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Comments: Guidelines for input to the Custer Gallatin National Forest Plan, urge us not to recommend just one option but to assess the best points of each option. I have read all and in all conscience and honesty, I choose Alternative D as the only option that preserves rare wilderness without impediments to or diminishment of wilderness in its existing state.

I support biking. In this era of climate crisis, biking is a critical component of reducing fossil fuel use. But recreational biking in wilderness has counterproductive consequences. No more wilderness will be available to us once we whittle away at the little that is left to us, especially in the lower 48 of the United States. Wilderness is a vital component of warding off multiple climate crisis outcomes. High elevation and forest wilderness is a CO2 sink, protects water resources, and provides refuge for diminishing numbers and kinds of wildlife. Recreational biking diminishes the essence of wilderness and the delicate balance needed for its preservation.

Thousands of miles of public trails are available to bikers in mountain and forest terrain. Closing wilderness areas to bikers defends wilderness from:

*Disturbance to wildlife. "The basic science solidly supports the general claim that bikers and bikes are displacing bears, can contribute to their habituation and are consequently adding negative load on human/wildlife conflict." (Mountain Biking Impacts on Bears and Other Wildlife, Brian Horejsi, Wildlife News, August 5, 2014, online athttp://www.thewildlifenews.com/2014/08/05/mountain-biking-impacts-on-bears-and-other-wildlife-by-brian-horesji/).

* Damage to water and soil resources. "Multiple linear rut incision, the systematic addition of technical trail features and informal trail development with amended trail surfaces are mountain bike specific impacts." (Davies and Newsome, 2009; Newsome and Davies, in press; "Comparing hiking, mountain biking and horse riding impacts on vegetation and soils in Australia and the United States of America," Catherine Marina Pickering, Wendy Hill, David Newsome, and Yu-Fai Leung, in Journal of Environmental Management, Vol. 91, 2010, pp. 551-562; and Erosional Impact of Hikers, Horses, Motorcycles, and Off-Road Bicycles on Mountain Trails in Montana," by John P. Wilson and Joseph P. Seney, in Mountain Research and Development, Vol. 14, No. 1 February 1994, pp. 77-88).

As wildlife biologist Frank Lance Craighead wrote in his study, Wilderness, Wildlife, and Ecological Values of the Hyalite-Porcupine-Buffalo Horn Wilderness Study Area:

"The amount of disturbance to wildlife caused by trail users is greatest from all-terrain vehicles (ATVs) or offroad vehicles (ORVs) followed by mountain bikes, horseback riders, and hikers according to most existing studies. ... Disturbance due to human activities reduces the amount of habitat available for use by wildlife, increases stress, and depletes energy reserves, thus reducing the carrying capacity of the habitat: the best habitat for wildlife is found in areas with the least human disturbance."

I have lived in Bozeman for 30 years. I was drawn by the area's beauty and access to pristine mountains and forests. Almost embarrassingly, I must admit, it took me quite a while to learn about the complexity of the environment and what was at stake. I was a city person who slowly grew into a more informed Montanan with an appreciation that the wilderness was not just a view shed or playground. Wilderness is the bedrock of keeping our planet in balance and that people who live near these wilderness areas are entrusted with the responsibility to protect their part of the world.

For almost twenty years I served as director of university international partnerships and grants, have traveled to over 50 countries and set up scientific collaborative projects around the world. I can say without hesitation that the United States is revered for its leadership in creating the first national park and for modeling how wilderness can be preserved. The world still looks to the United States for how to mitigate climate crisis and how to manage threats to the natural world. In this time of need, as the world temperature increases, natural resources such as water, soil and undisturbed lands are diminished, and wildlife faces extinction everywhere, what we do here in our corner of the world is significant.

Predictions are that the Bozeman and Gallatin Valley population will double in the near future. Many of those new

residents will come to this area as I did: naïve to the delicate balance that makes this area special for quality of living, for preservation of animals that depend on our judgement, for holding back the multiple threats of climate crisis, and for preserving the piece of earth we have the honor and responsibility to protect. The crush of more wheeled recreationalists on wilderness lands, if unmitigated, will take its toll, creating conditions and damage from which there is no going back.

As Brian O'Donnell and Michael Carroll asked: Will we keep some parts of the American landscape natural and wild and free - or must every acre be easily accessible to people and their toys? Mountain bikes' impacts on the land are large and getting worse. ... The aggressive push of mountain bike organizations to build ever-growing webs of trails poses serious problems of habitat fragmentation, increased erosion, and wildlife conflicts. (Don't Tread Here, Wild Earth, Vol.13, No.1, 2003, pp.31-33).

In a systematic review of the research to date (2004) Vandeman states, "Mountain bikers have turned to scientific research to try to make mountain biking seem less harmful, and in particular, to studies comparing it with hiking. Although they have interpreted this data as indicating that mountain biking impacts are no greater than those of hiking, a more careful look at these studies leads to the conclusion that mountain biking impacts are actually several times greater than those of hikers." (The Impacts of Mountain Biking on Wildlife and People: A Review of the Literature, Michael J. Vandeman, in Culture Change, July 3, 2004,

culturechange.org/mountain_biking_impacts.htm).

Those studies do not factor in the high management costs of minimizing bikers' negative impacts on vegetation, soil, water, and wildlife or mention the limited budgets, manpower, and other resources needed to enforce biking in a wilderness.

I posit that twice before, Congress approved a Gallatin Wilderness and that subsequent land trades were to lay the foundation to make the Hyalite Porcupine Buffalo Horn (HPBH) Wilderness Study Area finally eligible to be designated an intact wilderness. I ask you to support Alternative D with at least 230,000 acres of wilderness and to ban wheeled vehicles in the wilderness. I thank you sincerely for your consideration of preserving a wilderness my children will be able to witness and continue to care for.