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We appreciate Ecology's request for public comments from experts as part of this process. We previously provided a number of crucial suggestions for strengthening the scientific rigor of the protocol, which is urgently needed so that weak offsets do not compromise the efficacy of the Climate Commitment Act targets. These previously-submitted concerns have not been adequately addressed in the current revised protocol draft. These comments were based on two recent expert syntheses, involving 30 world-leading experts on forest carbon offset protocols, which can be found below as citations (Anderegg et al. 2025, *Nature*; Sanders-DeMott et al. 2025, *Earth's Future*).

In this comment, we focus in particular on the Permanence approaches of the buffer pool contribution levels.

Set buffer pool contributions

The consideration of regional variation of risk is useful, but we have serious concerns with the proposed maximum caps and risk reductions that are not consistent with the scientific literature. Regarding buffer pool contributions, Wu et al. (2023) observed that roughly 36% of area in California's compliance offset projects was projected to lose carbon over the twenty-first century in a mid-range emissions scenario and Haya et al. (2023) found that about 26% was probably a conservative floor for stand-clearing disturbance and timber harvest disturbances in REDD projects. Badgley et al. (2022) found that California's compliance forest offset protocol's buffer pool is severely undercapitalized from fire. We have work in review that indicates that buffer pools in California's program may be too small by a factor of ~6 (Wu et al., in review and 2023). Therefore, total maximum buffer pool contributions will likely need to be over 30% in many regions to robustly account for risk.

We emphasize that the current approaches proposed for the buffer pool contributions are not scientifically robust. The wildfire, insects, and other disturbance buffer pool contributions would score 'Fundamentally flawed' or 'Very weak' based on the Sanders-Demott et al. 2025 expert assessment scoring rubric. Critically, the predetermined maximum buffer pool contributions for fire (12%) and biotic risks (8%) are not scientifically rigorous. The buffer pool contribution for all risks, especially fire risks, should represent scientifically-assessed risk, and not be limited to a predetermined cap. Furthermore, we urge the Department of Ecology to reconsider and greatly reduce the 50% buffer pool contribution reduction offered for implementing risk reduction treatments, which very likely overcompensates for the actual risk reduction accomplished by treatments and is not based on robust scientific evidence (Anderegg et al. 2025, *Global Change Biology*). We have a meta-analysis in review that reveals that the carbon benefits from risk reduction from forest management for insects is essentially zero and from fire is detectable but relatively small (Levine, Zahnd et al., in review). Risk reduction to buffer pool contribution should be updated to be based on rigorous scientific evidence for each specific risk factor and cannot be a priori assumed to be 50% without provided scientific evidence.

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