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November 12, 2023

To: Montana Fish and Wildlife Commission

RE: Comment on Amendments to Administrative Rules of Montana (ARM) addressing Grizzly Bears

I write to you on behalf of the Montana Wildlife Federation (MWF). We are Montana's oldest and largest statewide conservation organization, founded in 1936 by dedicated hunters, anglers, conservationists, and landowners.

The Montana Wildlife Federation wishes to comment on the following sections of the proposed ARM:

12.9.1401(1) (c) (ii). Sport hunting is considered the most desirable method of balancing grizzly bear numbers with their available habitat, minimizing depredations against private property within or adjacent to grizzly bear habitat, and minimizing grizzly bear attacks on humans."

Comment: The proposed ARM states: "*Sport hunting is considered the most desirable method of balancing grizzly bear numbers with their available habitat, minimizing depredations against private property within or adjacent to grizzly bear habitat and minimizing grizzly bear attacks on humans*".

This sentence contains three factually incorrect statements:

1. Sport hunting will balance grizzly bear numbers with their available habitat.
2. Sport hunting will minimize depredations against private property within or adjacent to grizzly bear habitat.
3. Sport hunting will minimize grizzly bear attacks on humans.

None of these statements are true.

Making such misleading and factually incorrect statements as a justification for sport hunting grizzly bears discredits FWP, discredits the Commission, and discredits the concept of sport hunting grizzly bears. Use of such intentionally deceptive or completely uninformed statements calls into question the credibility and reliability of FWP as the future manager of delisted grizzly bear populations, and the legitimacy of the entire ARM process.

None of these statements are true. Specifically:

Sport hunting will not balance grizzly bear numbers with their available habitat. Sport hunting of grizzly bears will only involve a very small number of bears each year and some years likely no bears will be killed at all. A small number of bears killed by sport hunters will have no measurable impact whatsoever on "*balancing the number of*



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grizzly bears with their available habitat". The fact that only a few bears would be taken by sport hunters was clearly stated by FWP's Ken McDonald in an article in Montana Outdoors in June of 2023 where he said: "Even if hunting is reinstated down the road, the harvest quota would be small – likely just a few bears per year".

Sport hunting will not minimize depredations against private property within or adjacent to grizzly bear habitat.

The idea that sport hunting will minimize depredations against private property is not supported by facts or science and is contrary to the published scientific literature on the relationship between sport hunting bears and human-bear conflicts. Hunting of bears has been documented in the peer-reviewed scientific literature to not reduce human-bear conflicts as stated by Obbard et al. (2014)¹ who found: "*Human-bear conflict was not correlated with prior harvests, providing no evidence that larger harvests reduced subsequent human-bear conflicts. Given that variation in natural foods, harvest is unlikely to prevent elevated levels of human-bear conflicts in years of food shortage unless it maintains bears at low densities – an objective that might conflict with maintaining viable populations and providing opportunities for sport harvest.*"

The Montana Governor's Grizzly Bear Advisory Council said in their final report on p. 18: "*...hunting is not likely to be an effective tool for conflict prevention or reduction*".²

A recent study³ also demonstrated that sport hunting of bears did not reduce human-bear conflicts even though bear harvest increased significantly. The authors stated: "*Human-bear interactions, incidents, and harvest were strongly related to the availability of natural foods in all analyses. Regulated, presumably sustainable harvest was ineffective at reducing human-bear interactions and incidents in the near-term and might have increased both. Our results support a long history of research showing that natural food availability is a primary driver of human-wildlife conflict. Programs promoting coexistence between people and wildlife, including education, capacity building, and management of unnatural food sources are likely to be the most successful at reducing conflicts between people and bears.*"

Sport hunting will not minimize grizzly bear attacks on humans.

¹ Obbard, M. E., E. Howe, L. L. Wall, B. Allison, R. Black, P. Davis, L. Dix-Gibson, M. Gatt and M. N. Hall. 2014. Relationships among food availability, harvest, and human-bear conflict at landscape scales in Ontario, Canada. *Ursus* 25:98-110. <https://doi.org/10.2192/URSUS-D-13-00018.1>

² Governor's Grizzly Bear Advisory Council. 2020. Final Report: Recommendations and input on the future of grizzly bear management and conservation in Montana. Montana Fish, Wildlife and Parks, Helena, MT. 28 pp. <https://fwp.mt.gov/aboutfwp/commission-councils-committees/grizzly-bear-advisory-council>

³ Northrup, J. M., E. Howe, J. Inglis, E. Newton, M. E. Obbard, B. Pond, and D. Potter. 2023. Experimental test of the efficacy of hunting for controlling human-wildlife conflicts. *Journal of Wildlife Management* <https://doi.org/10.1002/jwmg.22363>



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Most grizzly bear attacks on humans are due to random surprise encounters between bears and humans, or to bears that have become food conditioned to human-related foods such as garbage⁴ and thus spend time near human dwellings. Sport hunting a few grizzlies each year will not reduce the possibility of a surprise encounter between a bear and a human over thousands square miles of grizzly range. Sport hunting of grizzly bears will not occur around garbage containers or near homes or buildings where humans and garbage-conditioned bears might encounter each other. Sport hunting does not “teach” bears to avoid people because bears killed by hunters do not “learn” anything. Bears are solitary animals except for family groups of females with cubs, which are not legal to hunt. The death of a bear from sport hunting has no connection to the behavior of other bears.

In summary, placing new or enhanced ways to kill bears into bear habitat such as sport hunting or permits to landowners to kill bears that are “threatening” livestock or seem “threatening” to some people will not reduce human-bear conflicts. Instead, there should be enhanced efforts to help residents reduce or bear-proof attractants and promote successful coexistence. This will result in fewer dead bears and will reduce numbers of human-bear conflicts. Without enhanced efforts to reduce or bear-proof attractants, bears will continually be drawn into human use areas by unsecured attractants no matter how many are removed in management actions or how many permits to kill bears FWP issues to landowners. FWP, through their bear management specialists, in partnership with local groups, should be the leaders in efforts to bear-proof attractants and in assisting landowners in securing such attractants so they can minimize the number of bears attracted to their property and thereby reduce human-bear conflicts.

The Montana Wildlife Federation believes this ARM should be revised in section (ii) to say:

“The most desirable and proven method to reduce both human-bear conflicts and grizzly bear attacks on people is to work with local residents on outreach and education, capacity building to secure and bear-proof attractants, and to manage unnatural human-related food sources that bring bears into close association with people.”

NEW RULE VII (ARM 12.9.1410) ALLOWABLE LETHAL MANAGEMENT OF GRIZZLY BEARS (3) (a) when the department makes the determination that the grizzly bear is threatening livestock or poses a threat to humans.

⁴ Gunther, K. A. 2023. Bear-caused human fatalities in Yellowstone National Park: Characteristics and trends. Human-Wildlife Interactions, *in press*.



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COMMENT: The words "threatening" and "threat" are subjective words that mean different things to different people. MWF testified during the hearings on SB 295 and objected to the use of such an undefined and subjective word "threat" in this bill as a justification to lethally kill grizzly bears. Some people may view grizzly bears as a threat at hundreds of yards while others may believe there is no threat unless a bear is very close to livestock or people. This ARM has a section on definitions, but the word "threat" is conspicuously absent from this definition list. The word threat is variously defined as a "declaration of an intention or a determination to inflict harm on another". SB 295 and this ARM requires the department to use this word to make an irretrievable commitment to kill a grizzly bear after the fact, as if the department can judge the intention of a grizzly bear.

The Montana Wildlife Federation believes that at the very least, the word "threat" should be clearly defined in the ARM. There should also be realistic examples of grizzly bear distance from and behavior around livestock or humans, and recurrence of such behaviors that could be used as criteria to judge if a grizzly bear is an actual threat or has just been seen in the same general area as livestock or humans.

NEW RULE III (ARM 12.9.1406) THE QUOTA AND ESTABLISHING AND ADJUSTING THE QUOTA (1) For each delisted ecosystem, the commission will establish an annual quota for the number of delisted grizzly bears that may be taken by a livestock owner or other authorized person, whether permitted or not, pursuant to 87-5-301, MCA. The commission shall consider relevant factors, including information provided to the commission by the department in the grizzly bear annual report, the most recent grizzly bear population estimate, the mortality threshold, and previous quotas.

(2) Grizzly bears taken by the department, wildlife services, or an individual person in self-defense do not count towards the quota.

(6) If the commission determines that circumstances require an adjustment to the total number of grizzly bears taken, pursuant to 87-5-301(3), MCA, then it may, at any time prior to the quota being met, adjust the quota.

COMMENT: This section sets no biological criteria to be used by the Commission to set a quota or to adjust the quota of how many bears may be killed by livestock owners whether permitted or not. Further, this section exempts from this quota any grizzly bears taken by the department, Wildlife Services, or an individual person in self-defense. There is no biological basis or criteria in this ARM for the Commission to set such a quota or to adjust such a quota or an explanation of why some mortalities are exempt from such a quota. This establishes an arbitrary and undefined system where the Commission can set or adjust mortality quotas independent of any criteria. This is hardly



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a system that builds public confidence that this ARM is based on science and facts when it comes to limiting permits issued to private individuals to kill grizzly bears. As written, the Commission can set such quotas as they see fit instead of basing such mortalities on some specific and objective criteria to achieve some specific population objective.

The Montana Wildlife Federation suggests the addition of specific and objective biological criteria that would be the criteria used by the Commission to publicly and openly set the number of such permits issued and used to adjust the quota if such an adjustment is within these criteria. The Montana Wildlife Federation further suggests that there be a clear biological explanation of why this section exempts from this quota any grizzly bears taken by the department, Wildlife Services, or an individual person in self-defense.

NEW RULE IV (ARM 12.9.1407) THE MORTALITY THRESHOLD (1) The mortality threshold(s) is/are the maximum annual number of grizzly bear mortalities, within the DMA, that the population(s) can withstand without falling below recovery levels.

(2) All grizzly bear mortalities within the DMA will count toward the relevant mortality threshold(s).

(3) Information concerning the mortality threshold will be made public via the department's website.

COMMENT: The current system used to estimate the population size in the NCDE includes all grizzly bears inside and outside the NCDE DMA⁵. Many bears live in both inside the NCDE DNA and outside the NCDE DMA. These bears go in and out of the DMA as part of their normal annual movement patterns. This means there is no distinct grizzly population inside the NCDE DMA. Thus, any grizzly bears killed for any reason inside or outside the NCDE DMA including as part of a permit system to private individuals to kill bears or any grizzly bears killed by the department, Wildlife Services, or an individual person in self-defense should count against the total number of mortalities in the entire NCDE. As written, this ARM exempts certain mortalities as if these mortalities do not have an impact on the health and trajectory of the entire NCDE population. This is biologically indefensible.

⁵ See p. 10 in:

https://fwp.mt.gov/binaries/content/assets/fwp/conservation/bears/ncde_grizzly_population_trend_report_2022_20230828.pdf



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The Montana Wildlife Federation suggests this ARM should clearly state that there is no population estimate just for the NCDE DMA area and that all bears inside and outside the DMA are currently counted as one population. This ARM should also clearly state that all mortalities from all sources inside or outside the NCDE DMA impact the health and trajectory of the entire NCDE population. This information should be used to clearly explain: 1) how the Commission will establish a quota and the method and criteria for doing so for permitted grizzly kills under SB 295; 2) the biological justification for exempting some mortalities from this quota setting process; and 3) that every mortality from all sources inside and outside the NCDE DMA will have an impact on the health and trajectory of the NCDE population.

NEW RULE V (ARM 12.9.1408) GRIZZLY BEAR MORTALITIES THAT APPLY TO THE QUOTA AND THE MORTALITY THRESHOLD (1) A delisted grizzly bear taken within the DMA, pursuant to 87-5-301(3) and (4), MCA, counts towards the quota and the relevant mortality threshold.

(2) The quota and the total mortalities counted towards the mortality threshold include confirmed or probable grizzly bear mortalities.

(3) If a female grizzly bear with a cub or cubs of the year is taken, both the female grizzly bear and the cub(s) will count towards the quota. If the mortalities are within the DMA, they will also count towards the mortality threshold.

COMMENT: The counting of mortalities in this section of the ARM counts only known and probable mortalities and does not count the estimated number of unknown/unreported mortalities. This differs significantly from the method used by FWP in their annual reports on grizzly bear population monitoring in the NCDE.⁵ The method used in FWP reports to estimate if grizzly bear mortalities exceed mortality limits includes a Bayesian estimate of the total number of reported and unreported deaths of non-radioed bears (Cherry et al. 2002 and Costello et al. 2016). This method used by FWP is described on p. 10 of the FWP report cited in footnote 5 (below) is: *"We estimated numbers of TRU mortalities of independent female and male grizzly bears within the DMA and assessed thresholds using an average for the last 6 years. For each sex, the number of TRU mortalities was the sum of: the count of agency sanctioned management removals; the count of known or probable deaths of bears wearing functional radio-transmitters (excluding those that were agency removals); and an estimate of the numbers of other mortalities that were or were not reported or discovered."*

⁵ See pp.10-13 and Table 5 and Figure 2 and Figure 5 in: https://fwp.mt.gov/binaries/content/assets/fwpcconservation/bears/ncde_grizzly_population_trend_report_2022_20230828.pdf



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Was the intention of this ARM to no longer count the estimated unknown and unreported mortalities, and if so, what is the justification for this? It is well documented that there are a certain number of grizzly bear mortalities that go unreported. Agency scientists have developed methods to estimate these unknown/unreported mortalities so they can be accounted for in mortality management decisions. Table 5 (shown below) in the FWP report cited in footnote 5 clearly shows how this mortality count is done by FWP.

Table 5. Summary of independent grizzly bear mortalities within the DMA, NCDE, 2022.

Sex	Documented mortalities by method of discovery				Estimated reported and unreported ^e (C)	Estimated total mortality (A + B + C)
	Agency removal ^a (A)	Telemetry ^b (B)	Reported ^c (high)	Reported ^d (low)		
Female	8	1	3	0	4	13
Male	10	2	5	0	7	19
Total	18	3	8	0	11	32

^a Count of agency removals, including those involving radio-marked bears. ^b Count of deaths for bears wearing functional radio-transmitters, except for agency removals. ^c Count of non-radioed bear deaths reported by the public or discovered by agency personnel with high reporting rates (illegal defense-of-property, defense-of-life, train collision, automobile collisions, illegal hunting-misidentification). ^d Count of non-radioed bear deaths reported by the public or discovered by agency personnel with low reporting rates (poaching/malicious, natural, undetermined). ^e Bayesian estimate of the total number of reported and unreported deaths of non-radioed bears (Cherry et al. 2002 and Costello et al. 2016).

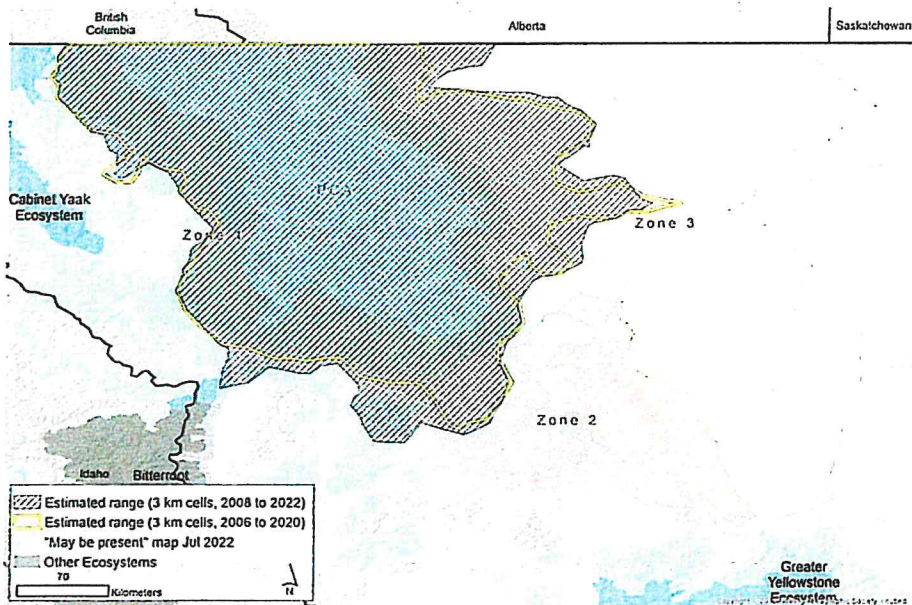


Figure 5. Occupied range of the NCDE grizzly bear population during 2008–2022 (and during 2006–2020 for comparison), as estimated by applying zonal analysis and ordinary kriging to 3x3-km cells with verified grizzly bear locations during the 15-year window. The “may be present” map shows the known extent of occurrence within watersheds, including those where outlier observations were verified. Zones as described in Fig. 1.



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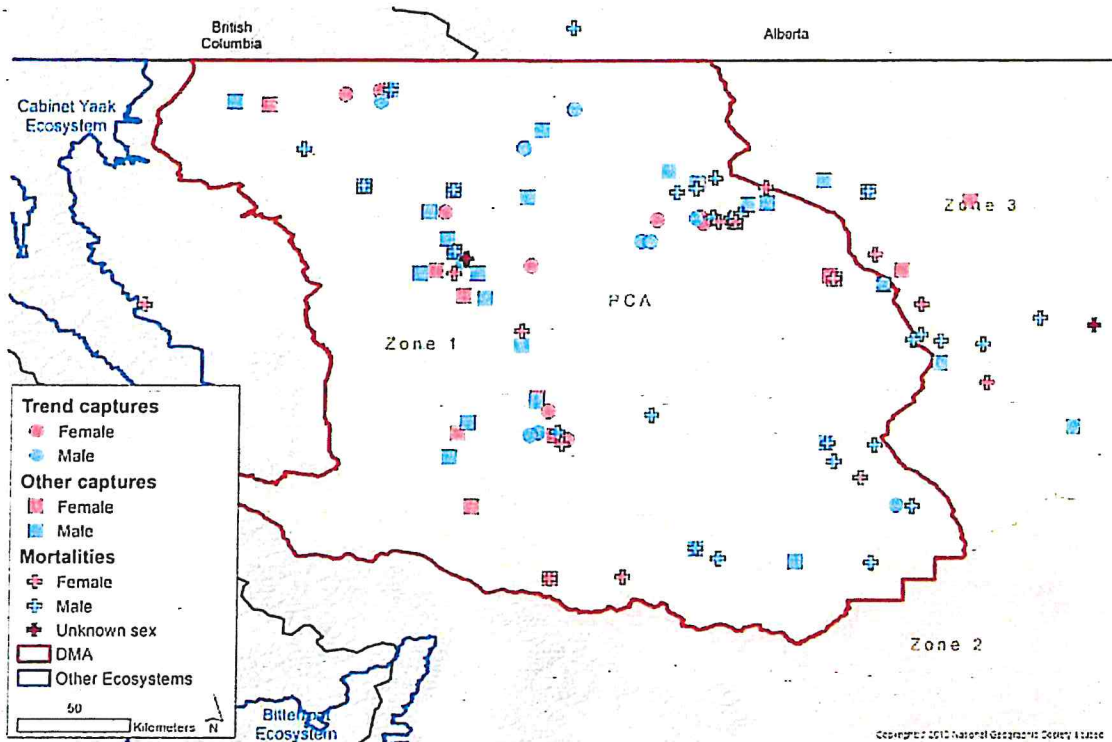


Figure 2. Location of captures and mortalities of grizzly bears in the NCDE, 2021. Zones as described in Fig. 1.

The Montana Wildlife Federation strongly suggests that this ARM clearly state that grizzly mortalities that apply to the quota and the mortality threshold include known and probable mortalities as well as the calculated estimate of unknown and unreported mortalities that FWP uses in their annual grizzly bear population monitoring reports.

Thank you for the opportunity to comment on this proposed ARM.

Sincerely,

Christopher Servheen, Ph.D.
President and Board Chair