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Comments: Thank you for the opportunity to comment on the draft Environmental Assessment (EA) for the proposed Midnight Project. I agree with the stated purpose and needs identified by landscape-level assessment revealing that current conditions "favor larger, more severe disturbances relative to historical baselines and impede adaptation to climate change." My opinion is that severe disturbance caused by ahistorically extreme wildfire size and intensity is the single biggest threat to our dry forest ecosystems, and that it is vitally important to restore fire resilience if these forests are to survive the changing climate. I strongly support the landscape-scale management approach that identifies desired future conditions, and emphasizes the patchiness that provides the full array of habitat types and connectivity needed to maintain healthy, diverse ecosystems. As noted in the document, severe wildfire has negatively impacted and continues to threaten the habitat for lynx and mule deer. To those could be added other threatened, endangered, and sensitive species, including spotted owls, western gray squirrels, wolves, and native resident and anadromous fish. I also commend the scientific basis underlying the forest treatment prescriptions. Utilizing emerging science is essential for adaptive management of these complex systems.

The biggest criticism I have of the EA is that the proposed decommissioning of roads will be delayed pending the availability of funding. No explanation of when or how such funding will be acquired is provided. This level of uncertainty is troubling. A related concern is that, to quote the document, "Engineering and hydrology staff would determine whether culverts would need to be removed to restore hydrologic continuity." There are multiple problems with this approach.

First, hydrologic continuity issues largely apply to road drainage ditches and culverts; the whole point of installing them is to affect hydrologic continuity, concentrating dispersed runoff before transferring it downslope of the road. Thus, all such structures need to be removed as part of restoring hydrologic continuity. Further, hydrologic continuity is not the only problem: all culverts are at risk of failure through plugging and overtopping. This is the most common mode of failure, and the results often include massive amounts of sediment delivered directly to the stream system. The only culverts not subject to failure are the ones you remove.

Culverts left in place after decommissioning will not be maintained to prevent plugging and will almost certainly eventually fail. Even those designed according to stream simulation criteria will fail in the event of a debris flow. Thus, with the possible exception of those meeting stream simulation design criteria, all stream crossing culverts should be removed during road decommissioning. If there are plans for re-opening decommissioned roads for future management activities, stream simulation culverts considered for retention should be assessed for imbalanced sediment transport (i.e., erosion or deposition), the threat of debris flows, and the quantity of road fill that would be eroded in the case of culvert failure. If left in place, such culverts should be re-assessed following severe wildfire in the contributing drainage area.

Fundamentally, I don't see the value of spending limited staff time in evaluating each individual culvert for how much risk it poses. They all pose risks to the hydrologic functioning and aquatic ecosystems, but quantifying the risks would be onerous and likely rather subjective.

Thank you for considering these comments,

Gina McCoy, P.E.