



# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Washington, D. C. 20240



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## Memorandum

To: Director, National Park Service

Through: Principal Deputy Assistant Secretary for Fish and Wildlife and Parks

From: Director, U.S. Fish and Wildlife Service

Subject: Greater Yellowstone Ecosystem Grizzly Bear

During our December 4, 2016, discussion with the Secretary, you raised some questions regarding the potential delisting of the Greater Yellowstone Ecosystem (GYE) population of grizzly bear and the multi-agency Conservation Strategy for this population that has been updated under the auspices of the Interagency Grizzly Bear Committee (IGBC). I will address those questions here.

In particular, you asked about the U. S. Fish and Wildlife Service's (Service) understanding and interpretation of the management objective espoused in the Conservation Strategy and agreed to by the three states. As stated in the 2016 Conservation Strategy, the parties committed to "managing for a stable population within the GYE demographic monitoring area around the 2002-2014 model-averaged Chao2 estimate" (pg. 4) and, by so doing, to "maintain the recovered status of the grizzly bear in the GYE" (pg. 20). This objective is identical to the wording of the revised demographic recovery criterion 3. The manner in which the States will manage for this population objective is described in Chapter 2 of the Conservation Strategy ("Population Standards and Monitoring") and summarized in Table 4 of that chapter. The Service has confidence that the state agencies will manage to retain the population's recovered status and will manage around the long-term average that occurred as the population stabilized over the period 2002-2014.

You also asked about the Service's understanding and interpretation of the phrase "foreseeable future" as used in the Conservation Strategy. First, we take the conservation strategy as written to indicate that the population estimation methodology known as Chao2 will be used as the agreed upon estimator for the foreseeable future. The foreseeable future is not equivalent to the five year post-delisting monitoring period with which you may be familiar. The five year post-delisting monitoring period arises from the Service's obligation under the Endangered Species Act to monitor the status of the species with the involved states for five years following a final delisting rule. That five year monitoring obligation is not linked to the term foreseeable future or its definition. From our extensive conversations with the states, the use of the term foreseeable future in the Conservation Strategy's discussion of Chao2 means that the states and the Interagency Grizzly Bear Study Team will use the model-averaged Chao2 method to estimate

population abundance as far into the future as we can reliably envision. Ceasing to use the Chao2 method for the population estimator is not a foreseeable event. Even if a new population estimator is developed and implemented, Chao2 will continue to be used to determine discretionary mortality. Because the model-averaged Chao2 method is widely understood to underestimate population size by up to 50% (Schwartz et al. 2008, Figure 5), we consider use of the Chao2 population estimator to be a conservative, protective approach for managing to the population objective.

I hope that this answers the questions you posed during our recent meeting.