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I am writing in support of Alternative D as the only ecologically reasonable and viable Alternative contained in the Custer-Gallatin National Forest Draft Environmental Impact Statement (DEIS) for the Draft Revised Forest Plan. My opinion is predicated upon: 1) the realities of climate warming as a potentially stochastic driver of forest composition, structure, and fire regime in the current and future forests of the Greater Yellowstone Ecosystem (GYE) (e.g. Westerling et al. 2011; Serra-Diaz et al., 2018; Turner et al., 2019), 2) the critical role of undisturbed landscapes adjacent to and within protected lands in the Greater Yellowstone Ecosystem in maintaining biodiversity and Yellowstone grizzly bear population integrity (e.g. Shafer, 2015), 3) the role of forested, undisturbed landscapes in ensuring gene flow through emerging and future grizzly bear population connectivity between the Yellowstone and Northern Continental Divide ecosystems (e.g. Peck et al., 2017), 4) the role of undisturbed wilderness areas in promoting species persistence by serving as climate change refugia and facilitating population connectivity under on-going climate-warming (e.g. Morelli et al. 2017), and 5) the need for large, undisturbed landscapes in maintaining ecosystem structure and function.

My support for Alternative D is predicated upon the need to ensure long-term wildlife survival in a world in which wildlife populations are experiencing, through multiple cascading population extirpation events, a mass extinction event (the Sixth Extinction) (e.g. Ceballos and Ehrlich, 2018) driven by: 1) biological annihilation through degradation in population size and range (Ceballos et al., 2017), 2) rapid Holocene decrease in large mammal body size (e.g. Smith, 2018), 3) rapidly accelerating loss of wilderness as driven by human-caused destruction of forest landscapes (e.g. Potapov et al., 2017), and 4) Anthropocene defaunation driven by declines in species numbers, population sizes, and human-induced habitat disruption (e.g. Dirzo et al., 2014). My comments are also predicated upon the long-term benefits of preserving ecosystem function and wildlife population integrity and viability as the overriding factors in managing disturbance of forested mountainous landscapes broadly, and of the Custer-Gallatin National Forest wildlands, specifically. In this view, human encroachment upon and facilitated incursion far into relatively undisturbed landscapes through increased access (especially via mechanized-motorized incursion) serves to both disrupt and degrade ecosystem function and structure, and put wildlife population integrity at increased risk. Given that the landscapes of the Custer-Gallatin National Forest belong to the entirety of the American populace, decisions on their future management should benefit the National as a whole, and not be predicated upon the economic and recreational desires of local communities which by nature of their proximity to these landscapes, are given excessive say in their management while also serving as the dominant negative impactors on the landscape.

From this perspective, Alternatives A and E are entirely unacceptable as they designate minimal area as wilderness (33,741 and 0 acres, respectively). Selection of either of these alternatives would invite, in a world of climate warming and expanding negative anthropogenic pressures, ecosystem degradation and wildlife population decline. They also offer nothing substantive in terms of support for bison, the National Mammal, wildlife population connectivity, bighorn sheep disease prevention, or reduction in motorized-mechanized incursion into wildlife habitat.

Alternatives B, C, and E each propose very similar large magnitudes of both Backcountry Area and Recreation Emphasis Area acreages (the same order of magnitude) that will facilitate wildlife-human encounters, human encroachment into wildlife habitat, and increased human pressure on wildlife populations. The drivers behind

these proposed acreage values in all three Alternatives is human-focused and each will help accelerate ecosystem function degradation.

From the perspective of maintaining ecosystem function and wildlife population integrity and viability in a world of rapid human-induced warming and local population growth, Alternative D ensures the maintenance of functioning ecosystem processes through emphasis on the largest wilderness acreage (and hence, ecosystem integrity), bans the use of domestic sheep and goats (major spatial loci of grizzly bear mortality elsewhere in the GYE), controls human encroachment and pressure on wildlife populations through maximum reduction in motorized-mechanized use, and is the most proactive in terms of bison support and ensuring the potential for future ecosystem connectivity.

While the need to maintain ecosystem integrity and wildlife population viability and connectivity (e.g. grizzly bears) is fundamental for areas of the Custer-Gallatin National Forest within the GYE (Madison-Henrys Lake-Gallatin Mountains, Absaroka-Beartooth Mountains, and Bridger-Bangtail-Crazy Mountains) Geographical Areas (GAs), preservation of core undisturbed areas in the other GAs (Pryor Mountains, Sioux, and Ashland) is also critical for maintaining ecosystem function and forest/grassland health. Alternative D serves to support these goals through limiting of future anthropogenic impact to these relatively undisturbed landscapes.

Lastly, because humanity has driven the biological world and earth system into states of historically extreme climate warming and accelerating wildlife population instability and extirpation, it is no longer appropriate or reasonable to make management decisions that attempt to balance expanding, ever more demanding human desires and pressures with the health and viability of wildlife and ecosystems (e.g. Burgin and Hardiman, 2012; Costello et al., 2013; Watson et al., 2016). Preserving intact ecosystems across large landscapes and enhancing survival of species of biological significance (e.g. grizzly bear and American bison) through wilderness preservation represents one of the final things humanity can do, if it wisely chooses to do so, to attempt to end ecosystem function degradation, animal population annihilation and extirpation, and ultimately extirpation of wildlife populations and extinction of wildlife species. Once wilderness is compromised and degraded through human actions, it cannot be uncompromised and restored to its former ecological or biological state.

Alternative D is the only proposed alternative that can potentially ensure biological and ecological resilience in the face of rapidly accelerating human-caused Anthropocene landscape change (e.g. forest structure, composition, and wildfire regime), wildlife population decline, and climate warming. To put it simply, focusing on issues of human recreation, access, and resource commodification in landscapes experiencing on-going biological annihilation is akin to fiddling while Rome is burning.

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