Request for Peer Review

Background

Grizzly bears (*Ursus arctos*) in the lower 48 States were listed as a threatened species under the Endangered Species Act (ESA) in 1975. Excessive, unregulated human-caused mortality was the primary factor leading to grizzly bear decline. Today, grizzly bears in the lower 48 States persist in five separate ecosystems, including the Greater Yellowstone Ecosystem (GYE), with Yellowstone National Park at its core. Since their listing in 1975, the GYE population of grizzly bears has nearly tripled in size and more than doubled its range. While human-caused mortality remains the limiting factor for nearly all grizzly bear populations in the world, including in the GYE, partner agencies and Tribes have successfully regulated this mortality to stay within sustainable limits that allow for population stability or growth.

In early 2016, the U.S. Fish and Wildlife Service will publish a proposed rule to remove the Greater Yellowstone Ecosystem population of grizzly bears from the Endangered Species List. Concurrent with the proposed rule, we are proposing to update portions of the Recovery Plan: Demographic Recovery Criteria in the GYE and the Conservation Strategy based on new scientific analyses, information, and methods. The Conservation Strategy is the post-delisting management plan that will guide management in perpetuity after delisting.

To effectively manage human-caused mortality, the Service established demographic recovery criteria that are monitored by the Interagency Grizzly Bear Study Team. Some mortality is unavoidable in a dynamic system where hundreds of bears inhabit large areas of diverse habitat with several million human visitors and several hundred thousand residents. The objective of demographic recovery criteria is to ensure the long-term persistence of the GYE population of grizzly bears while allowing for human removal of some individuals when they become a threat to human safety or livestock.

The Conservation Strategy is the post-delisting management plan and describes the coordinated habitat and demographic management and monitoring necessary to maintain a recovered grizzly bear population in the GYE. As part of the Service peer review policy we are requesting peer review of this proposed delisting rule, the draft Recovery Plan Supplement: Revised Demographic Criteria, and the draft 2016 Conservation Strategy.

Substance of the Review

Our purpose in seeking independent peer review is to ensure that we've adequately considered and addressed all factors relating to the continued survival of a healthy grizzly bear population in the Greater Yellowstone Ecosystem. The purpose of seeking independent peer review is to ensure that the best biological and scientific data are being used in this revision process. We are asking for your candid expert opinion pertaining to the logic of our assumptions, arguments, and conclusions.

We are seeking peer review on this proposed rule, the draft Recovery Plan Supplement: Revised Demographic Recovery Criteria, and the draft 2016 Conservation Strategy to gain an

independent scientific perspective. We seek peer review to ensure that these 3 documents will allow us to meet our objective of assuring that the regulatory mechanisms provided will provide adequate regulatory mechanisms and management direction for the GYE grizzly bears and their habitat so that the GYE grizzly bear population will remain recovered.

The purpose of seeking independent peer review is to ensure that the best biological and scientific data are being used in this revision process, as well as to ensure that reviews and input by recognized experts are incorporated into these 3 documents.

If you agree to be a peer reviewer of these 3 documents, we ask you to consider, but not limit your responses, to the following questions and provide any other relevant comments, criticisms, or ideas:

Proposed Rule:

1. Does the proposed rule provide adequate review and analysis of the factors relating to the persistence of the grizzly bear population in the GYE (demographics, habitat, adequate regulatory mechanisms, disease and predation, and genetics)?
2. Is our establishment of this population as a distinct population segment (DPS) logical and adequate? Specifically, are our arguments pertaining to the discreteness and significance of the population sufficient according to the DPS policy, as described in the rule?
3. Are our assumptions and definition of suitable habitat logical and adequate?
4. Are the details for habitat management and regulatory mechanisms adequate in the proposed rule?
5. Is the management of discretionary mortality, including hunting, scientifically sound and sufficiently detailed?
6. Are the conclusions relating to the effects of changes in food resources on the GYE grizzly bears scientifically based and logical?
7. Is our explanation of density dependent effects versus whitebark pine decline driven effects scientifically sound?
8. Is uncertainty adequately considered and addressed?
9. Did we include all the necessary and pertinent literature to support our assumptions/arguments/conclusions?

Draft 2016 Conservation Strategy:

1. Are the habitat management mechanisms scientifically sound and sufficiently detailed in the draft 2016 Conservation Strategy?
2. Is the management of discretionary mortality, including hunting, scientifically sound and sufficiently clear and detailed so that managers can use this document to successfully implement mortality management in the future?
3. Is management to facilitate connectivity with other grizzly populations adequately addressed in the draft 2016 Conservation Strategy?
4. If implemented, is the Conservation Strategy adequate to reasonably ensure the long-term viability of the GYE grizzly bear population?
5. Did we include all the necessary and pertinent literature?

Draft Recovery Plan Supplement: Revised Demographic Criteria:

1. Given known (and unknown) levels of uncertainty, are the revised demographic criteria likely to support long-term conservation of grizzly bears in the GYE?
2. Is managing to maintain the population around the 2002–2014 model-average Chao2 estimate of 674 (95% CI = 600–757) (instead of stability or an increasing or decreasing population) an appropriate approach for this population of grizzly bears?
3. Is assessment of demographic criteria exclusively within the demographic monitoring area identified a reasonable biological and statistical approach?
4. Do the proposed revisions and supporting documents provide all the necessary and pertinent literature to support our assumptions and conclusions?

Expectations & Outcomes

As a peer reviewer, you are asked to provide a written report evaluating these 3 documents. This report would include a brief description of your organizational affiliation and credentials before responding to the questions above and describing your findings and conclusions. Reviewers are not expected to provide advice on the specific decision but rather ensure that scientific uncertainties are clearly identified and whether more research is likely to decrease key uncertainties and, if so, to what extent. If you accept this responsibility, your name and reviews will be available to the public.