

September 2, 2021

California Air Resources Board 1001 I Street Sacramento, CA 95814

RE: Comments on the Scenario Concepts Technical Workshop

Thank you for the opportunity to provide comment on the California Air Resources Board's (CARB) August 17th Scenario Concepts Technical Workshop. We strongly support that CARB is considering scenarios more ambitious than the minimum targets set forth by statute and Executive Order. While the workshop was largely focused on sectors and technologies that can be addressed with the PATHWAYS model, we emphasize that achieving our ambitious climate goals requires that we harness the potential of our state's natural and working lands (NWL) to mitigate and adapt to climate change.

Scenario design options should emphasize proven and reliable methods of sequestration, such as improved forest management. Both scenario options offered in the workshop to reach carbon neutrality by 2045 relied to varying degrees on engineered carbon removal. While these technologies may prove useful in the future, natural climate solutions are a reliable and effective sequestration tool that can be deployed now to help meet both near-term and long-term targets.

Natural and working lands in California can cumulatively sequester as much as 147 MMT CO_2 -e on an additional basis by 2030, or approximately 17.4% of the reductions necessary to meet the SB 32 target. The majority of these reductions can come through improved forest management, including longer timber harvest rotations and use of conservation easements to maintain carbon-rich and climate resilient conditions. By 2050, these reductions could total over 500 MMT CO_2 -e.

Better integration of natural and working lands into the scoping plan's modeling is needed. Given that CARB has a NWL inventory that is separate from emissions sources in the AB32 greenhouse gas inventory, more information on how the scoping processes for these two inventories are being integrated would provide added transparency and clarity as to how carbon neutrality will be achieved, and what the specific contribution of NWL will be. In particular, CARB should provide

¹ Cameron D.R., Marvin, D.C., Remucal, J.M., Passero M.C. (2017) Ecosystem management and land conservation can substantially contribute to California's climate mitigation goals. *Proceedings of the National Academy of Sciences, 114*(48), 12833-12838. DOI: 10.1073/pnas.1707811114 ² Ibid.

information as to how the separate models for these two inventories inform each other.

For example, as noted in the workshop, forestry and land use change are modeled exogenously and added to the PATHWAYS model based on CARB's inputs. We would assume that CARB's inputs will be calculated based on the NWL Alternative Scenarios that are currently being developed with public input. CARB could clarify whether or not this is in fact the case, and if not, how those inputs are being determined.

In addition, the air quality and public health benefit modeling did not appear to take into account wildfire smoke, instead focusing only on industrial emissions. Wildfire smoke contains harmful particulate matter that is hazardous to public health. Active forest management techniques such as prescribed fire and science-based, ecological thinning both increase resilient carbon stocks and reduce emissions from fires. The public health benefits of improved forest management should be included in the modeling, just like any other emissions reduction approach. Considering that the health impacts of wildfires are already an area of active study for CARB, this could be accomplished with relative ease.

Thank you once again for the opportunity to provide comments, and we look forward to continuing our work together to create an ambitious and equitable 2022 Scoping Plan Update.

Sincerely,

Angus McLean Policy Associate