

For additional information on these investments, please see the Economic Growth, Job Creation, and Expanded Opportunity Chapter.

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## CLIMATE RESILIENCE

Building on the over \$15 billion multi-year climate resilience investments in the 2021 Budget, the Budget advances programs to protect communities from the imminent climate threats of wildfire and drought, while implementing budget priorities on extreme heat, nature-based solutions, sea-level rise, and community resilience.

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### WILDFIRE AND FOREST RESILIENCE

The ongoing impacts of climate change on California's wildlands continue to create critically dry fuel conditions and longer, more severe fire seasons. The state experienced 4 of the largest 20 wildfires in its history in 2021.

The 2021 early action package and 2021 Budget Act included a combined \$1.5 billion one-time investment to restore the state's wildfire resilience by increasing the pace and scale of forest and fuel management practices.

The Budget includes an additional \$1.2 billion (\$800 million General Fund and \$400 million Greenhouse Gas Reduction Fund) one-time over two years for a total \$2.7 billion investment over four years for a comprehensive wildfire and forest resilience strategy to advance critical investments in forest health and fire protection to continue to reduce the risk of catastrophic wildfires. This includes funding to support resilient forest and landscapes; wildfire fuel breaks; community hardening; regional and tribal capacity; science-based management; and economic development of the forest sector.

See the Emergency Response Chapter for additional detail.

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### DROUGHT RESILIENCE AND RESPONSE

While recent storms have brought needed rain and snowfall, California remains at risk of a continued serious state of drought with near-record low reservoir storage and negative impacts on fish and wildlife. After two dry years, reservoir storage is markedly below 2019 levels, underscoring the need for ongoing water conservation. State agencies have mobilized to prepare for the possibility of a third consecutive dry year. The Governor first declared a regional drought emergency in April 2021 followed by an

extension of the drought emergency statewide in July. The State Water Resources Control Board, Department of Water Resources, and Department of Fish and Wildlife have since taken additional steps to protect drinking water supplies, prevent salinity intrusion, and minimize harm to fisheries and the environment.

Tribal, low-income and underrepresented communities are disproportionately impacted by drought. Small water systems in low-income communities are among the hardest hit, and the state is still providing hauled or bottled water to eight jurisdictions experiencing supply outages in counties from Tulare to Los Angeles. The state will continue to invest in innovative drought preparedness and response to make the most of the state's water supplies. From water recycling to groundwater replenishment projects, the state is creating and implementing new solutions to respond to this new, unpredictable hydrology.

The 2021 Budget included a historic investment of \$5.2 billion over three years to advance water resilience and drought response. This investment provides immediate assistance to struggling communities and prepares for more severe, climate-induced drought and flood conditions in the long term.

The Budget builds on this investment by including an additional \$750 million one-time General Fund to support drought resilience and response. Significant investments include:

- **Water Conservation Programs**—\$180 million for grants to large urban and small water suppliers to improve water efficiency, address leaks, reduce demand, provide water use efficiency-related mapping and training, support turf replacement, and maintain a drought vulnerability tool. These investments advance water conservation as Californians work to achieve the Governor's 15-percent voluntary water conservation target and as local water districts adapt to forthcoming efficiency standards.
- **Urban and Small Community Drought Relief**—\$145 million for local emergency drought assistance and grants to local water agencies facing loss of water supplies.
- **Fish and Wildlife Protection**—\$75 million to mitigate immediate drought damage to fish and wildlife resources and build resilience of natural systems.
- **Multibenefit Land Repurposing**—\$40 million to increase regional capacity to repurpose irrigated agricultural land to reduce reliance on groundwater while providing community health, economic well-being, water supply, habitat, renewable energy, and climate benefits.

- **Groundwater Recharge**—\$30 million to provide grants to water districts to fund planning, engineering, water availability analyses, and construction for groundwater recharge projects.
- **On-Farm Water Conservation**—\$20 million to bolster the State Water Efficiency and Enhancement Program, which provides grants to implement irrigation systems that save water on agricultural operations.
- **Technical Assistance and Drought Relief for Small Farmers**—\$10 million to provide mobile irrigation labs, land use mapping and imagery, irrigation education, and direct assistance to small farmers and ranchers who have experienced water cost increases of more than 50 percent.
- **Drought Contingency**—\$250 million as a drought contingency set aside to be allocated as part of the spring budget process, when additional water data will be available to inform additional drought needs.

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## NATURE-BASED SOLUTIONS, EXTREME HEAT, COASTAL RESILIENCE, AND COMMUNITY RESILIENCE

The 2021 Budget included \$3.7 billion one-time General Fund over three years for investments that support multi-benefit and nature-based solutions, address impacts of extreme heat, build ocean and coastal resilience, advance environmental justice, and deliver community resilience and capacity where resources are most needed. The Budget includes approximately \$2.1 billion General Fund in 2022-23, associated with the second year of investments.

### EXTREME HEAT

Every corner of the state will be impacted in years and decades to come by higher average temperatures and more frequent and severe heat waves. Extreme heat threatens public health and safety, economic prosperity, and communities and natural systems. It also poses profoundly disproportionate consequences for the most vulnerable populations, including tribal nations, low-income neighborhoods, communities of color, and older and disabled adults.

The 2021 Budget committed \$800 million one-time General Fund over three years to reduce urgent risks and build long-term resilience to the impacts of extreme heat across California. The Budget includes approximately \$175 million in 2022-23 associated with the second year of investments including:

- **Urban and Community Forestry and Urban Greening**—\$100 million to cool communities through nature-based solutions, such as expanding tree canopy and green infrastructure projects.
- **Community Resilience and Heat Program**—\$25 million to reduce the impacts of extreme heat and the urban heat island effect.
- **Community Resilience Centers Program**—\$25 million to support vulnerable residents experiencing extreme heat, wildfires, power outages, flooding, and other emergency situations brought about by the climate crisis.
- **Low-Income Weatherization Program**—\$25 million to accelerate energy efficient upgrades in low-income households through, for example, accelerated deployment of air conditioning heat pumps and low global warming potential refrigerants in communities particularly vulnerable to heat.

The 2021 Budget also included \$300 million General Fund over two years to support the implementation of the state's updated Extreme Heat Action Plan. The Administration has released a draft plan, which will inform both the final plan and the detailed budget proposal forthcoming in the spring.

Based on public input on the draft plan, the Administration is considering the following major funding streams:

- Cooling schools in heat-vulnerable communities.
- Building a climate smart workforce through training partnerships, and apprenticeships in jobs and careers that address extreme heat such as construction, urban forestry, building weatherization, and climate smart management of schoolyards.
- Protecting vulnerable populations through targeted education for employers and employees, increased enforcement before and during heat events, and enhanced review and tracing systems.
- Increasing public awareness to reduce risks posed by extreme heat.

### NATURE-BASED SOLUTIONS

California's natural and working lands—forests, wetlands, croplands, grasslands, deserts, and other landscapes—help sustain the state's communities and economy. They are also essential to combating the climate crisis and preserving California's

world-renowned biodiversity. Nature-based solutions buffer state residents from climate threats, strengthen and protect cultural connections to the environment, sequester carbon, sustain rivers and water supplies, protect fish and wildlife, and provide for outdoor experiences.

California is committed to the goal of conserving 30 percent of the state's lands and coastal waters by 2030 (30x30). California's 30x30 initiative is part of an international movement to conserve natural areas across the planet to protect biodiversity, expand equitable access to nature and its benefits, combat climate change, and build resilience to climate impacts.

The 2021 Budget committed \$1.4 billion one-time General Fund over three years for multi-benefit nature-based solutions. The Budget includes approximately \$382 million in 2022-23 associated with the second year of investments. These investments are supporting:

- Immediate drought response for communities and fish and wildlife and strengthened long-term water resilience for natural systems.
- Improved resilience of the state's forests and wildlands to withstand long-term climate threats, protection for wildfire-vulnerable communities, and reduced near-term wildfire risks.
- A range of multi-benefit and nature-based solutions that deliver on Executive Order N-82-20 to combat climate change, expand outdoor access, and protect biodiversity.
- Community greening initiatives that support the state's climate goals and equity goals.
- Scaled support for climate smart agriculture planning and practices.
- Protection for the ocean and California's coasts through restoration projects and improved community planning.
- Community economic resilience funding that creates economic opportunity in nature-based sectors such as agriculture, forestry, and climate restoration.

The 2021 Budget also included \$768 million one-time General Fund over two years to support implementation of the state's Natural and Working Lands Climate Smart Strategy and 30x30 Pathways strategy. The Administration has released drafts of these strategies and will incorporate public input into the final documents and proposed budget that will be forthcoming in the spring.

## CLIMATE CHANGE

Based on public input to inform the state's Natural and Working Lands Climate Smart Strategy and 30x30 Pathways document, the Administration may invest these set-aside funds in five major funding streams that:

- Scale support for forest, desert, and oak woodland conservation; wetland and riparian restoration; and rangeland, grazing land and grassland protection through projects that expand equitable access to nature, protect biodiversity, and deliver climate benefits on the state's natural and working lands.
- Catalyze regional action through expanded technical assistance and capacity building.
- Increase workforce development and training opportunities through the California Conservation Corps, local conservation corps, tribal conservation corps, and expanded environmental literacy.
- Partner with California Native American tribes to implement shared nature-based solutions.
- Support additional strategic investments to drive implementation of the Natural and Working Lands Climate Smart Strategy and Pathways to 30x30 document.

## COASTAL RESILIENCE

The 2021 Budget included \$612 million one-time General Fund over three years to build resilience for California's coastal and ocean ecosystems, communities, cultural resources, and critical infrastructure from sea level rise, flooding and other climate-driven impacts. Of this amount, the Budget includes \$400 million associated with the second year of investments including:

- **Coastal Protection and Adaptation**—\$350 million for coastal wetland protection and restoration, and projects that build coastal resilience.
- **Ocean Protection**—\$50 million for projects that protect and restore healthy ocean and coastal ecosystems, including estuarine and kelp forest habitat, the state's system of marine protected areas, and to build climate-ready fisheries.

## COMMUNITY RESILIENCE

The 2021 Budget included \$819 million one-time General Fund over three years for investments that align economic resilience with the state's climate goals, empower tribal and vulnerable communities, and support the leadership capacity of tribal,

regional and local governments and stakeholders. Of this amount, the Budget includes \$325 million associated with the second year of investments that include but is not limited to:

- **Transformative Climate Communities Program**—\$165 million to support catalytic projects that serve as a model for equitable, community-driven infrastructure investments in the most disadvantaged communities of California.
- **Regional Climate Collaboratives and Resilience**—\$135 million to provide direct investment in communities through capacity building grants, tribal, local and regional adaptation planning, and implementation of resilience projects.
- **California Climate Action Corps**—\$4.7 million ongoing to empower Californians to take climate action through service positions, volunteer opportunities, or individual action.

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## CLIMATE SMART AGRICULTURE

The 2021 Budget Act included \$1.1 billion (\$863 million General Fund and \$238 million special funds) one-time over two years in climate smart agriculture investments that support the agriculture sector and create a healthy, resilient, and equitable food system by supporting long-term sustainability and resilience and addressing economic recovery and high-road job growth.

The Budget includes \$417 million associated with the second year of these investments to provide critical support for farmers and ranchers as they continue to work towards the state's climate goals and support the state's youth in establishing lifelong healthy eating habits and experiential learning about agriculture, nutrition, and climate for youth. Significant investments include, but are not limited to:

- **Funding Agricultural Replacement Measures for Emission Reductions Program (FARMER)**—\$150 million to provide funding that supports the replacement of equipment used in agricultural operations.
- **Healthy Soils Program**—\$85 million to provide grants for on-farm conservation management practices designed to sequester carbon within the soil.
- **Livestock Methane Reduction**—\$48 million for livestock methane reduction programs.
- **Climate Catalyst Fund**—\$25 million to support Climate Smart Agriculture loans.

- **Technical Assistance and Conservation Management Plans**—\$22 million to fund technical assistance grants for the development of conservation plans, carbon sequestration plans, and transition to organic plans to focus on carbon and water actions.
- **Pollinator Habitat Program**—\$15 million for implementation of pollinator habitat and forage on working lands in partnership with private landowners and federal, state, and local entities.

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## CIRCULAR ECONOMY

Building the circular economy will help California combat climate change and move to a carbon neutral future by reducing methane pollution and plastic waste. The 2021 Budget Act included \$270 million (\$130 million General Fund and \$140 million special funds) one-time over two years to support a circular economy that recognizes waste as a resource, shifting the state's focus to a more resilient and renewable economy in California. The Budget includes \$65 million associated with the second year of these investments to support implementation of goals to reduce short-lived climate pollutants, including advancing organic waste infrastructure, edible food recovery, and non-organic waste recycling. Successfully building California's circular economy will require innovative solutions in California that reduce use of natural resources, bring new remanufacturing industries and jobs to the state, and enhance the ability of Californians to recycle.