



Technical Advisory Council

Item 6: Nature-Based Solutions State Targets and Context Setting

August 22, 2025

Introduction

The State of California has spearheaded action across our economy to transition to 100% clean energy and carbon neutrality by 2045. California has a comprehensive plan to achieve carbon neutrality by 2045 and to achieve an 85% reduction in anthropogenic greenhouse gas (GHG) emissions by 2045. The State has also implemented model policies that have been adopted across the world to achieve this transition, including zero-emission vehicle mandates, clean energy policies, carbon pricing, building and appliance efficiency standards, and others. Our State leaders have powered this transition with tens of billions of State investment in the last three years alone.

California has also responded to unprecedented climate change driven threats with fast, decisive action to protect residents, communities, and landscapes. Emergency response to wildfire, drought, floods, and extreme heat in California by federal, state, and local partners is world leading. Also importantly, comprehensive, forward-looking action plans have been developed to prepare for each of these threats, with an overarching strategy called the California Climate Adaptation Strategy that bridges these sectoral actions plans.

In order to meet these ambitious climate goals, California advanced visionary, comprehensive and science-driven nature-based solutions (NBS) climate targets in 2024. These solutions harness the power of nature to remove and store carbon from our atmosphere, buffer climate impacts, and build California's resilience to future climate driven extremes.

Importance of Nature-Based Solutions

Scientists and climate experts around the world have identified the critical importance of NBS to stabilize global climate. Lands managed for health and resilience can remove and store carbon, limit future GHG emissions, and increase resilience to climate impacts.

For example, efforts to build forest health such as reintroducing beneficial fire and thinning reduce the urgent threat of catastrophic wildfire, support long-term carbon storage in our forests, and enable our forests to withstand future climate impacts such as droughts and extreme heat.

In addition to these climate benefits, NBS deliver on other critical policy priorities such as protecting water, safeguarding public health, advancing equity, expanding economic opportunity and prosperity, increasing food and water security, and protecting biodiversity.

State Actions and Context

In October 2020, Governor Newsom issued an Executive Order (N-82-20) that outlined a comprehensive and results-oriented agenda to expand NBS across California. It called for restoring nature and landscape health to deliver on our climate change and biodiversity goals while also driving on other critical priorities, such as protecting public health and safety, securing our food and water supplies, and achieving greater equity across California.

In response, the State has worked with diverse partners to strategically deepen and expand the role of NBS in our climate policy and investments. This catalyzed a range of actions across State government:

1. Established the 2022 [California's Natural and Working Lands \(NWL\) Climate Smart Strategy](#), which identifies priority NBS to deliver climate benefits across all of California's diverse landscapes and guides State programs and investments.
2. Integrated this strategy into the State's 2022 [Scoping Plan to Achieve Carbon Neutrality](#) by 2045.
3. Identified accelerating NBS and strengthening the resilience of natural systems as one of six priority "north stars" guiding [California's 2021 Climate Adaptation Strategy](#).
4. Invested approximately \$9.6 billion since 2020 to supercharge California's NBS climate action, as of April 2024.
5. Built new partnerships with NBS leaders around the world to accelerate and scale successful efforts, including [China](#), [Australia](#), [Canada](#), and [South Africa](#).
6. Enacted [Assembly Bill 1757 \(2022\)](#), a seminal law calling for a suite of actions to center NBS in California's climate efforts and urgently scale their implementation in line with best available science

California's Nature-Based Solutions Climate Targets

As called for in AB 1757 (2022), the California Natural Resources Agency, the California Air Resources Board, the California Environmental Protection Agency, the California Department of Food and Agriculture, and more than 40 State agency partners collaborated to develop nature-based solutions (NBS) climate targets for 2030, 2038, and 2045 that contribute to California's goals of achieving carbon neutrality no later than 2045 and protecting Californians from the climate crisis. The NBS climate targets are largely organized around the major land types in California, defined by land cover or what is physically on the land. The targets were quantified by estimating the statewide level of action on every land type needed to build the health and resilience of communities and ecosystems, thus ensuring durable and sustainable carbon stocks to meet the Scoping Plan's carbon stock target. Targets were set for:

- Wildfire risk reduction
- Forests
- Shrublands and chaparral
- Grasslands
- Croplands
- Developed Lands
- Wetlands and seagrasses
- Sparsely Vegetated Lands

This is an example of the acreage targets for wildfire risk reduction.

ACREAGE TARGETS			
Nature-Based Solution (activity acres/year)	2030	2038	2045
Beneficial Fire <ul style="list-style-type: none"> • Prescribed broadcast burning, cultural burning, planned managed fire, planned treatment burned in wildfire⁴ 	800K	1.2M	1.5M
Other Fuel Reduction Activities <ul style="list-style-type: none"> • Thinning, invasive species removal, prescribed herbivory (grazing),⁵ mechanical treatments (first entry and retreatments), and uneven-aged timber harvest 	700K	800K	1M
TOTAL activity acres/year	1.5M	2M	2.5M

Starting in 2025, the California Natural Resources Agency will track progress towards the NBS climate targets across the state every two years.

Source: [California’s Nature-Based Solutions Climate Targets](#)

Discussion Questions

- What are the biggest barriers to implementing nature-based solutions?
- What solutions exist to overcome these barriers, and how can state government most usefully advance them?
- How can tracking implementation progress towards the NBS climate targets be made as useful as possible to you and/or your constituents?