



**CALIFORNIA NATURAL
AND WORKING LANDS
CLIMATE STRATEGY**
*Managing California's lands
for carbon and other benefits*

NATURAL AND WORKING LANDS

farms



ranches



forests



wetlands



grasslands



deserts



*riparian
areas*



*coastal
areas*



ocean



*urban
green-
space*



RECENT TRENDS IN NATURAL AND WORKING LANDS

129

million trees have died from drought and bark beetles since 2010

14

of the 20 largest recorded wildfires in CA have burned since 2010

150

MMT carbon lost from California landscapes 2001-2010

80%

of carbon lost from 2001-2010 was due to wildfires

IMPACTS OF DEGRADED FORESTS

- ***Air quality***: wildfire smoke, open pile burning, biomass burning release black carbon and nitrogen oxide (NO_x), a precursor to ozone
- ***Soil and water quality***: when forests growing in contaminated soils burn, they can re-release toxins to the atmosphere and into water
- ***Foregone benefits and ecosystem services, including***: recreation, cultural resources, carbon storage, water quality, biodiversity

CALIFORNIA FOREST CARBON PLAN

- ***Goal:*** manage forests as a carbon sink
- ***Proposed actions:*** increase the pace and scale of forest and watershed improvements; conserve land; innovate solutions for utilization; support research and utilization

OTHER GOOD NEWS

We can manage our natural and working lands to store carbon while protecting other key benefits

Marin Resource Conservation District Carbon Farming



Supported in part by State Coastal Conservancy's Climate Ready Program

Redwoods Rising



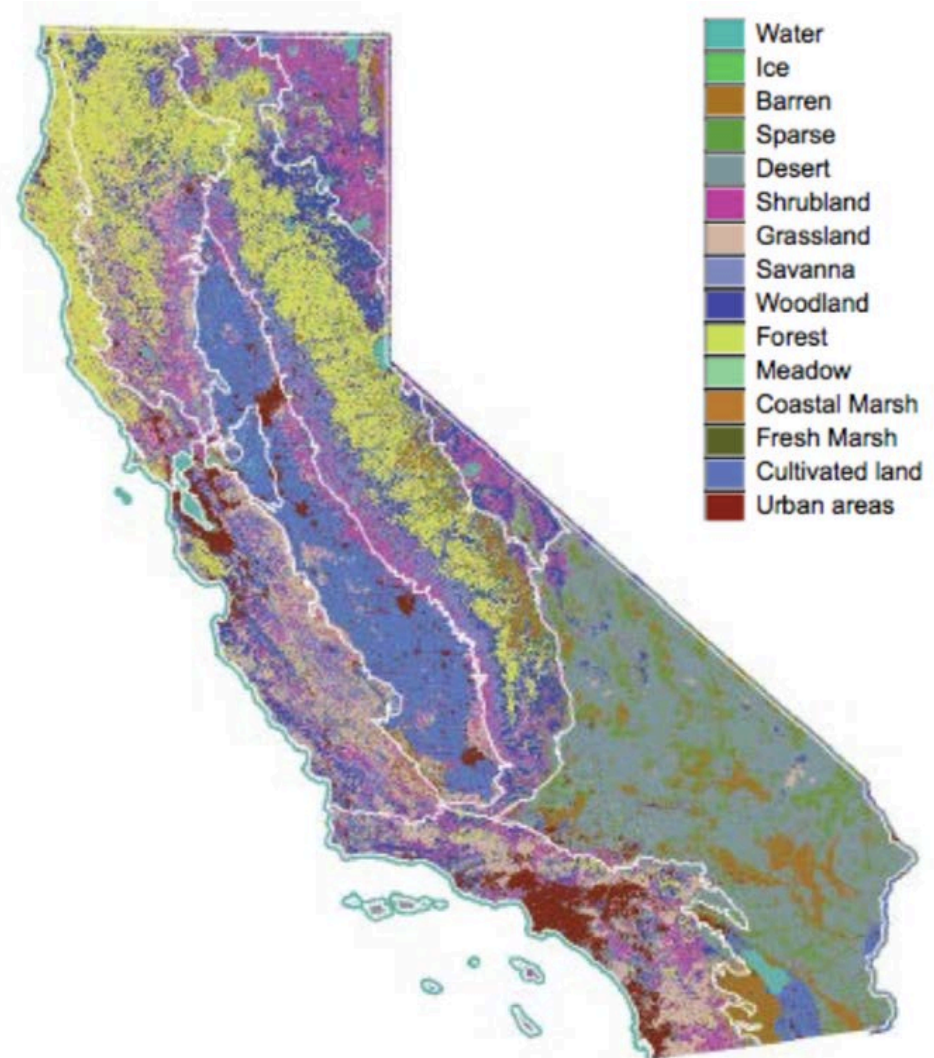
California State Parks in partnership with Save the Redwoods, National Parks Service, and other groups

2017 SCOPING PLAN

- ***Maintain natural and working lands as a carbon sink:*** overall objective
- ***Sequester 15-20 million metric tons by 2030:*** with intervention-based goal
- ***Framework:***
 - ***Protect***
 - ***Enhance***
 - ***Innovate***

CALIFORNIA NATURAL AND WORKING LANDS CARBON MODEL

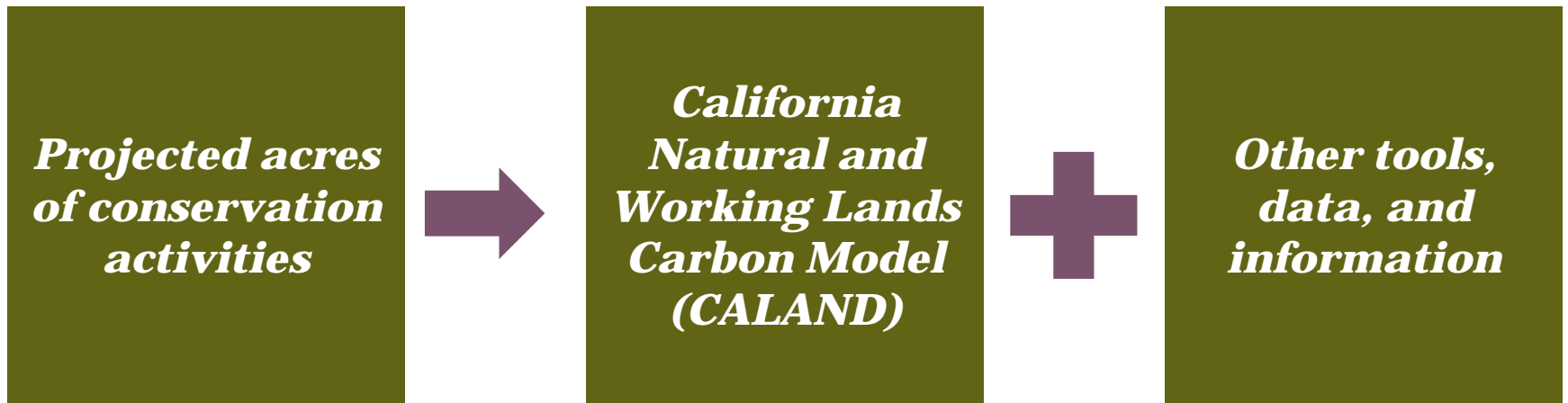
Quantifies and compares changes in carbon sequestration due to different management options across the landscape



PRACTICES MODELED IN CALAND

<i>Agricultural and rangeland management</i>	Cultivated land soil conservation; rangeland compost amendment; rotational grazing; conservation crop rotation; mulching
<i>Urban areas</i>	Urban forest expansion
<i>Forest management</i>	Forest fire fuel reduction, understory treatment, prescribed burn, biomass utilization, improved management
<i>Other restoration activities</i>	Restoration of meadows, wetlands, oak woodlands, and riparian areas

NATURAL AND WORKING LANDS IMPLEMENTATION PLAN



Using this information, the Plan will detail what we need to do to achieve the Scoping Plan's intervention-based goal

FOURTH CALIFORNIA CLIMATE ASSESSMENT

57 research projects, including:

- Fuel Treatment for Forest Resilience and Climate Mitigation: Critical Review
- Increasing Soil Organic Carbon to Mitigate Greenhouse Gases and Increase Climate Resiliency for California
- Innovations in Measuring and Managing Forest Carbon Stocks in California
- Soil Water Dynamics, Carbon Sequestration, and Greenhouse Gas Mitigation Potential of Using Composted Manure and Food Waste on California's Rangelands

Thank you

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