











January 31, 2019

To: Yellowstone Ecosystem Subcommittee Members:

Mike Volesky, (Chair) Montana Fish, Wildlife and Parks, Helena, MT

Kim Liebhauser, (Co-Chair) BLM-Wyoming, Cody, WY

Tricia O'Conner, Bridger Teton National Forest, Jackson, WY

Melany Gossa, Beaverhead Deerlodge National Forest, Dillon, MT

Derek Ibarguen, Caribou-Targhee National Forest, Idaho Falls, ID

Lee Miller, Idaho Association of Counties

Lisa Timchak, Shoshone National Forest, Cody, WY

David Vela, Grand Teton National Park Jackson, WY

Cam Sholly, Yellowstone National Park, Yellowstone Nat'l Park, WY

Jim White, Idaho Dept of Fish and Game, Idaho Falls, ID

Brian Nesvik, Wyoming Dept of Game and Fish, Cheyenne, WY

Tom Rice, Montana Association of Counties, Beaverhead County, Dillon, MT

Loren Grosskopf, Wyoming County Commission, Park County Cody, WY

Leander Watson, Shoshone Bannock Tribes, Fort Hall, ID

Mary Erickson, Custer-Gallatin National Forest, Bozeman MT

Rick Hotaling, BLM – Montana Dillon, MT

Mary D'Aversa, BLM – Idaho Falls, ID

cc: Dan Tyers, USFS Greater Yellowstone Ecosystem Grizzly Bear Mgmt Coordinator, Bozeman, MT

Frank van Manen, Interagency Grizzly Bear Study Team, Bozeman, MT

Hilary Cooley, USFWS Liaison

Kelsie Dougherty, Administrative Coordinator, Montana Fish, Wildlife & Parks, Bozeman, MT

## Re: Record Grizzly Bear Mortalities Necessitate an Update and Concerted Action on Recommendations of the 2009 Yellowstone Mortality and Conflicts Reduction Report

Dear Members of the Yellowstone Ecosystem Subcommittee:

In recent years, Yellowstone's grizzly bear population has experienced record-high mortality; nearly 250 grizzly bears have died just since 2015. Sixty or more known or probable grizzly bear deaths have been documented annually in the past several years, with a record high of 65 mortalities in 2018, nearly all as a result of human-related causes. These are only the known and probable mortalities; actual total mortality is undoubtedly much higher. The Interagency Grizzly Bear Study Team's (IGBST) own model recognizes that reported deaths

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 $<sup>^{1}\</sup> https://www.usgs.gov/data-tools/2018-known-and-probable-grizzly-bear-mortalities-greater-yellowstone-ecosystem$ 

<sup>&</sup>lt;sup>2</sup> B. N. McLellan et al., "Rates and Causes of Grizzly Bear Mortality in the Interior Mountains of British Columbia, Alberta, Montana, Washington, and Idaho," *Journal of Wildlife Management* 63, no. 3 (Jul 1999), http://dx.doi.org/10.2307/3802805.

represent only a fraction of total annual mortality<sup>3</sup> and a new study from Canada found that perhaps as high as 88 percent of mortalities are unknown.<sup>4</sup>

Yet the Yellowstone Ecosystem Subcommittee (YES) has not initiated or conducted a meaningful examination of the patterns and causes of mortality or taken concerted action to address the significantly elevated mortality level in a coordinated way throughout the ecosystem.

In contrast, due to an unprecedented number of grizzly bear deaths in the Greater Yellowstone Ecosystem in 2008, members of the Yellowstone Grizzly Coordinating Committee (YGCC) directed the mortality review task force of the IGBST to "review ways to improve mortality reduction efforts in the ecosystem by reviewing past practices for efficacy and to propose new methods as necessary." In June of 2009, the IGBST completed the "Yellowstone Mortality and Conflicts Reduction Report," which detailed the timing, causes, distribution and patterns of grizzly bear conflicts and mortality. Importantly, the report also made 33 recommendations to reduce grizzly bear mortalities, including 21 recommendations to reduce hunter-related conflicts alone. Eleven recommendations were prioritized in the report as having the highest probability of reducing bear deaths as well as bear-human conflicts.

YES member agencies have instituted some valuable conflict prevention measures over the past decade since the report was produced. However, most if not all of the 2009 report's common-sense measures have not been implemented; and other measures which could prevent potential conflicts, particularly in regard to requiring non-lethal conflict prevention measures of livestock producers, were not raised.

We urge members of the YES to direct the IGBST mortality review team to update the ten-year-old mortality and conflicts report, and to do so by the fall of 2019. Significant changes have occurred in the past ten years in regard to grizzly bears' diet, human population growth in the region, and other factors that necessitate re-evaluation of the patterns of conflicts, and prioritization and implementation of conflict reduction measures.

According to Dr. Frank Van Manen of the IGBST, patterns of conflicts involving grizzly bears have changed since the 2009 report. Up-to-date information on conflict patterns is vital for agency personnel and members of the public to have in order to prevent conflicts and subsequent harm to bears, people and private property.

Additionally, we urge members of the YES to direct the IGBST mortality review team to undertake a comprehensive review of the conflict prevention recommendations of the 2009 report, solicit information from YES members on any and all progress made on implementation of the recommendations, and determine what additional measures should be implemented, particularly given the high number of grizzly bear deaths in recent years.

Many of the recommendations in the 2009 report are common-sense but have not been implemented, particularly in regard to hunting-related conflicts – consistently one of the top two causes of grizzly bear mortality in the Yellowstone region. For example, more could be done in regard to improving carcass management associated with elk hunting, requiring hunters to carry bear spray and have it immediately accessible, and placing higher emphasis on the effectiveness of bear spray in public messaging, to name just a few. This fall there were many missed opportunities to educate hunters on best practices following high-profile conflicts that may have prevented future conflicts and fatalities; for example, education of hunters about not shooting prey late in the day which makes prompt packing out of a carcass difficult if not impossible, and ensuring bear spray is accessible at all

<sup>&</sup>lt;sup>3</sup> S. Cherry et al., "Estimating Total Human-Caused Mortality from Reported Mortality Using Data from Radio-Instrumented Grizzly Bears," *Ursus* 13 (2002), http://pubs.er.usgs.gov/publication/1008616.

<sup>&</sup>lt;sup>44</sup> Bruce N. McLellan, Garth Mowat, and Clayton T. Lamb, "Estimating Unrecorded Human-Caused Mortalities of Grizzly Bears in the Flathead Valley, British Columbia, Canada," *PeerJ* 6 (2018/10/11 2018), http://dx.doi.org/10.7717/peerj.5781.

<sup>&</sup>lt;sup>5</sup> Interagency Grizzly Bear Study Team. 2009. Yellowstone grizzly bear mortality and conflict reduction report. Interagency Grizzly Bear Study Team, Northern Rocky Mountain Science Center, Montana State University, Bozeman, Montana, USA. 53 pp.

<sup>&</sup>lt;sup>6</sup> Remarks at YES teleconference, November 1, 2018.

times. Other recommendations in regard to reducing conflicts in communities, such as regulation of attractants in subdivisions, have either not been implemented or only partially implemented in some places, despite the mortality review team rating this recommendation as 'high' in regard to its importance, efficacy and value in reducing grizzly bear mortality and 'low' in terms of financial and public support costs.

An update of the 2009 report should include a comprehensive review and recommendations to prevent livestock-related grizzly bear mortality. Despite this being the second greatest cause of grizzly bear mortality, the 2009 report contained only two recommendations to prevent livestock-related conflicts. With grizzly bears' increasing reliance on a meat-based diet, an updated report should include a robust section on prevention of livestock-related conflicts, and bear management agencies should take concrete, meaningful steps to reduce this source of mortality. Many studies show that the best remedies for protecting cattle, sheep and other domestic animals come from non-lethal measures. As one example, the Blackfoot Challenge consortium has reduced human-bear conflicts by 74 percent and resulted in increased human safety, fewer livestock losses and less property damage from grizzly bears (and wolves).

Mistaken identity kills of grizzly bears occur every year. <sup>10</sup> More research should be undertaken (or existing data compiled and made available) to determine additional ways to reduce these grizzly bear mortalities. One of the 2009 report's recommendations was to determine if dawn and dusk periods are the times when most mistaken identity kills occur. The report's authors noted that: "*IGBST has this and needs to make it available*." Such information could be instrumental in preventing bear mortalities and increasing hunter safety.

The 2009 report also recommended development of a database with all encounters and mortalities with specific details on each incident. The report recommended, "The IGBST and the states should work up a full, detailed table and compile these data for all encounters and mortalities for at least the last 5 years, and for all such incidents from now on." This type of database would be tremendously valuable for agency managers and the public to discern patterns and effective conflict reduction measures. This was a priority recommendation, rated 'high' for importance, effectiveness and overall value for reducing mortality, low in cost and a short timeline to achieve. This database should be immediately created beginning with data from at least as far back as 2014 and consistently maintained going forward.

In summary, we request that the YES direct the IGBST mortality review team to:

- Update the 2009 mortality and conflicts report;
- Prepare a detailed report of progress made on the review team's 2009 conflict prevention recommendations:
- Determine what additional recommendations are needed to prevent conflicts;

William F. Andelt, "Carnivores," in *Rangeland Wildlife*, ed. P. R. Krausman (Denver: Society for Range Management, 1996); A. Treves and K. U. Karanth, "Human-Carnivore Conflict and Perspectives on Carnivore Management Worldwide," *Conservation Biology* 17, no. 6 (Dec 2003), <Go to ISI>://000186869700009; A. Eklund et al., "Limited Evidence on the Effectiveness of Interventions to Reduce Livestock Predation by Large Carnivores," *Scientific Reports* 7 (May 2017), http://dx.doi.org/10.1038/s41598-017-02323-w; S. A. Stone et al., "Adaptive Use of Nonlethal Strategies for Minimizing Wolf-Sheep Conflict in Idaho," *Journal of Mammalogy* 98, no. 1 (Feb 2017), http://dx.doi.org/10.1093/jmammal/gyw188; M. Parks and T. Messmer, "Participant Perceptions of Range Rider Programs Operating to Mitigate Wolf-Livestock Conflicts in the Western United States," *Wildlife Society Bulletin* 40, no. 3 (Sep 2016), http://dx.doi.org/10.1002/wsb.671.

<sup>&</sup>lt;sup>8</sup> According to Wilson et al. (2017), grizzly bear conflict mitigation involves employing commonsense solutions across entire landscapes, using, for example the right kind of electric fencing around calving and lambing pens, boneyards, stored animal feed and around crops. It means providing bear-proof trash receptacles to people in bear country and creating dumps in rural communities that prevent grizzly bears from obtaining easy food rewards. By not cleaning up calving areas and boneyards, one creates chronic livestock-grizzly bear conflicts. S. M. Wilson, E. H. Bradley, and G. A. Neudecker, "Learning to Live with Wolves: Community-Based Conservation in the Blackfoot Valley of Montana," *Human-Wildlife Interactions* 11, no. 3 (Win 2017), <Go to ISI>://WOS:000422844800010.

<sup>&</sup>lt;sup>10</sup> U.S. Geological Survey-Interagency Grizzly Bear Study Team, "Known and Probable Grizzly Bear Mortalities in the Greater Yellowstone Ecosystem," <a href="https://www.usgs.gov/science-explorer-results?es=Known+and+Probable+Grizzly+Bear+Mortalities+in+the+Greater+Yellowstone+Ecosystem">https://www.usgs.gov/science-explorer-results?es=Known+and+Probable+Grizzly+Bear+Mortalities+in+the+Greater+Yellowstone+Ecosystem</a> (2018).

- Prioritize the recommendations;
- Create an ongoing, detailed database of encounters and mortalities, including at least the past five years, and make it available to the public; and
- Determine what additional research is necessary to help identify how to prevent conflicts, and undertake that research.

Upon completion of the report, YES members should formally commit to a detailed implementation plan.

We would welcome an opportunity to discuss with you how the nongovernmental community could be helpful in identification and implementation of additional measures to prevent human-related grizzly bear conflicts and mortality.

Thank you for your prompt consideration of this request, and we look forward to your reply.

Sincerely,

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