

Comments on Draft Assessment, Lolo National Forest

July 6, 2023

Dear Forest Planning Team:

Thank you for the opportunity to review and comment on the draft assessment for the Lolo National Forest Plan revision. I am commenting as a private citizen, regular recreational visitor to the Lolo National Forest, and lifelong conservation professional. I contributed to the team that developed comments on behalf of the Great Burn Conservation Alliance, and submit these as supplemental, complementary input for the process, reflecting my own perspective.

My remarks focus on the dynamic interplay of land and water in the valley bottoms and riparian corridors throughout the forest. In light of current and projected climate disruptions, the forest's resilience will depend in large part on how these ecosystems are protected and enhanced under the guidance of the revised forest management plan.

I've referenced the specific sections to which my comments apply, but urge the planning team to better integrate all sections of the assessment to recognize the relationships between various components and influences on forest health.

Section 2.1.2: This section correctly notes that riparian corridors can provide refugia during fires, and that the species characteristic of riparian corridor facilitate post-fire recovery. This section should reference the excellent discussion in Section 2.1.4. about the valuable role that beavers play in maintaining and expanding these riparian habitats. Moreover, it would be appropriate to cite and incorporate research indicating that beaver-influenced streams provide natural fire breaks, mitigating the trend toward more frequent and intense fires. (E.g., Fairfax, E. and Whittle, A. (2020), Smokey the Beaver: beaver-dammed riparian corridors stay green during wildfire throughout the western USA. *Ecol Appl.* Accepted Author Manuscript. doi:[10.1002/eap.2225](https://doi.org/10.1002/eap.2225).) The assessment should recognize this method of mitigating fire, in addition to the discussion of fuels reduction, and generally should better recognize the importance of green infrastructure and nature-based solutions to climate disruptions.

Sections 2.1.5. and 2.3.3: As a result of climate disruptions, headwater streams in the Lolo National Forest likely will trend toward intermittent late-season flows, with impacts on riparian vegetation and the wildlife that depend on this habitat. This is another opportunity to highlight the role of beavers in helping to hold water back and enhance late-season flows. Beavers could serve as a focal species not only for watershed condition, but also for landscape resilience in the face of climate disruption.

Section 2.1.11: This section appropriately describes impacts of roads and other human-built infrastructure on aquatic ecosystems and riparian health. It should additionally note that road relocation (accompanied by restoration, as has been done in Cedar Creek) can be a valuable means to reduce impacts, particularly in the "many miles of roads within 100 feet of waterbodies where roads can impair the natural function of riparian and aquatic ecosystems."

Section 2.3.2: The draft assessment describes a lack of information and understanding about how far the valley bottoms in the Lolo National Forest are departed from historic conditions. This section should be integrated with the discussion of ecological integrity (**Section 2.2.1**), in particularly highlighting the

opportunity to manage the valley bottoms to restore more complex, resilient systems, keying in on beaver presence or absence (i.e., focal species) as an indicator of departure from (and potential return to) historic range of variation.

Thank you for the opportunity to provide input on this draft assessment.

Sarah Bates