

Bulleted summary of peer review and public comments, organized into issues that need assistance from YES SC or the Agencies who are part of YES.

Green = agency and public comment

Blue = peer review

Purple = both public comment and peer review

Questions:

IS ISSUE GERMAINE TO CS? If not, Response to FR then who helps write.

DOES YES SC NEED TO ADDRESS? If yes, does require clarification, or FR response. Help?

General

- Need to consider how implementation and management of the CS will adversely impact private landowners within the DMA. The CS may adversely impact land owners and the process for satisfying a damage claim for/on both real and personal property will be difficult. [JB1][BRN2]

Executive Summary

- The Conservation Strategy should be evaluated and reviewed every 5 years (currently every 5 years or as necessary) [JB3][BRN4]
- Clarify that the CS is a cooperative agreement and that the Service's role is not to oversee management but evaluate the five factors under the ESA should it be necessary. [JB5][BRN6]

Chapter 1: Introduction and Background

- **ISSUE:** Implementation period of the Conservation Strategy [BRN7]
 - o CS should be in effect beyond 5 year minimum
 - The Conservation Strategy must be implemented beyond the minimum 5-years of the ESA. The Service has a history of implementation for longer than 5 years.
 - Say "the 2016 Conservation Strategy will remain in effect beyond the 5-year monitoring period" instead of "in perpetuity" or "indefinitely"
 - Even if states are cautious during the first five years of federal oversight that follows delisting, over time management will reverse gains made over the last 40 years of endangered species protection.
 - Should be in effect for at least 18 years. The post-delisting monitoring for the peregrine falcon was every 3 years for 15 years and every 5 years for 20 years for the Hawaiian hawk.
 - o CS should be in effect for only the 5 year minimum
 - The CS should only be in effect for the 5 years required by the ESA and then management should become the full responsibility of the states (all "references to "indefinitely or "in perpetuity" should be removed).
 - The Service inappropriately links mandates to grizzly bear's "conservation reliant" status, such as having the CS in effect "in perpetuity" (States).
 - Since the three demographic recovery criteria have been met, post-delisting should not require management but only monitoring. Management drives up costs and depletes state resources without a biological or scientific need.

- o [BRN8][BRN9] There should be a commitment to continue robust monitoring and research post-delisting [JB10]

Chapter 2: Population Standards and Monitoring

GYE Grizzly Bears Recovery Criteria and management objectives

- It states that the mortality rates are adjustable, when will these rates be adjusted and how? They are the foundation of the regulatory mechanisms. [JB11]

[BRN12]

Human-caused mortality

- **ISSUE:** Concerns about the boundaries of hunting activities (where hunting will be allowed to occur):
 - o Hunting in the PCA
 - There should be no hunting inside the PCA or other densely populated grizzly areas
 - Only allow hunting outside the DMA, away from “secure habitat”
 - Misconception that there will be no hunting inside the PCA because it is “secure habitat”. The Conservation Strategy states that “The PCA will be a secure area for grizzly bears, with population and habitat conditions maintained to ensure a recovered population is maintained for the foreseeable future and to allow bears to continue to expand outside the PCA.” And “Habitat security requires minimizing mortality risk and displacement from human activities in a sufficient amount of habitat to allow the population to benefit from this secure habitat and respond with increasing numbers and distribution.”
 - It is difficult to identify boundaries of the PCA or other “secure habitat”, need to limit hunting to readily defined zones. [JB13][BRN14]
- **ISSUE:** Concerns and confusion about proposed mortality limits:
 - o Discrepancy between the mortality limit tables between rule and CS, footnote in rule of rule to Dan Ashe’s letter – should restructure table for 2 columns – 1 for 674 and 1 for <674, allowing the mortality limit to remain at 7.6% at populations <674 would allow the population to be driven down [JB15]. [BRN16]
 - o Doubts about scientific basis of the mortality limits
 - For mortality limits >7.6% for independent females: What is the biological basis for population decline? Unsustainable, especially with increasing density dependent forces. Need scientific justification for the mortality limits and models used to derive these thresholds, available for independent peer review. Population may continue downward even after reducing mortality to ≤7.6%. [BRN17]
- [JB18]
- **ISSUE:** Confusion around how total and background mortality is calculated
 - o The rule provides definitions and calculations not included in the CS (i.e., total mortality, background mortality, discretionary mortality, Table 3 and subsequent 3 paragraphs) that should be included for clarity
 - o Background mortality fails to account for unknown-unreported grizzly bears deaths.

- o Need to discuss the uncertainty in the number of bears that die from natural causes or unreported human-caused mortality, broad credible intervals depending on priors and how unexplained or unresolved cases are dealt with (Cheery et al. 2002). IGBST reports do not show credible intervals and natural deaths are not included in the estimation.
- o The method used to calculate total deaths is biased (biased low – IGBST 2012, Table 2.1) and the degree of that bias is not consistent (e.g., effort expended to locate dead bears) and is unknown.
- o The period over which the moving average of background mortality should be defined and account for uncertainty
- o Fails to address loss by emigration out of the DMA and is not counted towards total mortality limits or background mortality when calculating allowable discretionary mortality
- o Difficult to plan to close hunting seasons when total mortality reaches threshold levels when up to half of individual grizzly bear mortalities are never discovered in non-telemetered bears (McLellan et al. 1999).
- o Cumulative annual mortality should be analyzed on a month-to-month or seasonal basis to be used as a better predictor to alert managers if annual mortality is progressing in a “normal” pattern or if it is likely to be exceeded. An additional trigger could be added to stop discretionary mortality for the current year in light of this information.
- o Governor Mead requests the removal of language following Table 3 explaining mortality allocation beginning with “[t]here are mortalities that occur...” through the sentence, “[t]hese examples serve to explain the process...” [JB19]

Chapter 3: Habitat Standards and Monitoring

Habitat management

- o p. 57, last sentence first paragraph: “habitat standards in this document are subject to revision...reviewed and updated as necessary” should be defined. Who will review and update and what is the process? [JB20] [BRN21]

• **ISSUE: Additional concerns/considerations surrounding human recreation**

- o Detriments of increased human visitation/human contact with bears
 - Grizzly bears are twice as likely to use an area when human activity is restricted or people were inactive (Coleman et al. 2013).
 - Longer-term exposure to humans can cause habituation and higher mortality risks (note from Alex: references exist for this but they were not provided by the commenter).
- o The number of visitors to national parks has steadily increased since 2005 to the present (YNP 2.9 to 4.1 million and GTNP 2.5 to 3.1 million), increasing risk without a change in infrastructure.
- o Increasing visitation and recreation is a concern and presumably a limit on visitation will be needed at some point and should be considered.

- o Increased visitation should be assessed as take (section 9) as it harasses wildlife and causes displacement from food sources.
- o Food storage orders should be in effect for all habitat within the DPS boundaries, especially within the DMA, within extent of the law.^[JB22]

- Please clarify what food storage orders have to do with connectivity.^[JB23]

[BRN24]

- **ISSUE:** Hunter Numbers

- o p. 84 first line indicates that there is little evidence of a relationship between hunter numbers and grizzly bear mortality. The next paragraph indicated that the greatest source of mortality is due to interaction with hunters. If the number of hunters has been shown as not relevant, why does the State have to collect the number of hunters for this CS?^[JB25]

Chapter 6: Implementation and Evaluation

- **ISSUE:** IGBST Biology and Monitoring Review

- o The timeframe for the completion of an IGBST Biology and Monitoring report need to be stated and a time period for a remedy the issue
- o The generation length for grizzly bears is likely close to 10 years and a frequency of a demographic monitoring review by the IGBST should be 5 years (rather than 5-10 years) to be consistent with precautionary management.
- o Standardize response in the rule, CS, and state management plans^[JB26]

[BRN27]