

CALIFORNIA CLIMATE ADAPTATION STRATEGY



2024 California Climate Adaptation Strategy:

PRIORITY: Strengthen Protections for Climate Vulnerable Communities

Some communities and individuals face compounding vulnerabilities and experience disproportionate impacts from climate change. These vulnerabilities are the legacy of disenfranchisement and underinvestment and can be reduced through equitable processes that center lived experience, needs, and solutions identified by vulnerable communities.

A climate resilient “California for All” requires focused support for those communities and individuals most vulnerable to climate threats and experiencing compounding inequities. Therefore, one of California’s guiding climate adaptation priorities is to strengthen climate resilience in communities most vulnerable to the climate crisis. Achieving this priority requires an approach of both procedural equity, where vulnerable communities are empowered to influence planning and investment decisions, as well as distributional equity, where vulnerable communities and individuals, where appropriate, are prioritized for adaptation action to make up for past underinvestment.

California is committed to building trust and strengthening relationships with vulnerable communities so our path to a climate resilient future is also one that advances equity and justice.

GOAL A: Engage with and build capacity in climate vulnerable communities

Action 1: Promote programs and partnerships to expand the capacity of under-resourced communities, including California Native American tribes, to access state resources and to lead and implement climate change mitigation, adaptation, and resilience plans, programs, and projects.

Action 2: Support California Native American tribes’ development of climate change and health equity resilience planning tools and capacity.

Action 3: Increase community participation and incorporate public input in planning transportation projects to build climate resilience and to establish landscape linkages and habitat connectivity.

Action 4: Partner with underserved communities, including tribal communities in California, to build coastal and ocean climate resilience.

Action 5: Support Technical Assistance, through providers such as the University of California Division of Agriculture and Natural Resources, to make climate smart agricultural knowledge and incentives available to Socially Disadvantaged Farmers and Ranchers and disadvantaged communities.

Action 6: Enhance adaptive capacity of communities and individuals through increased climate-related service and volunteerism.

Action 7: Engage and foster community collaborations to conduct health studies of air pollution, wildfire smoke, and heat, with a concerted effort to minimize health disparities in marginalized communities.

Action 8: Engage with communities most likely to be affected by state climate adaptation planning decisions.

Action 9: Support public and employer awareness campaigns that build upon current efforts to bolster extreme heat event preparedness, drought preparedness, water conservation, and other actions to support climate adaptation.

Action 10: Support community care and health care settings for vulnerable populations, such as older adults, people with disabilities, health care patients, pregnant people, infants, and children, to prepare for safe temperatures in extreme heat events.

GOAL B: Improve understanding of climate impacts on California's communities, including what drives vulnerability

Action 1: Identify the most climate vulnerable communities and individuals in California to direct and inform actions across sectors and regions that reduce risk and build resilience.

Action 2: Improve and refine quantitative wildfire risk assessments across California to identify the most wildfire vulnerable communities and populations for inclusion in California's Vulnerable Communities Platform.

Action 3: Increase the collection, analysis, and reporting of data on climate-related health impacts, especially the health impacts from cascading climate risks, such as heat and wildfire smoke exposure.

Action 4: Support actionable, community-driven, and equitable research partnerships to inform and accelerate climate adaptation action based on best available climate science.

Action 5: Assist emergency managers and planners in identifying, locating, and deploying resources to populations at greater risk from climate impacts.

Action 6: Document, in collaboration with California Native America tribes, the impacts of climate change on their health, their communities, traditional foods, cultural resources, and ecosystems.

Action 7: Increase the understanding of impacts of climate change to cultural heritage in California, including Traditional cultural properties, to safeguard valued resources into the future.

Action 8: Provide a public forum to increase understanding of both disproportionate community impacts due to inequities and community-driven solutions that advance climate resilience and health equity.

Action 9: Increase understanding of the effects of extreme heat on worker health and safety.

GOAL C: Build resilience in climate vulnerable communities through state programs

Action 1: Prioritize actions that reduce wildfire risks to California Native American tribes and climate vulnerable communities.

Action 2: Support wildfire-prone communities by increasing the capacity of local and regional partnerships to build and maintain a pipeline of forest health and fire prevention projects.

Action 3: Review local government plans to meet housing needs (General Plan Housing Elements) with a focus on climate resilience, adaptation, and protection of vulnerable communities from climate impacts.

Action 4: Strengthen protections for people who are experiencing homelessness and extremely vulnerable to climate risks through funding programs for permanent and interim housing.

Action 5: Invest Community Development Block Grant Disaster Recovery funds in long-term disaster recovery and resilience building that targets the unmet housing recovery needs of low and moderate-income households in a way that mitigates disaster risk and reduces future losses among vulnerable communities.

Action 6: Promote sustainable land use planning and transportation investments that support walkable and bikeable communities and infill development to build resilience of climate vulnerable communities.

Action 7: Increase food production and food access to nutritious locally and traditionally grown food and produce for all Californians, emphasizing low-income communities to build climate resilient food systems, increase agricultural economic sustainability, and improve health and resilience over the lifetime of Californians in the face of climate change.

Action 8: Consider and integrate environmental justice principles of meaningful involvement and fair treatment in permit decisions and planning documents that drive on California's climate adaptation priorities.

Action 9: Promote equity, community engagement, and cultural competency in the design of emergency response programs.

Action 10: Prioritize climate resilience and health equity resources for people and places experiencing the most need and risks due to historical and continuing disinvestment and inequities.

Action 11: Ensure the Affordable Housing and Sustainable Communities Program advances California's climate resilience priorities.

Action 12: Ensure projects funded through the Transformative Climate Communities Program advance California's climate resilience priorities.

Action 13: Enact policies for California High-Speed Rail that establish sustainability, climate change adaptation, and social equity goals.

Action 14: Enact policies in the California State Rail Plan that support climate change adaptation for rail infrastructure, including climate-induced emergency repairs and maintenance.

Action 15: Protect California's cultural heritage from the impacts of climate change.

Action 16: Develop a statewide extreme heat ranking system.

Action 17: Develop policy recommendations for the maximum safe indoor temperature in residential buildings.

Action 18: Reduce risk of heat-related illness among indoor and outdoor workers, prioritizing those most at risk.

Action 19: Bolster correctional facilities' resilience to extreme heat events.

PRIORITY: Bolster Public Health and Safety to Protect Against Increasing Climate Risks

Climate change poses significant threats to public health and safety across California. This priority focuses on preventing and reducing these climate-driven health and safety threats and the importance of a comprehensive, equity-focused approach.

Climate-related damage to health can be immediate and acute, as well as sustained and long-term. Wildfires, for instance, can injure and kill people while creating toxic, hazardous smoke across the state that worsens respiratory and cardiovascular conditions. Wildfires also destroy homes and livelihoods, with cascading economic and mental health effects. Extreme heat, for example, can cause illnesses that require immediate hospitalization, as well as increase cumulative physiological stress on the human body, resulting in conditions such as kidney disease, adverse birth outcomes, or risk of suicide. As heat waves and droughts have intensified, their effect on several vector-borne, foodborne, waterborne, and soil-borne infectious diseases have already impacted Californians over the past decade and are expected to increase further resulting in many more illnesses and deaths. In addition to these physical health and safety impacts, medical professionals must also respond to climate anxiety and other mental health challenges caused or exacerbated by climate change.

These events also have impacts on food supply and security, water supply and sanitation, environmental hazards such as harmful algal blooms, and many others. Climate change is a threat multiplier, worsening existing health inequities. Even during natural life stages, like youth, old age, and pregnancy, climate impacts can uniquely stress the body with consequences for morbidity and mortality.

GOAL A: Reduce urgent public health and safety risks posed by climate change

Action 1: Reduce health impacts of wildfire and prescribed fire smoke.

Action 2: Conserve water.

Action 3: Help regions improve preparation for drought.

Action 4: Protect groundwater as an important water source for future generations.

Action 5: Reduce flood risk in California by helping regions prepare for new flood patterns.

Action 6: Protect public health by increasing reliable access to safe, affordable drinking water and sanitation.

Action 7: Support local and regional agencies to recycle or reuse water.

Action 8: Invest state bond funds in water storage that provides flood control, ecosystem, water quality, emergency response, and recreation benefits.

Action 9: Support the public health sector's capacity to address the climate crisis and increase health equity.

Action 10: Integrate health equity data, tools, and metrics into state climate change-related plans, policies, and investments, to improve health equity outcomes.

Action 11: Minimize toxic chemical exposures associated with climate-related events by providing toxicological expertise and consultation to support state and local decision-making and emergency response.

Action 12: As pest pressure intensifies with climate change, promote safer sustainable pest management aimed at creating healthy and resilient farms, cities, natural landscapes, ecosystems, communities, homes, and gardens.

Action 13: Protect natural resources and agriculture from invasive species and pests whose impact changes spatially and temporally as a result of climate change.

Action 14: Improve water quality by reducing excess nutrients in groundwater.

Action 15: Integrate future climate risk into emergency preparedness and response.

Action 16: Implementation of the indoor heat regulation by the Occupational Safety and Health Standards Board.

Action 17: Address food system vulnerabilities to extreme heat.

Action 18: Review and improve access to and use of air conditioning and other indoor cooling strategies, including passive cooling techniques and other alternate methods that are zero-emission, energy efficient, low-cost, and do not rely on high global warming potential refrigerants. Address obstacles to the use of air conditioning and other cooling strategies for vulnerable populations.

Action 19: Utilize a One Health approach (a collaborative approach that recognizes that the health of people, animals, plants, and the environment are linked and interdependent) to improve the State of California's collective understanding of, and capacity to mitigate, public health threats due to biodiversity loss, changes in land management, and climate impacts to human and animal health.

Action 20: Implement a pilot program for community health promoters / *promotores de salud* in the San Joaquin Valley to refer farmworker families with climate-related health conditions to receive home weatherization and energy efficiency services that can improve housing and health.

GOAL B: Improve infrastructure's climate resilience to protect public health and safety

Action 1: Reduce the risk of energy infrastructure-related ignitions that lead to catastrophic wildfire.

Action 2: Increase resilience of critical, climate vulnerable energy infrastructure.

Action 3: Reduce vulnerability of water and wastewater infrastructure to climate-driven disasters, such as flooding, storm surge, sea level rise, drought, and landslides.

Action 4: Support California Native American tribes and communities diversify their water supply sources.

Action 5: Evaluate and strengthen resilience of regulated water and wastewater facilities.

Action 6: Examine the use of sustainable pavement technologies, such as cool surfaces and porous pavement, that reduce heat impacts and increase resilience, durability, and design life.

PRIORITY: Build a Climate Resilient Economy

Our economy relies on safe and reliable infrastructure, a healthy workforce, stable supply chains, and dependable natural resources and healthy natural systems. Each of these elements of a sound economy are impacted by climate change and are specifically threatened by climate impacts that we are already experiencing in California. Through this Strategy, the state is committed to equity-centered actions that ensure that all Californians enjoy the benefits of a resilient economy. By pursuing equity in its economic resilience efforts, the state will affirm and maintain California's status as a place of opportunity and innovation.

Increasingly, we are improving our understanding of the economic impacts of climate change. For example, the cost of removing hazardous materials from properties in the town of Paradise after the Camp Fire in 2018 cost the California state government over \$2 billion. Such costs demonstrate the need for up-front investment to reduce the long-term fiscal impacts of climate-driven disasters.

Well-established estimates used in the United States suggest that that on average every \$1 invested in proactive efforts to reduce climate risk avoids at least \$6 in future costs to respond to such risks. For example, proactive investments that protect communities from wildfires not only protect California's residents but help reduce the long-term costs of wildfire recovery. Proactive adaptation and resilience measures are sound economic and fiscal investments.

Other examples of proactive resilience measures include investments in public health systems and community resilience, supporting climate-smart businesses, protecting workers vulnerable to climate impacts, wetland restoration, forest management, and climate resilient infrastructure. These types of projects, coupled with the transition from fossil fuels to renewable energy and carbon sequestration, as well as clean technology innovation and deployment, present new job and business opportunities. Importantly, these economic opportunities require diverse skillsets, engaging numerous sectors of California's economy in climate solutions. Preserving and creating jobs and business opportunities in a clean, resilient, and inclusive economy will bolster quality of life and support economic mobility for Californians.

GOAL A: Expand economic opportunities for California by building climate resilience

Action 1: Support regions experiencing economic transitions resulting from climate impacts with a focus on good-paying jobs, environmental sustainability, and broad access to opportunities for a diversity of businesses and workers.

Action 2: Protect agricultural land from development and provide the technology, tools, and resources necessary to maintain the economic viability, resiliency, and biodiversity of California's agricultural lands.

Action 3: Support and incentivize climate resilience in the agricultural sector through the promotion of climate smart agricultural practices.

Action 4: Enhance and protect California's nature-based tourism economy through resilience investments.

Action 5: Maintain continued public access to California's coast in light of changing shoreline conditions and sea level rise, prioritizing climate vulnerable communities.

Action 6: Develop adaptive management approaches to assess and effectively respond to climate-caused shifts in fisheries.

Action 7: Bring to scale a thriving forest and wood products market in California that leverages public investments by energizing private capital for sustainable forest management, regional economic recovery, and climate resilience.

GOAL B: Deepen understanding of climate change effects on California's economy

Action 1: Fund applied climate research through the California Climate Change Assessments to quantify economic impacts of climate change in various sectors, with a focus on economic loss and opportunity.

Action 2: Identify and assess sea level rise impacts and associated financial costs to coastal lands.

PRIORITY: Accelerate Nature-Based Climate Solutions and Strengthen Climate Resilience of Natural Systems

California's land sector – forests, farms, wetlands, coasts, deserts, community greenspaces, and more – are a key pillar of California's climate change agenda. Assembly Bill 1757 (C. Garcia, 2022) called on the Natural Resources Agency, in collaboration with the Air Resources Board, the Environmental Protection Agency, the Department of Food and Agriculture, to develop nature-based solutions climate targets for 2030, 2038, and 2045. This work builds on the elevated role of this sector called for in Governor Newsom's Executive Order N-82-20, which increased state focus on nature-based solutions that deliver on our climate change goals and other critical priorities, such as improving public health and safety, securing our food and water supplies, and increasing equity.

Nature-based solutions that deliver on California's climate change goals are land management practices that increase the health and resilience of natural systems, which supports their ability to serve as a durable carbon sink (lands that absorb more carbon than they release). For example, nature-based solutions in forests – such as reintroducing prescribed fire – reduce the threat of catastrophic wildfire, supports long-term carbon storage, and builds resilience of our forests to future climate impacts. Similarly, restoring coastal wetlands can reduce the risk of flooding, store carbon, and build community, economic, and ecological resilience along California's coasts.

This priority emphasizes our commitment to achieving our nature-based solutions climate targets which will increase California's communities and natural systems ability to thrive together in the face of climate change. While we all pay a price when our lands and waters are unhealthy – with our health, our economic prosperity, and our security – some of us are burdened more than others. As we accelerate nature-based climate solutions, a core goal for California is to do so in a manner that increases equity and environmental justice.

GOAL A: Increase the pace and scale of nature-based climate solutions

Action 1: Implement California's nature-based solutions climate targets.

Action 2: Identify opportunities to implement climate smart land management on state lands that build climate resilience while also delivering other benefits, such as increasing carbon sinks, reducing overall greenhouse gas emissions, and enhancing biodiversity.

Action 3: Identify and pursue opportunities to support tribal access, ancestral land return, tribally-led nature-based solutions, and co-management of lands and marine resources. Invite and incorporate tribal expertise, Traditional Ecological Knowledges, and cultural practices for understanding and responding to climate change.

Action 4: Increase the pace and scale of wildfire resilience and forest health projects.

Action 5: Reduce risks of wildfire through increased use of fuel breaks and fuels reduction.

Action 6: Assist the federal government in scaling up forest treatments by supporting collaborative forest management and encouraging landscape level planning.

Action 7: Protect, restore, and create coastal wetlands.

Action 8: Protect existing and create additional seagrass habitat.

Action 9: Protect and restore kelp forest ecosystems.

Action 10: In the Sacramento-San Joaquin Delta watershed, build climate resilience through restoration.

Action 11: Restore rivers, mountain meadows, seasonal wetlands, and deltaic and arid-environment wetlands to improve water quality and storage, enhance wildlife habitat and biodiversity, sequester carbon, and buffer floods.

Action 12: Increase tree canopy cover and green space/infrastructure across California's communities. Prioritize California Native American tribes and climate vulnerable communities.

Action 13: Support planning and capacity building to implement climate smart agricultural practices by funding growers seeking to develop Agriculture Conservation Plans and technical assistance for growers working on Agriculture Conservation Plans.

Action 14: Utilize existing market mechanisms and tools to accelerate nature-based climate solutions.

Action 15: Increase investment in community composting to provide support to an additional 500 community composting sites throughout California, including tribal lands.

GOAL B: Increase landscape connectivity and establish climate refugia to build the resilience of California's unique biodiversity

Action 1: Maintain and increase areas of high resilience to climate change.

Action 2: Utilize California's Marine Protected Area Network to build climate resilience.

Action 3: Conserve agricultural lands at risk of development to reduce the rate of conversion and retain habitats and connectivity.

Action 4: Enhance and maintain state wildlife areas and ecological reserves as well as increase the pace and scale of habitat restoration and adaptive management on state lands, including through the Cutting the Green Tape initiative.

Action 5: Reconnect aquatic and terrestrial habitats to help fish and wildlife endure drought and adapt to climate change.

Action 6: Minimize the impacts of ocean acidification and hypoxia.

GOAL C: Integrate nature-based climate solutions into infrastructure investments

Action 1: Integrate multi-benefit nature-based solution strategies into transportation resiliency planning.

Action 2: Minimize adverse environmental impacts of the transportation system through enhancing California's natural resources and environmental health.

Action 3: Prioritize the use of nature-based solutions in infrastructure design to help protect and restore California's coast when developing climate change and sea level rise adaptation approaches.

Action 4: Encourage investment in upper watersheds to protect water quality and supply.

Action 5: Integrate nature-based solutions into the development of California's High-Speed Rail system.

Action 6: Utilize nature-based solutions as part of cooling strategies, including through planting trees, expanding greenspace, and restoring urban streams. Increase public awareness of best practices to green urban residential areas.

GOAL D: Accelerate state processes to support implementation of nature-based climate solutions

Action 1: Coordinate and guide prescribed fire and cultural fire activities and address the key barriers to its widespread use in California.

Action 2: Expedite permitting processes for wildfire and forest resilience projects using exemptions or the California Vegetation Treatment program.

Action 3: Accelerate permitting for groundwater recharge projects to capture peak flows for groundwater recharge.

Action 4: Align and improve permitting to help launch and incentivize more multi-benefit, multi-partner restoration projects that build water resilience.

Action 5: Streamline coastal permitting processes for nature-based solutions through pre-application coordination, programmatic approvals, consistent monitoring standards, regulatory reform, best available science, and agency leadership.

Action 6: Expedite the regulatory approval process for appropriate large habitat restoration projects.

Action 7: Streamline and consolidate permit process for small and medium size organics recycling and composting facilities through pre-application coordination, programmatic approvals, consistent monitoring standards, statutory or regulatory reform, best available science, and agency leadership.

PRIORITY: Make Decisions Based on the Best Available Climate Science

California's investment in actionable scientific research is a cornerstone of its leadership on climate change. Each year, scientific understanding of climate change and its impacts improves. This evolving scientific understanding must underpin all our efforts to strengthen climate resilience and adaptation and is the basis of this priority.

A science-to-action approach that advances partnership-based research allows us to better understand the location, timing, and extent of climate impacts and will support investments and policies that reduce future climate risk. For example, the Fourth Climate Change Assessment was designed to be actionable by state and local stakeholders and supports adaptation practice across the state. Many local counties and government agencies continue to use the Fourth Assessment projections to plan for sea level rise, extreme heat, and other climate impacts. Now underway, the Fifth Climate Change Assessment is already expanding and building on the advancements made during the Fourth Assessment.

The partnership-based research models California is adopting will improve our understanding of and response to climate impacts by diversifying the perspectives and contributions to this work. For example, western science has overlooked the generations of knowledge held by indigenous communities, who have stewarded the land since time immemorial. Seeking and elevating Traditional Ecological Knowledge can augment conventional research methods to better understand how California's climate and environment have changed over time. Additionally, establishing partnerships at the outset of research processes to understand communities' needs will direct more actionable research and outcomes. As a state, we commit to continued support for new and innovative climate research, and application of findings for the purpose of adaptation.

Goal A: Support actionable climate science

Action 1: Increase the state's ability to anticipate and plan for climate impacts through implementation of the California Climate Change Assessments, which fund applied science, collaboration on Traditional Knowledge, and tools that provide actionable insight into the impacts a changing climate has on California's economy, ecosystems, and communities.

Action 2: Invest in science-based management focused on climate resilience of California's fire adapted landscapes.

Action 3: Support utilization of emerging technologies and partnerships to improve forecasts of precipitation, seasonal snowpack, and runoff at all time scales.

Action 4: Coordinate actionable research that informs climate resilient decarbonization.

Action 5: Work closely with federal agencies, California Native American tribes, businesses, and universities to better manage and protect California's water resources by utilizing the latest airborne and spaceborne climate monitoring data and data

products, including low-cost sensors, hand-held devices, mobile survey vehicles, and sophisticated sensors set up on communication towers, drones, aircraft, and satellites.

Action 6: Invest in research and long-term monitoring to inform adaptive management to improve the implementation and success of nature-based climate solutions.

Action 7: Develop and utilize a cultural heritage climate vulnerability assessment tool that derives values in collaboration with California Native American tribes, local communities, non-governmental organizations, local, national, and international partners. Connected efforts will increase the progress and improve systems for more effective solutions.

Action 8: Develop and update a suite of indicators that document the drivers and observed impacts of a changing climate across California over time.

Action 9: Develop state-of-the-science maps of carbon stocks.

Action 10: Understand climate vulnerabilities of wildlife areas, ecological reserves, state-owned park units, and marine protected areas along California's coast and ocean.

Action 11: Support accessible and actionable science to address the effect of climate change on species, habitats, and ecosystems.

Action 12: Quantify the impact of increased temperatures on electric grid operation.

Action 13: Conduct excess mortality analyses of heat waves.

Goal B: Operationalize climate science into decision making

Action 1: Support consistent integration of climate risk into federal, state, local, and tribal decision making through regularly updated actionable guidance and technical assistance.

Action 2: Improve wildfire smoke guidance for schools, children, and other vulnerable populations. Develop outreach materials for health care providers and the public on wildfire smoke health effects and ways to decrease exposure.

Action 3: Understand climate impacts on agricultural land viability to help inform conservation decisions and strategies.

Action 4: Improve the ability of regions to anticipate water-related weather and climate changes.

Action 5: Ensure proposed Clean and Drinking Water State Revolving Fund projects account for impacts related to climate change.

Action 6: Ensure proposed Salton Sea Management Program projects account for climate change impacts.

Action 7: Integrate consideration of California's most recent downscaled climate change projections into state conservation decisions.

Action 8: Incorporate the best available science, including the use of adaptation pathways, on sea level rise and coastal hazards into policies, plans, and permits and have explicit processes for updating these with new information.

Action 9: Incorporate updates, including the addition of new practices into the climate smart agricultural incentive program benefit calculators, as science supports.

Action 10: Support knowledge exchange and outreach to develop a deeper understanding of climate change impacts on crops and livestock, future climate change projections, and decision support tools available for farmers and ranchers.

Action 11: Provide science-based guidance on cool and sustainable pavements.

Action 12: Develop an urban heat island effect index, including a definition consistent with the legislative intent in AB 296 (Skinner, 2012), and assess the extent and severity of the urban heat island effect for California cities to inform quantifiable reduction goals.

Action 13: Incorporate climate considerations into state, tribal, and local emergency planning efforts.

Action 14: Prioritize investments that reduce climate risk to California's transportation system based on exposure and sensitivity analyses of climate change and natural disasters.

Action 15: Integrate climate adaptation and resilience principles into the design, construction, and operation of the High-Speed Rail system.

PRIORITY: Partner and Collaborate to Leverage Resources

Working together allows us to go further, faster. This priority serves to encourage collaboration and demonstrate the state's commitment to achieve equitable climate adaptation action through partnerships.

Governments, public agencies, and communities at all levels are impacted by climate change and have some responsibility to help California adapt. No single government or entity is fully "in charge" of building climate resilience and can lead this effort alone. In the case of climate driven catastrophic wildfires, for example, multiple government agencies play important roles: federal agencies like the U.S. Forest Service; state agencies like CAL FIRE and state conservancies; California Native American tribes, and local county and city governments. Additionally, non-governmental entities including Fire Safe Councils, Community Based Organizations (CBOs), Resource Conservation Districts, timber companies, neighborhood councils, and other groups contribute to local and regional fire resilience.

Partnerships, coordination, and collaboration in our efforts to build climate resilience are essential given the diversity of threats California faces and the vast array of entities that are focused on building our resilience to these threats. All entities – from individuals, to tribal, local, regional and state governments, to community-based organizations and the private sector – hold a piece of the puzzle and must work together to leverage each other's strengths and actions in response to the climate crisis.

Collaborative approaches to resilience can anchor equity in California's climate efforts by welcoming the perspective of vulnerable communities to shape planning, projects, and investments. Building partnerships with diverse entities can also support capacity-building by creating networks for information-sharing and other support. Deepening relationships with vulnerable communities will advance equity outcomes in resilience efforts and have broader equity benefits by earning the trust and respect of the communities we serve.

GOAL A: Collaborate to build climate resilience across sectors and regions

Action 1: Accelerate state, tribal, and local adaptation efforts through sharing of best practices, facilitating collaborative partnerships, and direct investments through the Integrated Climate Adaptation and Resiliency Program.

Action 2: Improve coordination and alignment on climate adaptation and resilience in the water sector through partnerships.

Action 3: Coordinate across state agencies to advocate for federal support for climate adaptation science in California.

Action 4: Explore community and tribal stewardship and co-management agreements and policies to meaningfully engage the public in the management of public lands and resources and provide additional oversight and protections for State Lands Commission and Department of Fish and Wildlife lands.

Action 5: Strengthen alignment of coastal resilience planning activities.

Action 6: Work with tribal and local governments to establish a shared vision for climate change and sea level rise adaptation planning updates to Local Coastal Programs.

Action 7: Coordinate with local governments to develop coastal adaptation (sea level rise or shoreline adaptation) plans or incorporate coastal adaptation elements into planning documents for all coastal and San Francisco Bay shoreline jurisdictions.

Action 8: Provide technical assistance to farmers implementing climate smart agricultural practices through collaboration with U.S. Department of Agriculture, University of California Cooperative Extension, and non-governmental organizations.

Action 9: Collaborate with state, regional, and local agencies to build a resilient High-Speed Rail system of the future, and partner with communities to meet local needs through station area planning.

Action 10: Collaborate with federal, state, tribal, and private partners to increase pace and scale of restoration of fire-adapted lands and maximize the climate resilience benefits of these treatments.

Action 11: Leverage federal support such as the historic Infrastructure Investments and Jobs Act (IIJA) and the Inflation Reduction Act (IRA) that amplifies state programs to deliver on California's climate resilience agenda and priorities.

Action 12: Leverage federal funding to support fire-hardening roads and communities.

Action 13: Support California Native American tribes, communities, and cross-sector groups and leaders in each of the state's regions to develop and execute integrated water resilience strategies.

Action 14: Collaborate with local health departments and communities facing climate and health inequities to develop a shared vision and action plan for protecting health equity and well-being in a changing climate.

Action 15: Support grantees and vulnerable communities in shaping future funding rounds of climate resilience grant programs.

Action 16: Form stronger and sustained connections between regional and local agencies and organizations and state climate activities.

Action 17: Increase community-scale climate resilience through innovative, research-supported emergency planning grants and projects— such as those that offer multiple co-benefits; are scalable at the regional level; and bring multiple funding sources or in-kind resources from private and public sector stakeholders.

GOAL B: Increase awareness of climate adaptation and resilience issues

Action 1: Facilitate collaboration on adapting to climate change amongst grant applicants, grantees, and sub-grantees through awareness building activities, such as convenings, trainings, and peer-to-peer learning in the agricultural sector.

Action 2: Coordinate with Universities to share climate adaptation and resilience research and training opportunities.

Action 3: Working with partners, maintain and build up Climate Smart Agriculture outreach videos on the Department of Food and Agriculture website.

Action 4: Increase public awareness of and encourage participation in planning processes to address climate change in coastal communities and statewide, including meaningful consultations with California Native American tribes.

Action 5: Empower Californians to take meaningful climate action through increased service and volunteerism opportunities.

Action 6: Increase awareness and understanding of climate impacts on children and pregnant people, as well as reduce these impacts by providing public health expertise and collaborating with state, tribal and local agencies, community organizations and other entities taking actions to build climate resilience.

Action 7: Increase protection of heritage and cultural resources from climate impacts through science-based, tribal expertise, and Traditional Ecological Knowledge solutions, in partnership with California Native American tribes, adjacent communities, and the cultural and arts sector.