December 9, 2017

Grand Mesa, Uncompahgre, and Gunnison National Forests

Attn: Plan Revision Team

2250 South Main Street

Delta, CO 81416

Sent via email to: gmugforestplan@fs.fed.us

Re: Comments on the November 2017 Draft **Benefits to People: Multiple Uses, Ecosystem Services, and Socioeconomic Sustainability**

Dear Planning Team,

Thank you for considering these comments. I apologize that they are a few hours late. Blessedly, they are short.

As preface, I have been privy to comments submitted on the November 2017 Draft Assessment (hereafter, the Draft) by various members of the conservation community (HCCA, et al, December 8, 2017), and I endorse those more technical comments wholeheartedly. They point out some fundamental information and assessment gaps, omissions, and errors that I hope the agency will attempt to cure as best it can.

The comments below are my own personal ones and do not reflect upon nor are they necessarily allied with any group or organization. Briefly, I focus on the existing and growing body of research concerning human psychological and physiological health and connection with nature, and how biodiversity preservation in particular is now seen as a key ingredient to human health and sanity.

As noted in the Draft, The Forest Service Handbook rightly notes that the assessment should identify the social, cultural, and economic conditions that are sensitive to the management of the plan area (FSH 1909.12, ch. 10, sec. 13.23). In the **Summary of Public Input** for this section, the Draft states: “[I]t was recommended that the assessment identify the socio-economic factors relevant to protecting national forest lands through conservation designations; specifically, the assessment should consider recent trends in recreation, public opinion and values, and the economic contributions associated with wilderness and other conservation designations. (at 1)

The Draft states: “Sustainability is a complex idea focused around intergenerational equity. The 2012 Planning Rule defines social sustainability as *the capability of society to support the network of relationships, traditions, culture, and activities that connect people to the land and to one another and support vibrant communities* (36 CFR §219.19)” (at 12, emphasis in original)

The Draft continues: “One way of examining social sustainability is to understand the views and values held by individuals or groups and how they would like the Forest to contribute to social sustainability. What people value and how they prioritize their values helps to determine what they would like to see the Forest contribute to social sustainability and if the values they prioritize exist in the surrounding area” (at 13).

Not only should the assessment consider these above factors, (which it must be noted are largely impermanent cultural values subject to radical change over time) but it is also required to also rely on the best available science in studying the “social conditions that are sensitive the management of the plan area”(FSH, ibid), and specifically, science that that reflects our most current understanding of human physical and psychological health and our relationship to nature and biodiversity.

Unfortunately, thus far the document has omitted a large and growing body of scholarly work concerning the psychological and medical benefits that exposure and immersion in a natural environment confers on human beings. In particular, solitude in a natural environment has been shown to affect the human organism in multiple, positive ways. Contrarily, there is also a large body of evidence that the loss of wildness and concomitant biodiversity in the environment is leading to mass psychological pathologies across all age groups and ethnicities. We are deeply wired to connect with our planet, and solid evidence now links biodiversity peservation (and enhanced ecosystem services) to improved health and well-being of individuals.

I have included three relatively recent studies (PDFs attached as part of this submission; links at the end of this letter) that provide within them a wealth of reference and supportive material related to this subject. Should the agency need more data in this area, please feel free to contact me and I will be glad to help provide it.

As one 2014 study sates “We are at a key juncture in history where biodiversity loss is occurring daily and accelerating in the face of population growth, climate change, and rampant development. Simultaneously, we are just beginning to appreciate the wealth of human health benefits that stem from experiencing nature and biodiversity.” (Sandifer et al. 2014).

In a seminal study, Fuller et al.(2007) determined that the psychological and physical benefits of contact with nature increased with species richness and habitat diversity.

Although the assessment does note several non-consumptive uses and benefits, specifically within the Solitude, Spirituality and Sense of Escape section (at 23), it calls these ‘inspirational benefits’, presumably accruing to only a subsection of users. However, the psycho-social and medical benefits I have indicated here exist for all humans and they are not to be relegated to any user group. Although some forest visitors may not be ‘in tune’ with these benefits, they have been shown in the psychological and medical research to exist for all people across all cultures and socio-economic levels. Not only that, but with the rapid disappearance of wild areas, and growing disconnection from the natural world, humans are more dependent upon remaining areas of wild nature for their health, and long-term species survival.

I would ask that the Planning team include a section within the Benefits to People section that correctly identifies this research and explicitly states that there is growing hard evidence that heavily impacted and/or managed landscapes (as opposed ones where natural processes dominate and a sense of wildness prevails) are of decreased value to human psychological and physiological health.

Thank you all for your service. I look forward to an incorporation of this data in the updated draft or final assessment.

Sincerely,

/s/

Sandy Shea, M.A. Transpersonal Psychology

Documents attached to this submission can be accessed from these links:

<https://www.sciencedirect.com/science/article/pii/S2212041614001648>

<https://www.sciencedirect.com/science/article/pii/S0169534714000238>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2390667/>