



November 8, 2018

Ms. Mary Nichols, Chair  
 California Air Resources Board  
 1001 I Street  
 Sacramento, CA 95812

**RE: Setting an Appropriate Climate Goal for California’s Natural and Working Lands**

Dear Chair Nichols and members of the Board:

Our organizations are writing to express strong support for an ambitious goal for Greenhouse Gas (GHG) reductions from the state's natural and working lands, a goal that can drive the actions needed to achieve carbon neutrality in 2045. We believe a bold yet achievable goal should be 130 million metric tons of carbon dioxide equivalent (MMTCO<sub>2e</sub>) by 2030<sup>1</sup>, from land management and conservation actions that either reduce GHG emissions or sequester more carbon.

For California to be carbon neutral or carbon negative by 2045, we need to take swift and decisive action across all sectors and reduce emissions by more than 1.4 billion tonnes beyond what is required for our 2050 goal (see appendix). The state's natural and working lands – our forests, farms, rangelands, wetlands, urban forests and deserts – will need to provide a substantial contribution toward this goal.

Like a retirement account that rewards early investment, the sooner we take action to improve our state's natural and working lands, the greater the long-term benefits. These long-term benefits not only include meaningful reductions in atmospheric carbon dioxide but also many other critical benefits needed for public and environmental health and preparation for the unavoidable impacts of climate change such as extreme weather events. Investing in the conservation and management of these lands will help create more climate resilient ecosystems over the long term. These benefits are numerous and range from reductions in flood and fire risk and urban heat island effect to the enhancement of water and air quality, biodiversity, food security, and species habitat.

The recently released *Intergovernmental Panel on Climate Change Special Report on Global Warming of 1.5°C* underscores both the urgency and need for immediate ambitious action, calling for "rapid and far-reaching" transitions in land, energy, industry, buildings, transport, and cities.<sup>2</sup> Similar to other transformational State goals like 100% renewable energy or 5 million electric cars by 2030, meeting the climate challenge will require action on natural and working lands at a far greater scale than current programs can achieve. Yet there is simply no alternative to this ambitious goal if we want to prevent the worst climate scenarios, while preparing for the ones that are inevitable. Setting a bold goal will help drive the necessary policy and innovation.

We commend the Governor and the California Air Resources Board for heeding this urgency and establishing a carbon neutrality goal for the state. Setting an ambitious 2030 goal of 130 MMTCO<sub>2e</sub> from natural and working lands is consistent with this pledge.

Sincerely,

---

<sup>1</sup> 130 MMTCO<sub>2e</sub> by 2030 is cumulative and an intervention-based goal.

<sup>2</sup> **Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments**, See: [https://www.ipcc.ch/news\\_and\\_events/pr\\_181008\\_P48\\_spm.shtml](https://www.ipcc.ch/news_and_events/pr_181008_P48_spm.shtml)

Michelle Passero,  
CA Climate Program Director  
The Nature Conservancy

Dina Iden, Executive Director  
Loma Prieta Resource Conservation District

Paul Mason, V.P. Policy & Incentives  
Pacific Forest Trust

Kellyx Nelson, Executive Director  
San Mateo Resource Conservation District

Jeanne Merrill, Policy Director  
California Climate and Agriculture Network

Lisa Lurie, Executive Director  
Santa Cruz Resource Conservation District

Mike Lynes, Director of Public Policy  
Audubon California

Katherine Boxer, Executive Officer  
Alameda County Resource Conservation  
District

Rico Mastrodonato, Acting Govt Affairs  
Director  
Trust for Public Land

Chris Rose, Executive Director  
Solano Resource Conservation District

Torri Estrada, Executive Director  
Carbon Cycle Institute

Valerie Minton, Executive Director  
Sonoma Resource Conservation District

Katie Patterson  
California Policy Manager  
American Farmland Trust

Sheryl Landrum, Executive Director  
Resource Conservation District of Greater  
San Diego County

Steve Haze, District Manager  
Sierra Resource Conservation District

Adam Livingston, Dir of Planning and Policy  
Sequoia Riverlands Trust

Karen Buhr, Executive Director  
California Association of Resource  
Conservation Districts

Kim DelFino, California Director  
Defenders of Wildlife

Rebecca Burgess, Executive Director  
Fibershed

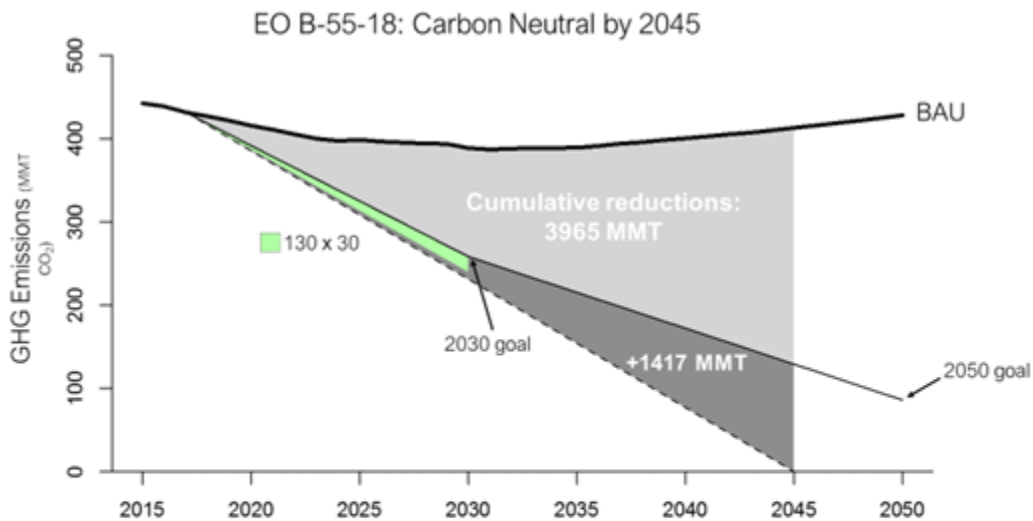
Greg Suba, Conservation Program Director  
California Native Plant Society

cc: John Laird, Secretary, California Natural Resource Agency  
Karen Ross, Secretary, California Department of Food and Agriculture

## Appendix A

While the state has not yet articulated how it will meet the “Carbon Neutral by 2045” goal in Executive Order B-55-18, the chart below illustrates the scale of reductions required – over 1,400 MMTCO<sub>2</sub>e beyond the 2050 GHG reduction goal.

California’s natural and working lands “sector” can and must play a significant role in helping the state meet this goal. For it to do so, there should be climate action and investment in the near term, guided by an ambitious 2030 climate goal that serves as a critical milestone toward the attainment of carbon neutrality.



### Additional reductions needed to meet net neutral goal in 2045

By 2030		By 2045	
Annual	27 MMT/year	Annual	129 MMT/year
Cumulative	191 MMT	Cumulative	1417 MMT

Several analyses suggest that a natural and working lands goal of 130 MMTCO<sub>2</sub>e by 2030 is feasible. These include, *Ecosystem management and land conservation can substantially contribute to California’s climate mitigation goals*,<sup>3</sup> *Natural Climate Solutions for the United*

<sup>3</sup> Cameron, D.R., Marvin, D.C., Remucal, J. M., and Passero, M.C.

(November 13, 2017) *Ecosystem management and land conservation can substantially contribute to California’s climate mitigation goals*, *Proc. Natl. Acad. Sci. USA*. doi:10.1073/pnas. See:

<http://www.pnas.org/content/early/2017/11/07/1707811114>

*States*,<sup>4</sup> *Carbon sequestration potential of terrestrial ecosystems*<sup>5</sup> and *Toward a Carbon Neutral California: Economic and Climate Benefits of Land Use Interventions*.<sup>6</sup> Collectively, these studies outline a variety of pathways for achieving this ambitious goal, including, but not limited to changes in forest management, fire risk reduction, urban forestry, wetland and oak woodland restoration, carbon farming, compost amendments, alley cropping, rice cultivation, nutrient and manure management, cover crops, and avoided conversion of land to more intensified uses.

---

<sup>4</sup> J. E. Fargione, S. Bassett, T. Boucher, S. Bridgham, R. T. Conant, S. C. Cook-Patton, P. W. Ellis, A. Falcucci, J. W. Fourqurean, T. Gopalakrishna, H. Gu, B. Henderson, M. D. Hurteau, K. D. Kroeger, T. Kroeger, T. J. Lark, S. M. Leavitt, G. Lomax, R. I. McDonald, J. P. Megonigal, D. A. Miteva, C. J. Richardson, J. Sanderman, D. Shoch, S. A. Spawn, J. W. Veldman, C. A. Williams, P. B. Woodbury, C. Zganjar, M. Baranski, P. Elias, R. A. Houghton, E. Landis, E. McGlynn, W. H. Schlesinger, J. V. Siikamaki, A. E. Sutton-Grier, B. W. Griscom, *Natural climate solutions for the United States*. *Sci. Adv.* 4, eaat1869 (2018).

<sup>5</sup> R. Lal, P. Smith, H.F. Jungkunst, W. Mitsch, J. Lehmann, P.K.R.Nair, A.B. McBratney, J.C. de M. Sá, J. Schneider, Y.L. Zinn, A.L.A. Skorupa, H. Zhang, B. Minasny, C. Srinivasrao, and N.H. Ravindranath. *Carbon sequestration potential of terrestrial ecosystems*. *J Soil and Water Cons.*doi:10.2489/jswc.73.6 (2018).

<sup>6</sup> *Toward a Carbon Neutral California: Economic and Climate Benefits of Land Use Interventions*. Next 10, November 2018.