

# CLIMATE CHANGE

Climate change continues to have a significant impact on California. The months of August through October were the hottest on record in California. In 2020, catastrophic wildfires consumed over four million acres, far more than any previous year in the state's history. Climate-related disasters are occurring at a speed and scale not expected until the end of this century.

In the face of this challenge, the Administration is taking actions to transform the state's transportation system, responsible for more than half of California's climate change-inducing greenhouse gas emissions. Executive Order N-79-20 established aggressive statewide targets to accelerate the shift toward zero-emission vehicles. The state also made bold commitments to conserve more of California's land and coastal waters, and use the state's natural and working lands to provide solutions to the climate crisis.

The Budget builds on these commitments and also supports a comprehensive wildfire and forest resilience strategy to reduce wildfire risks to vulnerable communities and critical habitats. These efforts put California on a path to accelerate the state's transition to a resilient, equitable, carbon neutral future that creates economic prosperity. Sustainable economic growth requires sustainable environmental policies, as preventing crises is less disruptive than responding to them. Additionally, the Administration is committed to developing the next round of scientific assessments of climate change impacts to inform the state's investments and programs and will work with the Legislature, philanthropy and other stakeholders to accomplish this goal.

## WILDFIRE AND FOREST RESILIENCE

In 2020, 9,000 wildfires burned over four million acres across the state, more than the 2017 and 2018 fire seasons combined and significantly higher than the most recent five-year average of acres burned. Hotter, drier conditions in the state's forests, driven by climate change and the consequences of a century-old legacy of fire suppression, have generated unparalleled fuel conditions that result in significant wildfire risk.

In August 2020, the Administration entered into a shared stewardship agreement with the U.S. Forest Service, mapping out a 20-year, science-based framework to improve wildfire resilience and forest health, including a commitment to complete forest management projects on one million acres of California's state and federal forest and rangeland every year.

To address the scale and urgency of these wildfire risks, the Budget includes \$1 billion to support the Forest Management Task Force's Wildfire and Forest Resilience Action Plan, including \$323 million proposed for early action in 2020-21 to accelerate fire prevention projects that protect communities and other efforts to jumpstart economic recovery in the forest sector.

This comprehensive strategy supports investments in the following priorities:

- Expanding appropriate forest management to reduce catastrophic wildfire risk and restore the ecological health of forests;
- Securing more fuel breaks around vulnerable communities to protect residents and property; and
- Supporting hardening homes and infrastructure in communities to mitigate wildfire damages.

This proposal will improve public safety across California's most wildfire-vulnerable communities and significantly increase the pace and scale of forest management projects. This investment will also enable regional efforts to build a pipeline of wildfire resilience projects, expand fire-adapted homes and communities, improve stewardship on state lands, and create high-road jobs while jumpstarting small businesses that meet California's climate objectives.

The \$1 billion Wildfire and Forest Resilience Expenditure Plan includes the following investments:

**Wildfire and Forest Resilience Expenditure Plan**  
(Dollars in Millions)

Investment Category	Department	Program	Early Action 2020-21	Budget Year 2021-22	Total
Resilient Forests & Landscapes	CAL FIRE	Forest Health Program	\$70	\$100	\$170
		Forest Improvement Program for Small Landowners	\$10	\$40	\$50
		Forest Legacy & Reforestation Nursery	\$8	\$17	\$25
		Urban Forestry	\$10	\$13	\$23
		Tribal Engagement	\$1	\$19	\$20
	State Parks, Fish & Wildlife & State Lands Commission	Stewardship of State-Owned Land	\$19	\$123	\$142
	Sierra Nevada & Tahoe Conservancies	Project Implementation in High-Risk Regions	\$21	\$61	\$82
Wildfire Fuel Breaks	CAL FIRE	CAL FIRE Unit Fire Prevention Projects	\$10	\$40	\$50
		Fire Prevention Grants	\$50	\$80	\$130
		Prescribed Fire & Hand Crews	\$15	\$35	\$50
	California Conservation Corps	Forestry Corps & Fuel Reduction Projects	\$0	\$20	\$20
	Department of Conservation	Regional Forest & Fire Capacity	\$25	\$60	\$85
Community Hardening	Cal OES & CAL FIRE	Home Hardening	\$25	\$0	\$25
	CAL FIRE	Defensible Space Inspectors	\$0	\$6	\$6
	CAL FIRE & University of California	Land Use Planning & Public Education Outreach	\$0	\$7	\$7
Science-Based Management	CAL FIRE	Ecological Monitoring, Research & Adaptive Management	\$3	\$17	\$20
	Natural Resources Agency	Remote Sensing	\$0	\$15	\$15
	Air Resources Board & Water Board	Permit Efficiencies	\$0	\$4	\$4
Forest Sector Economic Stimulus	IBank	Climate Catalyst Fund	\$47	\$2	\$49
	CAL FIRE	Workforce Training	\$6	\$18	\$24
	Office of Planning & Research	Market Development	\$3	\$0	\$3
<b>Total</b>			<b>\$323</b>	<b>\$677</b>	<b>\$1,000</b>

- Resilient Forests and Landscapes—\$512 million to enhance wildfire resilience across California's diverse landscapes by thinning forests, replanting trees and utilizing prescribed fire, which will also improve biodiversity, watershed health, carbon sequestration, air quality, and recreation. Programs include a forest health grant program, support for post-fire watershed recovery, a direct investment for Tribes, support for small landowners to sustainably manage their forest lands, and a targeted investment to better manage state landholdings, which are comprised of some of the most unique landscapes in California.
- Wildfire Fuel Breaks—\$335 million for the Department of Forestry and Fire Protection (CAL FIRE) and the California Conservation Corps to complete at least 45 to 60 strategic fuel breaks projects each year over the next several years. This funding builds on the success of the 35 emergency fuel reduction projects completed in 2019, which played a critical life-saving role this past fire season. Grant funds will enable local communities to develop their own fire safety projects. Targeted regional investments will provide technical support to develop cross-jurisdictional regional plans, identify projects, prepare those projects and then receive targeted grants for project implementation.
- Community Hardening—\$38 million to increase the resilience of the state's most fire-vulnerable communities. One in four Californians live in a high fire risk zone. A home that has defensible space and retrofits to "harden" it against embers has a significantly higher chance of survival in a wildfire. The Budget supports educational programs, defensible space outreach, and basic retrofits for homes of low-income Californians. The Administration will explore leveraging opportunities with the federal government to enhance home hardening efforts.
- Science-Based Management—\$39 million to support rigorous monitoring and robust scientific inquiry necessary to achieve effective, long-term forest health and restoration in the face of a dynamic environment of high-severity wildfire and climate change. Investing in remote sensing, research, and science-based monitoring will enable the state to effectively build wildfire and forest resilience in the face of climate change.
- Forest Sector Economic Stimulus—\$76 million to invest in innovative projects and workforce preparedness in the forest sector. Investments in wildfire and forest resilience are a driver for economic growth in California communities. Expanding wood product markets to utilize the material being thinned from forests will create incentives for private forest-land management and help the state meet its carbon goals. By establishing a low-interest lending program and exploring supply chain guarantees through the Climate Catalyst Fund, the state will remove key barriers to

launch these markets. Investments in growing the workforce through the California Conservation Corps and expanding community college and vocational training programs will expand access to existing forest management jobs, as well as in the growing wood products industry.

The Budget also includes statutory changes to make \$200 million of Cap and Trade funding for CAL FIRE's forest health and fire prevention programs available for an additional five years, beyond the existing 2023-24 sunset date specified in Chapter 626, Statutes of 2018.

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## ZERO-EMISSION VEHICLES

Executive Order N-79-20 directly addresses California's transportation emissions challenge by positioning state agencies to work with stakeholders to aggressively scale the zero-emission vehicle market in ways that benefit all Californians. The order sets the following zero-emission targets: 100 percent of in-state sales of new passenger cars and trucks by 2035, 100 percent of medium- and heavy-duty vehicles in the state by 2045 and by 2035 for drayage trucks, and 100 percent of off-road vehicles and equipment operations by 2035, where feasible.

To support implementation of these targets, the Budget focuses on two interrelated priorities: equity and scale. A focus on equity prioritizes public investments in communities suffering most from a combination of economic, health, and environmental burdens. A focus on scale brings down the transition cost, accelerates private capital investment, and reduces the need for direct public investment. The Budget includes the following investments to meet zero-emission vehicle goals:

- **Zero-Emission Vehicle Infrastructure**—Securitization of approximately \$1 billion of future revenues to increase the pace and scale of the construction of electric vehicle charging and hydrogen fueling stations necessary to accelerate zero-emission vehicle adoption. The Budget proposes statutory changes to extend existing vehicle registration fees currently set to expire in 2024 and to authorize the securitization of these future revenues to support the expansion of the California Energy Commission's Clean Transportation Program. A portion of this funding will be used for loans that will leverage additional private sector capital to build the necessary infrastructure.
- **Greening of State Infrastructure**—\$50 million one-time General Fund to support the installation of zero-emission vehicle charging stations at state-owned facilities.

- **Zero-Emission Vehicles**—\$465 million one-time Cap and Trade funds to improve access to new and used zero-emission vehicles, including passenger cars and trucks, medium- and heavy-duty vehicles, and off-road equipment. The Budget includes additional investments in existing transportation equity programs such as Clean Cars 4 All, Clean Mobility Options, and Financing Assistance, as well as heavy-duty vehicles programs such as the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project and the Clean Off-Road Equipment Voucher Incentive Project. These investments will be further complemented by the Low Carbon Fuel Standard-funded Clean Fuel Rewards program, which provides a new, stable consumer incentive for plug-in passenger vehicles using existing revenue generated by utilities and existing funds in the Clean Vehicle Rebate Project. The Budget also proposes to extend existing fees scheduled to sunset in 2024 to support incentive programs to accelerate the turnover of existing light-, medium-, and heavy-duty vehicles and equipment, including off-road construction and agricultural equipment and locomotives.
- **Delayed Property Tax Assessment of Zero-Emission Vehicle Charging and Fueling Stations**—The Budget proposes statutory changes to exclude the construction or addition of electric vehicle charging and hydrogen fueling stations completed by January 1, 2024 from the definition of accessible new construction for ten years. This proposal would create additional incentives for investment in zero-emission vehicle charging and fueling stations.

Each of these investments will help consumers adopt zero-emission vehicle technology, as will the ongoing effort to simplify and align local, state, and federal funding programs through the Zero-Emission Vehicle Market Development Strategy process. The Administration will continue to evaluate the role of the Clean Vehicle Rebate Project in meeting the state's zero-emission vehicle goals.

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## NATURAL AND WORKING LANDS

Natural and working lands comprise more than 90 percent of the state's geography.

Executive Order N-82-20 accelerates biodiversity protection and habitat restoration actions across all landscapes, such as the state's forests, agricultural lands, and conservation lands, and underscores how smart land management advances California's climate goals while increasing food and water security, protecting California's globally recognized biodiversity, expanding recreation and equitable access to nature, and building sustainable economies. The Executive Order also

establishes the goal of conserving 30 percent of California's land and coastal waters by 2030 to address the joint crises of climate change and biodiversity loss.

The Budget reflects California's commitment to improving management of natural and working lands to advance the state's climate change goals of achieving carbon neutrality, expanding carbon sequestration, and building climate resilience across the state's diverse landscapes.

Significant adjustments:

- Restoration of Natural Areas and Ecosystems—\$248.6 million
  - \$125 million one-time Proposition 68 for the Natural Resources Agency to support multi-benefit water quality, water supply and watershed protection and restoration projects.
  - \$79.9 million one-time from various bond funds for the Wildlife Conservation Board to support multi-benefit ecosystem and watershed protection and restoration projects including, but not limited to, the Lower American River Conservancy Program, the Pacific Flyway program, and Wildlife/Fish Passage programs.
  - \$43.7 million in 2021-22, and a total of \$69.6 million over five years, from various fund sources for the Department of Water Resources to support restoration projects through the Riverine Stewardship and San Joaquin Restoration programs, ecosystem enhancement projects in the Delta, and a plan to increase watershed resilience in the San Joaquin Basin.
- Flood Management—\$183 million
  - \$81 million in 2021-22, and a total of \$102.3 million over three years, from various bond funds for the Department of Water Resources Delta Levees System Integrity Program.
  - \$67 million in 2021-22, and a total of \$224.9 million over four years, General Fund for the Department of Water Resources to leverage \$1.8 billion in federal funding for the flood risk reduction American River Commons Features project.
  - \$28.5 million one-time Proposition 68 for the Department of Water Resources to support collaborative flood risk management.
  - \$6.5 million in 2021-22, and a total of \$9.5 million over three years, Proposition 1 for the Department of Water Resources to support emergency flood response in the Delta.

- Coastal Protection—\$6.5 million
  - \$6.5 million in 2021-22, and a total of \$17.4 million over two years, Proposition 68 for the Natural Resources Agency/Ocean Protection Council to support projects that improve biodiversity and climate resilience by increasing coastal and marine ecosystem health.

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## WORKFORCE TRAINING AND JUST TRANSITION ROADMAP

The Budget proposes \$25 million one-time General Fund as an early action in 2020-21 to expand the High Road Training Partnership model in several, industry-specific sectors. This Partnership, administered by the California Workforce Development Board, is a workforce development strategy that builds regional partnerships among workers, employers and community-based organizations to expand access to high-quality jobs in targeted industries. This additional investment will focus on growing sectors of the economy that support the state's equitable economic recovery and climate goals, including construction, forestry and agriculture, healthcare, trade and logistics, and information technology.

In addition, per Executive Order N-79-20, the Labor and Workforce Development Agency and Governor's Office of Planning and Research will deliver a Just Transition Roadmap in July 2021. This roadmap will inform future actions to prepare California's workforce to build the transition to a carbon neutral economy across multiple regions and sectors, with a focus on both displaced workers and providing opportunities for communities most in need.

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## CAP AND TRADE EXPENDITURE PLAN

The Budget proposes a \$1.37 billion Cap and Trade Expenditure Plan for existing programs, including several early actions for 2020-21. The proposed Expenditure Plan advances the state's priorities on environmental justice and protects public health by delivering clean air and safe and affordable drinking water. The Expenditure Plan also promotes implementation of the Governor's recent Climate Executive Orders N-79-20 and N-82-20 on zero-emission vehicles and natural and working lands.

The Cap and Trade Expenditure Plan prioritizes investments to protect public health in disadvantaged communities. Specifically, the Budget provides \$325 million one-time to support the Community Air Protection Program (AB 617), which reduces emissions in

### Cap and Trade Expenditure Plan

(Dollars in Millions)

Investment Category	Department	Program	Early Action 2020-21	Budget Year 2021-22	Total
Equity Programs	Air Resources Board	AB 617 - Community Air Protection	\$125	\$140	\$265
		AB 617 - Local Air District Implementation	\$0	\$50	\$50
		AB 617 - Technical Assistance to Community Groups	\$0	\$10	\$10
	Water Board	Safe and Affordable Drinking Water (\$130 million total)	\$30	\$24	\$54
Low Carbon Transportation & ZEV Strategy	Air Resources Board	Clean Trucks, Buses, & Off-Road Freight Equipment	\$165	\$150	\$315
		Agricultural Diesel Engine Replacement & Upgrades	\$90	\$80	\$170
		Clean Cars 4 All & Transportation Equity Projects	\$74	\$76	\$150
Natural & Working Lands	CAL FIRE	Healthy & Resilient Forests (SB 901) (\$75 million included in 2020 Budget)	\$125	\$200	\$325
	Department of Food & Agriculture	Healthy Soils	\$15	\$15	\$30
<b>Total</b>			<b>\$624</b>	<b>\$745</b>	<b>\$1,369</b>

communities with disproportionate exposure to air pollution through targeted air monitoring and community emissions reduction programs. This support includes grants to community-based organizations, implementation funding for local air districts, and incentives for cleaner vehicles and equipment. The Budget also includes funding necessary to maintain full implementation of the Safe and Affordable Drinking Water Program.

Building on the continuously appropriated programs that support sustainable community strategies, including high-speed rail, transit programs and projects, and transit-oriented affordable housing, the Cap and Trade Expenditure Plan includes \$635 million one-time dedicated to reducing emissions from the transportation sector, the largest source of California's greenhouse gas emissions. Key programs target truck, bus, off-road, and agricultural vehicles. These programs also reduce harmful air pollutants that have a disproportionate impact on disadvantaged populations in both urban and rural communities. Other programs proposed for funding include targeted incentives for low-income consumers to retire older, higher-polluting vehicles in favor of new or used zero-emission or cleaner vehicles, as well as support for innovative mobility pilot projects that respond to community-identified transportation needs in low-income

and disadvantaged communities. As the state works to achieve carbon neutrality by mid-century, the agricultural and forestry sectors will be essential to both reducing emissions and sequestering carbon. Consistent with the Natural and Working Lands Executive Order N-82-20, the Budget includes \$355 million (\$200 million ongoing) for multiple land-based carbon removal programs, including \$30 million one-time for the Healthy Soils Program to provide grants for on-farm soil management practices that sequester carbon and \$23 million one-time for the Urban Forestry Program. For additional information on the healthy forest and healthy soils programs, see the Wildfire and Forest Resilience section of this Chapter and the Sustainable Agriculture Chapter, respectively.

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## CLIMATE RISK DISCLOSURE

In 2019, the Governor issued Executive Order N-19-19 to incorporate climate risk and climate opportunity into state investments. In September, the Administration released a Climate Investment Framework for the California Public Employees' Retirement System, the California State Teachers' Retirement System, and the University of California Retirement Plan. The Framework includes an analysis of sound investment practices and where each pension fund currently stands in relation to statewide climate goals. The Framework also calls for the creation of a working group on climate disclosure standards, which will explore the standardization of the many terms and definitions used to discuss climate change from an economic perspective.

In October, California joined the Coalition for Climate Resilient Investment, a group of public and private sector entities dedicated to supporting the inclusion of climate risk in investment decisions around the world. In alignment with these efforts, the state pension funds have adopted official investment policies that incorporate climate risk into their standard practices, routinely disclose the carbon footprint of their investment portfolios, and engage with private partners to encourage widespread climate risk disclosure.