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Comments: Thank you for the opportunity to comment on the most important Forest Plan Revision in decades. Given the rapidly occurring negative impacts from climate change and the unprecedented and continued population growth in the areas adjacent to the CGNF, the Draft Environmental Impact Statement (DEIS) or Revision presents a critical opportunity to preserve and protect the forests, rivers, wildlife, and fisheries in the CGNF so these resources can remain unimpaired for the enjoyment of future generations.

I care deeply about the CGNF's long-term ecological health and viability. I have been a resident of Montana nearly all my life and have hiked, climbed, backpacked, biked, kayaked, skied, fished, and hunted in the CGNF. I first backpacked across the Beaten Path when I was eight years old and have been on countless adventures in the Wilderness Areas, Wilderness Study Areas, forests, mountains, and rivers of the CGNF. The CGNF is truly the "last best place" in the United States, if not the world, and the overriding goal of the Revision should be the protection and preservation of CGNF.

There is no question that the ecosystems in the CGNF are being disrupted by population growth and climate change. I never thought I would see the day where high alpine lakes in the Absaroka-Beartooth Wilderness are contaminated with e-coli bacteria due to human impacts despite leave no trace ethics or mountain whitefish killed on a widespread basis in the Yellowstone River in 2016 due to a parasitic condition accelerated and exacerbated by climate change. These alarming conditions are well documented and are obvious warning signs that, despite best management practices, the adverse impacts of population and climate change are only going to get worse. It is not my nature to be a pessimist, but I fear for the future of the CGNF. The Revision not only needs to but, in the face of these threats, must adopt a mandate to be overly conservative in its protection of the resource to prevent these incidents and even worse incidents from occurring.

In order to protect big game, fish, sensitive terrestrial and aquatic species, and their ecosystems, particularly given climate change and population growth, the Revision's protections and designations must be kept and strengthened rather than decreased and abandoned. As the Draft EIS recognizes, the best way to strengthen the protections is by expanding the Wilderness protections:

The best remaining trout habitat conditions are found in wilderness and unroaded landscapes (Rhodes et al. 1994, Kershner et al. 1997). Across the west, roadless areas tend to contain many of the healthiest of the few remaining populations of native trout, and these are crucial to protect (Kessler et al. 2001). Roadless areas are a source of high-quality water essential to the protection and restoration of native trout. The high-quality habitats in roadless areas help native trout compete with non-native trout because degraded habitats can provide non-natives with a competitive advantage (Behnke 1992). Roadless areas tend to have the lowest degree of invasion of non-native salmonids (Huntington et al. 1996).

Therefore, forest plan allocations such as recommended wilderness areas backcountry areas, and eligible wild and scenic rivers that limit road building can be expected to contribute to naturally functioning headwaters. The revised plan alternatives propose 30 streams as eligible wild and scenic rivers, and new roads would be limited in the 18 rivers with a tentative wild classification. In contrast, the current plans have 11 eligible wild rivers. Alternative D would provide the greatest benefit to aquatic species because it would allocate the highest amount of recommended wilderness and backcountry areas, followed by alternatives C, B, E and the current plans.

FEIS Chapter 3. Affected Environment and Environmental Consequences Draft Environmental Impact Statement for the Draft Revised Forest Plan - Custer Gallatin National Forest at 96 -97 (emphasis added). Based on this statement alone, Alternative D should be recommended above all the other Alternatives.

The Draft EIS's recognition of the invaluable protection afforded to species by Wilderness designation is based on sound science. With its emphasis on protecting and restoring all natural processes, wilderness designation provides the highest level of protection for the full range of native species. (Hendee and Mattson 2002). Although administratively designated roadless areas (e.g., wildlife habitat areas and inventoried roadless areas) provide some ecological protection of wildlife habitat, the agency historically has sacrificed roadless areas and wildlife protection in favor of resource extraction and motorized recreation. (Forest Service 2000; Crist and Wilmer 2005, Crist and Wilmer 2002; Concerned Scientists 2004; DellaSala and Frost 2001; DeVelice and Martin; Heilman et al. 2002; Loucks et al. 2003; Noss and Cooperidder 1994; Noon et al. 2003; Strittholt and DellaSalla 2001). The passage of the 1964 Wilderness Act was Congress's response to federal land management agencies' failure to protect these values. (Frome 1997).

Accordingly, of the Alternatives offered, I support Alternative D because the proposed Wilderness additions in Alternative D would protect critical wildlife linkages and important core refugia essential to "afford perpetual protection to the native fauna and flora." (U.S. Congress 1905). However, the Draft EIS should have offered an Alternative that provided the greatest benefit to terrestrial and aquatic species and their ecosystems. Since science shows that Wilderness provides the greatest benefit, then the Revision should offer and recommend an Alternative where Wilderness designation coincides with inventoried roadless areas and Wild and Scenic Classification coincides with Wild and Scenic Eligibility. None of the alternatives do that. Alternative D is the best of the alternatives offered but it still omits 230,000 roadless acres in the Gallatin Range. All the other Alternatives are deficient because they relax protections and fail to analyze the cumulative impacts of Forest Plan revisions particularly in the context of population growth and climate change. Consequently, the Revision's Potential Wilderness Area recommendations in the Draft EIS fail to provide adequate interim protection of the CGNF's significant but endangered de facto wilderness and does not reflect the public desire to protect this vanishing resource. The Draft EIS's decision not to give detailed study to recommending all inventoried roadless areas as Wilderness or analyzing all the additional rivers/streams eligible as a wild and scenic river in the Forest Plan are significant shortcomings.

An alternative should have been offered that included more than just 30 river/streams as part of the National Wild and Scenic Rivers System. Alternative D presently recommends the addition of 30 streams. However, there are 761 named streams covering 2,945 miles in the Greater Yellowstone Ecosystem. All rivers and streams that originate in designated Wilderness or Wilderness study areas should be part of the National Wild and Scenic River System. At a minimum, the Revision needs to provide an alternative that includes, at least, the 58 streams recommended by the Greater Yellowstone Coalition in its Report: Greater Yellowstone Coalition Report on Recommended Wild and Scenic Rivers on the CGNF in Montana, November 2017. This Report is based on sound science that addresses climate change by analyzing its impacts on fisheries in the CGNF:

As part of the Greater Yellowstone Ecosystem, many headwater streams on the Custer Gallatin National Forest have been identified by fisheries and climate scientist as hosting important climate refugia due to elevation and aspect. As the Forest Service writes a forest plan for the next 25 years, climate change needs to be taken into account. This plan is not written for 2020, but rather for the next couple decades when all climate modeling points to the importance of protecting riparian habitat, particularly in 55 GYC Report on Recommended Eligible Wild and Scenic Rivers on the Custer Gallatin National Forest drainages that hold snowpack later into the summer, originate in high elevation, and are usually, though not always, north aspect with moderate to steep gradients. As described in the section of this report on recommendations for eligible Wild and Scenic Rivers, the Greater Yellowstone Coalition chose to use best available science, data and modeling to make an outstandingly remarkable value recommendation based on streams likely to serve as climate refugia in the future.

Report, pg. 54; see also Climate Shield Cold Water Refuge Streams for Cutthroat Trout (Isaak et al.). None of the Alternatives in the DEIS have sufficiently analyzed or addressed climate refugia for fish and sought to strengthen the protections for fisheries and aquatic habitat by including additional rivers in the Wild and Scenic

River System on that basis.

Having fished in, kayaked on, or hiked or biked next to many of these rivers/streams and appreciated their ecologically vibrant riparian habitat, aesthetic rugged mountain scenery, and clean cold water, I strongly urge that the Revised Forest Plan, at a minimum, classify the following 58 rivers and streams for inclusion in the Wild and Scenic River System, if not all of the rivers and streams whose headwaters originate in Wilderness areas or Yellowstone National Park:

RIVER/STREAM NAMEWATERSHED Broadwater RiverClarks Fork Yellowstone Clarks Fork YellowstoneClarks Fork Yellowstone Lake ForkClarks Fork Yellowstone Rock CreekClarks Fork Yellowstone Sky Top CreekClarks Fork Yellowstone West Fork Rock CreekClarks Fork Yellowstone Alp CreekGallatin Buffalo Horn CreekGallatin Gallatin RiverGallatin Hyalite CreekGallatin Lightning CreekGallatin Maid of the Mist CreekGallatin North Fork Spanish Cr.Gallatin Porcupine Creek Gallatin Shower CreekGallatin South Fork Spanish Cr.Gallatin **Taylor CreekGallatin** Wapiti CreekGallatin Beaver CreekMadison Cabin CreekMadison Cub CreekMadison Madison RiverMadison Middle Fork Cabin Cr.Madison Sentinel CreekMadison Sheep CreekMadison South Fork Madison R.Madison West Fork Beaver CreekMadison Cottonwood CreekShields Shields RiverShields East Rosebud CreekStillwater Glacier CreekStillwater Goose CreekStillwater Stillwater RiverStillwater West Fork Stillwater R.Stillwater West Rosebud CreekStillwater Bark Cabin CreekUpper Yellowstone Big CreekUpper Yellowstone Big Timber CreekUpper Yellowstone Boulder RiverUpper Yellowstone Cedar CreekUpper Yellowstone Davis CreekUpper Yellowstone East Boulder RiverUpper Yellowstone

East Fork Boulder RiverUpper Yellowstone Lower Deer CreekUpper Yellowstone Mill CreekUpper Yellowstone Pine CreekUpper Yellowstone South Fork Pine CreekUpper Yellowstone West Boulder RiverUpper Yellowstone Bear CreekYellowstone Headwaters Buffalo CreekYellowstone Headwaters Grizzly CreekYellowstone Headwaters Hellroaring CreekYellowstone Headwaters Horse CreekYellowstone Headwaters Lake Abundance CreekYellowstone Headwaters Middle Fk. Hellroaring CrYellowstone Headwaters Slough CreekYellowstone Headwaters Wounded Man CreekYellowstone Headwaters Yellowstone RiverYellowstone Headwaters