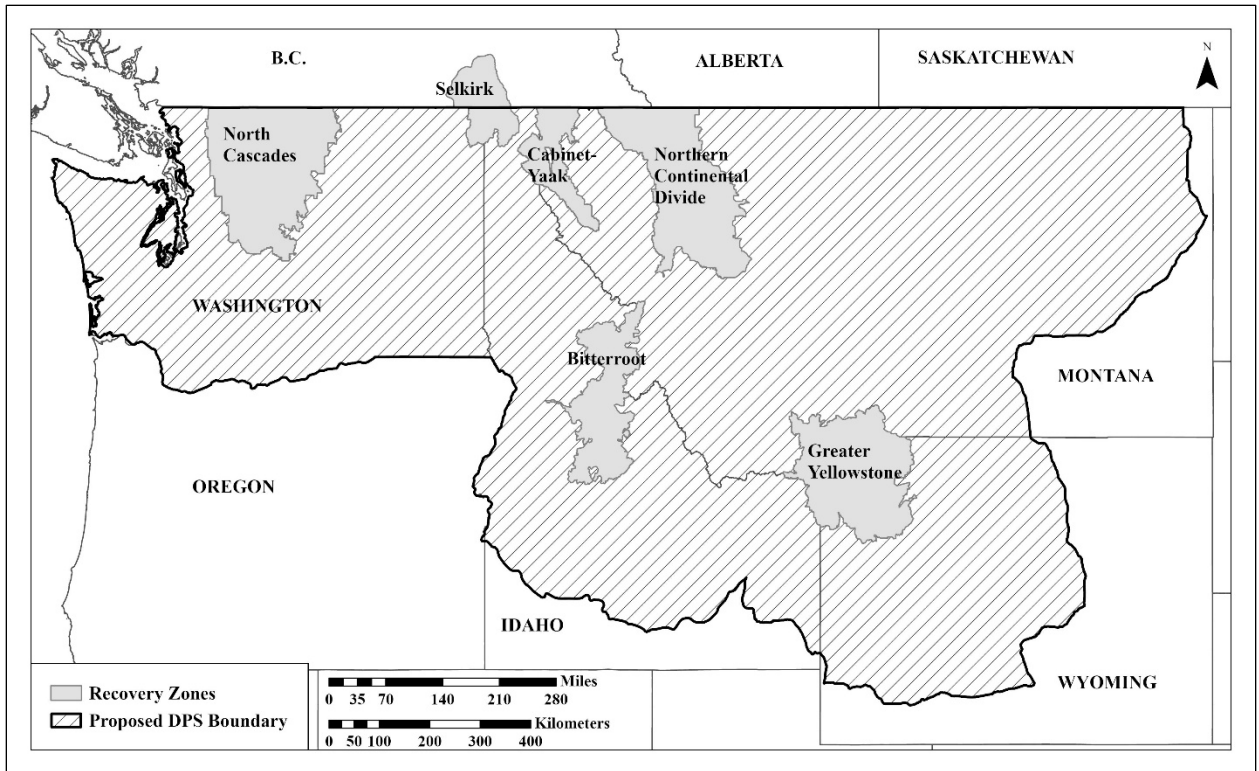


Figure 2—Map of the proposed distinct population segment (DPS) of grizzly bears in the contiguous United States (the “grizzly bear DPS”) and recovery zone boundaries.

The proposed grizzly bear DPS includes all of the State of Washington and portions of the States of Idaho, Montana, and Wyoming. The northwest point of the northern boundary begins at the western terminus of the coterminous U.S.-Canada border near Blaine, Washington, and follows the international border east to its intersection with Montana Highway (MT) 16. The eastern boundary follows MT-16 from the Canadian border south to the intersection with Interstate (I) 94 near Glendive, Montana; then continues south along I-94 to the intersection with MT-47 in between Custer and Bighorn, Montana; then follows MT-47 south to the intersection with I-90 in Harden, Montana; then continues south along I-90 to the intersection with U.S. Highway (Hwy) 25 in Buffalo, Wyoming; then follows Hwy 25 south to the intersection with Wyoming Highway (WY) 220 in Casper, Wyoming; then continues south to the intersection with

WY-287 near Three Forks, Wyoming; then follows WY-287 south to the intersection with I-80 in Rawlins, Wyoming. The southern boundary follows I-80 west from the southeastern point in Rawlins, Wyoming, to the intersection with Hwy 30, at which point it continues west on Hwy 30 to the intersection with the Snake River near Pocatello, Idaho, where it follows the Snake River west and north until it intersects with the Washington State line. The boundary then follows the Washington State line west to the Pacific Ocean. The western boundary follows the Washington coastline north to the U.S.-Canada border at Blaine, Washington.

The proposed grizzly bear DPS boundary encompasses all six grizzly bear recovery zones (GYE, NCDE, CYE, BE, North Cascades, and the U.S. portion of the SE), as well as important connectivity habitat between the recovery zones (USFWS 1993, p. 11; Sells et al. 2023, p. 6; Service 2024, p. 60). These areas include large amounts of public lands, including several national forests (Shoshone, Beaverhead-Deerlodge, Bridger-Teton, Caribou-Targhee, Custer-Gallatin, Flathead, Helena-Lewis and Clark, Mt. Baker-Snoqualmie, Gifford Pinchot, Wenatchee, Okanogan, Colville, Kootenai, Idaho Panhandle, Lolo, Nez Perce-Clearwater, Bitterroot, Payette, Salmon-Challis, Boise, Sawtooth, and Caribou-Targhee national forests (NFs)), several national parks (Yellowstone National Park (YNP), Grand Teton National Park (GTNP), Glacier National Park (GNP), and NCNP Complex), Bureau of Land Management (BLM) lands, Tribal lands, and State and private lands. As discussed below in “Areas Where Bears Do Not or Are Unlikely To Occur,” the proposed grizzly bear DPS boundary includes all habitat in the lower-48 States that is suitable for supporting self-sustaining grizzly bear populations.

### Areas Where Bears Do Not or Are Unlikely To Occur

Grizzly bears are currently listed as they were originally listed in 1975 (40 FR 31734, July 28, 1975), as a threatened species in the lower-48 States (see 50 CFR 17.11(h)). The 1975 listing was intended primarily to ensure the species' conservation where grizzly bears were thought to occur at the time of listing and to protect any members of the species occurring elsewhere in the lower-48 States. However, this broadly described listing created confusion because it includes areas outside the historical and current range of the grizzly bear. Grizzly bears historically existed throughout all or portions of only 18 western States (i.e., Washington, Oregon, California, Idaho, Montana, Wyoming, Nevada, Colorado, Utah, New Mexico, Arizona, North Dakota, South Dakota, Minnesota, Nebraska, Kansas, Oklahoma, and Texas) (Servheen 1989, pp. 1–2; USFWS 1993, p. 9; Servheen 1999, pp. 50–51; Haroldson et al. 2021, pp. 163, 165). To ensure that grizzly bears are designated on the List as a valid listable entity, we are proposing to revise the current listing to recognize a DPS and are defining the boundaries of the DPS based on biological principles and the best scientific and commercial data available.

The proposed DPS boundary encompasses 800,116 square kilometers (km<sup>2</sup>) (308,926 square miles (mi<sup>2</sup>)) or 26 percent of historical range circa 1850 (Haroldson et al. 2021, pp. 163, 165). Historically, grizzly bears were probably most common in the Rocky Mountains, along the Upper Missouri River, and in California (Storer and Tevis 1955, pp. 15–21; Schneider 1977, pp. 15, 17, 25–36; Mattson and Merrill 2002, pp. 1125, 1127–1128; Haroldson et al. 2021, pp. 163, 165). Grizzly bears were less common or did not occur in large expanses of the North American deserts and Great Plains ecoregions (Rollins 1935, p. 191; Wade 1947, p. 444; Mattson and Merrill 2002, p. 1128; Haroldson

et al. 2021, pp. 163, 165). Large portions of the remaining historical range are no longer suitable habitat. Grizzly bears have experienced immense loss of historical range primarily due to human persecution and reduction of habitat (Roosevelt 1907, pp. 27–28; Wright 1909, p. vii; Storer and Tevis 1955, pp. 26–27; Leopold 1967, p. 30; Koford 1969, p. 95; Craighead and Mitchell 1982, p. 516; Servheen 1999, pp. 50–51). Many grizzly bear habitats within the species' historical range have been permanently developed and converted into agricultural land (Woods et al. 1999, entire). Traditional food sources, such as bison and elk, have been reduced, eliminated, or replaced with domestic livestock, such as cattle, sheep, chickens, goats, pigs, and agricultural products. Consequently, numerous large areas within the lower-48 States that historically supported grizzly bear populations are no longer suitable for grizzly bears.

In 1993, the recovery plan identified six recovery areas (GYE, NCDE, CYE, SE, BE, and North Cascades), and recommended further evaluation of other potential areas to determine recovery potential (Service 1993, pp. 11, 15–16, 121). The San Juan Mountains were specifically identified for further evaluation, but no confirmed sightings of grizzly bears have occurred there since a grizzly bear mortality in 1979 (Service 1993, p. 11). The recovery plan recommended conducting an evaluation of these areas to focus on habitat values, size of area, human use and activities in general, relation to other areas where grizzly bears exist, and historical information (Service 1993, p. 121). The Service conducted this analysis as documented in the SSA report, focusing on habitat security in historical range outside of the six ecosystems in 2019–2020, which we summarize here (Service 2024, appendix A).

The most crucial element in grizzly bear recovery is habitat security, which is primarily influenced by motorized access management (USFWS 1993, pp. 21–22; Craighead and Mitchell 1982, p. 530). Unmanaged motorized access increases grizzly bear mortality risk and the potential for displacement from important habitat. For this reason, habitat-based recovery criteria for both the NCDE and GYE recovery zones include threshold levels for secure habitat (areas with no motorized access) (Service 2007a, entire; Service 2018, entire; Service 2024, pp. 80–82, 87–89). The recovery plan also recommended that areas to be considered for grizzly bear recovery must have the potential to sustain themselves as viable grizzly bear populations, either as large populations or through connectivity to other populations (Service 1982, p. 1; Service 1993, pp. 13, 15, 24, 121). Therefore, our evaluation of potentially suitable habitats considered habitat security (roads) and size, human population density, land ownership (Federal, State, and Tribal), historical range, and the potential to maintain a self-sustaining population.

We analyzed habitat security within mapped historical grizzly bear range circa 1850 (Mattson and Merrill 2002, p. 1125). The largest area of secure core/habitat within the grizzly bear's historical range outside of the six recovery ecosystems (NCDE, GYE, North Cascades, BE, SE, and CYE) is the Sierra Nevada Mountain Range in California. We further analyzed the Sierra Nevada Range to determine if the area contains enough habitat security to support an isolated grizzly bear population. We also analyzed habitat security in the San Juan Mountains as recommended in the recovery plan (Service 1993, pp. 16, 121). Finally, we considered the potential of these areas to maintain a self-sustaining population by examining potential population size and the future ability of

individuals to move between ecosystems (e.g., potential for connectivity), including distance from existing grizzly bear populations and potential barriers to dispersal (Service 1993, pp. 13, 24, 121). Details of this analysis can be found in our SSA report (Service 2024, appendix A).

To compare the amount of habitat security in the Sierra Nevada and San Juan mountains with habitat security in recovery zones, we calculated secure core using the definition used in the NCDE and secure habitat using the definition used in the GYE (see appendix B in the SSA report for those definitions (Service 2024)). The Sierra Nevada Mountains consists of 52,531 km<sup>2</sup> (20,282 mi<sup>2</sup>) of habitat, of which 76 percent (39,872 km<sup>2</sup> (15,395 mi<sup>2</sup>)) is Federal, State, and Tribal lands. Forty-three percent of these Federal, State, and Tribal lands is secure core, and 47 percent is secure habitat. The San Juan Mountains analysis area consists of 26,512 km<sup>2</sup> (10,236 mi<sup>2</sup>) of habitat, of which 82 percent (21,636 km<sup>2</sup> (8,354 mi<sup>2</sup>)) is Federal, State, and Tribal lands. Fifty-two percent of these Federal, State, and Tribal lands is secure core, and 56 percent is secure habitat. We note that the specific boundary and size of analysis areas influence the percent of secure core and secure habitat. Our selection of these boundaries was based primarily on the presence of large continuous patches of Federal lands and political boundaries; however, the analysis areas also include some patches of land that are primarily private land or checkerboards of private and public land.

These percentages of secure core and secure habitat in the Sierra Nevada (43 and 47 percent, respectively) and San Juan Mountains (52 and 56 percent, respectively) are significantly lower than the percentages in the GYE and NCDE recovery zones (NCDE Subcommittee 2020, appendix 4; YES 2024, appendix E). Secure habitat averages 85.6



percent of the recovery zone in the GYE (YES 2024, appendix E), and secure core averages 76.4 percent of the recovery zone in the NCDE (NCDE Subcommittee 2020, appendix 4). The total amount of public access to Federal, State, and Tribal lands in the Sierra Nevada and San Juan Mountains is high, and we would expect resultant high human-caused mortality levels and habitat displacement (McLellan and Shackleton 1988, pp. 458–459; McLellan 1989, pp. 1862–1864; Mace et al. 1996, pp. 1402–1403; Schwartz et al. 2010, p. 661).

The Sierra Nevada and San Juan Mountains are larger in area than either the CYE or SE recovery zones and could be large enough to support a population of grizzly bears. However, natural recolonization of these areas is unlikely because of the distance from existing grizzly bear populations. The Sierra Nevada and San Juan Mountain ranges are very far (a minimum of 1,000 km (621 mi) and 620 km (385 mi), respectively) from current grizzly bear populations. Maximum dispersal distances of 67–176 km (42–109 mi) for males have been documented in the GYE and NCDE (Blanchard and Knight 1991, pp. 50, 55; McLellan and Hovey 2001, p. 841; Peck et al. 2017, p. 2), while female grizzly bears rarely disperse long distances (Swenson et al. 1998, pp. 822–824; Jerina and Adamič 2008, pp. 1495–1497). Recolonization and recovery of a new area would require continuous occupation by females, which is unlikely to occur in areas at great distance from existing populations.

Additionally, the areas between the Sierra Nevada and San Juan Mountain ranges and current populations include large blocks of rangeland with open canopy coverage, agriculture, and private lands, and are bisected by several major highways and interstates. Increasing human development will increase these barriers in the future. Thus, the

likelihood of even one male bear successfully immigrating from existing populations to these areas is minimal, and it is even more unlikely that a population would naturally recolonize and become self-sustaining.

One or more populations of grizzly bears could be established through reintroduction. However, neither of these areas is large enough to sustain a sufficient number of bears to maintain long-term fitness, and ongoing translocations would likely be needed to ensure long-term genetic health. A total population size of approximately 400 grizzly bears is sufficient for short-term fitness of an isolated population (Miller and Waits 2003, p. 4338). For long-term genetic health, the population would require one to two effective immigrants from one of the other established grizzly bear populations approximately every 10 years (e.g., a generation interval) (Mills and Allendorf 1996, pp. 1510, 1516; Newman and Tallmon 2001, pp. 1059–1061; Miller and Waits 2003, p. 4338). Even if a population were reintroduced, there is a very low likelihood of natural connectivity to existing populations, which is needed for the reintroduced population to maintain long-term genetic fitness and become self-sustaining (Service 1982, p. 1; Service 1993, pp. 13, 24).

Although other grizzly bear populations and unoccupied recovery zones included in the lower-48 States, such as the GYE, North Cascades, and BE, are currently isolated, they are within male dispersal distance of existing populations, and connectivity is possible. In addition, with the expansion of the NCDE population, the BE is within female dispersal distance. Although the GYE grizzly bear population remains isolated today, the distance between current distributions of grizzly bears in the GYE and NCDE has decreased recently, and distributions are now close (98 km (61 mi)) (see figure 1,

above; Costello et al. 2023, p. 14; Dellinger et al. 2023, p. 23), with multiple verified sightings in between. It is expected that, with the continued protections of the Act, natural connectivity will occur in the near future (see *Connectivity and Genetic Health in the GYE* in the SSA report for more information (Service 2024, pp. 187–190)).

The SE and CYE are small recovery zones and do not have the potential to contain 400 bears. However, both recovery zones are contiguous with grizzly bear habitat northward into Canada, and a recovered population would be a subset of a much larger population. Bears can and do move between these recovery zones and contiguous habitat to the north in Canada, thereby enabling demographic connectivity and long-term genetic fitness.

Our initial analysis indicated other areas within the grizzly bear's historical range that currently contain substantial secure habitat, such as the Uinta and Mogollon mountains in the southwestern United States (Juliussan 2019, in litt.). However, each of these areas is smaller than the Sierra Nevada and San Juan mountains and has the same limiting factors that would most likely prevent them from supporting a self-sustaining population, including low amounts of secure core, extremely low potential of connectivity to existing grizzly bear populations due to high human densities, transecting highways and interstates, agriculture, lack of cover, and high densities of motorized routes. Therefore, we did not further analyze these other areas.

In conclusion, this proposed revision clarifies the original 1975 listing for grizzly bears by identifying a single DPS comprised of those areas within the lower-48 States where bears currently occur and are likely to occur in the future as recovery proceeds. The proposed DPS includes all six grizzly bear recovery zones, along with connectivity

habitat between the recovery zones. The proposed grizzly bear DPS boundary does not include: (1) areas outside of historical range; (2) areas where bears do not currently occur; and (3) areas where bears are not likely to occur in the future.

#### Analysis of Discreteness

Under our DPS Policy, 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); or (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 (inadequacy of existing regulatory mechanisms).

*Discreteness Based on Marked Separation*—In our SSA report, we analyzed connectivity between populations within the lower-48 States and between populations within the lower-48 States and those in Canada. Grizzly bears have been documented moving between the NCDE, CYE, and SE populations and adjacent populations in southwestern Canada (Paetkau et al. 1998, p. 412; Kendall et al. 2009, p. 12; Proctor et al. 2012, pp. 12, 20–21, 39; Kasworm et al. 2024a, pp. 34, 76–112; Kasworm et al. 2024b, pp. 24, 61–79). The NCDE population is genetically and demographically well connected to Canadian populations (Proctor et al. 2012, p. 28). However, connectivity between the CYE and SE populations with those in Canada is more limited. Reproduction has been documented in the CYE from 9 individuals (8 males, 1 female) from the North

Purcell Mountains in Canada, resulting in 26 offspring in the CYE (Kasworm et al. 2024a, p. 34). In the SE, reproduction has been documented for 5 individuals (4 males, 1 female) from the South Purcell Mountains, resulting in 25 offspring in the SE (Proctor et al. 2022, p. 25; Kasworm et al. 2024b, p. 24). For more information, see *Connectivity and Genetic Health* in our SSA report (Service 2024, pp. 182–197).

Several studies have documented genetic differences between grizzly bears in some populations in the grizzly bear DPS, including the GYE and SE, and other populations in North America (Paetkau et al. 1998, pp. 421–424; Waits et al. 1998, p. 310; Proctor et al. 2012, pp. 12, 31). However, these differences are likely a result of recent habitat fragmentation rather than long-term isolation that resulted in the evolution of unique traits (Proctor et al. 2012, p. 35). Please see *Marked Genetic Differences*, below, for further discussion.

Therefore, we find that there are no physical, physiological, ecological, or behavioral factors separating grizzly bears in the contiguous United States from grizzly bears in Canada. We do not consider grizzly bears in the contiguous United States to be genetically or morphologically discontinuous from grizzly bears in Canada, as existing genetic data support that Canadian grizzly bears are connected to the populations in the NCDE, CYE, and SE. Therefore, grizzly bears in the contiguous United States are not discrete based on marked separation from other populations of the same taxon.

We next evaluate whether grizzly bear populations in the contiguous United States are discrete based on the international boundary with Canada. Specifically, we consider differences between the two countries in terms of control of exploitation, management of habitat, conservation status, or regulatory mechanisms that are significant

in light of section 4(a)(1)(D) of the Act (inadequacy of existing regulatory mechanisms). In our analysis of discreteness at the international border, we compare existing regulatory mechanisms in Canada with non-Act regulatory mechanisms in the contiguous United States. This approach ensures that our analyses for listing and delisting a species are the same with respect to the international border discreteness element per our 1996 DPS Policy.

*Discreteness Based on the International Border—Differences in Control of Exploitation*—In the absence of the protections of the Act, there are differences in control of exploitation of grizzly bears between the United States and Canada. A province-wide ban on grizzly bear hunting in B.C. came into effect on April 1, 2018. A similar ban on grizzly bear hunting was enacted in Alberta in 2006; however, hunting of potential conflict bears in Alberta recently became possible, albeit heavily restricted, pursuant to a Ministerial Order issued on June 17, 2024. Grizzly bear hunting is currently prohibited in the proposed grizzly bear DPS. However, absent the protections of the Act, we anticipate that State-authorized hunting seasons would be established in Idaho and Wyoming. In addition, hunting could occur in Montana within 5 years post-delisting (Administrative Rules of Montana (ARM) subchapter 12.9.14 at 12.9.1413). We do not anticipate grizzly bear hunting would occur in Washington in the foreseeable future because the population there is small and grizzly bears are currently listed by the State as an endangered species (Washington Administrative Code (WAC) at section 220–610–010).

*Discreteness Based on the International Border—Differences in Conservation Status*—There is also a difference in conservation status of grizzly bears between the United States and Canada. The grizzly bear population in Canada is estimated at nearly

29,000, with the populations of B.C. and Alberta estimated at around 15,000 and 700, respectively (Service 2024, appendix E, p. 343). Grizzly bears throughout Canada are designated as a species of “special concern” by the Canadian Committee on the Status of Endangered Wildlife in Canada (COSEWIC) (2012, entire) and under the Species at Risk Act (SARA) (2018). This designation is intended to ensure the species is managed to prevent it from becoming endangered or threatened. No federal protections are provided to them as a result of this designation. The conservation status of grizzly bears varies provincially, with separate conservation and management plans for each province.

In B.C., grizzly bears are listed as a species of “special concern” by the B.C. Conservation Data Center (Environmental Reporting B.C. 2020, entire). A B.C. grizzly bear conservation strategy was prepared but never implemented (Office of the Auditor General of B.C. 2017, p. 29). In response to a 2017 audit, a draft grizzly bear stewardship framework was prepared and released for public comment in 2023; it is unknown when it will be finalized (B.C. Ministry of Forests 2023, entire).

In Alberta, grizzly bears were listed as threatened in 2010, under Alberta’s Wildlife Act (Alberta Environment and Parks 2020, p. 9). In 2020, Alberta updated their provincial grizzly bear recovery plan that provides the basis for bear conservation and management (Alberta Environment and Parks 2020, entire). The plan identifies recovery zones where the province intends to recover bears, support zones to manage human-wildlife conflict to support the populations within the recovery zones, and linkage zones for dispersal (Alberta Environment and Parks 2020, p. 10).

The proposed grizzly bear DPS contains far fewer bears than Canada, with an estimated population of 2,314 bears as of 2023 (Costello et al. 2024, in prep.; Gould et al.

2024c, in prep.; Kasworm et al. 2024a, p. 43; Kasworm et al. 2024b, p. 21) versus an approximately 29,000 bears in Canada (Service 2024, appendix E, p. 343). Federal protections under the Act have been necessary to reach the current population sizes. Absent adequate conservation measures, human-caused mortality would continue to be a threat to grizzly bears in the proposed grizzly bear DPS because regulatory mechanisms currently in place would not adequately limit sources of human-caused mortality to sustainable thresholds (see “Mortality Limits,” below, for further details). In addition, habitat threats, such as motorized access and habitat security, remain an issue for the NCDE, CYE, SE, and North Cascades, where conservation mechanisms to address these stressors are not yet finalized or standards have not been met (see “Motorized Access,” below, for further details).

*Discreteness Conclusion*—Based on our analysis described above and supported by information in the grizzly bear SSA report (Service 2024, entire), the contiguous U.S. population segment of grizzly bear meets the discreteness criterion in our DPS Policy (61 FR 4722, February 7, 1996). It is delimited by the international boundary with Canada, given the differences in control of exploitation and conservation status that are significant in light of section 4(a)(1)(D) of the Act. After determining that a vertebrate population is discrete, we are required to complete an analysis to determine if the population in question is significant pursuant to our DPS Policy; that analysis follows.

#### Analysis of Significance

If we determine a population segment is discrete, we will then consider its biological and ecological significance in light of Congressional guidance that the authority to list DPSs be used sparingly while encouraging the conservation of genetic



diversity. In carrying out this examination, we consider available scientific evidence of the population's importance to the taxon to which it belongs. Therefore, in this case, we consider the significance of the proposed grizzly bear DPS to the entire subspecies (i.e., *Ursus arctos horribilis*). Our DPS Policy states that this consideration may include, but is not limited to: (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 the 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. Below, we address considerations 1, 2, and 4. Consideration 3 does not apply to the proposed grizzly bear DPS because grizzly bears are distributed widely across Alaska and Canada.

Given the grizzly bear's historical occupancy of the lower-48 States, grizzly bear recovery in the lower-48 States has long been viewed as important to the taxon (40 FR 31734, July 28, 1975). As discussed further in our SSA report (Service 2024, pp. 231–264), the proposed DPS is significant because of the resiliency, redundancy, and representation it would provide to the taxon. Resiliency allows a species to recover from periodic disturbance and environmental variation. A species is more resilient if large populations exist in high-quality habitat that is distributed throughout the range of the species in such a way as to capture the environmental variability found within the range of the species. The wide geographic area over which grizzly bears in the proposed grizzly bear DPS exist extends the geographic distribution of the subspecies and increases the

viability of grizzly bears in all of North America by making it less likely that an environmental disturbance or stochastic event would impact the entire subspecies. For example, grizzly bears in the proposed grizzly bear DPS would be less vulnerable than more northerly populations to a wildfire or a disease outbreak that originated in northern B.C. Additionally, with stark declines of grizzly bears across North America from 1850–1975, the fact that remnant populations exist in these ecosystems today demonstrates that these areas serve as refugia against human-caused mortality. For these reasons, the proposed grizzly bear DPS contributes to the resiliency of the subspecies in North America.

Redundancy of populations may be needed to provide a margin of safety for the species to withstand catastrophic events. The idea is to conserve enough areas of the range such that random catastrophes in the system act on only a few populations. In terms of redundancy, we view the proposed grizzly bear DPS as important because it ensures there are additional (i.e., redundant) populations outside of the large, contiguous populations in Canada and Alaska. Collectively, the multiple grizzly bear populations and habitat units provide a margin of safety to withstand catastrophic events and, thus, meaningfully contribute to the redundancy of grizzly bears in North America.

Representation of populations in multiple ecological contexts increases the likelihood that a species' adaptive potential is conserved. The current distribution of grizzly bear populations in the GYE, NCDE, CYE, and SE, spread across multiple ecoregions, contributes to maintaining the species' adaptive potential. The addition of populations in the BE and North Cascades would contribute to additional ecosystem representation in the proposed grizzly bear DPS.

*Unusual or Unique Ecological Setting*—Grizzly bears occupy a variety of habitats within North America, including coastal meadows and salmon streams, mid-elevation mountain forest communities, alpine grasslands and alpine tundra, western prairies, and tundra (Haroldson et al. 2021, pp. 166–169). In the contiguous United States, grizzly bears exist in ecosystems that range from a maritime climate to forested, mountainous habitat to dry sagebrush and prairie grasslands. Some of the ecoregions inhabited by grizzly bears in the proposed grizzly bear DPS are also present in portions of their occupied range in Canada, including the Northwestern Glaciated Plains, Canadian Rockies, Northern Rockies, and North Cascades. However, multiple ecoregions inhabited by grizzly bears in the contiguous United States are not present in other parts of their range, including the Idaho Batholith (the BE), Middle Rockies (the GYE and NCDE), Great Plains (the NCDE), Wyoming Basin (the GYE), and Snake River Plain (the GYE) (Woods et al. 1999, entire).

Habitats within the proposed grizzly bear DPS provide a diverse landscape of habitat types and bear foods across and within the ecosystems. As discussed in further detail in our SSA report (Service 2024, pp. 46–48, 197–211), grizzly bears are opportunistic omnivores, and diets are highly variable among individuals, seasons, and years, and between ecosystems. Grizzly bears will consume almost any food available, including living or dead mammals or fish, insects, worms, plants, and human-related foods. In areas where animal matter is less available, berries, grasses, roots, bulbs, tubers, seeds, and fungi are important in meeting protein and caloric requirements. In the trans-boundary populations, grizzly bears in the contiguous United States appear to use food resources similar to grizzly bear populations in Canada and Alaska. Unique food

resources, such as bison, may occur in the ecoregions present in the proposed grizzly bear DPS that are not present north of the U.S.-Canada border.

Within the proposed grizzly bear DPS, grizzly bears are unique in their consumption of bison (Mattson 1997, p. 167; Fortin et al. 2013, p. 275; Gunther 2017, in litt.) and in their interactions with wolves to obtain carcasses (Ballard et al. 2003, pp. 261–262; Smith et al. 2003, p. 336; Metz et al. 2012, p. 556). In addition, grizzly bears in the DPS have been documented to consume unique food items such as geothermal soil (Mattson et al. 1999, p. 109) and false-truffles (Fortin et al. 2013, p. 277; Gunther et al. 2014, p. 64). Consumption of these food sources, which are not known to be consumed in other parts of the species' range, is indicative of a unique ecological setting. Although grizzly bears have flexible diets and the availability of the wide variety of foods, the availability and use of unique food resources in certain ecological settings may increase a species' adaptive potential.

In light of data indicating that some grizzly bears in the DPS consume some unique food resources compared to other grizzly bear populations, where we have considerable information about the taxon's diet, we consider the proposed grizzly bear DPS to meet the DPS Policy standard for significance based on its persistence in an ecological setting unusual or unique for the taxon.

*Significant Gap in the Range of the Taxon*—Historically, grizzly bears were distributed throughout the North American Rockies from Alaska and Canada, and south into central Mexico. During the late 1800s and early 1900s, grizzly bear populations declined or were extirpated from most of the southern portions of their historical range and the Canadian plains (Schwartz et al. 2003, pp. 557–558). Grizzly bear populations

have since increased in size and range in parts of the contiguous United States, and the current estimated occupied range includes portions of Idaho, Montana, Washington, and Wyoming (Service 2024, figure 17). Although we have verified increasing numbers of outlier observations between the estimated occupied ranges, there are no known populations outside those in the GYE, NCDE, CYE, and SE (see figure 1, above).

The current estimated occupied range of grizzly bears in the contiguous United States covers approximately 152,643 km<sup>2</sup> (58,936 mi<sup>2</sup>) (Costello et al. 2023, p. 14; Dellinger et al. 2023, p. 23; Kasworm et al. 2024a, p. 74; Kasworm et al. 2024b, p. 50; Service 2024, figure 17). This estimate does not include low-density outlying locations and represents a minimum known area of occupancy, not an extent of occurrence. The loss of this estimated occupied range would move the southern terminus of the subspecies' distribution approximately 6.5 degrees latitude (725 km (450 mi)) to the north.

The extirpation of peripheral populations is concerning because of the potential conservation value that peripheral populations can provide to the subspecies (Lesica and Allendorf 1995, p. 756; Fraser 1999, p. 50; Bunnell et al. 2004, p. 2242). Specifically, peripheral populations can possess slight genetic or phenotypic divergence from the core populations, which may be central to the survival of the subspecies in the face of environmental changes (Lesica and Allendorf 1995, p. 756; Bunnell et al. 2004, p. 2242). Therefore, we find that the proposed grizzly bear DPS meets the significance criterion under our DPS Policy because its loss would represent a significant gap in the range of the taxon.

*Marked Genetic Differences*—Several studies have documented genetic differences between some grizzly bears in the proposed grizzly bear DPS, including the GYE and SE, and other populations in North America, as evidenced by lower heterozygosity (i.e., lower level of genetic diversity within a population) (Paetkau et al. 1998, pp. 421–424; Waits et al. 1998, p. 310; Proctor et al. 2012, p. 12). However, the lower genetic diversity likely reflects recent population fragmentation rather than natural separation of populations that were on divergent evolutionary trajectories. Therefore, it is unknown if grizzly bears in the grizzly bear DPS possess unique genetic traits that evolved in response to the environment in the grizzly bear DPS such that they would meaningfully contribute to the survival of the subspecies. Therefore, we do not consider these genetic differences to meet the DPS Policy’s standard for significance.

*Summary of Significance*—We evaluated whether the discrete population segment of grizzly bears in the contiguous United States is significant, considering factors such as whether the population segment is in an ecological setting unusual or unique for the taxon; whether the loss of the discrete population segment would result in a significant gap in the range of the taxon; whether 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 historical range; or whether the discrete population segment differs markedly from other populations of the species in its genetic characteristics. We conclude that the grizzly bear DPS is significant because it occurs in an ecological setting unusual or unique for the subspecies and its loss would result in a significant gap in the range of the subspecies.

DPS Conclusions

Based on the best available information, we conclude that the grizzly bear DPS is discrete and significant in relation to the remainder of the subspecies in North America. As a result, the grizzly bear DPS meets the definition of a species under section 3(16) of the Act (16 U.S.C. 1532(16)) and therefore is a listable entity.

Where, as here, a vertebrate population is both discrete and significant under our DPS policy, we evaluate the conservation status of the population based on the factors enumerated at section 4(a) of the Act to determine whether it meets the definition of an endangered species or a threatened species. Below, we provide a status determination for the grizzly bear DPS.

## **Regulatory and Analytical Framework**

### *Regulatory Framework*

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for endangered and threatened species. The Act defines an “endangered species” as a species that is in danger of extinction throughout all or a significant portion of its range, and a “threatened species” as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether any species is an endangered species or a threatened species because of any of the following factors:

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

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

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

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

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term “threat” to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term “threat” includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term “threat” may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an “endangered species” or a “threatened species.” In determining whether a species meets either definition, we must evaluate all identified threats by considering the species' expected response and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a



whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the Act's definition of an "endangered species" or a "threatened species" only after conducting this cumulative analysis and describing the expected effect on the species.

The Act does not define the term "foreseeable future," which appears in the statutory definition of "threatened species." Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis which is further described in the 2009 Memorandum Opinion on the foreseeable future from the Department of the Interior, Office of the Solicitor (M-37021, January 16, 2009; "M-Opinion," available online at <https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/M-37021.pdf>). The foreseeable future extends as far into the future as the U.S. Fish and Wildlife Service and National Marine Fisheries Service (hereafter, the Services) can make reasonably reliable predictions about the threats to the species and the species' responses to those threats. We need not identify the foreseeable future in terms of a specific period of time. We will describe the foreseeable future on a case-by-case basis, using the best available data and taking into account considerations such as the species' life-history characteristics, threat-projection timeframes, and environmental variability. In other words, the foreseeable future is the period of time over which we can make reasonably reliable predictions. "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.

*Analytical Framework*

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the species, including an assessment of the potential threats to the species. The SSA report does not represent our decision on whether the species should remain listed as a threatened species, reclassified to an endangered species, or delisted under the Act. However, it does provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies.

The SSA report summarizes the results of our comprehensive viability analysis for the currently listed entity, the grizzly bear in the lower-48 States, which comprises all six ecosystems proposed for the grizzly bear DPS (Service 2024, entire). The six ecosystems are the foundation for the SSA analysis and are the scale at which we evaluated threats, the health of populations, and the species' overall viability. As a result, the SSA report's analysis provides the best scientific and commercial data available regarding the viability of the proposed grizzly bear DPS. Because the scales are the same, in the following summary, we replace "grizzly bear in the lower-48 States" from the SSA report with "grizzly bear DPS" for the purposes of this discussion.

To assess the viability of the grizzly bear DPS, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency is the ability of the grizzly bear DPS to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years); redundancy is the ability of the grizzly bear DPS to withstand catastrophic events (for example, droughts, large pollution events); and representation is the ability of the

grizzly bear DPS to adapt to both near-term and long-term changes in its physical and biological environment (for example, climate conditions, pathogens). In general, viability will increase with increases in resiliency, redundancy, and representation (Smith et al. 2018, p. 306). Using these principles, we identified the grizzly bear DPS's ecological requirements for survival and reproduction at the individual, population, and grizzly bear DPS levels, and described the beneficial and risk factors influencing the grizzly bear DPS's viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the individual grizzly bear DPS's life-history needs. The next stage involved an assessment of the historical and current condition of the grizzly bear DPS's demographics and habitat characteristics, including an explanation of how the grizzly bear DPS arrived at its current condition. The final stage of the SSA involved making predictions about the grizzly bear DPS's responses to positive and negative environmental and anthropogenic influences. Throughout all of these stages, we used the best available information to characterize viability as the ability of the grizzly bear DPS to sustain populations in the wild over time, which we then used to inform our regulatory decision.

The following is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at Docket No. FWS-R6-ES-2024-0186 on <https://www.regulations.gov> and at <https://www.fws.gov/species/grizzly-bear-ursus-arctos-horribilis>.

## Summary of Biological Status and Threats

In this discussion, we review the biological condition of the grizzly bear DPS and its resources, and the threats that influence the grizzly bear DPS's current and future condition, in order to assess the grizzly bear DPS's overall viability and the risks to that viability.

### *Grizzly Bear DPS Needs*

Here we summarize, based on the SSA report, what individual grizzly bears in the grizzly bear DPS, need to breed, feed, and shelter. We also summarize the results of our analysis regarding the factors that ecosystems need to be resilient and the factors that grizzly bears in the grizzly bear DPS need with respect to redundancy and representation, with greater detail provided in our SSA report (Service 2024, pp. 7, 99–102).

In general, food, water, mates, cover, security, and den sites drive a grizzly bear's habitat needs and daily movements. Grizzly bears in the grizzly bear DPS need access to habitat security (i.e., habitat that is relatively undisturbed by human influence), and habitat that provides cover, high-caloric foods, dens, and areas for dispersal. The specific quality and quantity of these resources influence the ability of individual grizzly bears to reproduce, grow, and survive at different life stages (Service 2024, pp. 100–101). These resources support resilient ecosystems, which may be characterized generally by grizzly bear abundance, population trends, survival rates, fecundity, and connectivity levels sufficient to withstand environmental stochasticity (Service 2024, p. 101). Grizzly bear populations need sufficient qualities and quantities of these habitat and demographic needs to be resilient, both currently and into the future (Service 2024, p. 101).

### *Threats*

As documented in our SSA report, we evaluated stressors (also known as threats) that can negatively affect grizzly bears at the individual, ecosystem, or grizzly bear DPS levels, either currently or into the future (see figure 2, above; Service 2024, pp. 103–228). Although the SSA report is a rangewide analysis for the currently listed lower-48 State entity, we evaluated each stressor at the ecosystem level. A wide variety of stressors may influence the resiliency of the ecosystems, either by directly affecting individuals or by reducing the quality and quantity of habitats. The stressors we evaluated fit into three broad categories: sources of human-caused mortality, those with habitat-related effects, and other stressors. These stressors are interrelated to varying degrees; for example, motorized access influences both habitat availability and human-caused mortality.

The primary stressors (i.e., threats) affecting grizzly bears at both the individual and ecosystem levels are excessive human-caused mortality and human activity that reduces the quality and quantity of habitats (Service 2024, pp. 150–178). We evaluated the following sources of human-caused mortality: management removals; accidental killings (e.g., train and vehicular strikes); mistaken-identity killings; illegal killings; and defense-of-life killings (Service 2024, pp. 155–166). We analyzed the following habitat-related stressors: motorized access and its management; developed sites; livestock allotments; mineral and energy development; recreation; vegetation management; habitat fragmentation; development on private lands; and activities that may disturb dens (Service 2024, pp. 110–150). We also evaluated other stressors, including: natural mortality; connectivity and genetic health; changes in food resources; effects of climate change; and stochastic events, such as widespread wildfires, earthquakes, and volcanic

eruptions, some of which could be catastrophic if they occur on a large enough scale (Service 2024, pp. 178–222). With the exception of connectivity and genetic health, we did not find these other stressors to be current or future threats (Service 2024, pp. 223–225). We summarize the primary stressors below, with additional details and analysis provided in our SSA report (Service 2024, pp. 103–228).

## I. Human-Caused Mortality

The primary factor contributing to grizzly bear decline during the 19th and 20th centuries was excessive human-caused mortality, including “indiscriminate illegal killing” and management removals (Leopold 1967, p. 30; Koford 1969, p. 95; Servheen 1990, p. 1; Servheen 1999, pp. 50–52; Mattson and Merrill 2002, pp. 1129, 1132; Schwartz et al. 2003, p. 571). This eventually led to their listing as a threatened species under the Act in 1975 (40 FR 31734, July 28, 1975).

Human-caused mortalities continue to be the leading cause of grizzly bear mortalities rangewide; therefore, understanding and managing for sustainable mortality levels is necessary to facilitate and maintain recovery. We differentiate between types of human-caused mortalities, as follows: (1) accidental killings; (2) management removals; (3) mistaken-identity killings; (4) defense-of-life killings; and (5) illegal killings or poaching. In addition, we use methods described by Cherry et al. (2002, entire) to calculate a statistical estimate of the number of unknown/unreported human-caused mortalities (see “Mortality Limits,” below, for further details). Grizzly bear mortalities may be detected because: the individual is radio-collared, the mortality resulted from a management removal, or it was reported by the public. For all causes of mortality, except management removals, there are unknown/unreported mortalities. Illegal mortalities,

such as poaching, have the lowest rate of reporting (Costello et al. 2016, p. 30). Using the methods described by Cherry et al. (2002, entire) improves our understanding of mortality levels, but that study (Cherry et al. 2002, entire) was based on a small sample size and does not provide perfect knowledge, particularly of mortalities in connectivity areas where we do not have radio-collared bears for research. Table 1 provides a summary of the numbers of human-caused mortality, and a discussion for each ecosystem follows.

Table 1—Number of grizzly bear mortalities by causes in the GYE, NCDE, CYE, and the U.S. portion of the SE, 2002–2023. Mortalities in the GYE and NCDE are reported inside and outside the demographic monitoring area (DMA) and include all known and probable mortalities for independent-age bears; mortalities of dependent young are displayed in parentheses. Mortalities in the CYE and SE include independent-age and dependent young and are reported within the recovery zone (RZ) plus a 10-mile buffer, excluding Canada.

Cause of Mortalities (all sources)	GYE: Inside DMA	GYE: Outside DMA	NCDE: Inside DMA	NCDE: Outside DMA	CYE: Inside RZ	SE: Inside RZ
<b>Natural</b>	42 (100)	1 (5)	11 (14)	0 (3)	9	4
<b>Undetermined<sup>a</sup></b>	54 (12)	2 (1)	30 (5)	3 (1)	4	0
<b>Human-caused</b>	433 (119)	163 (29)	357 (162)	48 (27)	34	18
<b>Total mortalities</b>	<b>529 (231)</b>	<b>166 (35)</b>	<b>398 (181)</b>	<b>51 (31)</b>	<b>47</b>	<b>22</b>
<b>Human-caused mortalities<sup>b</sup></b>						
<b>Accidental</b>					3	2
<b>Automobile collision</b>	42 (15)	5 (0)	45 (45)	8 (4)		
<b>Capture related</b>	8 (5)	0 (2)	9 (5)	1 (0)		
<b>Drowning</b>	0 (0)	6 (2)	0 (0)	1 (0)		
<b>Poisoning</b>	1 (0)	0 (0)	2 (0)	0 (2)		
<b>Train collision</b>	0 (0)	0 (0)	22 (18)	2 (2)		
<b>Defense-of-life</b>	134 (60)	15 (4)	49 (20)	5 (6)	6	2
<b>Illegal <sup>c</sup></b>	27 (6)	4 (1)	67 (15)	12 (5)	7	2
<b>Management removal</b>					2	4
<b>Site conflicts/human safety<sup>d</sup></b>	101 (27)	56 (12)	56 (33)	4 (4)		
<b>Injured or diseased bear</b>	2 (5)	0 (3)	9 (7)	1 (1)		
<b>Livestock depredation</b>	91 (1)	70 (5)	62 (15)	13 (2)		
<b>Augmentation <sup>e</sup></b>	0 (0)	0 (0)	15 (0)	0 (0)		
<b>Mistaken identification</b>	27 (0)	7 (0)	16 (2)	0 (0)	4	5
<b>Unknown<sup>f</sup></b>	0 (0)	0 (0)	5 (2)	1 (1)	12	3

<sup>a</sup> Under investigation and believed to be human-caused

<sup>b</sup> Orphaned dependent offspring were classified according to cause of death of their mother.

<sup>c</sup> Illegal includes poaching, malicious, and defense-of-property kills.

<sup>d</sup> Site conflicts/human safety include anthropogenic food and property damage-related management removals in the front- and backcountry.

<sup>e</sup> When bears are relocated from the NCDE to augment the CYE population, they are counted as mortalities in the NCDE.

<sup>f</sup> Cause unknown and may include mortalities that are under investigation.

*Human-caused Mortality in the GYE*—From 2002 to 2023, 82 percent (433) of the 529 known and probable grizzly bear mortalities of independent-age bears and 52 percent (119) of the 231 known and probable mortalities for dependent young within the GYE demographic monitoring area (DMA) were human-caused (Gould 2024, in litt.; table 1). For further details see *Human-Caused Mortality in the GYE* in the SSA report (Service 2024, pp. 154–155). Although the number of human-caused mortalities of independent female and male grizzly bears have increased gradually over this time period



as the grizzly bear population increased, human-caused mortality as a proportion of estimated population size (i.e., the rate of mortality) has remained relatively constant (Gould 2024, in litt.). Under current management, including protections of the Act, human-caused mortality rates have been low enough to allow the GYE grizzly bear population to increase in number and range (Schwartz et al. 2006b, pp. 64–66; Schwartz et al. 2006c, p. 48; Bjornlie et al. 2014, p. 184). In addition, 98 percent (163) of the 166 known and probable grizzly bear mortalities of independent-age bears and 83 percent (29) of the 35 known and probable mortalities of dependent young that occurred outside the DMA were human-caused (Gould 2024, in litt.). Approximately 36 percent of estimated occupied range occurs beyond the DMA (Dellinger et al. 2023, p. 23). We do not have an estimate for the number of grizzly bears ecosystem-wide, and mortality limits absent protections of the Act do not apply outside of the DMA (see *Mortality Limits in the GYE*, below).

*Human-caused Mortality in the NCDE*—From 2002 to 2023, 90 percent (357) of the 3987 known and probable grizzly bear mortalities of independent-age bears and 90 percent (162) of the 181 of known and probable grizzly bear mortalities of dependent young within the NCDE DMA were human-caused (MFWP, unpublished data; table 1). In addition to the categories of human-caused mortalities discussed above, legal hunting of grizzly bears (i.e., for recreational purposes) was allowed in the NCDE from 1975 until 1991, under a rule authorizing take in the 1975 listing (40 FR 31734, July 28, 1975). For further details, see *Human-Caused Mortality in the NCDE* in the SSA report (Service 2024, pp. 155–156).

While human-caused mortalities of grizzly bears have increased gradually each year as the grizzly bear population has increased, the level of these mortalities as a proportion of the estimated population size (i.e., mortality rate) has remained relatively constant (MFWP, unpublished data). Under current management, including protections of the Act, human-caused mortality rates have been low enough to allow the NCDE grizzly bear population to increase in number and range (Costello 2019, in litt.; MFWP, unpublished data). In addition, 94 percent (48) of the 51 known and probable grizzly bear mortalities of independent-age bears and 87 percent (27) of the 31 known and probable mortalities of dependent young that occurred outside the DMA were human-caused (MFWP, unpublished data). Approximately 29 percent of estimated occupied range occurs beyond the DMA (MFWP, unpublished data). Although the population estimate includes the entire NCDE population, mortality limits absent protections of the Act do not apply outside of the DMA (see *Mortality Limits in the NCDE*, below).

*Human-caused Mortality in the CYE, SE, BE, and North Cascades*—From 2002 to 2023, 72 percent (34) of the 47 known and probable grizzly bear mortalities in the CYE were human-caused (Kasworm et al. 2024a, pp. 18–19; table 1). We recognize that some grizzly bears in the CYE and SE have home ranges that overlap the international border; however, it is most appropriate to discuss human-caused mortality for the U.S. portion of the SE because that is the area encompassed by the currently-listed entity and the proposed grizzly bear DPS. From 2002 to 2023, 82 percent (18) of the 22 known and probable grizzly bear mortalities in the U.S. portion of the SE recovery zone were human-caused (Kasworm et al. 2024b, pp. 14–15). There have been no known, human-caused mortalities in the North Cascades since 1967; however, the last verified sighting

of a grizzly bear in the North Cascades occurred in 1996. In the BE recovery zone, the last known, human-caused mortality occurred in 1932, and there has only been one verified sighting in the recovery zone since the 1940s, a collared bear from the CYE that spent several weeks in the northern part of the recovery zone in 2019. There have been three known human-caused mortalities inside the grizzly bear DPS outside these recovery zones. For further details, see *Human-Caused Mortality in the CYE, SE, BE, and North Cascades* in the SSA report (Service 2024, pp. 156–157).

### Mortality Limits

Within the GYE and NCDE, States, Tribes, and Federal agencies have adopted management protocols, rules, and regulations that would govern conservation and management of these grizzly bear populations, including human-caused mortality, in the absence of the Act's protections. Mortality limits in the GYE and NCDE apply only within the DMA (see figure 9 in the SSA report; Service 2024, p. 36). Within the CYE, SE, BE, and North Cascades, management protocols, rules, and regulations governing conservation and management of these populations are not yet complete. Our SSA report evaluates the ability of existing regulatory mechanisms to limit human-caused mortality consistent with a recovered population under future scenarios (Service 2024, pp. 245–249).

Independent of the Act, the States of Idaho, Montana, Washington, and Wyoming have regulations that make it illegal to kill a grizzly bear other than for defense-of-life, except for limited circumstances, as described below (Idaho Administrative Code (IAC) rules 13.01.06.100.05 and 13.01.06.300.01; Administrative Rules of Montana (ARM) subchapter 12.9.14; Washington Administrative Code (WAC) at section 220–610–010;

Wyoming Administrative Rules (WAR) 040–0001–67). The States of Idaho, Montana, and Wyoming have additional regulations that would take effect upon delisting that are currently superseded by take prohibitions in the Act. In Idaho, upon delisting, it would be legal to kill a grizzly bear, without a permit, if it is “molesting or attacking livestock or domestic animals” (Idaho Statutes (I.S.) at title 36, chapter 11, section 36–1107(e)). All grizzly bears taken must be reported within 72 hours. In Montana, upon delisting, a livestock owner or other authorized persons would be able to take a grizzly bear at any time without a permit when a grizzly bear is attacking or killing livestock, subject to commission rules (Montana Code Annotated (MCA) at section 87–5–301). Additionally, for delisted ecosystems, Montana Department of Fish, Wildlife and Parks would be able to issue a kill permit to livestock owners when a grizzly bear is threatening livestock, subject to commission rules (MCA 87–5–301(4)). Montana’s commission rules were incorporated into law in December 2023; the commission must annually set mortality limits for kill permits (MCA 87–5–301(3)(c)). However, these mortality limits would only apply within the DMA. In Wyoming, upon delisting, the Wyoming Game and Fish Commission may establish a hunting season for grizzly bears in accordance with the Tri-State memorandum of agreement (MOA) (WAR 040.0001.67).

*Mortality Limits in the GYE*—Prior to our June 30, 2017, final rule to establish the GYE population as a DPS and delist it (82 FR 30502), in partnership with the States, other Federal agencies, and Tribes in the GYE, we developed a mortality-management framework that outlined sustainable mortality limits within the GYE DMA that would maintain recovery within the GYE DPS in the absence of the Act’s protections. The goal of the framework was to manage the population in the GYE DMA to maintain the

population around the long-term average population size for 2002–2014 of 674 bears (95 percent confidence interval (CI) = 600–747) (using the model-averaged Chao2 population estimate) (Service 2017, entire). Population growth inside the GYE DMA had slowed and stabilized at this population size, and the long-term estimate of 674 bears represented a population that was exhibiting density-dependent effects in the core area of its range (van Manen et al. 2016, entire). To achieve the population goal, mortality thresholds within the DMA were set for independent females, independent males, and dependent young. However, mortality limits did not apply to grizzly bears outside of the DMA, including in potential connectivity areas.

As discussed above in **Previous Federal Actions**, our final rule to establish and delist the GYE population as a DPS (82 FR 30502, June 30, 2017) was vacated and remanded by the U.S. District Court for the District of Montana (*Crow Indian Tribe et al. v. United States et al.*, 343 F. Supp. 3d 999 (D. Mont. 2018)). The Ninth Circuit affirmed the District Court decision vacating and remanding the final rule delisting the grizzly bears in the GYE (*Crow Indian Tribe et al. v. United States et al.*, 965 F.3d 662 (9th Cir. 2020)). As a result, the GYE population is currently listed as threatened as part of the larger listed entity of the grizzly bear in the lower-48 States.

One of the three main issues cited by the District Court in vacating the June 30, 2017, rule was that a commitment to recalibration was necessary and that removal of a commitment to recalibration was not consistent with the best available science as required by the Act (16 U.S.C. 1533(b)(1)(A)). “Recalibration refers to calibrating a new model’s estimates for a given year (e.g., 1,000 bears in 2020) to the Chao2 population estimates generated for the 2002–2014 time period (average of 674 bears) . . . if a new

model estimates 1,000 bears where Chao2 found 700, the [S]tates will be able to treat the jump in population as they would treat it on paper—as if 300 new individuals had moved into the Greater Yellowstone Ecosystem” (*Crow Indian Tribe et al. v. United States et al.*, 343 F. Supp. 3d 999 (D. Mont. 2018)). The GYE conservation strategy, one of two separate delisting recommendations outlined in the recovery plan, is an interagency agreement to ensure that adequate regulatory mechanisms will continue to be present after delisting. The Ninth Circuit found that the Service, “violated the ESA’s directive to make listing decisions ‘solely on the basis of the best scientific and commercial data’, 16 U.S.C. 1533(b)(1)(A), when it failed to include a commitment to recalibration despite the FWS’s acknowledgment that a failure to provide such provision could threaten the Yellowstone grizzlies” (*Crow Indian Tribe et al. v. United States et al.*, 965 F.3d 662 (9th Cir. 2020)).

Beginning with 2022 grizzly bear demographic data, the IGBST began implementing an integrated population model (IPM) to estimate vital rates, population size, and mortality within the GYE population (Gould et al. 2024a, entire). The States have developed a new mortality-management framework using the IPM, which more accurately estimates population size and inherently recalibrates population estimates. In January 2024, the States of Idaho and Wyoming amended the Tri-State MOA to incorporate new commitments to maintain a biologically recovered population, including population objectives, total mortality thresholds, a threshold at which discretionary mortality (the amount of human-caused mortality over which state and Tribal agencies have discretionary authority, such as management removals and regulated harvest) ceases, and reproductive female distribution. The Montana Fish and Wildlife

Commission adopted the Tri-State MOA in June 2024. The Yellowstone Ecosystem Subcommittee (YES) and the Interagency Grizzly Bear Committee (IGBC) approved incorporation of the new commitments into the conservation strategy in May 2024 and June 2024, respectively.

Previously, the 2016 conservation strategy and Tri-State MOA incorporated mortality thresholds to maintain the population within the DMA around the 2002–2014 model-averaged Chao2 population estimate of 674 bears. The 2002–2014 time period was selected because population growth slowed starting around 2000 associated with density-dependent effects, particularly in the core of the ecosystem (Schwartz et al. 2008, entire; van Manen et al. 2016, entire).

Using the IPM, the recalibrated numbers correspond to an IPM population estimate for 2002–2014 of 821. We note that a change point analysis of annual population growth using IPM detected a slowing in annual population growth around 2006 (vs. 2002), with minor population fluctuations around a mean of 1.4 percent since that time. Corresponding population estimates were 805 in 2006, and 1,030 in 2023 (Gould et al. 2024c, in prep.). The amended Tri-State MOA agrees to manage the GYE grizzly bear population in the DMA within or above a range of 800 to 950 grizzly bears (applying the IPM population estimate). At fewer than 800 bears, the Tri-State MOA commits to managing for a population increase above 800, closing hunting, and requesting a biology and monitoring review to determine appropriate management changes, but no interim management triggers exist.

Independent of the Act, all three affected States and the Eastern Shoshone and Northern Arapaho Tribes of the Wind River Reservation (WRR) have enacted regulatory

mechanisms that require State or Tribal authorization for grizzly bear take, with illegal poaching remaining prosecutable under State and Tribal laws because grizzly bears are designated as a game animal (Wyoming Statutes (W.S.) at sections 23–1–101(a)(xii)(A) and 23–3–102(a); MCA at sections 87–2–101(4), 87–1–301, 87–1–304, and 87–5–302; I.S. at title 36, chapters 2 (section 36-202(h)) and 11 (section 36-1101(a)), and IAC at rule 13.01.06.100.05; Idaho's Yellowstone Grizzly Bear Delisting Advisory Team 2002, pp. 18–21; Eastern Shoshone and Northern Arapahoe Tribes 2009, p. 9; Wyoming Game and Fish Department (WGFD) 2016, p. 9; YES 2024, chapter 7; MFWP 2024, p. 13). As discussed above, the States of Montana and Idaho have additional circumstances under which it is legal to take grizzly bears.

*Mortality Limits in the NCDE*—In 2018, we developed a mortality-management framework in partnership with the States, other Federal agencies, and Tribes in the NCDE, to ensure sustainable mortality limits within the DMA to maintain recovery within the NCDE. The agencies agreed to manage mortalities from all sources to support a greater than or equal to 90 percent estimated probability that the grizzly bear population within the DMA remains above 800 individuals, considering the uncertainty associated with the demographic parameters (NCDE Subcommittee 2020, chapter 2; ARM at subchapter 12.9.14 at 12.9.1403). In order to consider this uncertainty, the model that estimates the probability that the population is above 800 individuals incorporates the standard error associated with calculating survival rates for all age/sex classes (e.g., cubs, yearlings, independent males, and independent females) and reproductive parameters (e.g., proportion of females with cubs and litter size). The methods to determine thresholds for independent female survival, independent female mortality, and



independent male mortality that allow achievement of this objective into the future are set forth in the NCDE conservation strategy (NCDE Subcommittee 2020, chapter 2, appendix 3).

The NCDE conservation strategy commits to developing and evaluating additional inputs to the model. Agencies are working to explicitly estimate the proportion of the population that has expanded outside of the DMA in order to exclude those individuals from the population estimate when calculating the mortality thresholds consistent with the probability that the population is above 800 individuals within the DMA (NCDE Subcommittee 2020, p. 238). If the population in the DMA is overestimated because it includes bears that have dispersed outside of the DMA, then the mortality limits are also overestimated. While mortality rates within the DMA were close to thresholds in several years (in 2021 for independent females, and in 2018, 2019, and 2021 for independent males), TRU mortalities as measured on a 6-year average have been below mortality limits since the implementation of this monitoring method in 2018 and are thus likely still sustainable.

The NCDE conservation strategy requires several population parameters to calculate allowable mortality limits that meet the population objective of supporting a greater than or equal to 90 percent estimated probability that the grizzly bear population within the DMA remains above 800 individuals: (1) the 6-year running average for the annual survival rate of independent females; (2) annual mortalities for independent males and females in the DMA (i.e., TRU mortality); and (3) population estimates. These estimates are calculated and reported annually by the Monitoring Team to the NCDE Subcommittee.

Adherence to these survival and mortality thresholds for the DMA is evaluated by the Monitoring Team through continued demographic monitoring, application of stochastic population modeling to track size and trend, and management of mortality of independent female and independent male grizzly bears. The population modeling methods are set forth in detail in appendices 2 and 3 of the NCDE conservation strategy (NCDE Subcommittee 2020) and currently represent the best available science.

The State of Montana and the Blackfeet and Confederated Salish and Kootenai Tribes designated grizzly bears as a game animal and have enacted regulatory mechanisms independent of the Act that authorize grizzly bear take under certain situations, with illegal poaching remaining prosecutable under State and Tribal laws (MCA at sections 87-2-101(4), 87-1-301, 87-1-304, and 87-5-302; Flathead Indian Reservation (FIR) Tribal Ordinance 44D; Blackfeet Tribal Business Council 2018, p. 29; NCDE Subcommittee 2020, chapter 6). As discussed above, the State of Montana has additional circumstances under which it is legal to take grizzly bears.

*Mortality Limits in the CYE and SE*—For the CYE and SE, the mortality limits as set forth in demographic recovery criterion 3 of the recovery plan continue to apply while the species is listed under the Act (Service 1993, pp. 33–34). These mortality limits apply within the recovery zone and a 10-mile buffer around the recovery zone. In 2022, the Selkirk-Cabinet-Yaak Subcommittee convened a technical team to draft a conservation strategy, listing commitments, and policies to ensure that adequate regulatory mechanisms will continue to be present after delisting. The conservation strategy would include the development of a mortality-management framework in partnership with the States, other Federal agencies, and Tribes in the CYE and SE, and is not yet complete.

Therefore, a management framework is not currently in place to ensure mortality is within sustainable thresholds independent of the Act.

*Mortality Limits in the BE*—For the BE, which is not currently occupied, the mortality limits as set forth in demographic recovery criterion 3 of the recovery plan supplement continue to apply while the species is listed under the Act (Service 1996, p. 4). The mortality limits apply within the recovery zone and a 10-mile buffer around the recovery zone. A management framework has not been developed to ensure mortality limits for any potential future population would be within sustainable thresholds independent of the Act.

*Mortality Limits in the North Cascades*—Within the North Cascades, the reintroduced population will be managed as a nonessential experimental population under the section 10(j) rule at 50 CFR 17.84(y) while the species is listed under the Act. The Service has not set specific mortality limits for the North Cascades, though in the near term as that population develops, the intent is to avoid any human-caused mortalities, to the extent practicable (see 89 FR 36982 at 37012, May 4, 2024). Sustainable levels of human-caused mortality were not established in the recovery plan supplement for the North Cascades due to a lack of information for the ecosystem; however, the supplement established a goal of zero known, human-caused mortalities until the “population is large enough to offset some level of human-induced mortality” (Service 1997, pp. 3–4). A management framework has not been developed to ensure mortality is within sustainable thresholds independent of the Act.

Summary of Mortality Limits Within the Grizzly Bear DPS

Human-caused mortality can be a significant threat to grizzly bear populations if not effectively managed. Management frameworks to ensure mortality is within sustainable thresholds independent of the Act are currently only complete and incorporated into regulatory documents for two of the six ecosystems. In addition, there are no regulatory mechanisms to facilitate natural connectivity between grizzly bear populations, which could reduce the potential to improve long-term genetic health of small or isolated populations and natural recolonization of the unoccupied ecosystems. Therefore, without adequate conservation measures, human-caused mortality would continue to be a threat to the grizzly bear DPS.

#### Management Removals

Management removals encompass grizzly bear mortalities resulting from conflicts at developed sites (e.g., bears attracted to anthropogenic food sources), livestock depredation, and other situations where wildlife management agencies consider human life or property threatened by bear presence. Most management removals result from attractant-related conflicts at sites associated with frequent or permanent human presence (i.e., developed sites) and livestock depredations. These conflicts usually involve unsecured attractants, such as garbage, human foods, chickens, pet/livestock foods, bird food, livestock carcasses, wildlife carcasses, barbeque grills, compost piles, orchard fruits, or vegetable gardens. While these mortalities are directly related to unsecured, human attractants, they are also related to human attitudes, knowledge, and tolerance toward grizzly bears. Many of these mortalities can be prevented through changes in human perceptions and actions, including limiting bear access to human-related food sources and increasing human understanding and tolerance towards grizzly bears (see

*Preventative Measures* in the SSA report for further discussion; Service 2024, pp. 167–171). These strategies are outlined in the GYE conservation strategy; the NCDE conservation strategy; and Federal, State, and Tribal information and education (I&E) programs (U.S. Department of Agriculture’s U.S. Forest Service (USDA FS or USFS) 2006b, pp. 16–17; USDA FS 2018b, pp. 80–81; USDA FS 2018c, pp. 1-10, 1-22, 1-34, 1-45; NCDE Subcommittee 2020, chapter 4; YES 2024, chapter 3; Service 2024, pp. 161–171).

Under the Act, management removals of grizzly bears—outside of any areas where bears have been reintroduced as a nonessential experimental population—must be consistent with 50 CFR 17.40(b) (the grizzly bear’s “4(d) rule”). The 4(d) rule sets forth the conditions for legally taking (e.g., removing or relocating) grizzly bears without the need for additional permits under the Act. Anyone may take a grizzly bear constituting an immediate threat to human safety. Grizzly bears taken in self-defense must be reported to the Service’s Office of Law Enforcement. The 4(d) rule allows additional take for bears constituting a demonstrable but non-immediate threat to human safety and for bears committing significant depredations to lawfully present livestock, crops, or beehives (50 CFR 17.40(b)(1)(i)(B) and (C)).

In the GYE DMA, between 2002 and 2023, management removals resulted in 194 mortalities of independent-age bears and 33 mortalities of dependent young, accounting for 45 percent and 28 percent, respectively, of human-caused mortalities (Gould 2024, in litt.). In the GYE outside of the DMA, management removals resulted in an additional 126 mortalities of independent-age bears and 20 mortalities of dependent young (Gould 2024, in litt.). In the NCDE, between 2002 and 2023, management removals resulted in

127 mortalities of independent-age bears and 55 mortalities of dependent young within the DMA, accounting for 36 percent and 34 percent of all human-caused mortalities, respectively (MFWP, unpublished data). In addition, 15 bears in the NCDE were trapped and moved to the CYE for population augmentation. Because these bears were “lost” from the population, they count against the mortality threshold. In the NCDE outside of the DMA, management removals resulted in an additional 18 mortalities of independent-age bears and 7 mortalities of dependent young (MFWP, unpublished data). Management removals resulted in 2 mortalities in the CYE and 4 mortalities in the SE, accounting for 6 percent and 22 percent, respectively, of all human-caused mortalities (Kasworm et al. 2024a, pp. 18–19; Kasworm et al. 2024b, pp. 14–15). For more information about this threat, see *Management Removals* in the SSA report (Service 2024, pp. 158–161).

Multiple measures are in place to reduce livestock conflicts in the GYE and NCDE recovery zones, including phasing out sheep allotments on U.S. Forest Service (USFS) lands, retirement of livestock allotments with recurring conflicts, and livestock grazing permits that include proper food and attractant storage provisions (USDA FS 2006b, pp. 16–17; USDA FS 2018b, pp. 80–81; USDA FS 2018c, pp. 1-10, 1-22, 1-34, 1-45; USDA FS 2018e, p. 64; YES 2024, chapter 3). The GYE and NCDE conservation strategies also recognize that removal of individual conflict bears is sometimes required, as a few individual bears often are responsible for multiple livestock depredations (Jonkel 1980, p. 12; Knight and Judd 1983, p. 188; Anderson et al. 2002, pp. 252–253; YES 2024, chapter 4; NCDE Subcommittee 2020, chapter 4).

Currently, there are four active cattle allotments in the CYE recovery zone on the Kootenai National Forest (NF), three active cattle allotments in the SE recovery zone

(two on the Idaho Panhandle NF and one on the Colville NF), and no active sheep allotments. On the Colville NF, livestock grazing permits include food storage measures, livestock depredation and carcass removal, measures for grizzly bear conflict situations, and closed road access measures (USDA FS 2019, pp. 63, 82). The Kootenai and Idaho-Panhandle NFs have food storage requirements (USDA FS 2015a, pp. 31, 34; USDA FS 2015b, pp. 31, 33). There are only four active allotments in the BE recovery zone (two cattle and two horse on the Salmon-Challis NF). As of 2023, there are 24 cattle and 9 sheep allotments on the Okanogan-Wenatchee NF in the North Cascades recovery zone.

Mortality limits (see discussion above under “Mortality Limits”) must ensure that overall mortality, including management removals, remains within sustainable limits. For the past several decades, States have managed grizzly bear conflicts in cooperation with the Service and consistent with the IGBC guidelines. After delisting, the Service would not be involved in removal decisions, and the IGBC guidelines would no longer apply; therefore, mortality limits that apply to management removals post-delisting are needed. As discussed above, management frameworks to ensure mortality is within sustainable thresholds independent of the Act are currently only complete and incorporated into regulatory documents for two of the six ecosystems. In addition, the CYE, SE, BE, and North Cascades populations have not yet met demographic recovery criteria. Therefore, in the absence of adequate conservation measures, management removals would continue to be a threat to the grizzly bear DPS. For more information about the conservation measures that have ameliorated this threat, see *Management Removals* in the SSA report (Service 2024, pp. 156–159).

## Accidental Killings

Humans kill grizzly bears unintentionally in a number of ways, including vehicle collisions, train collisions, unintentional poisoning, drowning, electrocution, and mortalities associated with research trapping. From 2002 to 2023, there were 51 reported accidental mortalities of independent-age bears and 20 reported accidental mortalities of dependent young inside the GYE DMA, totaling 12 percent and 17 percent, respectively, of human-caused mortality for this time period (Gould 2024, in litt.). In the GYE outside of the DMA, there were an additional 11 reported accidental mortalities of independent-age bears and 4 reported accidental mortalities of dependent young (Gould 2024, in litt.). From 2002 to 2023, 78 reported accidental mortalities accounted for nearly 22 percent of known and probable human-caused mortalities of independent-age bears and 68 mortalities accounted for nearly 42 percent of known and probable human-caused mortalities of dependent young in the NCDE DMA (MFWP, unpublished data). In the NCDE outside of the DMA, there were an additional 12 reported accidental mortalities of independent-age bears and 8 reported accidental mortalities of dependent young (MFWP, unpublished data). From 2002 to 2023, 9 percent (3 of 34) of all human-caused mortalities in the CYE and 11 percent (2 of 18) of all human-caused grizzly bear mortalities in the SE were accidental (Kasworm et al. 2024a, pp. 18–19; Kasworm et al. 2024b, pp. 14–15).

Accidental killings of grizzly bears in the GYE, CYE, and SE populations comprise a small portion of total mortalities and are factored into mortality limits (described in detail above under “Mortality Limits”), which limit their impact on the resiliency of the population. Accidental killings, primarily as the result of automobile and



train collisions, have constituted a higher portion of mortalities in the NCDE. Therefore, in the absence of preventative measures, accidental killings would continue to be a threat to the grizzly bear DPS. For more information about this threat, see *Accidental Killings* in the SSA report (Service 2024, pp. 161–163).

#### Mistaken-identity Killings

Mistaken-identity mortalities include mistaken identification by black bear hunters and mortalities that result from wolf and black bear hunting and trapping. Mistaken-identity killings are both accidental and illegal. Twenty-seven mortalities (7 percent of human-caused mortality) of independent-age bears were associated with mistaken identification of grizzly bears by black bear hunters within the GYE DMA from 2002 to 2023 (Gould 2024, in litt.). An additional seven mortalities of independent-age bears were associated with mistaken identification of grizzly bears by black bear hunters in the GYE outside of the DMA (Gould 2024, in litt.). Mistaken identification of grizzly bears by black bear hunters accounted for 4 percent (16 of 356) of human-caused grizzly bear mortalities of independent-age bears and 1 percent (2 of 162) of human-caused grizzly bear mortalities of dependent young in the NCDE DMA from 2002 to 2023. There were no mortalities associated with mistaken identification of grizzly bears by black bear hunters in the NCDE outside of the DMA (MFWP, unpublished data). From 2002 to 2023, mistaken identification killings of grizzly bears by black bear or other hunters (on one occasion, an elk hunter mistakenly killed a grizzly bear) accounted for 12 percent (4 of 34) of human-caused mortalities in the CYE and 28 percent (5 of 18) of human-caused grizzly bear mortalities in the SE (Kasworm et al. 2024a, pp. 18–19; Kasworm et al. 2024b, pp. 14–15). In addition, there have been three mistaken

identification killings of grizzly bears outside of the GYE DMAs and NCDE and the CYE, SE, and BE recovery zones, two of which occurred during a hunt in which the hunter used bait. Black bear hunting over bait is allowed in Idaho and Wyoming inside portions of the estimated occupied grizzly bear range of the GYE, CYE, and SE and outside of estimated occupied grizzly bear range in the GYE, CYE, SE, and BE, and has resulted in some mistaken-identity mortality.

The GYE and NCDE Conservation Strategies identify I&E programs targeted at hunters that emphasize patience, awareness, and correct identification of targets to help reduce grizzly bear mortalities by inexperienced black bear and ungulate hunters (YES 2024, chapter 5; NCDE Subcommittee 2020, chapters 1 and 4). Mistaken-identity killings of grizzly bears in the GYE and NCDE populations comprise a small portion of total mortalities and are factored into total mortality limits (described above in detail in “Mortality Limits”), and I&E programs aimed at preventing mistaken-identity killings limit potential risks to the GYE and NCDE grizzly bear populations from this stressor. Reducing this source of human-caused mortality is especially desirable in the CYE and SE due to the small population size, in the BE and North Cascades where there are currently no known populations, and in potential connectivity areas between the ecosystems.

Wolf trapping and snaring and black bear hunting have the potential to incidentally take grizzly bears. We have documented one mortality as the result of wolf snaring in the GYE DMA. In addition, one of the grizzly bears mistakenly killed by a black bear hunter in the CYE had a neck snare around its neck that may have ultimately killed the bear had it not been shot. Recent legislation in Montana and Idaho expanding

hunting and trapping tools available for wolves and black bears will likely increase incidental take of grizzly bears. Reporting of all target and non-target trapped wildlife is required, and grizzly bear mortalities from these sources would count towards allowable mortality thresholds. However, there may be some mortalities that go unreported due to unknown mortalities/injuries resulting from grizzly bears breaking away from the site with the snare and/or trap still attached.

In Idaho and Montana, regulations allow the commission to issue emergency closures of any hunting season (I.S. at title 36, chapter 1, section 36-104(b); MFWP 2023a, p. 2; MFWP 2023b, p. 15). There are measures in place to limit potential incidental take, including prohibiting black bear hunting in most of the estimated occupied grizzly bear range in Montana and delaying Montana's wolf season in grizzly bear occupied range until most grizzly bears have entered the den based on radio-collar data and field reports. However, measures to limit incidental take inside grizzly bear occupied range in Idaho are minimal, and measures to limit incidental take outside of occupied grizzly bear range in Montana are also minimal. This is important because, over the last several years, we have verified numerous bears dispersing outside the occupied range and through potential connectivity areas between the GYE and NCDE populations. There are no grizzly bear mortality limits in areas outside of the DMAs for the GYE and NCDE populations or in the CYE and SE populations; therefore, the number of grizzly bears that might be killed incidental to wolf and black bear hunting and trapping in these areas would not be limited. Incidental take of grizzly bears in these areas could reduce the potential for natural connectivity between the populations in the GYE, NCDE, CYE, SE, and BE, which could harm the long-term genetic health of grizzly bears. Therefore, in the

absence of preventative measures, mistaken-identity killings would continue to be a threat to the grizzly bear DPS. For more information about this threat, see *Mistaken-Identity Killings* in the SSA report (Service 2024, pp. 164–167).

### Illegal Killings

We define poaching as intentional, illegal killing of grizzly bears or the deliberative concealment of an unintentional killing of grizzly bears. People may illegally kill grizzly bears for several reasons, including a general perception that grizzly bears in the area may be dangerous, frustration over livestock depredations, or to protest land-use and road-use restrictions associated with grizzly bear habitat management (Servheen et al. 2004, p. 21). We are aware of at least 27 illegal killings of independent-age bears and 6 illegal killings of dependent young in the GYE DMA between 2002 and 2023 (Gould 2024, in litt.). This constituted 6 percent of human-caused mortalities of independent-age bears and 5 percent of human-caused mortalities of dependent young from 2002 to 2023. We are aware of an additional four illegal killings of independent-age bears and one illegal killing of a dependent-age bear in the GYE outside of the DMA (Gould 2024, in litt.). From 2002 to 2023, at least 67 illegal killings of independent-age bears and 15 illegal killings of dependent bears occurred within the NCDE DMA, constituting nearly 19 percent and 9 percent of human-caused mortalities, respectively (MFWP, unpublished data). We are aware of an additional 12 illegal killings of independent-age bears and 5 illegal killing of dependent-age bears in the NCDE outside of the DMA (MFWP, unpublished data). From 2002 to 2023, at least 7 illegal killings occurred in the CYE, constituting 21 percent of human-caused grizzly bear mortalities (Kasworm et al. 2024a,

pp. 18–19). Two illegal killing, including one neck snare, occurred in the SE from 2002 to 2023 (Kasworm et al. 2024b, pp. 14–15).

I&E campaigns (described in detail in *Preventative Measures* in the SSA report; Service 2024, pp. 167–178) are used to reduce the potential threat of poaching. These programs address illegal killing by working to change human perceptions and beliefs about grizzly bears and to increase tolerance for restrictions on Federal lands designed for grizzly bear protection (Servheen et al. 2004, p. 27). Poaching still occurs; however, these mortalities are factored into total mortality limits (described above in detail in “Mortality Limits”), which limits their impact on population resiliency. However, in the absence of preventive measures, illegal killings would continue to be a threat to the grizzly bear DPS. For more information about this threat, see *Illegal Killings* in the SSA report (Service 2024, pp. 167–168).

#### Defense-of-life Killings

Grizzly bears may be legally taken in self-defense or in defense-of-others while listed (50 CFR 17.40(b)(1)(i)(B)). In the GYE DMA, from 2002 to 2023, 31 percent (134 of 433) of human-caused mortalities of independent-age bears and 50 percent (60 of 119) of human-caused mortalities of dependent young were self-defense or defense-of-other-person kills (Gould 2024, in litt.). An additional 15 defense-of-life killings of independent-age bears and 4 defense-of-life killings of a dependent-age bear occurred in the GYE outside of the DMA (Gould 2024, in litt.). In the NCDE DMA, nearly 17 percent (49 of 357) of human-caused grizzly bear mortalities of independent-age bears and 12 percent (20 of 162) of human-caused mortalities of dependent young were defense-of-life kills (MFWP, unpublished data). An additional five defense-of-life

killings of independent-age bears and six defense-of-life killings of a dependent-age bear occurred in the NCDE outside of the DMA (MFWP, unpublished data). In the CYE, nearly 18 percent (6 of 34) of human-caused mortalities were from defense-of-life kills (Kasworm et al. 2024a, pp. 18–19). Two defense-of-life killings occurred in the U.S. portion of the SE from 2002 to 2023 (Kasworm et al. 2024b, pp. 14–15). Many of these self-defense situations occurred during surprise encounters, at hunter-killed carcasses or gut piles, or when packing out carcasses.

By promoting the use of bear spray and continuing I&E programs pertaining to food and carcass storage and retrieval, risks to hunters can be substantially reduced and many of these grizzly bear deaths can be avoided. Defense-of-life mortalities will always occur with a species that can pose a threat to humans; however, they are factored into mortality limits (see discussion above under “Mortality Limits”), and this source of mortality is not a limiting factor on the resiliency of grizzly bear populations in the grizzly bear DPS. For more information about this threat, see *Defense-of-Life Killings* in the SSA report (Service 2024, p. 168).

#### Legal Hunting

Aside from a limited hunt in the NCDE from 1975 to 1991, legal hunting of grizzly bears has not been allowed in the lower-48 States since grizzly bears in the lower-48 States were listed as a threatened species under the Act in 1975 (40 FR 31734, July 28, 1975). Legal hunting of grizzly bears was allowed in the NCDE from 1975 until 1991, under a rule authorizing take in the 1975 listing (40 FR 31734 at 31736, July 28, 1975). During this time, recreational hunting accounted for 50 percent of human-caused

mortality in the NCDE (124 of 249). The rule allowing a limited hunt in the NCDE was removed in 1992 (57 FR 37478, August 19, 1992).

Independent of the Act, the States of Idaho, Montana, Washington, and Wyoming, and the Blackfeet and Confederated Salish and Kootenai Tribes have enacted regulatory mechanisms that require State or Tribal authorization for grizzly bear take, with illegal poaching remaining prosecutable under State and Tribal laws (I.S. at title 36, chapters 2 (section 36–202(h)) and 11 (section 36–1101(a)); IAC rules 13.01.06.100.05 and 13.01.06.300.01; MCA at sections 87–2–101(4), 87–1–301, 87–1–304, and 87–5–302; W.S. at sections 23–1–101(a)(xii)(A) and 23–3–102(a); FIR Tribal Ordinance 44D; Blackfeet Tribal Business Council 2018, p. 29; NCDE Subcommittee 2020, chapter 6; WAC at section 220–610–010).

Legal hunting is one source of discretionary mortality (described in detail above in “Mortality Limits”) that would be regulated by mortality limits in the absence of the Act’s protections. Hunting would not occur in Montana for a minimum of 5 years after delisting (ARM subchapter 12.9.14 at 12.9.1413). However, management frameworks to ensure mortality is within sustainable thresholds independent of protections of the Act are currently only complete and incorporated into regulatory documents for two of the six ecosystems. In addition, mortality limits in the GYE and NCDE do not apply to grizzly bears outside of the DMAs, including in potential connectivity areas. Therefore, in the absence of such management frameworks, we anticipate that hunting would be a threat to the grizzly bear DPS.

## II. Habitat Destruction and Modification

The most crucial element in grizzly bear recovery is habitat that is diverse, provides a wide range of foods, and is isolated from development and human activities, where human-bear interactions, which often result in higher bear mortalities, are minimal (Service 1993, p. 21; Craighead and Mitchell 1982, p. 530). In the 1993 recovery plan, the Service found that motorized access posed the most imminent stressor to grizzly bear habitat and recommended that road management be given the highest priority for grizzly bear recovery (Service 1993, pp. 21–22). Motorized access management is an important management tool for grizzly bear populations, as it can increase habitat security, which is crucial for female reproduction, and reduce potential mortalities from human-bear encounters and vehicle strikes.

For this reason, habitat-based recovery criteria for the GYE and NCDE recovery zones include threshold levels for secure habitat (areas with no motorized access), as well as livestock allotments and developed sites, which are also associated with grizzly bear mortalities due to the potential for conflict and resultant management removals (Service 2007a, pp. 2–6; Service 2018, entire; Service 2024, pp. 79–80). For more information on the development of habitat-based recovery criteria, see *Recovery Criteria* in the SSA report (Service 2024, pp. 79–81, 87–88).

For the GYE, secure habitat refers to those areas with no motorized access that are at least 10 acres ( $0.31 \text{ km}^2$  ( $0.016 \text{ mi}^2$ )) in size and more than 500 meters (m) (1,650 feet (ft)) from a motorized access route (road or trail), prescribed footprint of a developed site, or recurring helicopter flight line (USDA FS 2004, p. 18; YES 2024, chapter 3). We established 1998 as the baseline year, the level at which we measure habitat criteria, because the levels of secure habitat and developed sites on public lands remained



relatively constant in the 10 years preceding 1998 (USDA FS 2004, pp. 140–141), and represented a time when the population was increasing at a rate of 4 to 7 percent per year (Schwartz et al. 2006c, p. 48). In addition, levels of motorized routes were decreasing during the years preceding the 1998 baseline year.

For the NCDE, we define secure core habitat as those areas on Federal lands within the analysis area more than 500 m (1,650 ft) from an open or gated motorized access route and at least 2,500 acres (10.1 km<sup>2</sup> (3.9 mi<sup>2</sup>)) in size (Service 2018, pp. 5, 12). We selected 2011 levels (i.e., the “baseline”) as our baseline year because secure core habitat was increasing and motorized route density was decreasing between 2004 and 2011 (NCDE Subcommittee 2020, chapter 1; Service 2018, pp. 24–25), and the NCDE grizzly bear population was increasing at a rate of 2 to 3 percent annually during this time (Mace et al. 2012, p. 124; Mace 2012, in litt.; Costello et al. 2016, p. 2; Service 2018, p. 3).

Although we have not yet developed habitat-based recovery criteria for the remaining ecosystems, some habitat thresholds or protections occur through other mechanisms. For example, the BE recovery zone is 98 percent wilderness. In the CYE and SE, the national forests have implemented motorized access standards to create and protect grizzly bear habitat (USDA FS 2011a, entire). The national forests and NPS within the North Cascades have agreed to a “no net loss” of core areas approach on NPS and USFS-managed lands (USDA FS 1997, entire) to maintain habitat quality necessary to support a self-sustaining grizzly bear population. The Service is currently coordinating with the NPS and USFS through the IGBC North Cascades Subcommittee Technical

Team to review and update the baseline and memorialize the “no net loss” agreement for the North Cascades Recovery Zone (USDA FS 1997, entire).

#### Protected Lands

Protected lands in the form of wilderness areas, proposed wilderness, recommended wilderness, wilderness study areas (WSAs), and inventoried roadless areas (IRAs) can enhance the security of habitat for grizzly bears since these designations protect grizzly bear habitat from new road construction, new oil and gas development, new livestock allotments, and timber harvest (Service 2024, pp. 108–112). These lasting land designations ensure that large proportions of recovery zones and additional areas outside the recovery zones remain secure for grizzly bears into the future without the development of new roads, extractive industries, or other human structures.

Ninety-eight percent of the GYE recovery zone is federally managed land, including all of YNP, as well as portions of GTNP and 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.” In addition, of the 23,131 km<sup>2</sup> (8,931 mi<sup>2</sup>) of suitable habitat in the GYE outside of the recovery zone, 59 percent (13,685 km<sup>2</sup> (5,284 mi<sup>2</sup>)) is managed and protected by the USFS as “protected lands.”

Seventy-eight percent of the NCDE recovery zone is federally managed land, including all of GNP, as well as portions of the Flathead, Helena-Lewis and Clark, Kootenai, and Lolo NFs, and the FIR, and the Blackfoot Indian Reservation. Nearly 67 percent (15,653 km<sup>2</sup> of 23,119 km<sup>2</sup> (6,044 mi<sup>2</sup> of 8,926 mi<sup>2</sup>)) of lands inside the NCDE recovery zone are considered “protected lands.” In addition, five percent (748 km<sup>2</sup> (289

mi<sup>2</sup>) of Zone 1 (the portion of the DMA outside of the recovery zone) is protected as wilderness, WSAs, or IRAs.

Nearly 98 percent of the CYE recovery zone is federally managed land, including portions of the Kootenai, Idaho Panhandle, and Lolo NFs. Within the CYE recovery zone, 44 percent of lands are protected as designated wilderness (Cabinet Mountain wilderness: 379 km<sup>2</sup> (146 mi<sup>2</sup>)) or IRAs (2,568 km<sup>2</sup> (992 mi<sup>2</sup>)). Nearly 79 percent of the SE recovery zone in the United States is federally managed land, including portions of the Idaho Panhandle and Colville NFs. Within the U.S. portion of the SE recovery zone, nearly 38 percent of lands are protected as designated wilderness (167 km<sup>2</sup> (65 mi<sup>2</sup>)), recommended wilderness (60 km<sup>2</sup> (23 mi<sup>2</sup>)), or IRAs (907 km<sup>2</sup> (350 mi<sup>2</sup>)). The BE recovery zone includes about 14,984 km<sup>2</sup> (5,785 mi<sup>2</sup>) of contiguous national forest lands in central Idaho and western Montana, 98 percent (14,840 km<sup>2</sup> (5,730 mi<sup>2</sup>)) of which is designated wilderness. The North Cascades recovery zone is 97 percent public lands, including all of the NCNP Complex, most of the Mount Baker-Snoqualmie and Wenatchee-Okanogan NFs, and the westernmost unit of the Colville NF. Sixty-four percent of the recovery zone is protected as designated wilderness (10,843 km<sup>2</sup> (4,189 mi<sup>2</sup>)) or as IRAs (5,123 km<sup>2</sup> (1,978 mi<sup>2</sup>)). For more information about this conservation measure, see *Protected Lands* in the SSA report (Service 2024, pp. 108–112).

#### Motorized Access

When grizzly bears in the lower-48 States were listed in 1975, we recognized that managing human access to grizzly bear habitat, primarily through management of motorized access, would be the key to effective habitat management. Motorized access, which brings humans and their vehicles into grizzly bear habitats, may influence grizzly

bears indirectly by reducing the quality and quantity of habitat security or directly by disturbing, displacing, or killing individual bears through increased noise, activity, presence, vehicle strikes, or other activities associated with human-caused mortality (figure 2 in the SSA report; Service 2024, pp. 112–122). Managing motorized access to ensure bears have secure areas away from humans is an effective habitat management tool for reducing grizzly bear mortality risk (Nielsen et al. 2006, p. 225; Schwartz et al. 2010, p. 661; Proctor et al. 2019, pp. 19–20).

Within the GYE and NCDE recovery zones, habitat standards that help reduce the potential effects of motorized access have been incorporated into USFS plans and the GYE and NCDE conservation strategies (USDA FS 2006b, entire; USDA FS 2018a, p. 31; USDA FS 2018c, pp. 10–11; NCDE Subcommittee 2020, chapter 3 and appendix 4; YES 2024, chapter 3 and appendix E). These standards include thresholds for habitat security, open motorized route densities, and total motorized route densities and are inventoried and tracked in geographic information system (GIS) databases. Habitat security is measured within bear management subunits, which approximate the annual home range size of adult females. In the GYE, secure habitat averages 85.6 percent throughout the recovery zone and in the NCDE, secure core habitat averages 76.4 percent throughout the recovery zone. These conservation mechanisms have reduced the negative effects of motorized access in the GYE and NCDE populations, and these conservation mechanisms are expected to continue into the future.

In the GYE outside of the recovery zone, the USFS manages 76 percent of suitable habitat and much of these lands are “protected lands” or protected by motorized access standards (USDA FS 2006a, pp. 78, 109; Service 2024, pp. 108–112). In addition,

State and Tribal management plans add another layer of habitat protection in the GYE outside of the recovery zone (Idaho's Yellowstone Grizzly Bear Delisting Advisory Team 2002, p. 10; Eastern Shoshone and Northern Arapaho Tribes 2009, p. 11; WGFD 2016, pp. 18–20; MFWP 2022, p. 54). In areas of the NCDE outside of the recovery zone but inside Zone 1, limitations on open motorized routes apply to lands managed by the USFS, BLM, and Montana Division of Natural Resources Conservation (DNRC) to maintain habitat conditions that existed in 2011 that were compatible with a stable to increasing grizzly bear population. In addition, specific protections within the demographic connectivity areas were identified to support female occupancy and eventual demographic connectivity to the CYE and BE. The Service and partner land management agencies will continue to monitor the effectiveness of these objectives and can modify motorized access management as new information becomes available.

The majority of lands within the CYE and SE recovery zones are managed by the USFS, which has incorporated motorized route density standards into its management plans to effectively provide secure habitat (core) for grizzly bears (USDA FS 2011a, entire). However, the USFS is still working on an implementation schedule for the remaining BMUs, four in the CYE and two in the U.S. portion of the SE, to achieve all standards. Although motorized access standards have not yet been determined for the BE recovery zone, the BE recovery zone is more than 98 percent wilderness (see *Protected Areas* in the SSA report for further details (Service 2024, pp. 108–112)), and, therefore, any impact of motorized access on grizzly bears in the BE recovery zone is likely very minimal. In the North Cascades recovery zone, the Federal land management agencies

are currently working to update the baseline and to memorialize the “no net loss” of core areas agreement from 1997 (USDA FS 1997, entire).

Well-managed motorized access provides large proportions of habitat security on Federal lands that helps ameliorate the impacts of displacement and increased human-caused mortality risk in grizzly bear habitat. Motorized access that is well-managed on State, local, or private lands also provides conservation benefits to grizzly bears. A variety of conservation efforts or mechanisms, such as the Wilderness Act (16 U.S.C. 1131 et seq.), IRAs, and Federal land management plans, helps reduce the potential effects of motorized access on the resiliency of ecosystems. Conservation mechanisms to reduce the negative effects of motorized access independent of the Act are currently only in place for two of the six ecosystems. They have not been met or finalized for the remaining four ecosystems or in connectivity areas. The Service and partner land management agencies will continue to monitor the effectiveness of these objectives and can modify motorized access management as new information becomes available. However, in the absence of conservation mechanisms to ameliorate effects of motorized access, motorized access would continue to be a threat to the grizzly bear DPS. For more information about the conservation measures that have ameliorated this threat, see *Motorized Access* in the SSA report (Service 2024, pp. 112–122).

#### Developed Sites

The primary concern related to developed sites is direct mortality from human-bear conflicts, such as those caused by unsecured attractants (e.g., garbage), and resulting management removals (Harding and Nagy 1980, p. 277; McLellan and Shackleton 1988, p. 451; Mattson and Knight 1991, p. 3; Mattson et al. 1992, p. 432; Mace et al. 1996, p.

1403; McLellan et al. 1999, p. 918; Woodroffe 2000, entire; Johnson et al. 2004, pp. 974–975; Service 2024, pp. 120–123). While human-grizzly bear conflicts at developed sites on public lands continue to occur, agencies have successfully worked to reduce conflicts and resulting mortalities. However, human-bear conflicts on private land have been increasing due to expanding grizzly bear distributions and are now more common than those on public lands (Cooley et al. 2018, entire). Secondary concerns include temporary or permanent habitat loss and displacement due to increased length of time of human use and increased human disturbance to surrounding areas (Harding and Nagy 1980, p. 277; McLellan and Shackleton 1988, p. 451; Mattson 1990, entire; White et al. 1999, pp. 3–5; Fortin et al. 2016, pp. 9–19).

In the GYE and NCDE recovery zones, developed sites on public lands are currently inventoried and tracked in GIS databases. Existing regulatory mechanisms ensure that the national parks and national forests will continue to manage developed sites with limited increases in the absence of protections of the Act (USDA FS 2006b, entire; USDA FS 2018b, p. 60; USDA FS 2018c, pp. 1-7, 1-19, 1-31, 1-42; GNP 2024, p. 12; YES 2024, chapter 3; NCDE Subcommittee 2020, chapter 3). In the GYE and NCDE recovery zones, the NPS and the USFS enforce food storage rules aimed at decreasing grizzly bear access to human foods (NCDE Subcommittee 2020, chapter 3; YES 2024, chapters 1 and 3). These regulations, which reduce the potential for human-grizzly bear conflicts, will continue to be enforced and are in effect for nearly all currently occupied grizzly bear habitat on NPS and USFS lands within the GYE and NCDE (NCDE Subcommittee 2020, chapter 3; YES 2024, chapter 1 and 3). The number and capacity of developed sites are subject to limits and commitments in Forest Plans and summarized in

the GYE and NCDE conservation strategy. There are currently no standards or tracking for developed sites inside the CYE, SE, BE or North Cascades. However, the BE, CYE, and North Cascades recovery zones are characterized by large acreage of wilderness areas and IRAs.

Operation and maintenance of developed sites may result in mortality of grizzly bears if interactions result in activities associated with human-caused mortality. Conservation mechanisms to reduce the negative effects of developed sites independent of the Act are currently only in place for two of the six ecosystems. We have not yet developed habitat-based recovery criteria for the CYE, SE, BE, and North Cascades. During that process, we would assess current levels and potential effects of developed sites on grizzly bear populations in the CYE, SE, BE, and North Cascades. In addition, protected areas and other regulations help minimize this stressor in the GYE, NCDE, CYE, SE, BE, and North Cascades. Without conservation mechanisms to ameliorate the effects of developed sites, developed sites would continue to be a threat to the grizzly bear DPS. For more information about this stressor and the conservation measures that have ameliorated this threat, see *Developed Sites* in the SSA report (Service 2024, pp. 122–125).

#### Livestock Allotments

Human-caused mortality resulting from management removals is the main impact to grizzly bears associated with livestock (Service 2024, pp. 125–129). The effects of displacement and direct competition with livestock for forage are considered negligible to grizzly bear populations because, even with direct grizzly bear mortality, current levels of livestock allotments have not precluded grizzly bear population growth and expansion.



Inside the GYE and NCDE recovery zones, regulatory mechanisms limit the impact of livestock allotments to grizzly bears on Federal lands (USDA FS 2006b, entire; USDA FS 2018b, p. 80; USDA FS 2018c, p. 20). Due to the higher prevalence of grizzly bear conflicts associated with sheep grazing, sheep allotments have been phased out as the opportunity arises with willing permittees, and there is only one active sheep allotment remaining within the each of the GYE and NCDE recovery zones as of 2023 (USDA FS 2006b, p. 6; USDA FS 2018d, pp. 468–469; USDA FS 2018e, pp. 138, 256; NCDE Subcommittee 2020, chapter 3; YES 2024, chapter 3; Grizzly Bear Habitat Monitoring Team 2024, in prep.). Existing sheep allotments will continue to be phased out as the opportunity arises with willing permittees (USDA FS 2006b, p. 6; USDA FS 2018c, pp. 1-11, 1-23, 1-35, 1-46; NCDE Subcommittee 2020, chapter 3; YES 2024, chapter 3).

Cattle allotments are numerous in the GYE and NCDE, and occur in lower numbers in the CYE, SE, BE, and North Cascades. Grizzly bear conflicts related to livestock have also been reduced in the GYE and NCDE recovery zones through requirements to securely store and/or promptly remove attractants associated with livestock operations (e.g., livestock carcasses, livestock feed, etc.). In the GYE and NCDE recovery zones, livestock allotments are currently inventoried and tracked in GIS databases (USDA FS 2006b, p. 5; NCDE Subcommittee 2020, chapter 3; YES 2024, chapter 3). Forest plans in the GYE and NCDE also include commitments to continue efforts to reduce grizzly bear conflicts related to livestock through requirements to securely store and/or promptly remove attractants associated with livestock operations (e.g., livestock carcasses, livestock feed, etc.).

There are currently no standards for livestock allotments inside the CYE, SE, BE, and North Cascades. However, the BE, CYE, and North Cascades recovery zones are characterized by large acreages of wilderness areas and IRAs, where the lack of roads limits access and, therefore, limits the areas where livestock are released for grazing.

Habitat-based recovery criteria, which include limits to livestock allotments, are currently only in place for two of the six ecosystems. Protected areas and other regulations help to reduce this stressor in the GYE, NCDE, CYE, SE, BE, and North Cascades; however, development of habitat-based recovery criteria would include an assessment of current levels and potential effects of livestock allotments for the outstanding ecosystems (CYE, SE, BE, and North Cascades). Therefore, in the absence of conservation measures across the range, livestock allotments would continue to be a threat to the grizzly bear DPS. For more information about this stressor and the conservation measures that have ameliorated this threat, see *Livestock Allotments* in the SSA report (Service 2024, pp. 125–129).

#### Energy and Mineral Development

The primary concerns related to mineral and energy development are human-caused mortalities and displacement due to habitat loss (Service 2024, pp. 129–133). Oil and gas development is associated with higher road densities, increased human access, and resultant human-bear encounters and human-caused grizzly bear mortalities (McLellan and Shackleton 1988, pp. 458–459; McLellan and Shackleton 1989b, pp. 377–379; Mace et al. 1996, pp. 1402–1403). Mineral and energy development could also cause displacement and habitat loss. Disturbance in the den could result in increased energetic costs and possibly den abandonment, which could ultimately lead to a decline

in physical condition of the individual or even cub mortality (Swenson et al. 1997, p. 37; Graves and Reams 2001, p. 41). However, den disturbance or abandonment is rarely observed, and there have been no documented cases of such abandonment by grizzly bears in the grizzly bear DPS resulting from energy and mineral development. Inside the GYE and NCDE recovery zones, regulatory mechanisms in place for secure habitat and developed site standards limit the impact of energy and mineral development to grizzly bears (USDA FS 2006b, entire; YES 2024, chapter 3). Management of oil and gas development, and mining, are tracked as part of the developed site standard (NCDE Subcommittee, chapter 3; YES 2024, chapter 3). Because any new mineral or energy development must conform to the secure habitat, developed site, and motorized access standards set forth in the habitat-based recovery criteria and the GYE and NCDE conservation strategies, negative impacts of such development on grizzly bear populations in the GYE and NCDE will be limited.

There are currently no standards or tracking for energy and mineral development inside the CYE, SE, BE or North Cascades. However, motorized access standards in the CYE and SE, the “no net loss” agreement in the North Cascades, and the large wilderness areas and IRAs in the BE, CYE, and North Cascades may help avoid or minimize energy and mineral development effects by de facto increasing habitat security for grizzly bears. The Wilderness Act and other regulations minimize this stressor in the North Cascades, CYE, SE, and BE. Although there are no data or information suggesting energy and mineral development is limiting grizzly bear populations in the CYE, SE, BE, and North Cascades, the potential for disturbance exists, and monitoring will continue to support adaptive management decisions. Therefore, in the absence of minimizing measures across

the range, energy and mineral development may be a threat to the grizzly bear DPS. For more information about this threat, see *Energy and Mineral Development* in the SSA report (Service 2024, pp. 129–133).

## Recreation

Outdoor recreation is increasing across the United States (White et al. 2016, pp. 3–4, 7). The primary concern related to increased recreation is that it may increase the probability of human-grizzly bear encounters, with subsequent increases in human-caused mortality (Mattson et al. 1996, p. 1014; Service 2024, pp. 131–136). In addition, individuals recreating in bear country could cause displacement from high-quality habitat. Developed sites associated with recreation (see “Developed Sites,” above) and motorized recreation (see “Motorized Access,” above) can also directly limit secure grizzly bear habitat. Grizzly bears exhibit a range of responses to non-motorized recreation depending on the age and sex of the bear (Jope 1985, p. 34; Gibeau et al. 2002, p. 232; Ladle et al. 2018, p. 6; Loggers 2022, p. 66), reproductive status (Ladle et al. 2018, p. 6), season (Elmeligi 2016, p. 113), and individual bear behavior (Elmeligi 2016, pp. 131–134; Ordiz et al. 2019, p. 232; Sahlén et al. 2015, p. 7). Although non-motorized trails may cause displacement of individual grizzly bears to varying degrees, grizzly bear mortality related to non-motorized recreation is rare and population-level impacts have not been documented (Jope 1985, pp. 34–36; McLellan and Shackleton 1989a, pp. 270–274; Kasworm and Manley 1990, pp. 81, 84; Mace and Waller 1996, pp. 463–465; White et al. 1999, p. 149). Motorized recreation impacts grizzly bears through increased mortality as a result of human-bear encounters, displacement, habitat loss, and fragmentation (Proctor et al. 2019, p. 18). Recreational hunting (e.g., hunting for elk,

black bears, upland birds) within grizzly bear habitat can also increase the chances of grizzly bear mortalities due to defense-of-life and mistaken-identity killings.

Inside the GYE and NCDE recovery zones, the vast majority of lands available for recreation are accessible through non-motorized travel only (USDA FS 2006a, p. 179; NCDE Subcommittee 2020, chapter 3, figure 7). Motorized recreation during the summer, spring, and fall inside the recovery zone is limited to existing roads under standards in the habitat-based recovery criteria and the GYE and NCDE conservation strategies that restrict increases in roads or motorized trails. Recreation at developed sites, such as lodges, downhill ski areas, and campgrounds, is limited by the developed sites habitat standard described in the habitat-based recovery criteria and the GYE and NCDE conservation strategies. Ongoing I&E efforts at these recreation sites are an important contributing factor to successful grizzly bear conservation and will continue under the GYE and NCDE conservation strategies (YES 2024, chapter 5; NCDE Subcommittee, pp. 103–1-5). Although there are no data or information suggesting recreation is negatively affecting grizzly bear populations in the CYE, SE, BE, and North Cascades, the potential for disturbance exists, and monitoring will continue to support adaptive management decisions. However, we do not have evidence indicating that current levels of recreation are limiting to grizzly bear populations. Therefore, in the absence of the protections of the Act, we do not anticipate that recreation would be a threat to the grizzly bear DPS. For more information about the conservation measures that have ameliorated this threat, see *Recreation* in the SSA report (Service 2024, pp. 133–138).

## Vegetation Management

Depending on the type of project, vegetation management can be beneficial, neutral, or harmful to grizzly bears (Service 2024, pp. 138–141). The building of roads associated with vegetation management projects pose the largest potential threat to grizzly bear populations. Impacts to individual bears from timber management activities are usually temporary in nature. Vegetation management that improves food resources, such as berry producing shrubs, tubers or corms, succulent broadleaves, or grasses, can benefit grizzly bears. Manipulations that can produce these effects occur in the form of prescribed fire, thinning, or timber harvest, but all actions must consider the individual site and desired condition post-treatment.

Vegetation management occurs throughout all six ecosystems on lands managed by the USFS and NPS. Although there are known, usually temporary, impacts to individual bears from timber management activities, these impacts have been adequately minimized using the IGBC guidelines (USDA FS 1986, pp. 6–12) in place since 1986. These impacts will continue to be managed at levels compatible with a recovered grizzly bear population under the GYE and NCDE conservation strategies. These impacts will continue to be largely minimized through motorized access standards in the CYE and SE and the “no net loss” policy in the North Cascades. In addition, the large acreage of wilderness areas and IRAs reduce the effects of vegetation management in the six ecosystems.

Conservation mechanisms to reduce the negative effects of motorized access, which minimize the impacts of vegetation management independent of the Act, are currently only in place for two of the six ecosystems. They have not been met or finalized

for the remaining four ecosystems. Therefore, in the absence of conservation mechanisms across the range, vegetation management may be a threat to the grizzly bear DPS. For more information about the conservation measures that have ameliorated this threat, see *Vegetation Management* in the SSA report (Service 2024, pp. 138–141).

### Habitat Fragmentation

Habitat fragmentation can cause a loss of connectivity and may result from human activities, such as habitat modification, road building, and human developments and settlement (Proctor et al. 2012, p. 23; Lamb et al. 2017, p. 62). Human activities can result in human-caused mortality, such as automobile collisions and management removals, that also cause demographic (i.e., female) fragmentation (Service 2024, pp. 141–143). Long-distance dispersal by males enables immigrants to act as a counter to genetic fragmentation and loss of nuclear genetic diversity (e.g., GYE population) (Proctor et al. 2012, p. 27; Peck et al. 2017, p. 15).

The GYE grizzly bear population is currently a contiguous population across its range, and there are no data to indicate habitat fragmentation within this population is occurring. In other words, there is no indication that human activities are preventing grizzly bears from moving freely within the ecosystem (Service 2024, p. 140).

In the NCDE, human-caused fragmentation has been identified across U.S. Hwy 2/the BNSF (Burlington Northern Santa Fe) Railway's rail line corridor; however, this corridor does not currently prevent demographic and genetic connectivity within the NCDE (Waller and Servheen 2005, pp. 996–998; Mickle et al. 2016b, supplementary table 3). Measures of genetic diversity from the NCDE are similar to those from undisturbed

populations in Canada and Alaska, leading to the conclusion that the NCDE population has high genetic diversity and is sufficiently connected to other populations.

Grizzly bear population fragmentation has occurred, and currently still occurs, between the Yaak and Cabinet Mountains portions of the CYE and is related to human settlement, U.S. Hwy 2, and a busy rail line (Proctor et al. 2018, p. 350). There is recent evidence that some grizzly bear movements between the Yaak and Cabinet Mountains are starting to take place (Kasworm et al. 2024a, p. 34) and functional connectivity within the CYE remains a management objective. There is no indication that similar potential barriers exist within the SE, BE, and North Cascades recovery zones. However, habitat fragmentation resulting from human activities associated with human population growth and increases in recreation may limit connectivity between ecosystems. Therefore, in the absence of measures to allow for connectivity, habitat fragmentation would continue to be a threat to the grizzly bear DPS. Please see *Habitat Fragmentation* in the SSA report for further information (Service 2024, pp. 141–143). See “Private Land Development,” below, for further discussion on potential impacts to connectivity between ecosystems.

#### Private Land Development

Private land development may lead to habitat fragmentation (see “Habitat Fragmentation,” above, for further discussion) (Service 2024, pp. 143–148). Urban and rural sprawl (low-density housing and associated businesses) have resulted in increasing numbers of human-grizzly bear conflicts, with subsequent increases in grizzly bear mortality rates in more human-dominated landscapes. Continued development of private lands will likely lead to further increases in conflicts and mortalities, potentially limiting the grizzly bear’s range and connectivity between ecosystems.



Conservation easements on private lands maintain open lands for wildlife use by protecting against potential future subdivision and development while maintaining traditional land uses. Easements and land trusts can be especially effective at reducing habitat fragmentation and increasing connectivity of secure grizzly bear habitat. In addition to addressing threats from private land development through conservation easement programs, Federal, State, and Tribal wildlife management agencies respond to conflicts on public and private lands. While human-grizzly conflicts occur at developed sites on public lands, most management removals arise from conflicts on private lands (Servheen et al. 2004, p. 21; MFWP, unpublished data).

In the GYE, only 1 percent of the recovery zone and nearly 13 percent of the DMA outside of the recovery zone is privately owned. In the NCDE, 7 percent of the recovery zone and nearly 47 percent of habitat in Zones 1 and 2 are privately owned. In the CYE and SE, nearly 2 percent and 14 percent of habitat within the recovery zone are privately owned, respectively. In the BE, less than 1 percent of habitat within the recovery zone is privately owned. Approximately 3 percent (873 km<sup>2</sup> (338 mi<sup>2</sup>)) of the North Cascades recovery zone is private land. The large areas of public lands protected by Federal legislation (e.g., designated wilderness or IRAs) help to minimize risks posed by human population growth on private lands and ensure that the grizzly bear population will continue to meet recovery criteria. Additional protections are provided by the placement of conservation easements or the purchase of private lands by public agencies (e.g., the Service) or qualified Land Trusts (e.g., The Nature Conservancy, The Vital Ground Foundation). We do not have information to indicate that current levels of private land development are limiting to grizzly bear populations at this time. Monitoring will

continue to assess potential impacts associated with human activities (i.e., human population growth, private land development, and increases in recreation) that may limit connectivity between ecosystems. Therefore, in the absence of conservation measures, private land development may be a threat to the grizzly bear DPS. For more information about this threat, see *Private Land Development* in the SSA report (Service 2024, pp. 143–148).

### III. Connectivity and Genetic Health

The isolation and lack of connectivity between grizzly populations in the lower-48 States was a recognized threat at the time of the original listing (40 FR 31734, July 28, 1975). Although the 1993 recovery plan did not require connectivity for delisting of individual grizzly bear populations, it recognized that natural connectivity between grizzly bear populations would benefit long-term grizzly bear conservation through potential genetic exchange and is necessary for small or isolated populations to sustain themselves at recovery levels (Service 1993, pp. 15, 23–25). Small, isolated populations are vulnerable to extinction from demographic fluctuations resulting from environmental processes (e.g., poor food years, disease, human-caused mortality) and low genetic diversity due to genetic drift and inbreeding. Low genetic diversity can have deleterious effects on fitness and fecundity (Allendorf et al. 1991, p. 651; Burgman et al. 1993, p. 220), and ultimately reduces long-term population viability. Genetic health is typically assessed using a variety of metrics, including effective population size and measures of genetic diversity (e.g., allelic richness, heterozygosity, inbreeding rate).

Connectivity, or dispersal and successful immigration, of males or females enhances genetic diversity and reduces genetic fragmentation (i.e., provides genetic or

demographic connectivity, respectively) (Miller and Waits 2003, pp. 4337–4338; Proctor et al. 2005, pp. 27–28). As few as one to two effective migrants per generation interval can maintain or enhance genetic diversity (Mills and Allendorf 1996, pp. 1510, 1516; Newman and Tallmon 2001, pp. 1059–1061; Miller and Waits 2003, p. 4338).

In the GYE, effective population size and genetic diversity (e.g., allelic richness, heterozygosity, inbreeding rate), in addition to other indicators of genetic health (e.g., reproduction, survival), are monitored by the IGBST for the GYE grizzly bear population (in their entirety: Miller and Waits 2003; Haroldson et al. 2010; Kamath et al. 2015).

Although the GYE is isolated, genetic concerns are not a current threat to the GYE grizzly bear population (Miller and Waits 2003, p. 4338; Kamath et al. 2015, entire).

Recent data indicate an extremely low rate of inbreeding and an increase in the effective population size over the 25-year period of 1982 to 2007, substantially reducing the prospects of potential negative effects associated with isolation of the GYE population in the short term (Kamath et al. 2015, p. 5517). These findings are likely a function of significant growth of the GYE grizzly population during the same 25-year period.

Additionally, other measures of genetic health, such as heterozygosity and allelic richness, have not changed over a similar 25-year time period of 1985 to 2010 (Kamath et al. 2015, p. 5512). The current level of genetic diversity in the GYE grizzly bear population also coincides with robust demographic vital rates (i.e., reproduction, survival) that are fully comparable with other growing or stable brown bear populations in North America (van Manen 2016, in litt.).

Although the potential threat of inbreeding is currently low, the GYE remains isolated, and inbreeding could become an issue in the future without connectivity. The

genetic health and long-term viability of the currently isolated GYE would benefit from one to two effective immigrants from one of the other established grizzly bear populations approximately every generation interval (Mills and Allendorf 1996, pp. 1510, 1516; Newman and Tallmon 2001, pp. 1059–1061; Miller and Waits 2003, p. 4338; Kamath et al. 2015, p. 5517). The IGBST monitors grizzly bear movements and observations, and the IGBST checks for the presence of alleles from grizzly bear populations outside the GYE population (YES 2024, chapter 2). We have not detected any effective migrants into the GYE population to date; however, the 2022 estimated occupied ranges for grizzly bears in the GYE and NCDE were only 98 km (61 mi) apart, within maximum dispersal distances documented for males (Blanchard and Knight 1991, pp. 50, 55; McLellan and Hovey 2001, p. 841; Peck et al. 2017, p. 2), and we have verified several outlier observations between the distributions (see figure 1, above). Nonetheless, successful immigration events will likely remain rare due to distance and barriers (e.g., interstates) unless current distributions continue to expand (Peck et al. 2017, pp. 15–16). Continued expansion of estimated occupied range will increase the likelihood of connectivity (Peck et al. 2017, p. 15). Researchers have modeled potential male and female dispersal pathways between the NCDE and GYE populations (Peck et al. 2017, entire; Sells et al. 2023, entire). These dispersal paths could be used to identify and prioritize conservation efforts that foster connectivity.

The States have committed to genetic monitoring and translocation, if necessary, to address the ability of future GYE grizzly bears to adapt evolutionarily (Hedrick 1995, p. 1004; Miller and Waits 2003, p. 4338). The IGBST also monitors genetic diversity of the GYE grizzly bear population so that a possible reduction in genetic diversity will be

detected and responded to accordingly with translocation of grizzly bears into the GYE population originating from another population in the grizzly bear DPS. A Tri-State MOA commits the States of Idaho, Montana, and Wyoming to translocate at least two grizzly bears from outside the GYE into the GYE by the end of 2025, unless migration from outside the GYE is detected in the interim (YES 2024, chapter 2; Wyoming Game and Fish Commission et al. 2024, p. 5). In July 2024, MFWP, in collaboration with Wyoming Game and Fish Department (WGFD) and YNP, translocated a subadult female and a young adult male from the NCDE to the GYE. While translocation has the potential to improve genetic connectivity and long-term genetic health, it cannot guarantee these needs, as translocated bears may leave the ecosystem or die before reproducing. Translocated bears often exhibit unusual movement patterns, which can increase their mortality risk. Natural connectivity between the GYE population and other populations would improve the chances of long-term genetic health in the GYE. Although natural immigration will likely remain rare, individuals that arrive naturally have a higher probability of remaining in the area and lower mortality risk than translocated individuals.

The NCDE grizzly bear population is genetically diverse, large enough to ensure genetic health, and genetically and demographically well connected to Canadian populations, and there is no indication that the genetic health of the NCDE grizzly bear population is likely to measurably decline in the future. Nevertheless, ongoing genetic sampling and radio telemetry enable scientists to examine movements, genetic diversity, and population structure within the NCDE grizzly bear population (in their entirety:

Kendall et al. 2008; Kendall et al. 2009; Mace et al. 2012; Proctor et al. 2012; Mikle et al. 2016a; Morehouse et al. 2016).

In the CYE, Proctor et al. (2012, entire) used several metrics to evaluate the genetic status and found that genetic diversity in the Yaak portion of the CYE was comparable to other healthy grizzly bear populations in North America. The sample size of native Cabinet bears was insufficient to include in the analysis. Because habitat in the CYE recovery zone can only support a small grizzly bear population, it is important to maintain connectivity with other populations. Multiple individuals (33 males, 3 females) are known to have moved into the Yaak portion of the CYE from the NCDE, SE, and the North Purcells in Canada. Data suggest that the Yaak has experienced gene flow only from B.C. grizzly bear populations. While there is evidence of movement into the Cabinets from the Yaak, NCDE, and the SE, reproduction that would contribute to the genetic health of the population has not been documented for any immigrants. Of additional concern is population linkage between the Yaak and Cabinet portions of this recovery zone, which is split along Hwy 2 (Proctor et al. 2012, p. 12; Kendall et al. 2016, pp. 320–321).

Proctor et al. (2012, entire) found genetic diversity was lower in the SE than in other grizzly bear populations in the grizzly bear DPS and Canada and that the SE grizzly bear population had likely been isolated in the recent past. In recent years, reproduction has been documented from several immigrants to the SE, resulting in an increase in genetic diversity. Telemetry from collared individuals indicates that grizzly bears move freely across the length of the international border in the SE (Kasworm et al. 2024b, pp.

61–79). These changes demonstrate that grizzly bears in the SE are starting to exhibit increased connectivity with other grizzly bear populations.

There are currently no known populations in the BE and North Cascades, and isolation is a concern for any future populations, although of greater concern in the North Cascades than in the BE. Multiple grizzly bears have been confirmed in areas immediately surrounding the BE recovery zone over the last 15 years; they are most likely grizzly bears dispersing from the expanding populations in the GYE and NCDE. In the North Cascades, natural recolonization is unlikely in the near future due to the low numbers of bears in nearby populations and the highly fragmented landscape in between (NPS and Service 2024, p. 7).

As discussed above in “Mistaken-identity Killings,” recent legislation in Montana and Idaho that expands hunting and trapping methods allowed for wolves and black bears could reduce the probability of natural connectivity between the GYE, NCDE, CYE, SE, and BE populations. In addition, there are no mortality thresholds in connectivity areas for grizzly bears taken by livestock owners or for other human-caused mortality, such as management removals (for more information, see “Mortality Limits,” above). The lack of mortality thresholds in connectivity areas may result in a contraction of estimated occupied range, which could decrease the likelihood of successful immigration. Therefore, in the absence of conservation measures, connectivity and genetic health would continue to be a threat to the grizzly bear DPS. For more information about this threat, see *Connectivity and Genetic Health* in the SSA report (Service 2024, pp. 182–197).

#### IV. Food Resources

Grizzly bears are resourceful omnivores that will make behavioral adaptations regarding food acquisition (Schwartz et al. 2014, p. 75). Diets of grizzly bears vary among individuals, seasons, years, and where they reside (Mealey 1980, pp. 284–287; Servheen 1981, pp. 119–123, 127–128; LeFranc et al. 1987, pp. 24–25; Mattson et al. 1991a, pp. 1625–1626; Mattson et al. 1991b, pp. 2433–2434; Felicetti et al. 2003, p. 767; Schwartz et al. 2003, pp. 568–569; Felicetti et al. 2004, p. 499; Koel et al. 2005, p. 14; Costello et al. 2014, p. 2013; Gunther et al. 2014, pp. 66–67), reflecting their ability to find adequate food resources across a diverse and changing landscape.

There are no indications that long-term trends in food availability, other than whitebark pine nuts, cutthroat trout, and salmon, have changed in the GYE, NCDE, CYE, SE, BE, and North Cascades in the last several decades. Although whitebark pine seed production and the availability of cutthroat trout in the Yellowstone Lake area varied dramatically over the last 3 decades due to both natural and human-introduced causes (Reinhart and Mattson 1990, pp. 345–349; Podruzny et al. 1999, pp. 134–137; Felicetti et al. 2004, p. 499; Haroldson et al. 2005, pp. 175–178; Haroldson 2015, p. 47; Teisberg et al. 2014, pp. 375–376), the GYE grizzly bear population has continued to increase and expand during this time period despite these changes in food availability (Schwartz et al. 2006a, p. 66; IGBST 2012, p. 34; Bjornlie et al. 2014, p. 184). While salmon abundance is reduced in the BE and North Cascades compared to historical numbers, several studies have concluded that there are sufficient alternative foods to maintain grizzly bear populations in those ecosystems.

We anticipate that grizzly bears will be able to adapt to any future potential changes in individual food sources because of the great plasticity of grizzly bear diets and



the range of available foods. Thus, the highly omnivorous and flexible diet of grizzly bears will enable the species to adapt to future changes in food availability. It is also clear that grizzly bears can compensate for changes in the availability of food as long as there is sufficient habitat security. Therefore, we do not anticipate changes in food resources to be a threat to the grizzly bear DPS. For more information about this threat, see *Food Resources* in the SSA report (Service 2024, pp. 197–212).

#### V. Potential Effects of Climate Change

We evaluated observed or likely future environmental changes resulting from ongoing and projected changes in climate (Service 2024, pp. 210–217). Effects related to climate change may result in a number of changes to grizzly bear habitat, including a reduction in snowpack levels (McKelvey et al. 2011, entire; Schwartz et al. 2016, p. 317; Livneh and Badger 2020, pp. 453–454), which may shorten the denning season (Leung et al. 2004, pp. 93–94), shifts in denning times (Craighead and Craighead 1972, pp. 33–34; Van Daele et al. 1990, p. 264; Haroldson et al. 2002, pp. 34–35), shifts in the abundance and distribution of some natural food sources (Rodriguez et al. 2007, pp. 41–42), and changes in fire regimes (Nitschke and Innes 2008, p. 853; McWethy et al. 2010, p. 55).

Most grizzly bear biologists in the United States and Canada do not expect habitat changes predicted under climate change scenarios to have significant consequences for grizzly bears (Servheen and Cross 2010, p. 4). Climate change may even make some habitat more suitable and some food sources more abundant (Servheen and Cross 2010, appendix D). In addition, we anticipate that grizzly bears will adapt to any future potential changes in suitable habitat and food sources because they display great diet plasticity and switch foods according to which foods are most nutritious and available

(Servheen 1981, pp. 119–123, 127–128; Kendall 1986, pp. 12–18; Mace and Jonkel 1986, entire; Martinka and Kendall 1986, pp. 21–22; LeFranc et al. 1987, pp. 24–25; Aune and Kasworm 1989, pp. 64–72; Schwartz et al. 2003, pp. 568–569; Edwards et al. 2011, pp. 883–886; Gunther et al. 2014, pp. 65–69). Timing and frequency of human-grizzly bear interactions and conflicts may change (Servheen and Cross 2010, p. 4), and monitoring will continue to support adaptive management decisions. We expect that current conservation plans and strategies with mortality limits will further limit any potential negative effects of climate change on grizzly bears. Therefore, in the absence of the protections of the Act, we do not anticipate potential effects of climate change to be a threat to the grizzly bear DPS. For more information about this threat, see *Potential Effects of Climate Change* in the SSA report (Service 2024, pp. 212–219).

## VI. Stochastic Events

Here, we analyze a number of possible stochastic events, including fire, volcanic activity, and earthquakes, that might reasonably occur in each of the recovery ecosystems within the 30-to-45-year future, to the extent possible (Service 2024, pp. 219–222). Some stochastic events could be catastrophic events if they occur on a large enough scale to rise to the level of affecting the resiliency of an entire population.

Volcanic activity is most relevant for the GYE population given their geographic location; however, fires and earthquakes are the most plausible potential stochastic stressor to all of the ecosystems given their geographic location. Fire is a natural part of all grizzly bear ecosystems. Even though fire frequency and severity may increase with late summer droughts predicted under climate change scenarios (Nitschke and Innes 2008, p. 853; McWethy et al. 2010, p. 55; Whitlock et al. 2017; pp. 123–131, 216,

XXXII), increased frequency of low to moderate severity fires has the potential to improve grizzly bear habitat. The GYE has experienced several large volcanic eruptions in the past 2.1 million years, and such an event would devastate the GYE grizzly bear population (Lowenstern et al. 2005, pp. 1–2). In addition, nonexplosive lava flow eruptions and hydrothermal explosions have occurred over the past 640,000 years (Lowenstern et al. 2005, p. 2). Earthquakes also occur within the region and can impact the surrounding environment through fire damage, rockslides, ground cracks, and changes in ground water (Pardee 1926, entire).

Most catastrophic stochastic events, such as volcanic activity, are unpredictable and unlikely to occur within the biologically meaningful timeframe evaluated in our SSA report (Service 2024, pp. 217–220). Other events that might occur within the future, such as fire and earthquakes, would likely cause only localized and temporary impacts that would not significantly reduce the resiliency of the GYE population. Therefore, no conservation measures are required to ameliorate these stressors, and, in the absence of the protections of the Act, we do not anticipate stochastic events to be a threat to the grizzly bear DPS. For more information about this threat, see *Stochastic Events* in the SSA report (Service 2024, pp. 217–219).

#### *Current Conditions*

As documented in our SSA report, we evaluated the resiliency of each of the six ecosystems, in terms of the habitat and demographic factors needed by the grizzly bear in the grizzly bear DPS (Service 2024, pp. 36–38, 232–247). We developed a categorical model to calibrate resiliency based on a range of conditions for two habitat factors (natural, high-caloric foods, and habitat security) and six demographic factors (adult

female survival, abundance as measured by population targets and number of bears, population trend, reproductive female distribution, inter-ecosystem connectivity, and genetic diversity) (Service 2024, pp. 232–235). We selected these habitat and demographic factors based on their importance to resiliency and because we could evaluate them relatively consistently across all six ecosystems. We then used this categorical model as a key to evaluate resiliency for each ecosystem by systematically evaluating the current condition of each habitat and demographic factor. To calculate an overall score for resiliency, we assigned weighted values to the resiliency categories and then calculated a weighted average of the habitat and demographic factor ranking (Service 2024, p. 234). These scores were then used to classify resiliency in the predefined categories of high, moderate, low, or very low resiliency. Ecosystems with higher resiliency categories are at less risk from potential stochastic events, such as extreme weather events, than ecosystems in lower resiliency categories (Service 2024, p. 234). Our SSA report provides additional detail regarding the methodology we used to evaluate resiliency for each of the six ecosystems (Service 2024, pp. 232–235).

Currently, the GYE population has high resiliency (table 21 in SSA report (Service 2024, p. 237)). A variety of land protections, particularly those that have reduced motorized access, and the availability and diversity of natural foods contribute to the currently high condition of the habitat factors in the GYE (Service 2024, p. 238). Additionally, State, Federal, Tribal, and nongovernmental organization partners have implemented conservation activities and land protections in the GYE that help reduce human-caused mortality and contribute to the large GYE population size (Service 2024, p. 238). In the GYE, the demographic factors of genetic diversity and inter-ecosystem

connectivity could improve if natural immigration into the GYE population occurs in the future (Service 2024, p. 238). There currently is no inter-ecosystem connectivity to the GYE population, and genetic diversity for the GYE population is currently moderate because the population remains isolated. One to two effective immigrants from another grizzly bear population each generation interval (i.e., 14 years) are necessary to ensure long-term genetic health (Service 2024, pp. 238–239).

Currently, the NCDE population has high resiliency (table 21 in SSA report (Service 2024, p. 237)). A variety of land protections, particularly those that have reduced motorized access, and the availability and diversity of natural foods contribute to the currently high condition of the habitat factors in the NCDE (Service 2024, p. 239). Additionally, State, Federal, Tribal, and nongovernmental organization partners have implemented conservation activities and land protections in the NCDE that help reduce human-caused mortality and contribute to the large NCDE population size (Service 2024, p. 239). The demographic factors of genetic diversity and inter-ecosystem connectivity are in a high condition as a result of connectivity with Canadian populations (Service 2024, pp. 239–240).

Currently, the CYE population has low resiliency, and the SE population has moderate resiliency (table 21 in SSA report (Service 2024, p. 237)). The smaller size of the CYE and SE, with a narrower range of habitats that may limit the diversity of foods available, as well as somewhat limiting habitat security contribute to the currently moderate condition of the habitat factors in the CYE and SE (Service 2024, pp. 240–241). Despite high population trends and high and moderate adult female survival, both the CYE and SE currently have very low numbers of bears, although this factor could

improve as bears reproduce and expand in the future (Service 2024, pp. 240–241). The demographic factors of genetic diversity and inter-ecosystem connectivity are in a low to moderate condition as a result of past isolation and limited reproducing immigrants from other populations (Service 2024, pp. 241–242).

Despite the moderate to high condition of habitats, without known populations, the BE and North Cascades are currently in functionally extirpated condition, and therefore have no resiliency (Service 2024, pp. 242–244). Our SSA report provides additional detail regarding current resiliency for each of the six ecosystems (Service 2024, pp. 232–245).

Redundancy describes the ability of the species to withstand catastrophic events. For the grizzly bear, we considered the number and distribution of ecosystems, such that the greater the number and the wider the distribution of the ecosystems, the better able grizzly bears in the grizzly bear DPS are to withstand catastrophic events. Grizzly bears in the grizzly bear DPS currently occupy four ecosystems, with two ecosystems with high resiliency, one with moderate resiliency, and one with low resiliency. Two ecosystems are currently in functionally extirpated condition, with no resiliency, so they do not contribute to redundancy.

Representation describes the ability of a species to adapt to changing environmental conditions. For the grizzly bear, we considered the breadth of ecological diversity as a proxy for evaluating this ability. Representation is currently captured by ecological diversity inherent within the grizzly bear populations in the four occupied ecosystems of the GYE, NCDE, CYE, and SE. For example, the GYE, contained in the Middle Rockies ecoregion, is dominated by forested, mountainous habitat, and dry

sagebrush to the east and south, and includes hydrothermal features and other unique geologic features. The NCDE includes parts of the Great Plains, Middle Rockies, and Northern Rockies ecoregions, and habitat varies from wet forested lands west of GNP to much drier habitat to the east, including prairie grasslands. The CYE and SE are both contained within the Rocky Mountains, and are characterized by wet, forested mountains. The BE and North Cascades ecosystems are currently unoccupied by a grizzly bear population and therefore do not currently contribute to representation. The BE is primarily contained in the Idaho Batholith ecoregion. It contains mountainous regions; canyons; dry, partly wooded mountains; grasslands; high glacial valleys; and hot dry canyons. The North Cascades is part of the North Cascades ecoregion and is characterized by steep, rugged, glaciated peaks dividing wet temperate forests on the west side and semi-arid forests and shrub-steppe grasslands on the east side.

#### *Future Conditions*

We evaluated future conditions for the six ecosystems using projections for the stressors, habitat factors, and demographic factors that influence the resiliency of the ecosystem, and the redundancy and representation of the grizzly bear in the grizzly bear DPS (Service 2024, pp. 248–252). To evaluate future conditions, we used the same methodology that we used to evaluate current condition, but instead considered the plausible conditions for the two habitat factors and six demographic factors projected into the future under a range of plausible future scenarios (Service 2024, pp. 248–252). We evaluated future conditions for the grizzly bear in the grizzly bear DPS 30 to 45 years into the future, a timeframe that captures approximately two to three grizzly bear generation intervals. A generation interval is the approximate time that it takes a female

grizzly bear to replace herself in the population. Given the longevity of grizzly bears, two to three generation intervals represent a period during which a complete turnover of the population would have occurred; any positive or adverse changes in the status of the population would be evident. Additionally, this timeframe is sufficient to allow for the possibility that land management plans, which may provide important conservation measures to reduce potential stressors, could go through at least one revision (Service 2024, p. 248). Below, we summarize the future scenarios and our evaluation of future condition for the six ecosystems under each scenario; our full analysis is contained in the SSA report (Service 2024, pp. 248–265).

As documented in our SSA report, we used scenario planning to describe plausible futures for the grizzly bear and to capture uncertainty associated with our future projections. Using future scenarios allowed us to explore a range of possible future conditions for the grizzly bear in the grizzly bear DPS, given the uncertainty in the stressors grizzly bears in the grizzly bear DPS may face, their potential response to those stressors, and the potential for possible conservation efforts to influence future conditions (see table 28 in our SSA report (Service 2024, p. 266)). As described in more detail in our SSA report (Service 2024, pp. 248–252), we developed five future scenarios, as summarized below:

- Future Scenario 1—Significantly Decreased Conservation: Under this scenario, conservation actions decrease significantly, largely through the termination or non-renewal of plans or regulations, and the rate of private land development increases dramatically;



- Future Scenario 2—Decreased Conservation: Under this scenario, conservation actions decrease, but not as significantly as in Scenario 1, due to decreased effectiveness and implementation of conservation actions and mechanisms, and the rate of private land development increases;
- Future Scenario 3—Continuation of Conservation: Under this scenario, conservation actions continue at the same rate, magnitude, and effectiveness as they currently occur under the Act, and the rate of private land development remains the same;
- Future Scenario 4—Increased Conservation: Under this scenario, conservation actions increase or improve, and the rate of private land development decreases; and
- Future Scenario 5—Significantly Increased Conservation: Under this scenario, conservation actions increase significantly, and the rate of private land development decreases dramatically.

Although there are likely different probabilities associated with our future scenarios, we considered all five scenarios to be plausible for the purposes of our SSA analysis (Service 2024, p. 248). We used the same methodology to evaluate current condition and to project the resiliency of the six ecosystems 30 to 45 years into the future. We projected the future condition for the two habitat factors and six demographic factors under each of the five future scenarios and then calculated an overall resiliency score for each ecosystem under each scenario using the same weighted average as our current condition evaluation. After evaluating resiliency, we then evaluated redundancy and representation of the grizzly bear in the grizzly bear DPS for each future scenario.

Future Scenario 1

With a significant decrease in conservation under Scenario 1, there are projected to be subsequent decreases in resiliency across the habitat and demographic factors for populations in all ecosystems over the next 30 to 45 years. The GYE and NCDE populations are projected to decrease in overall resiliency from high to moderate, the SE population declines from moderate to low, and the CYE population declines from low to very low under this scenario.

Natural high-caloric foods remain high or moderate for all ecosystems under Scenario 1, due in part to the large amount of wilderness and national parks, which help ensure that a diversity of food sources would continue to be available to the grizzly bear into the future. However, as conservation declines significantly under Scenario 1, habitat security declines from high to moderate for the GYE and NCDE, and from moderate to low in the CYE and SE as motorized access increases, but habitat security remains high in the BE and moderate for the North Cascades. The quantity of wilderness areas and national parks that remain in these ecosystems helps ensure that the condition of this habitat factor does not fall below moderate for the GYE, NCDE, and North Cascades, or below high for the BE.

Under Scenario 1, there are projected to be overall declines in condition for most of the demographic factors for the populations in all ecosystems. Under this scenario, significant reductions in conservation actions that address unsecured attractants and other sources of human-caused mortality lead to increased mortality and hence declines in adult female survival, abundance, population trend, and reproductive female distribution. Human-caused mortalities would increase if State regulations are enacted that allow grizzly bears to be killed by the public (e.g., if bears “threaten” livestock) or if regulatory

mechanisms limiting mortality to sustainable levels are not adequate. Reproductive female distribution in the GYE and NCDE populations declines from high to moderate, as at least one BMU in this ecosystem would likely be unoccupied as a result of significantly decreased conservation. Reproductive female distribution in the CYE and SE also declines under this scenario; however, due to the small size of BMUs in these ecosystems, single female home ranges will likely still overlap multiple BMUs, contributing to reproductive distribution. Finally, overall resiliency declines for the populations in all ecosystems as abundance declines due to increasing human-caused mortality, the GYE population continues to be isolated with no inter-ecosystem connectivity, and connectivity for the CYE and SE would decline as human-caused mortality would result in decreased connectivity.

#### Future Scenario 2

With a decrease in conservation efforts under Scenario 2, potential projected decreases in overall resiliency are less severe than under Scenario 1. Under Scenario 2, the NCDE population remains in high overall resiliency, the GYE population is projected to drop from high to moderate resiliency, the CYE population remains in low resiliency, and the SE drops from moderate to low overall resiliency.

As conservation is reduced under Scenario 2, natural high-caloric foods remain the same as the current condition for all ecosystems. However, in the GYE and NCDE, habitat security shifts from high to moderate as motorized access increases, but the quantity of wilderness areas and national parks that remain helps ensure that the condition of this habitat factor does not fall below moderate. Habitat security remains the same for the CYE, SE, BE, and North Cascades.

Under Scenario 2, there are projected to be overall declines in condition for most of the demographic factors for the populations in all ecosystems, although not as significantly as in Scenario 1. Under this scenario, reductions in conservation actions that address unsecured attractants and other sources of human-caused mortality lead to some increased mortality and resultant declines in adult female survival, abundance, population trend, and reproductive female distribution. Human-caused mortalities would increase if State regulations are enacted that allow grizzly bears to be killed by the public (e.g., if bears “threaten” livestock) or if regulatory mechanisms limiting mortality to sustainable levels are not adequate.

Despite reduced conservation, the number of bears is projected to remain high for the GYE and NCDE populations under Scenario 2. However, the number of bears is likely to hover around the threshold between high and moderate, and could drop below the population target such that the status decreases from high to moderate. The number of bears decreases to very low in the CYE and SE because small differences in adult female survival have a larger impact on all other demographic factors due to their small population size. In general, reduced conservation could increase human-caused mortality and reduce abundance for the populations in all ecosystems, but there is some uncertainty regarding the magnitude of the reduction under this scenario.

Reproductive female distribution in the GYE and NCDE populations declines from high to moderate under this scenario, as at least one BMU in these ecosystems would likely be unoccupied as a result of decreased conservation. However, reproductive female distribution would remain at moderate for the CYE and SE populations because a significant decline would be required to decrease distribution to less than 50 percent of

BMUs occupied and because a female home range can overlap multiple BMUs in these ecosystems. Under Scenario 2, inter-ecosystem connectivity remains the same for the four current populations. In the CYE, lack of augmentation would likely increase the chances of inbreeding in the Cabinet portion of the CYE population under this scenario.

### Future Scenario 3

Future Scenario 3 is a continuation scenario, where all stressors and conservation efforts continue at their same rate and magnitude 30 to 45 years into the future, as they currently occur under the protections of the Act. The current levels of funding and effectiveness and implementation of conservation actions and mechanisms stay the same under this scenario. As a result, the GYE and NCDE populations are projected to remain in overall high resiliency, the SE population stays in moderate, but the CYE improves overall resiliency from low to moderate and the BE improves from functionally extirpated to very low.

Habitat factors remain the same under Scenario 3 for all ecosystems. Habitat security remains moderate for the SE and CYE by virtue of their smaller size, but we anticipate that conditions will improve due to ongoing implementation of current efforts to decrease motorized routes. Conditions improve for specific demographic factors, particularly in the CYE and SE, as continued conservation allows demographic factors to improve over time. Most notably, adult female survival improves from moderate to high in the SE and the status of population targets in the CYE and SE improves from low to moderate and moderate to high, respectively. We anticipate that a population will be established in the BE in the next 30 to 45 years with continuation of current dispersal into

the ecosystem. Demographic factors are rated as very low, largely due to the uncertainty around estimation resulting from small sample sizes and a newly established population.

If conservation continues as described under Scenario 3, inter-ecosystem connectivity for the GYE population is projected to improve from functionally extirpated to a moderate condition. Individuals moving south from the NCDE population are already very close to the GYE population, and we expect that, as these populations continue to expand their occupied range, at least one male will enter the GYE population, establish a home range, and breed within the next 30–45 years if conservation measures continue. Genetic diversity would improve from moderate to high as the result of effective immigration or, if natural immigration does not occur by 2025, the States have committed to translocate bears into the GYE from another population. We expect inter-ecosystem connectivity to increase from moderate to high for the CYE and SE with continuation of current conservation efforts that have already facilitated genetic connectivity.

#### Future Scenario 4

Under Scenario 4, conservation increases as funding increases, and the mechanisms that reduce motorized access and human-caused mortality increase or are more effective. Rates of development on private lands decrease, and there are increases in conservation easements, highway crossing structures for wildlife, and the amount of land designated as wilderness and IRAs. Under this scenario, individuals are successfully moved into the North Cascades, augmentation continues into the CYE, and translocations occur in the GYE population, as needed. The GYE and NCDE populations are projected to remain in overall high resiliency, the SE population remains in moderate resiliency, the

CYE population improves from low to moderate resiliency, and both the BE and North Cascades shift from currently functionally extirpated with no resiliency to low resiliency.

Habitat factors remain the same under Scenario 4 for all ecosystems.

Demographic factors for the BE and North Cascades begin to improve from their currently functionally extirpated condition. We anticipate that a population will be established in the BE in the next 30 to 45 years with continuation of current dispersal into the ecosystem. In addition, we expect that successful reintroduction into the North Cascades would result in a positive population trend. However, many demographic factors are rated as very low, largely due to the uncertainty around estimation resulting from small sample sizes and a newly established population for the BE and North Cascades. Abundance improves in both the CYE and SE with increased conservation under this scenario. With increased conservation, inter-ecosystem connectivity improves for the GYE, SE, and BE populations. We do not anticipate any connectivity for the North Cascades under Scenario 4 because conditions in Canada are assumed to remain the same. Although the North Cascades is within male dispersal distance of the SE population and genetic connectivity is possible, we anticipate these events to be rare due to distance and barriers (i.e., human development).

#### Future Scenario 5

Under Scenario 5, conservation increases significantly. Conditions under Scenario 5 generally improve similarly to conditions under Scenario 4, but with additional increases in genetic diversity and population trend. Tolerance and acceptance also significantly increase, and there is general acceptance of grizzly bears persisting in all ecosystems and the importance of connectivity. The GYE and NCDE populations are

projected to remain in overall high resiliency; the SE and CYE populations improve from moderate and low, respectively, to high resiliency; and both the BE and North Cascades shift from currently functionally extirpated with no resiliency to low resiliency. The condition for high-caloric foods improves from moderate to high for the BE with significantly increased conservation under Scenario 5. Habitat security in the North Cascades improves to high due to implementation of new habitat standards.

### Cumulative Effects

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report, we have analyzed the cumulative effects of identified threats and conservation actions on the species. To assess the current and future condition of the species, we evaluate the effects of all the relevant factors that may be influencing the species, including threats and conservation efforts. Because the SSA framework considers not just the presence of the factors, but to what degree they collectively influence risk to the entire species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative-effects analysis.

### *Conservation Efforts and Regulatory Mechanisms*

The following existing regulatory mechanisms, as of December 31, 2023, are specifically considered and discussed in our SSA report, as summarized above, as they relate to the stressors under each relevant discussion, affecting grizzly bears in the grizzly bear DPS.

#### I. For habitat-related effects:

- Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Ecosystem, with appendices (YES 2024);



- Conservation Strategy for the Grizzly Bear in the Northern Continental Divide Ecosystem (NCDE Subcommittee 2020);
- 2006 Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests (USDA FS 2006a, 2006b);
- 2011 Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones for the Kootenai, Lolo, and Idaho Panhandle National Forests (USDA FS 2011b);
- 2015 Revision of the Land Management Plan for the Kootenai National Forest (USDA FS 2015c);
- 2015 Revision of the Land Management Plan for the Idaho Panhandle National Forest (USDA FS 2015b);
- 2019 Colville National Forest Land Management Plan (USDA FS 2019);
- 2000 Conservation Agreement between Stimson Lumber Company, Colville National Forest, and the Service (Service 2001);
- 1997 interim Forest direction for the North Cascades Federal land management agencies (USDA FS 1997);
- Flathead National Forest Land Management Plan (USDA FS 2018b);
- Custer Gallatin National Forest Land Management Plan (USDA FS 2022);
- Helena-Lewis and Clark National Forest Land Management Plan (USDA FS 2021);
- Final Environmental Impact Statement for the Forest Plan Amendments: Incorporating Habitat Management Direction for the Northern Continental Divide

Ecosystem Grizzly Bear Population for the Helena-Lewis and Clark, Kootenai, and Lolo National Forests (USDA FS 2018e);

- Blackfoot Forest Management Plan (Blackfoot Nation 2008);
- Flathead Indian Reservation Forest Management Plan (CS&KT 2000);
- Final Environmental Impact Statement for the Montana Department of

Natural Resources and Conservation Forested Trust Lands Habitat Conservation Plan (DNRC 2010a, 2010b);

- Administrative Rules of Montana (ARM) subchapter 36.11.4 at 36.11.432 and subchapter 12.9.14 at 12.9.1401;

- Wilderness Act of 1964;
- The 2001 Roadless Rule (66 FR 3244, January 12, 2001);
- Glacier National Park Superintendent's Compendium implemented under the National Park System Organic Act (GNP 2024). The NPS Organic Act of 1916, 54 U.S.C. 100101 et seq., created the NPS and assigned it the responsibility to manage the national parks. The Organic Act requires the NPS to manage park units to conserve scenery, natural and historic objects within parks, and wildlife, and to provide for their enjoyment in a manner that leaves them unimpaired for the enjoyment of future generations;

- Yellowstone National Park (YNP 2023) and Grand Teton National Park (GTNP and John D. Rockefeller, Jr. Memorial Parkway (JDR) 2024) compendia implemented under the NPS Organic Act;

- Billings Field Office Approved Resource Management Plan, 2015 (BLM 2015a);

- Hiline Approved Resource Management Plan, 2015 (BLM 2015b);
- Butte Field Office Approved Resource Management Plan, 2009 (BLM 2009);
- Missoula Field Office Approved Resource Management Plan, 2021 (BLM 2021a);
- Record of Decision and Approved Lewiston Resource Management Plan, 2021 (BLM 2021b); and
- Dillion Field Office Approved Resource Management Plan, 2006 (BLM 2006).

II. For human-caused mortality:

- Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Ecosystem with appendices (YES 2024);
- Conservation Strategy for the Grizzly Bear in the Northern Continental Divide Ecosystem (NCDE Subcommittee 2020);
- 2011 Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones for the Kootenai, Lolo, and Idaho Panhandle National Forests (USDA FS 2011b);
- 2015 Revision of the Land Management Plan for the Kootenai National Forest (USDA FS 2015c);
- 2015 Revision of the Land Management Plan for the Idaho Panhandle National Forest (USDA FS 2015b);
- 2019 Colville National Forest Land Management Plan (USDA FS 2019);
- Montana Grizzly Bear Management Plan 2024 (MFWP 2024);

- Flathead Indian Reservation Grizzly Bear Management Plan (Servheen et al. 1981);
- Bear Management Plan and Guidelines for Bear Management on the Blackfeet Indian Reservation (Blackfeet Tribal Business Council 2013);
- Blackfeet National Fish and Wildlife Code (Blackfeet Tribal Business Council 2018);
- Nez Perce Tribal Code section 3-1-52;
- Flathead Indian Reservation Tribal Ordinance 44D;
- Grizzly Bear Management Plan for the Wind River Reservation (Eastern Shoshone and Northern Arapaho Tribes 2009);
- Administrative Rules of Montana (ARM) subchapter 12.9.14 at 12.9.1401, 12.9.1403, 12.9.1405, and 12.9.1413;
- Montana Code Annotated (MCA) at sections 87–2–101(4), 87–1–301, 87–1–304, 87–5–301, and 87–5–302;
- Idaho Administrative Code (IAC) rules 13.01.06.100.05 and 13.01.06.300.01;
- Idaho Statutes (I.S.) at title 36, chapter 2 (section 36–201) and chapter 11 (section 36–1101(a));
- Washington Administrative Code (WAC) at section 220–610–010;
- Wyoming Statutes (W.S.) at sections 23–1–101(a)(xii)(A) and 23–3–102(a);
- Wyoming Administrative Rules (WAR) 040–0001–67;
- State of Idaho Yellowstone Grizzly Bear Management Plan (Idaho’s Yellowstone Grizzly Bear Delisting Advisory Team 2002);

- Proclamation of the Idaho Fish and Game Commission Relating to the Limit of the Take of Grizzly Bear in the Greater Yellowstone Ecosystem (Idaho Fish and Game Commission 2016);
- Draft Idaho State wildlife action plan 2023 (Idaho Department of Fish and Game (IDFG) 2023);
- Montana Hunting Regulations for Grizzly Bear (MFWP 2016);
- Wyoming Grizzly Bear Management Plan (WGFD 2016);
- Wyoming Game and Fish Commission (2016)—chapter 67, Grizzly Bear Management Regulation; and
- Tri-State Memorandum of Agreement Regarding the Management, Genetic Health, and Allocation of Discretionary Mortality of Grizzly Bears in the Greater Yellowstone Ecosystem (Wyoming Game and Fish Commission et al. 2024).

### **Determination of Status for the Grizzly Bear DPS**

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of an endangered species or a threatened species. The Act defines an “endangered species” as a species in danger of extinction throughout all or a significant portion of its range, and a “threatened species” as a species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether a species meets the definition of an endangered species or a threatened species because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C)

disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

*Status Throughout All of Its Range*

Although only four of the six ecosystems currently support populations, the grizzly bear DPS has improved in abundance and estimated occupied range since the listing of the subspecies in 1975. Historically, the grizzly bear occurred throughout much of the western half of North America, with an estimated 50,000 grizzly bears distributed in one large contiguous area that included all or portions of 18 western States.

Populations declined in the late 1800s with the arrival of European settlers, government-funded bounty programs, and the conversion of habitats to agricultural uses. When we listed the grizzly bear in the lower-48 States as a threatened species under the Act in 1975, grizzly bears had been reduced to less than 2 percent of their former range in the lower-48 States; at the time, the estimated population in the lower-48 States, and the proposed grizzly bear DPS, was 700 to 800 individuals with populations confined to mountainous regions, national parks, and wilderness areas.

Currently, four of the six ecosystems of the grizzly bear in the grizzly bear DPS are extant (Service 2024, pp. 60–63). Two of these ecosystems have high resiliency, one has moderate resiliency, and one has low resiliency (Service 2024, pp. 13–15, 212–227). The GYE and NCDE currently have high resiliency due to the high conditions of their habitat and demographic factors, such as widely available and protected large, intact blocks of land, positive population growth rates, expanding ranges, and high survival rates of adult females (Service 2024, pp. 12, 218–219). With high resiliency, the GYE and NCDE are currently the best able of the four extant ecosystems to withstand

environmental and demographic stochasticity, followed by the SE with medium resiliency and the CYE with low resiliency. Ongoing conservation actions implemented since the time of listing, such as regulatory mechanisms that reduce habitat degradation and sources of human-caused mortality, have significantly improved the resiliency of these four ecosystems over the last several decades (Service 2024, pp. 102–106, 203–205). These levels of resiliency currently reduce extinction risk for the grizzly bear in the lower-48 States. Considered together, the four resilient ecosystems provide ecological diversity, and their longitudinal and latitudinal distribution helps reduce current catastrophic risk to the grizzly bear DPS (Service 2024, pp. 13–15, 212–227).

The current condition of the grizzly bear in the grizzly bear DPS represents a marked improvement from the conditions in 1975, when we listed the grizzly bear as a threatened species. Over the last 45 years, threats to the grizzly bear in the lower-48 States, including the proposed grizzly bear DPS, have declined and, in some cases, have been ameliorated with conservation efforts and mechanisms, including: mortality limits; Federal land protections, such as the Wilderness Act and IRAs; State and private forestlands with motorized access restrictions; habitat improvements/vegetation management; attractant removal and community sanitation measures, such as food storage orders; conservation easements; I&E programs; effective law enforcement; and translocation programs (Service 2024, pp. 103–229). States, Federal agencies, and Tribes have implemented regulatory mechanisms that help address the stressors we identified, including habitat destruction and modification (Factor A), human-caused mortality (Factors B and C), and the isolated nature of some populations (Factor E).

Since the original 1975 listing, new federally designated wilderness areas and IRAs helped secure large, intact blocks of land and reduce sources of human-caused mortalities. The management of motorized access similarly reduced stressors associated with habitat loss and human access in grizzly bear habitats. Additionally, in four of the six recovery zones (GYE, NCDE, CYE, and SE), Federal land managers have adopted land management plans that contain legally binding and enforceable science- and research-based measures and management practices designed specifically to conserve the grizzly bear in the grizzly bear DPS. These regulatory mechanisms also help reduce threats associated with habitat loss and fragmentation on the Federal lands where they apply (Service 2024, pp. 102–106, 203–205). While human-caused mortality continues to be an ongoing threat to grizzly bears in the grizzly bear DPS, under current management, including the protections of the Act, human-caused mortality rates have been low enough to allow the GYE, NCDE, CYE, and SE grizzly bear populations to increase in number and range (Schwartz et al. 2006b, pp. 64–66; Schwartz et al. 2006c, p. 48; Bjornlie et al. 2014, p. 184; Costello 2019, in litt.; Costello et al. 2023, p. 14; Costello et al. 2024, in prep.; Gould et al. 2024c, in prep.; Kasworm et al. 2024a, in prep.; Kasworm et al. 2024b, in prep.; MFWP, unpublished data). Due to these and many other conservation actions, the number of grizzly bears in the grizzly bear DPS has more than doubled since the time of listing, and grizzly bears have since expanded their range and abundance, growing from occupying approximately only 2 percent of their historical range in 1975 to 6 percent in 2022 (Haroldson et al. 2021, p. 164; Costello et al. 2023, p. 14; Dellinger et al. 2023, p. 23; Kasworm et al. 2024a, 2024b, in prep.; Service 2024, pp. 60–63). As a result, the viability of the grizzly bear DPS has improved since 1975.



Given the current levels of resiliency in four of six ecosystems, the high resiliency of the GYE and NCDE, and the lack of significant and imminent stressors, the grizzly bear DPS currently has sufficient ability to withstand stochastic and catastrophic events, and to adapt to environmental changes. Therefore, we conclude that the grizzly bear DPS's current risk of extinction is low, such that the grizzly bear DPS is not currently in danger of extinction throughout all of its range.

Having determined that the grizzly bear DPS is not in danger of extinction throughout all of its range, we next considered whether the grizzly bear DPS is likely to become an endangered species within the foreseeable future throughout all of its range. We defined the foreseeable future as 30 to 45 years into the future, a timeframe that is biologically meaningful by accounting for two to three generation intervals, or the average amount of time it takes a female to breed and replace herself in the population. Given the longevity of grizzly bears, up to 37 years in the wild (Kasworm et al. 2024a, in prep.), two to three generation intervals represent a period during which a complete turnover of the population would have occurred and any changes in the demographics of the population would be detectable. This timeframe also considers the possibility that conservation measures that reduce and regulate potential stressors, such as land management plans, could be revised at least once by any applicable land management agencies (Service 2024, pp. 15–16, 228). Moreover, it is a timeframe during which we can reasonably project both future threats and the grizzly bear's response to those threats.

To assist us in evaluating the status of the grizzly bear DPS over the next 30 to 45 years (i.e., the foreseeable future), we evaluated the future condition for the six grizzly bear ecosystems in the lower-48 States under five plausible future scenarios, as

summarized above and discussed in our SSA report (Service 2024, pp. 232–243). Over the next 30 to 45 years, we anticipate a range of future conditions for the grizzly bear DPS, with nearly the same levels of resiliency, redundancy, and representation as current condition under one future scenario, improved conditions under two future scenarios, and decreased conditions under two future scenarios (Service 2024, pp. 15–19, 232–243). In three of the five future scenarios, the GYE and NCDE retain high resiliency, but where conservation efforts decline in the future, the resiliency for both the GYE and NCDE declines from high to moderate (Service 2024, pp. 232–235).

Resiliency in the CYE and SE is also projected to decrease under future scenarios with decreased conservation (Service 2024, p. 244), such that the grizzly bear DPS is at increased risk of extinction within the foreseeable future. In the foreseeable future, the CYE and SE have moderate to very low levels of resiliency, and only achieve high resiliency under one scenario (Service 2024, p. 244), such that the CYE and SE only contribute moderate, low, or very low levels of resiliency under four of the five future scenarios (Service 2024, p. 244). Finally, the BE and North Cascades only begin to contribute to the viability of the grizzly bear DPS under two scenarios with improvements in conservation efforts (Service 2024, p. 244). To summarize, under the plausible future conditions discussed in the SSA report (Service 2024, p. 244), the grizzly bear DPS would be less likely to withstand plausible stochastic and catastrophic events, and to retain sufficient adaptive capacity to withstand environmental change, 30 to 45 years into the future.

Additionally, as human populations continue to expand across all six ecosystems, humans may engage with grizzly bears and their habitats in increasingly unpredictable

ways. In the foreseeable future, continued growth of human populations could lead to increased private land development, increased recreation, additional habitat loss, and more human-bear conflicts over the next 30 to 45 years. The uncertainty associated with the stressors of human-bear conflicts, human population growth, and potential reductions in connectivity further represent a possible reduction in overall viability of the grizzly bear DPS within the foreseeable future.

After evaluating threats to the species and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we conclude that the grizzly bear DPS is at increased risk of extinction within the foreseeable future. In the future, human-caused mortality would continue to be a threat to the grizzly bear DPS because regulatory mechanisms may not adequately limit sources of human-caused mortality. Further, the lack of regulatory mechanisms to address the threats of human-bear conflicts, human population growth, and potential reductions in connectivity further increases the risk of a possible reduction in the resiliency of the grizzly bear populations in the grizzly bear DPS within the foreseeable future. In addition, habitat-related threats, such as motorized access and habitat security, would likely remain an issue in the future for the CYE, SE, and North Cascades, as conservation mechanisms to address these threats are not yet finalized (North Cascades) or standards have not been met (CYE and SE). Finally, demographic recovery criteria have been achieved in only two of six recovery zones, and regulatory mechanisms are not fully in place. Management frameworks to ensure grizzly bear mortality is within sustainable thresholds independent of the Act are currently only complete and incorporated into regulatory documents for two of the six ecosystems. Thus, after assessing the best available information, we conclude that the grizzly bear

DPS is not in danger of extinction but is likely to become in danger of extinction within the foreseeable future throughout all of its range.

*Status Throughout a Significant Portion of Its Range*

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so within the foreseeable future throughout all or a significant portion of its range. The court in *Center for Biological Diversity v. Everson*, 435 F. Supp. 3d 69 (D.D.C. 2020) (*Everson*), vacated the provision of the Final Policy on Interpretation of the Phrase “Significant Portion of Its Range” in the Endangered Species Act’s Definitions of “Endangered Species” and “Threatened Species” (hereafter “Final Policy”; 79 FR 37578, July 1, 2014) that provided if the Service determines that a species is threatened throughout all of its range, the Service will not analyze whether the species is endangered in a significant portion of its range.

Therefore, we proceed to evaluating whether the species is endangered in a significant portion of its range—that is, whether there is any portion of the species’ range for which both (1) the portion is significant; and (2) the species is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the “significance” question or the “status” question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species’ range.

Following the court’s holding in *Everson*, we now consider whether the species is in danger of extinction in a significant portion of its range. In undertaking this analysis for the grizzly bear DPS, we choose to address the status question first.

We evaluated the range of the grizzly bear DPS to determine if the species is in danger of extinction in any portion of its range. The range of a species can theoretically be divided into portions in an infinite number of ways. We focused our analysis on portions of the species' range that may meet the Act's definition of an endangered species. For the grizzly bear DPS, we considered whether the threats or their effects on the species are greater in any biologically meaningful portion of the species' range than in other portions such that the species is in danger of extinction in that portion.

We examined the following threats: habitat destruction and modification, human-caused mortality, natural mortality, effects due to genetic health, effects due to changes in food resources, and effects due to climate change, including cumulative effects (Service 2024, pp. 105–230). First, we evaluated whether there are portions of the grizzly bear DPS's range with a different biological status. The BE and North Cascades ecosystems are not significant portions of the range because they do not currently support populations. Similarly, although they may support movements between ecosystems and low densities of individuals, the areas between the six ecosystems are not significant portions of the range because they lack known populations of grizzly bears (Service 2024, pp. 59, 62). To identify potential portions, we considered whether the grizzly bear has different extinction risk in one or more ecosystems. Based on the information provided in the SSA report, we determined that a portion comprised of the GYE and NCDE, both with high resiliency, currently has less extinction risk than the remaining portion comprised of the CYE and SE, with low and moderate resiliency, respectively (Service 2024, p. 13). As a result, there may be differences in biological condition across the range of the grizzly bear DPS.

The CYE and SE currently have lower levels of resiliency than the GYE and NCDE, so we explored whether a portion of the overall range consisting of the CYE and SE may have a different risk of extinction, such that the grizzly bear may have a different regulatory status in that portion of the range. The CYE currently has low resiliency, and the SE has medium resiliency, due to low abundance and genetic diversity resulting from past isolation and the species' natural slow reproductive rates. Rates of human-caused mortality in the CYE and SE are similar to those in the GYE and NCDE (Kasworm et al. 2024a, in prep.; Kasworm et al. 2024b, in prep.; Gould et al. 2024b, in prep.; MFWP, unpublished data), and all four ecosystems have experienced positive population growth rates (Service 2024, p. 235). This indicates that although the CYE and SE are currently less resilient than the GYE and NCDE, the magnitude and immediacy of the threats are currently similar across the four ecosystems. Additionally, the current levels of resiliency for the CYE and SE, and the grizzly bear's distribution across the two ecosystems, are sufficient for the grizzly bear to withstand stochastic and catastrophic events within the portion. Therefore, we determined that the grizzly bear is not in danger of extinction within the portion composed of the CYE and SE.

We found no biologically meaningful portion of the grizzly bear DPS where threats are impacting individuals differently from how they are affecting the species elsewhere in its range, or where the biological condition of the species differs from its condition elsewhere in its range. Therefore, no portion of the DPS's range provides a basis for determining that the grizzly bear is in danger of extinction in a significant portion of the range, and we determine that the grizzly bear DPS is likely to become in danger of extinction within the foreseeable future throughout all of its range. This does

not conflict with the courts' holdings in *Desert Survivors v. U.S. Department of the Interior*, 321 F. Supp. 3d 1011, 1070-74 (N.D. Cal. 2018) and *Center for Biological Diversity v. Jewell*, 248 F. Supp. 3d 946, 959 (D. Ariz. 2017) because, in reaching this conclusion, we did not apply the aspects of the Final Policy, including the definition of "significant" that those court decisions held to be invalid.

#### *Determination of Status*

Based on the best scientific and commercial data available, we determine that the grizzly bear DPS meets the Act's definition of a threatened species. Therefore, we propose to list the grizzly bear DPS as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

#### *Relationship of the Grizzly Bear DPS to Experimental Populations*

We have designated two experimental populations for the grizzly bear in the lower-48 States: one in the BE (65 FR 69624; November 17, 2000) and one in the North Cascades (89 FR 36982; May 3, 2024). Currently, grizzly bears have not been reintroduced to either area. Below, we clarify that these two experimental populations are part of the proposed grizzly bear DPS, consistent with our findings for the experimental population designations.

When we designate an experimental population for a species under the Act, we must find by regulation that such release will further the conservation of the species. See 50 CFR 17.81(b) for factors we consider in making such a finding. Furthermore, we must determine whether the experimental population is, or is not, essential to the continued existence of the species in the wild (50 CFR 17.81(c)(2)).

In both our experimental population designations for grizzly bears, we found that establishment of the experimental populations would further the conservation of the species (that is, grizzly bear in the lower-48 States). We also found that neither experimental population is essential to the continued existence of the grizzly bear in the lower-48 States.

This proposed rule would revise the entry for grizzly bear on the List of Endangered and Threatened Wildlife at 50 CFR 17.11(h) to clarify where grizzly bears are currently found or are likely to be found in the future as populations recover. Under this proposed rule, we would also retain the current entries at 50 CFR 17.11(h) for the Bitterroot and North Cascades nonessential experimental populations of the grizzly bear, as well as the applicable regulations at 50 CFR 17.84(l) and (y), respectively, unless we undertake separate rulemaking to revise or remove one or both of them. If we finalize this rule as proposed, the grizzly bear DPS will contain all currently extant populations of grizzly bears in the United States, as well as those areas likely to be occupied by grizzly bears in the future. This area includes both designated experimental populations. This proposed rule would not change the individuals of the species that are or will be protected by the Act, and grizzly bears would continue to be listed as a threatened species under the Act. As such, the two experimental populations would continue to be members of the grizzly bear DPS, and our previous findings for the two experimental populations designated for the grizzly bear would remain relevant and applicable to the grizzly bear DPS. The basis for those findings is summarized below.

Restoring grizzly bears to the BE and the NCE will further the conservation of grizzly bears by establishing additional populations in portions of the species' historical



range where the species is presently extirpated. The recovery plan includes an objective to recover grizzly bears in all of the ecosystems known to have suitable space and habitat (USFWS 1993, pp. 15–16). Reestablishing grizzly bears in the BE and NCE will fulfill important recovery needs for the grizzly bear in the lower-48 States.

For both the North Cascades and Bitterroot experimental populations, we also confirm that these experimental populations of grizzly bears are not essential to the continued existence of the grizzly bear DPS. Because there are approximately 2,200 grizzly bears in other ecosystems in the lower-48 States that are intensively monitored and managed, the loss of either experimental population would not appreciably reduce the likelihood of survival of the species in the wild. Therefore, as required by 50 CFR 17.81(c)(2), we continue to find that the experimental populations are not essential to the continued existence of the species in the wild. For the BE, we are currently in the process of reassessing options for restoring grizzly bears to that ecosystem (89 FR 3411, January 18, 2024), which could result in revising or removing that experimental population designation.

## **II. Proposed Revision of the Protective Regulations Under Section 4(d) of the Act for the Grizzly Bear**

### **Background**

Section 4(d) of the Act states that the Secretary shall issue such regulations as she deems necessary and advisable to provide for the conservation of species listed as threatened species. Conservation is defined in the Act to mean the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary.

Additionally, section 4(d) of the Act states that the Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2), in the case of plants. Congress delegated broad authority to the Secretary to determine what protections would be necessary and advisable to provide for the conservation of threatened species, and even broader authority to put in place any of the section 9 prohibitions for a given species.

The courts have recognized the extent of the Secretary's discretion under this standard to develop rules that are appropriate for the conservation of a species. For example, courts have upheld, as a valid exercise of agency authority, rules developed under section 4(d) that included limited prohibitions against takings (see *Alsea Valley Alliance v. Lautenbacher*, 2007 WL 2344927 (D. Or. 2007); *Washington Environmental Council v. National Marine Fisheries Service*, 2002 WL 511479 (W.D. Wash. 2002)). Courts have also upheld 4(d) rules that do not address all of the threats a species faces (see *State of Louisiana v. Verity*, 853 F.2d 322 (5th Cir. 1988)). As noted in the Act's legislative history, "once an animal is on the threatened list, the Secretary has an almost infinite number of options available to [her] with regard to the permitted activities for those species. [She] may, for example, permit taking, but not importation of such species, or [she] may choose to forbid both taking and importation but allow the transportation of such species" (H.R. Rep. No. 412, 93rd Cong., 1st Sess. 1973).

The grizzly bear (*Ursus arctos horribilis*) currently has a species-specific protective regulation at 50 CFR 17.40(b), which we are proposing to amend. The provisions of this species' proposed protective regulations under section 4(d) of the Act are one of the many tools that we would use to promote the conservation of the grizzly

bear within the DPS. There are also population-specific protective regulations under section 10(j) of the Act for two nonessential experimental populations, the North Cascades and Bitterroot, that are not affected by this proposed rule, and any changes to those population-specific regulations would require separate rulemaking processes with opportunities for public review and comment.

Nothing in 4(d) rules change in any way the recovery planning provisions of section 4(f) of the Act, the consultation requirements under section 7 of the Act, or the ability of the Service to enter into partnerships for the management and protection of the grizzly bear DPS. Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, even before the listing of any species or the designation of its critical habitat is finalized, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of critical habitat proposed to be designated for such species. These requirements are the same for a threatened species regardless of what is included in its 4(d) rule.

Section 7 consultation is required for Federal actions that “may affect” a listed species regardless of whether take caused by the activity is prohibited or excepted by a 4(d) rule (the “blanket rule” at 50 CFR 17.31(a) or species-specific 4(d) rule). A 4(d) rule does not change the process and criteria for informal or formal consultations and does not

alter the analytical process used for biological opinions or concurrence letters. For example, as with an endangered species, if a Federal agency determines that an action is “not likely to adversely affect” a threatened species, this will require the Service’s written concurrence (50 CFR 402.13(c)). Similarly, if a Federal agency determines that an action is “likely to adversely affect” a threatened species, the action will require formal consultation with the Service and the formulation of a biological opinion (50 CFR 402.14(a)). Because consultation obligations and processes remain in effect despite the issuance of 4(d) rules, we may consider developing tools to streamline future intra-Service and interagency consultations for actions that result in forms of take that are not prohibited by the 4(d) rule (but that still require consultation). These tools may include consultation guidance; streamlined, online consultation processes via the Service’s digital project planning tool (Information for Planning and Consultation; <https://ipac.ecosphere.fws.gov/>); template language for biological opinions; or programmatic consultations.

### **Provisions of the Proposed 4(d) Rule for the Grizzly Bear DPS**

Exercising the Secretary’s authority under section 4(d) of the Act, we have developed a proposed rule that is designed to address the grizzly bear DPS’s conservation needs. As discussed previously in **Summary of Biological Status and Threats**, we have concluded that the grizzly bear DPS is likely to become an endangered species within the foreseeable future primarily due to habitat destruction and modification, human-caused mortality, and the isolated nature of some populations. Section 4(d) requires the Secretary to issue such regulations as she deems necessary and advisable to provide for the conservation of each threatened species and authorizes the Secretary to include among

those protective regulations any of the prohibitions that section 9(a)(1) of the Act prescribes for endangered species. We are not required to make a “necessary and advisable” determination when we apply or do not apply specific section 9 prohibitions to a threatened species (*In re: Polar Bear Endangered Species Act Listing and 4(d) Rule Litigation*, 818 F. Supp. 2d 214, 228 (D.D.C. 2011) (citing *Sweet Home Chapter of Cmty. for a Great Or. v. Babbitt*, 1 F.3d 1, 8 (D.C. Cir. 1993), *rev’d on other grounds*, 515 U.S. 687 (1995))). Nevertheless, even though we are not required to make such a determination, in the interest of transparency we explain below our finding that, if finalized, the protections, prohibitions, and exceptions in this proposed rule as a whole satisfy the requirement in section 4(d) of the Act to issue regulations deemed necessary and advisable to provide for the conservation of the grizzly bear DPS.

The protective regulations we are proposing for the grizzly bear DPS incorporate prohibitions from section 9(a)(1) of the Act to address the threats to the species. The prohibitions of section 9(a)(1) of the Act, and implementing regulations codified at 50 CFR 17.21, make it illegal for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or to cause to be committed any of the following acts with regard to any endangered wildlife: (1) import into, or export from, the United States; (2) take (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) within the United States, within the territorial sea of the United States, or on the high seas; (3) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such wildlife that has been taken illegally; (4) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of

commercial activity; or (5) sell or offer for sale in interstate or foreign commerce. We also propose to prohibit the acts of possessing, selling, delivering, carrying, transporting, or shipping, by any means whatsoever, grizzly bears that have been taken legally with specific exceptions described below. This protective regulation includes all of these prohibitions because the grizzly bear DPS is at risk of extinction within the foreseeable future and putting these prohibitions in place will help to conserve the species' remaining populations, slow its rate of decline, and decrease synergistic, negative effects from other stressors. In particular, this proposed 4(d) rule would provide for the conservation of the grizzly bear DPS by prohibiting the following activities, unless they fall within specific exceptions or are otherwise authorized or permitted: importing or exporting; take; possession and other acts with taken specimens; delivering, receiving, carrying, transporting, or shipping in interstate or foreign commerce in the course of commercial activity; or selling or offering for sale in interstate or foreign commerce.

Under the Act, "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Some of these provisions have been further defined in regulations at 50 CFR 17.3. Take can result knowingly or otherwise, by direct and indirect impacts, intentionally or incidentally. Regulating take would help preserve the species' remaining populations, slow their rate of decline, and decrease synergistic, negative effects from other stressors. Therefore, we propose to prohibit take of the grizzly bear DPS, except for take resulting from those actions and activities specifically excepted by the 4(d) rule.

Exceptions to the prohibitions would include allowing Federal and State law enforcement officers to possess, deliver, carry, transport, or ship grizzly bears as

necessary in performing their official duties and additional exceptions, as described below. Despite the prohibitions regarding threatened species, we may under certain circumstances authorize one or more otherwise-prohibited activities, including those described above. The regulations that govern permits for threatened wildlife state that the Director may issue a permit authorizing any activity otherwise prohibited with regard to threatened species. These include permits issued for the following purposes: for scientific purposes, to enhance propagation or survival, for economic hardship, for zoological exhibition, for educational purposes, for incidental taking, or for special purposes consistent with the purposes of the Act (50 CFR 17.32). The statute also contains certain exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

Grizzly bears may obtain anthropogenic food sources, such as pet food, garbage, or livestock, if they are not properly secured. Grizzly bears that repeatedly obtain anthropogenic foods (food-conditioned bears) can become a threat to human safety. Additionally, depredating grizzly bears can affect the livelihood of ranchers and other livestock owners. The prompt response or removal of depredating and food-conditioned grizzly bears helps to prevent or minimize negative impacts, such as human safety concerns and livestock losses, leading to broader social receptiveness and tolerance. When limited by sustainable mortality rates according to specific populations or areas, lethal removal is an important component of long-term grizzly bear recovery that does not inhibit grizzly bear population growth. In this proposed 4(d) rule, we consider strategies, including nonlethal and lethal methods (depending on the site-specific situation), to increase human safety and reduce human-bear conflicts and thereby promote recovery of the grizzly bear DPS.

To further the conservation of the species, we propose not to apply the exceptions at 50 CFR 17.31(b), and instead propose multiple species-specific exceptions. For example, we propose that any employee or agent of the Service, any other Federal land management agency, the National Marine Fisheries Service, a State conservation agency, or a federally recognized Tribe, who is designated by their agency or Tribe for such purposes, may, when acting in the course of their official duties, take grizzly bears with prior authorization from the Service if such action is necessary to dispose of a dead specimen or salvage a dead specimen that may be useful for scientific study.

This proposed 4(d) rule clarifies grizzly bear management strategies on public and private lands in accordance with recovery status. This includes the requirement that agencies obtain prior authorization from the Service for conflict removals, as described in a memorandum of understanding (MOU) between the Service and authorized agency. Authorized agencies may relocate bears as a preemptive action to prevent conflict that appears imminent or in an attempt to break the habituated behavior of grizzly bears lingering near human-occupied areas. When a grizzly bear is captured, the employee will consult with the appropriate land management agency to determine a relocation site that is most suitable for the bear, considering age and sex of the bear, conflict history, and current human use at available relocation sites. Such taking must be coordinated with the Service as described in a current MOU between the Service and the authorized agency. In addition, we propose to except certain take associated with livestock grazing on private lands and public allotments, private property protection, authorized agency take outside of areas important for recovery or connectivity, grizzly bear deterrence, and take



associated with trapping of other species for research or management conducted by authorized agencies; we describe each in more detail below.

*(1) Public Land Grazing Allotments Outside Recovery Zones*

If authorized by the Service, take of grizzly bear depredating livestock on grazing allotments on public land outside of Recovery Zones would be excepted under a written, time-limited, conditioned lethal take authorization issued to an individual if the following conditions are met: (1) a depredation of livestock has been confirmed by the Service or authorized agency; and (2) the Service or authorized agency determine a grizzly bear poses a demonstrable and ongoing threat. The Service would consider various factors, including recovery status of the population involved, history of conflict in the area, severity of the incident, mitigation efforts in place, and alternative actions available prior to authorization.

*(2) Private Land Livestock Operations Outside Recovery Zones*

In addition to the excepted take described above, a producer, lessee, or designee would be allowed to take (injure or kill) a grizzly bear in the act of attacking livestock or working dogs on private land located outside of Recovery Zones provided that: (1) there were no excessive, unsecured attractants (e.g., carcasses or bone piles); (2) there was no intentional feeding or baiting of the grizzly bear or other wildlife; (3) the carcass of any grizzly bear taken and the area surrounding the carcass is not disturbed; (4) the take is reported to the Service or authorized agency within 24 hours; and (5) the Service or authorized agency is able to confirm that the livestock or working dog was injured or killed by a grizzly bear. The taking of any grizzly bear without such evidence may be referred to the appropriate authorities for prosecution. Authorized agencies must report

such take to the Service within 24 hours.

*(3) Private Lands Outside Recovery Zones*

If authorized by the Service, take of a grizzly bear on private lands outside of Recovery Zones would be excepted under a written, time-limited, conditioned lethal take authorization issued to an individual to kill a grizzly bear if the Service or an authorized agency identifies the bear as posing a demonstrable and ongoing threat to human safety or to other property (e.g., compost, chickens, beehives). The Service would consider various factors, including recovery status of the population involved, history of conflict in the area, severity of the incident, mitigation efforts in place, and alternative actions available prior to authorization.

*(4) Outside of Areas Important for Recovery or Connectivity*

This proposed 4(d) rule prescribes management practices within areas most important for recovery—such as recovery zones, areas adjacent to recovery zones, and current and potential connectivity zones—while allowing more flexible management in areas deemed less important for recovery within the proposed DPS. Areas less important for recovery include portions of Wyoming outside the DMA, as well as areas that do not have the potential to provide for connectivity as identified by the Service and partners in a planning document, such as a recovery plan, conservation strategy, or similar agency document. For example, Zone 3 identified in the NCDE Conservation Strategy does not provide for recovery or connectivity and therefore is an area where these management practices would apply. In these areas that are less important for recovery, take would be excepted for authorized agencies without prior authorization from the Service and without first attempting relocation if that bear meets the definition of a grizzly bear

involved in conflict as described in this proposed rule. In these areas, authorized agencies may also issue written, time-limited, conditioned lethal take authorization under the conditions described in (b)(3)(vii) and (b)(3)(viii)(B) of this section.

*(5) Deterrence*

Take caused by conducting deterrence of grizzly bears for the purposes of avoiding human-bear conflicts or to discourage bears from using areas near homes and other human-occupied areas would be excepted from the take prohibitions when the deterrence is conducted according to Service-approved best practices, which are, at this time, the Service's current hazing guidelines. Deterrence means an intentional, nonlethal action to haze, disrupt, or annoy a grizzly bear out of close proximity to people or property to promote human safety, prevent conflict, or protect property. The deterrence must not cause lasting bodily injury to any grizzly bear and must be undertaken safely and responsibly. Acceptable deterrence techniques may include nonprojectile auditory deterrents, visual stimuli/deterrents, vehicle threat pressure, bear spray, noise-making projectiles, or soft projectiles fired from non-powder-actuated launchers intended to break on contact. For more information about appropriate nonlethal deterrents, individuals can contact the Service for the most current Service-approved best practices. Any person may deter a grizzly bear to protect themselves (e.g., using bear spray or loud noises). An individual may not bait, stalk, or pursue a grizzly bear for the purposes of deterrence. Individuals may deter grizzly bears away from the immediate vicinity, defined as 200 meters (656 feet), of a human-occupied residence or potential source of conflict. Once bears have moved beyond the immediate vicinity (200 meters (656 feet)), hazing is unlikely to be effective and is not excepted take under this proposed

rule. Authorized agencies would be allowed to use additional tools, including contracted services for hazing as described in a current MOU.

*(6) Trapping of Other Species for Research and Management*

The 4(d) rule would also provide for the conservation of the species by excepting otherwise prohibited take associated with several activities either intended to incentivize conservation actions or that are expected to have negligible impacts to the grizzly bear DPS. Although the activities may result in some minimal level of take of the grizzly bear DPS, such take is not expected to rise to a level that would have a negative impact (i.e., would have only de minimis impacts) on the species' conservation. We propose to except incidental take associated with research and management trapping of other species, such as the gray wolf (*Canis lupus*) and wolverine (*Gulo gulo*), by an authorized agency provided the trap is securely anchored to prevent a grizzly bear from leaving the area and traps are checked at least every 24 hours. This provision does not authorize the use of neck snares.

We recognize the special and unique relationship that we have with our State natural resource agency partners in contributing to conservation of listed species. State agencies often possess scientific data and valuable expertise on the status and distribution of endangered, threatened, and candidate species of wildlife and plants. State agencies, because of their authorities and their close working relationships with local governments and landowners, are in a unique position to assist us in implementing the Act. Section 6 of the Act provides that we must cooperate to the maximum extent practicable with the States in carrying out programs authorized by the Act. Therefore, any employee of a State conservation agency that is a party to a signed and valid cooperative agreement pursuant

to section 6(c) of the Act, who is designated by their agency for such purposes, would be able to conduct activities designed to conserve the grizzly bear DPS that may result in otherwise prohibited take without additional authorization, including surveys; tagging, handling and capture; and habitat management activities undertaken for the conservation benefit of the species. Under the proposed 4(d) rule, States would be “authorized agencies” for purpose of undertaking grizzly bear management, including lethal removal in conflict situations as described above, if approved by the Service in accordance with the 4(d) rule and implemented through a current MOU between the Service and the State. Under the proposed 4(d) rule, the authorization for employees or agents of States to remove grizzly bears from the State for the purposes of population introduction, population augmentation, or relocation to mitigate human-bear conflicts, or lethal removal of a grizzly bear in conflict, would replace the exception set forth in 50 CFR 17.31(b)(3).

## **Required Determinations**

### *Clarity of the Rule*

We are required by Executive Order (E.O.) 12866 and E.O. 12988 and by the Presidential memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

*National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 et seq.)*

Regulations adopted pursuant to section 4(a) of the Act are exempt from the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 et seq.) and do not require an environmental analysis under NEPA. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244). This includes listing, delisting, and reclassification rules, as well as critical habitat designations and species-specific protective regulations promulgated concurrently with a decision to list or reclassify a species as threatened. The courts have upheld this position (e.g., *Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995) (critical habitat); *Center for Biological Diversity v. U.S. Fish and Wildlife Service*, 2005 WL 2000928 (N.D. Cal. Aug. 19, 2005) (concurrent 4(d) rule)).

*Government-to-Government Relationship with Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951, May 4, 1994), E.O. 13175 (Consultation and Coordination with Indian Tribal Governments), the President's memorandum of November 30, 2022 (Uniform Standards for Tribal Consultation; 87 FR 74479, December 5, 2022), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate

meaningfully with federally recognized Tribes on a government-to-government basis. In accordance with Secretary's Order (SO) 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes. In accordance with joint SO 3403 A1 of November 30, 2022, we recognize our responsibility to ensure our decisions with respect to wildlife safeguard the interests of potentially affected Tribes. We solicited information from the Tribes within the proposed grizzly bear DPS to inform the development of our SSA report, but we did not receive any responses. We will continue to coordinate with affected Tribes during the development of any final rules for the grizzly bear DPS, as appropriate.

### **References Cited**

A complete list of references cited in this rulemaking is available on the internet at <https://www.regulations.gov> and upon request from the Grizzly Bear Recovery Office (see **FOR FURTHER INFORMATION CONTACT**).

### **Authors**

The primary authors of this proposed rule are the staff members of the U.S. Fish and Wildlife Service's Grizzly Bear Recovery Office.

### **List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

**Proposed Regulation Promulgation**

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

**PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS**

1. The authority citation for part 17 continues to read as follows:

AUTHORITY: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

2. In § 17.11, in paragraph (h), amend the List of Endangered and Threatened Wildlife under MAMMALS and “Bear, grizzly” by revising the first entry for “*Ursus arctos horribilis*” to read as follows:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*

(h) \* \* \*

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
MAMMALS				
* * *	* * *	*		
Bear, grizzly [Grizzly Bear DPS]	<i>Ursus arctos horribilis</i>	U.S.A: All of WA and portions of MT, ID, and WY, except where listed as an experimental population, as follows: (1) Northern boundary—the portion south of the western terminus of the U.S.–Canada border in WA east to Montana Highway 16; (2) Eastern boundary—the portion west of Montana Highway 16 south from the U.S.–Canada border to	T	32 FR 4001, 3/11/1967; 35 FR 16047, 10/13/1970; 40 FR 31734, 7/28/1975; 72 FR 14866, 3/29/2007; 75 FR 14496, 3/26/2010; 82 FR 30502, 6/30/2017; 84 FR 37144, 7/31/2019; [ <i>Federal Register</i> citation when published as a final rule]; 50 CFR 17.40(b). <sup>4d</sup>



		Interstate 94 continuing south to Montana Highway 47, then to Interstate 90, then to Highway 25, then to Wyoming Highway 220, then to Wyoming Highway 287 to the intersection with Interstate 80; 3(3) Southern boundary—the portion north of Interstate 80 west to Highway 30, then follows the Snake River near Pocatello, ID, to the WA State line to the Pacific Ocean; (4) Western boundary—the portion east of the coast of WA north to the U.S.–Canada border.		
*	*	*	*	*

3. Amend § 17.40 by revising paragraph (b) to read as follows:

**§ 17.40 Species-specific rules—mammals.**

\* \* \* \* \*

(b) Grizzly bear (*Ursus arctos horribilis*), Grizzly bear DPS.

(1) *Definitions.* As used in paragraph (b) of this section:

*Authorized agency* means a Federal, State, or Tribal agency designated by the Service in a memorandum of understanding (MOU) to assist in implementing all or part of the specified actions in paragraph (b)(3) of this section.

*Deterrence* means an intentional, nonlethal action to haze, disrupt, or annoy a grizzly bear out of close proximity to people or property to promote human safety, prevent conflict, or protect property.

*Grizzly bear* means any member of the species *Ursus arctos horribilis* within the grizzly bear DPS, as described in 50 CFR 17.11(h), including any part, offspring, dead body, part of a dead body, or product of such species.

*Grizzly bear involved in conflict* means a grizzly bear that has caused substantial property damage, obtained anthropogenic foods ( e.g., pet food, livestock feed, garbage), killed or injured lawfully present livestock, damaged beehives, breached an intact structure or electrified perimeter to obtain fruit or crops (e.g., greenhouse, garden, orchard, field, stackyard or grain bin), shown repeated and persistent signs of habituation in proximity to human-occupied areas (e.g., has been repeatedly hazed or previously relocated), exhibited aggressive behavior (i.e., not acting in defense of offspring or food or in response to a surprise encounter), or has been involved in a human-grizzly encounter resulting in substantial human injury or loss of human life.

*Habituation* means the decrease of an animal's flight response following repeated exposure to inconsequential stimuli.

*Human food-conditioned bear* means a grizzly bear that has learned to associate people, human activities, human-use areas, or food storage receptacles with anthropogenic food as a result of repeatedly accessing anthropogenic foods without negative consequences on numerous occasions.

*In the act of attacking* means the actual biting, wounding, grasping, or killing by a grizzly bear.

*Incidental take* is take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity; it must be unintentional and not due to negligent conduct.

*Lasting bodily injury/injured* means damage that limits a grizzly bear's ability to effectively move, obtain food, or defend itself for any length of time.

*Non-target* means a bear that is caught that is not believed to be the bear that is involved in the conflict.

*Prior authorization from the Service* means that an approved representative from the U.S. Fish and Wildlife Service, as specified in a current MOU, has agreed with the proposed management action.

*Recovery Zones* are outlined in the 1993 Recovery Plan, and subsequent supplements, and identify six recovery ecosystems, each containing a recovery zone at its core, within the lower-48 States thought to be capable of supporting grizzly bears.

*Self-defense* means that the person was acting to protect himself or herself, or any other individual, from bodily harm.

*Serious injury* means any permanent damage or injury that limits a grizzly bear's ability to effectively move, obtain food, or defend itself for any length of time.

*Sick* means affected with disease or ill health.

*Threat to human safety* means a grizzly bear that exhibits aggressive, non-defensive, behavior towards humans. Grizzly bear presence alone does not constitute a threat to human safety. Grizzly bears less than 2 years of age with no history of food-conditioning are not considered a threat to human safety.

*Working dog* means a herding or guard dog that is actively herding or guarding in close proximity to human-occupied areas or to lawfully present livestock.

(2) *Prohibitions*. The following prohibitions that apply to endangered wildlife also apply to the grizzly bear DPS. Except as provided under paragraph (b)(3) of this

section and §§ 17.4 and 17.5, it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or cause to be committed, any of the following acts in regard to this species:

- (i) Import or export, as set forth at § 17.21(b) for endangered wildlife.
- (ii) Take, as set forth at § 17.21(c)(1) for endangered wildlife.
- (iii) Possession, delivery, carriage, transport, or shipment of unlawfully or lawfully taken specimens of grizzly bears.
- (iv) Interstate or foreign commerce in the course of commercial activity, as set forth at § 17.21(e) for endangered wildlife.
- (v) Sale or offer for sale, as set forth at § 17.21(f) for endangered wildlife.

(3) *Exceptions from prohibitions.* The following exceptions to the prohibitions apply to the grizzly bear DPS:

- (i) Federal, State, or Tribal authorities may import grizzly bears into the United States for scientific or research purposes with prior authorization from the Service.
- (ii) Any person may conduct activities as authorized by a permit under § 17.32.
- (iii) Any employee or agent of the Service, or any employee or agent of another Federal agency, State agency, or federally recognized Tribe defined in a current MOU with the Service who, as part of their official duties, normally handles large carnivores and is trained and/or experienced in immobilizing, marking, and handling grizzly bears (which we define as a Federal, State, or Tribal “authority”), may, when acting in the course of official duties, take or collect samples from a grizzly bear in the wild consistent with this paragraph (b) and the applicable MOU if such action is necessary for scientific, genetic, or population augmentation purposes.

(A) Mortalities or suspected serious injury must be reported to the Service as described in a current MOU.

(1) Take that results in a grizzly bear mortality must be reported to the Service within 24 hours.

(2) Take that results in a grizzly bear injury must be reported to the Service within 5 days.

(B) Authorized agencies may move a grizzly bear to aid recovery or increase the genetic health of the population after notification to the Service.

(C) In the absence of an MOU, a permit under § 17.32 is required.

(iv) Any person may take a grizzly bear in defense of their own life or the lives of others. Grizzly bears taken in self-defense or in defense of human life must be reported by the individual who has taken the bear or their designee within 24 hours of occurrence. Take must be reported to the Office of Law Enforcement, U.S. Fish and Wildlife Service, in the appropriate region (see 50 CFR 2.2 for regional office information), and to appropriate State and Tribal authorities. The specimen may only be retained, disposed of, or salvaged with the consent of, and consistent with directions from, the Office of Law Enforcement.

(v) Take is excepted for authorized agencies aiding sick and injured grizzly bears when conducted in a humane manner. Take associated with orphaned cubs must have prior authorization from the Service except when the conditions under paragraph (b)(3)(vi) apply.

(vi) An employee or agent of a Federal, State, or federally recognized Tribe defined in a current MOU with the Service who, as part of their official duties, normally

handles large carnivores may, when acting in the course of official duties, humanely take a grizzly bear in the wild with prior authorization from the Service in order to avoid conflicts, prevent habituation, improve grizzly bear survival, release or relocate non-targets, aid in law enforcement investigations, salvage bear carcasses, or euthanize severely wounded bears under the following criteria:

(A) Efforts are made to eliminate such threat or depredation, when reasonably possible, by securing attractants, using deterrence, or live-capturing and releasing the bear unharmed in a remote area.

(1) Authorized agencies may relocate bears as a preemptive action for the purpose of preventing conflict that appears imminent or breaking habituated behavior of grizzly bears lingering near human-occupied areas.

(2) When a grizzly bear is captured, the employee or agent will consult with the appropriate land management agency to determine a relocation site that is most suitable for the bear, considering the age and sex of the bear, conflict history, and current human use at available relocation sites. Such taking must be coordinated with the Service as described in a current MOU.

(B) In grizzly bear Recovery Zones, management actions by authorized agencies include lethal removal of a grizzly bear involved in conflict (as defined in paragraph (b)(1) of this section) when the condition set forth in paragraph (b)(3)(vi)(A) of this section is met, with authorization from the Service, taking into consideration the age and sex of the bear, nature of the conflict, and the bear's conflict history.

(C) Outside of areas important for recovery or connectivity as identified by the Service in a final recovery plan, or with the Service in an approved conservation strategy,

other similar agency planning document, or, in Wyoming, outside the DMA, authorized agencies may, without prior approval from the Service:

(1) Lethally remove a bear without first attempting relocation if it has been determined to be a grizzly bear involved in conflict, as defined in paragraph (b)(1) of this section.

(2) Issue a written, time-limited, conditioned lethal take authorization as set forth in paragraphs (b)(3)(vii) and (b)(3)(viii)(A) of this section.

(3) When taking a bear or authorizing a take of a bear under this authority, the authorized agency assumes the responsibility of correctly applying the definition of a grizzly bear involved in conflict as defined in paragraph (b)(1) of this section.

(4) Authorized agencies must report any lethal take to the Service within 24 hours of the incident if take is by the agency, or within 24 hours of reporting if take is associated with a lethal take authorization.

(vii) On public land grazing allotments outside Recovery Zones the Service may issue written, time-limited, conditioned lethal take authorization to an individual if all of the following conditions are met:

(A) All conditions set forth in paragraph (b)(3)(vi)(A) have been met;

(B) A depredation of livestock has been confirmed by the Service or authorized agency; and

(C) With the consideration of the recovery status of the population involved, the history of conflict in the area, and the severity of the incident, the Service or authorized agency determines that a bear is a demonstrable and ongoing threat.

(viii) On private lands outside Recovery Zones, the Service may authorize an individual to take a grizzly bear when all conditions set forth in paragraph (b)(3)(vi)(A) have been met, provided that:

(A) The Service issues a written, time-limited, conditioned lethal take authorization as described in paragraph (b)(3)(vii); and

(B) The Service or an authorized agency identifies the bear as a demonstrable and ongoing threat to human safety or to protect property (e.g., compost, chickens, beehives). The identification will include consideration of the recovery status of the population involved, the history of conflict in the area, and the severity of the incident.

(ix) On private lands outside Recovery Zones, a producer, lessee, or designee may take (injure or kill) a grizzly bear in the act of attacking livestock or working dogs on private land outside Recovery Zones provided:

(A) Excessive unsecured attractants (e.g., carcasses or bone piles) are absent;

(B) There was no intentional feeding or baiting of the grizzly bear or wildlife;

(C) The take is reported to the Service or authorized agency within 24 hours. If a report of lethal take is made to an authorized agency, then that agency must report that take to the Service within 24 hours;

(D) The Service or authorized agency is able to confirm that the livestock or working dog was injured or killed by a grizzly bear. The taking of any grizzly bear without such evidence may be referred to the appropriate authorities for prosecution; and

(E) For lethal take, the carcass of any grizzly bear taken and the area surrounding it is not disturbed to preserve the physical evidence that the take was conducted according to these regulations.



(x) Take in the form of harassment is excepted for individuals to conduct deterrence of grizzly bears for the purposes of avoiding human-bear conflicts or to discourage bears from using areas near homes and other human-occupied areas under the following conditions:

(A) Any deterrence must be conducted in accordance with Service-approved best practices.

(B) Any deterrence must not cause lasting bodily injury to any grizzly bear (i.e., permanent damage or injuries that limit the bear's ability to effectively move, obtain food, or defend itself for any length of time) or death to the grizzly bear.

(C) Acceptable deterrence techniques may include non-projectile auditory deterrents, visual stimuli/deterrents, bear spray, vehicle threat pressure, noise-making projectiles, or soft projectiles fired from non-powder-actuated launchers intended to break on contact. Unacceptable deterrence methods include screamers, whistlers, rubber bullets, batons, bean bag and aero sock rounds, or other contact projectiles not intended to break on contact due to their potential to cause lasting injury. For more information about appropriate nonlethal deterrents, individuals can contact the U.S. Fish and Wildlife Service, in the appropriate region (see 50 CFR 2.2 for regional office information).

(D) Anyone may deter a grizzly bear in the case of self-defense (e.g., by using bear spray or loud noises), but an individual must not bait, stalk, or pursue a grizzly bear for the purposes of deterrence.

(E) Individuals may deter grizzly bears away from the immediate vicinity, defined as 200 meters (656 feet), of a human-occupied residence or potential source of conflict.

Once bears have moved beyond the immediate vicinity (200 meters (656 feet)), deterrence must cease.

(F) Authorized agencies may use additional tools, including contracted services, as described in a current MOU.

(xi) An authorized agency may take a grizzly bear if that take is incidental to, and not the purpose of, an otherwise lawful research and management trapping for other species, such as wolverine (*Gulo gulo*) and gray wolf (*Canis lupus*), provided that:

(A) The trap is securely anchored to prevent a grizzly bear from leaving the area;

(B) The trap is checked at least every 24 hours;

(C) Trapping does not include use of neck snares; and

(D) Incidental take that results in a grizzly bear mortality must be reported to the Service within 24 hours; or

(E) Incidental take that results in a grizzly bear injury must be reported to the Service within 5 days.

(xii) In coordination with the Service's Office of Law Enforcement, authorized Federal, State, or Tribal employees, when acting in the course of their official duties, may, for scientific or research purposes, possess, deliver, carry, transport, ship, export, or receive grizzly bears.

(xiii) Federal and State law enforcement officers may possess, deliver, carry, transport, or ship grizzly bears as necessary in performing their official duties.

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**Martha Williams,**  
*Director,*

*U.S. Fish and Wildlife Service.*