

2024

ANNUAL REPORT

Cap-and-Trade Auction Proceeds





Annual Report to the Legislature on

California Climate Investments Using Cap-and-Trade Auction Proceeds GREENHOUSE GAS REDUCTION FUND

May 2024



FOREWORD

Californians across the state have experienced the impacts of climate change, ranging from intensifying heatwaves, droughts, floods, and wildfires to worsening air quality, food production disruptions, and economic damages from climate-related disasters. In line with the scientific consensus on the impacts of climate change, the state of California recognized the importance of taking ambitious climate action to slow and reduce the impacts of climate change. For more than a decade, California has been a global leader on climate action, setting ambitious targets to reduce greenhouse gas emissions while protecting public health, building the state's economy, and creating a carbon-neutral, more equitable future for our communities. The years ahead will be crucial for tackling the climate crisis as California continues to advance its climate commitment with \$48.3 billion going towards implementing solutions that will provide tangible environmental, economic, and public health benefits statewide.

California remains at the forefront in mitigating climate change and building climate resilience, passing leading-edge legislation, adopting innovative technologies, and developing strategic plans to advance climate action. Since the last Annual Report to the Legislature, California has taken significant action to tackle the climate crisis and environmental issues. For example, the California Air Resources Board recently approved

Advanced Clean Fleets, a first-of-its-kind rule that requires a transition toward zero-emission medium- and heavy-duty vehicles. California made major new investments in building decarbonization, energy storage, and grid reliability in 2023, funding a suite of programs that will support electrification of our buildings and help to ensure the state has the infrastructure needed to support the ongoing electrification of our cars, buses, and trucks. The state also continues to make progress protecting our natural resources and habitats by making substantial investments in land conservation, removing dams that have impeded the natural flow of rivers and streams, and working together with California tribes to utilize traditional land management practices that help protect against fires and cultivate healthy, resilient forests. Through these actions and more, California is committing to the most robust, comprehensive climate action in state history and is raising the bar for governments around the world.

This year, we celebrate 10 years of successful California Climate Investments that advance the state's climate plans and put them into action. A total of 24 state agencies are working together to administer programs that not only reduce greenhouse gas emissions but also improve public health, provide job opportunities, deliver ecosystem benefits, mitigate extreme heatwaves, and build affordable housing, among other benefits. In 2023 alone, California Climate Investments programs implemented more than \$1.7 billion, with 85%, or over \$1.4 billion, benefiting disadvantaged communities and low-income communities and households. To date,

California Climate Investments programs have implemented more than \$11.0 billion, with expected greenhouse gas emissions reductions of 109.2 million metric tons of carbon dioxide equivalent over project lifetimes.

This 2024 Annual Report commemorates 10 years of California Climate Investments, illustrating what we can achieve with meaningful inter-agency collaboration and innovative, pragmatic solutions. Over the past decade, California has made major progress in confronting the climate crisis by cutting greenhouse gas emissions and building a more climate resilient and equitable future for all Californians. As we continue to take bold climate action, it is important we reflect on lessons learned, such as best practices for outreach and engagement to improve access to funding opportunities and help deliver equitable climate solutions. We look forward to continuing our work together to provide meaningful benefits across every community in California, prioritizing investments in under-resourced communities that are disproportionately impacted by climate change.



Lauren Sanchez
Senior Climate Advisor,
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Gavin Newsom



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EXECUTIVE SUMMARY

The *2024 Annual Report to the Legislature on California Climate Investments Using Cap-and-Trade Auction Proceeds* celebrates the 10-year anniversary of California Climate Investments, reflecting on meaningful progress and noteworthy accomplishments over the last decade. The report is a key resource for tracking progress on the status and outcomes of California Climate Investments, including the flow of funds from appropriations to implementation, major milestones, benefits to priority populations, estimated greenhouse gas (GHG) emissions reductions, and co-benefits. The report also highlights initiatives to increase access to California Climate Investments programs through outreach, engagement, and technical assistance.

Across California, 89 California Climate Investments programs administered by 24 state agencies direct billions of dollars into our state’s transition to a low-carbon and more equitable future. Programs funded by California Climate Investments are moving forward California’s goal of carbon neutrality by 2045. In 2023, California Climate Investments implemented nearly \$1.7 billion, delivering major investments toward low-carbon transportation, affordable housing, forest health, and community air protection. Since the first appropriations to administering agencies were made in 2014, California Climate Investments programs have implemented more than \$11.0 billion, achieving and delivering a variety of benefits over project lifetimes, as shown in Figure ES-1.¹

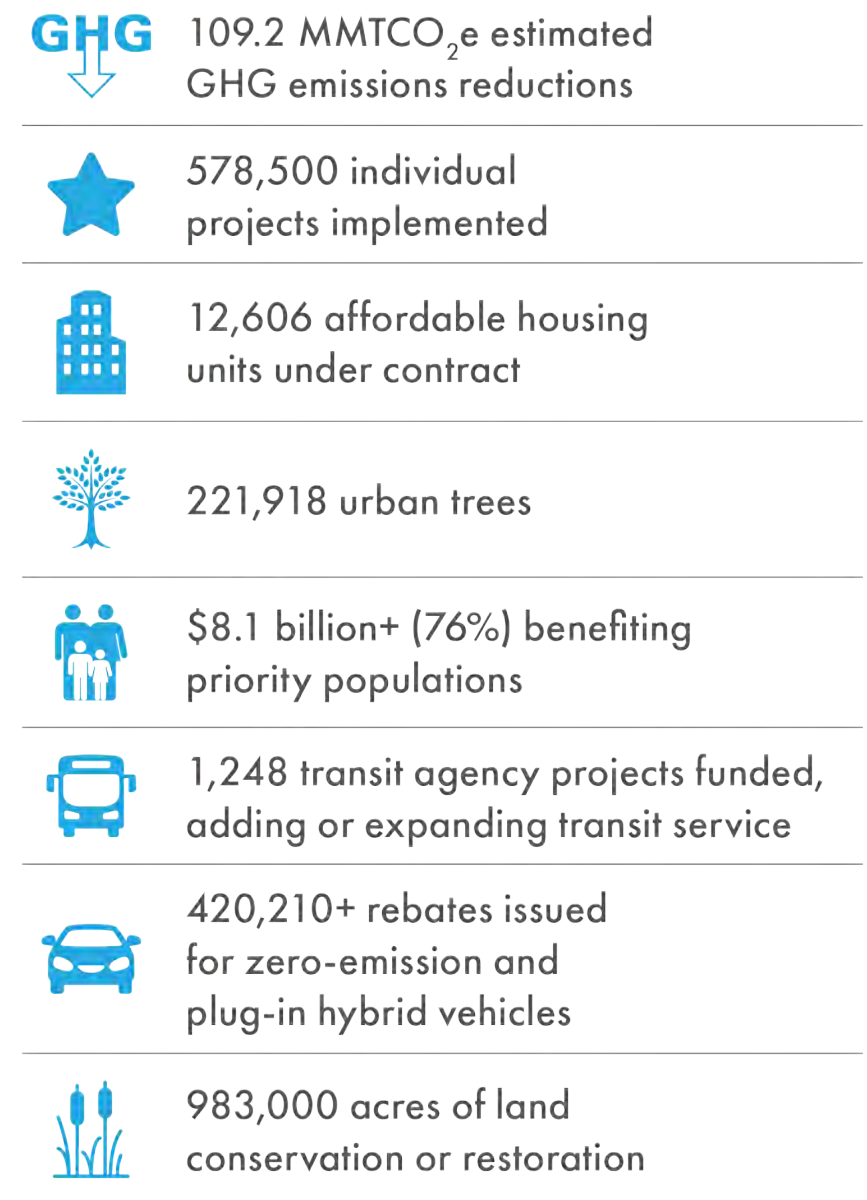
These dollars are delivering economic, environmental, and public health benefits for Californians, including meaningful benefits to disadvantaged communities and low-income communities and households, collectively referred to as *priority populations*. Programs are reducing GHG emissions by, for example, diverting organic waste from landfills, adopting soil conservation management practices that bolster soil health, providing incentives for zero-emission vehicles and equipment, and reducing mobility obstacles by increasing zero-emission active transportation and transit projects based on community-identified needs. California Climate Investments are also implementing a variety of nature-based solutions to sequester carbon and avoid GHG emissions by building forest resilience and reducing the risk of catastrophic wildfire, protecting agricultural lands, and expanding urban tree canopies.

Figure ES-1: Cumulative Project Achievements

CUMULATIVE PROJECT ACHIEVEMENTS

As of November 2023

\$11.0 billion implemented through November 2023



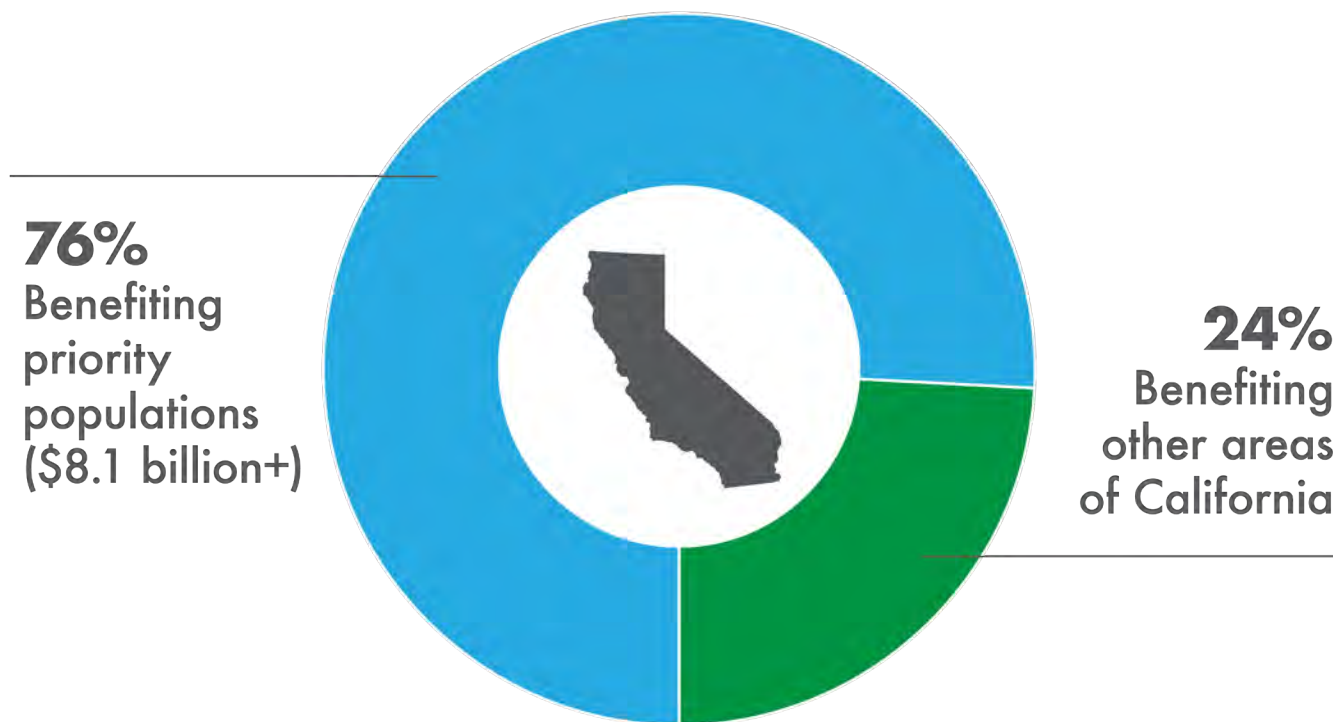
Learn more about priority populations on the [California Climate Investments website](#), including statutory minimums, disadvantaged community designations, and investments by census tract.

¹ The High-Speed Rail Project is funded in part by California Climate Investments and has distinct approaches and methodologies for spending funds and tracking and assessing project benefits. High-Speed Rail expenditures are not included in the calculation of implemented funds, and therefore the statistics presented in this report do not include the High-Speed Rail Project. For more information on the benefits provided by the project, see Investments in Action: *The High-Speed Rail Project Progress Over the Last Decade* and *Economic Impact of California High-Speed Rail 2024 report*.

In 2023, California Climate Investments programs implemented over 17,000 new projects, which are expected to reduce 14.7 million metric tons of carbon dioxide equivalent (MMTCO₂e)² over project lifetimes. That would be equivalent to taking more than 3 million gasoline-powered vehicles off the road. Projects implemented since the inception of California Climate Investments are expected to reduce more than 109.2 MMTCO₂e over project lifetimes.

As shown in Figure ES-2, 76%, or more than \$8.1 billion, of implemented California Climate Investments projects are benefiting priority populations. Per [Senate Bill \(SB\) 535](#)³ and [Assembly Bill \(AB\) 1550](#),⁴ a minimum of 35% of California Climate Investments funding must benefit priority populations. Overall, California Climate Investments greatly exceed the minimum percentages required by statute to benefit priority populations.

Figure ES-2: Cumulative Benefits to Priority Populations



² Carbon dioxide equivalent is a metric used to compare emissions of various greenhouse gases. It is the amount of carbon dioxide by weight that would produce the same global warming impact as a given weight of another greenhouse gas. Carbon dioxide equivalents are computed by multiplying the mass of the gas emitted by its global warming potential, which is a measure of the relative potency of a greenhouse gas compared to carbon dioxide, over a 100-year time span.

³ (Chapter 830, Statutes of 2012)

⁴ (Chapter 369, Statutes of 2016)

Engage with California Climate Investments

The *2024 Annual Report to the Legislature on California Climate Investments Using Cap-and-Trade Auction Proceeds* is a key resource for tracking progress on the status and outcomes of California Climate Investments, which are funded by the state's Cap-and-Trade auction proceeds that are deposited into the Greenhouse Gas Reduction Fund.

Visit the [California Climate Investments website](#) to view the latest information about individual programs, projects, and California Climate Investments throughout the year. Follow California Climate Investments on social media to stay engaged, learn about funding opportunities, explore our calendar of upcoming events, hear program updates, and more:

 [@CAClimatInvest](#)

 [@CAClimatInvest](#)

Subscribe to the [quarterly newsletter](#) and [listserv](#) to stay up to date on current news and opportunities to engage and provide comments.

Learn about open funding opportunities available to you by visiting our [California Climate Investments Programs](#) page.

[Public events calendar](#): Learn about upcoming workshops, technical assistance events, and application deadlines.



INTRODUCTION

California Climate Investments puts billions of dollars of Cap-and-Trade auction proceeds to work reducing greenhouse gas (GHG) emissions, strengthening the economy, improving public health and the environment, and providing meaningful benefits to disadvantaged communities, low-income communities, and low-income households (collectively referred to as priority populations).⁵

This year, California Climate Investments celebrates 10 years of funding for projects that support a carbon-neutral and equitable future. Over the past decade, California Climate Investments programs have put innovative technologies and viable strategies into action to combat climate change. These investments reduce GHG emissions, build climate-resilient communities, improve public health, provide high-quality jobs, and protect and restore the environment. Overall, California Climate Investments programs have implemented more than \$11.0 billion since the first appropriations were made in 2014.⁶ Programs across the portfolio are implementing a growing share of projects that benefit priority populations and foster equitable access to funds through outreach, technical assistance, and capacity building.

A total of 24 agencies administer 89 programs across multiple sectors, including clean energy, low-carbon transportation, regenerative agriculture, land conservation and restoration, waste diversion, and affordable housing. In 2023 alone, these programs implemented nearly \$1.7 billion in new projects across the state. California Climate Investments programs are continuously working to help meet the state's ambitious climate goals and directing investments where they are most needed.

Program Pages

[View summary statistics for every California Climate Investments program](#), including information on the amount of funds used to implement projects this year, benefits to priority populations, jobs created, and pollution reductions. Additional information and downloadable datasets on all implemented projects are also available on the [Annual Report webpage](#).

⁵ [SB 535](#) (De León, Chapter 830, Statutes of 2012) and [AB 1550](#) (Gomez, Chapter 369, Statutes of 2016) require that a minimum of 35% of California Climate Investments funding benefit disadvantaged communities and low-income communities and households.

⁶ The High-Speed Rail Project is funded in part by California Climate Investments and has distinct approaches and methodologies for spending funds and tracking and assessing project benefits. High-Speed Rail expenditures are not included in the calculation of implemented funds, and therefore the statistics presented in this report do not include the High-Speed Rail Project. For more information on the benefits provided by the project, see Investments in Action: [The High-Speed Rail Project Progress Over the Last Decade](#) and [Economic Impact of California High-Speed Rail 2024 report](#).

About the Annual Report

The *2024 Annual Report to the Legislature on California Climate Investments Using Cap-and-Trade Auction Proceeds (2024 Annual Report)* serves as an important resource to track progress on the status and outcomes of California Climate Investments, which are funded by [Cap-and-Trade auction proceeds deposited into the Greenhouse Gas Reduction Fund \(GGRF\)](#).

The California Department of Finance, the California Air Resources Board (CARB), and the agencies administering California Climate Investments programs work together to track and report on progress and achievements. Administering agencies use the California Climate Investments Reporting and Tracking System to report data on program administration and implementation. This reporting system facilitates the collection of project-level data that are used to develop the 2024 Annual Report, alongside other data, that helps provide the public with transparent, accessible information on California Climate Investments.

This report begins by introducing background information and definitions for terms used to describe the funding status during tracking and reporting of California Climate Investments. It then highlights key outcomes, achievements, relevant policy developments, and milestones, including benefits to priority populations, estimated GHG emissions reductions, and co-benefits from California Climate Investments programs. Since 2024 also marks the 10-year anniversary of California Climate Investments, the report also highlights major milestones, progress, and improvements made over the last decade. Afterwards, the report discusses efforts to increase access to California Climate Investments through outreach, engagement, technical assistance, and capacity building. Throughout the body of the report, there are spotlights on investments in action, showcasing programs and projects making a difference in communities across California. The report concludes with appendices that provide statistics on cumulative data, budgetary expenditures,⁷ data on leveraged funds,⁸ and information on competitiveness of programs.

To complement the information in this report, the [California Climate Investments website](#) also includes the following companion materials:

- [Data Dashboard](#): Explore trends in funding and GHG emissions reductions, an interactive geographic breakdown of investments, and other project benefits across time and programs.
- [Story Map](#): View highlights from the 2024 California Climate Investments Annual Report through an interactive Story Map.
- [Downloadable datasets](#) and [geographic breakdowns of investments](#): View project-level data and investments by legislative district and region.
- [Project Map](#): View locations of implemented projects along with an overview of the benefits they provide.
- [Program pages and project profiles](#): Discover achievements of individual programs and read about investments in action.
- [Investments by region](#): Learn more about what projects have accomplished in all the different regions across the state.

Data in the 2024 Annual Report are reported under the following three categories

2023: Data reported for December 1, 2022, through November 30, 2023.

Cumulative: Data reported since a program's inception through November 30, 2023. The Legislature created the GGRF in 2012 and first appropriated funds in 2014.

To Date: Information that is current as of the release of the 2024 Annual Report in May 2024.

⁷ For this report, "budgetary expenditures" represent any GGRF monies that are included in signed agreements or contracts, or spent by an agency (e.g., monies signed into grant agreements, issued to an end user for a voucher, spent by the agency for administrative costs).

⁸ For this report, "leveraged funds" refers to additional funding that extends the reach of GGRF funds, which may include private, federal, local, and other state funds.

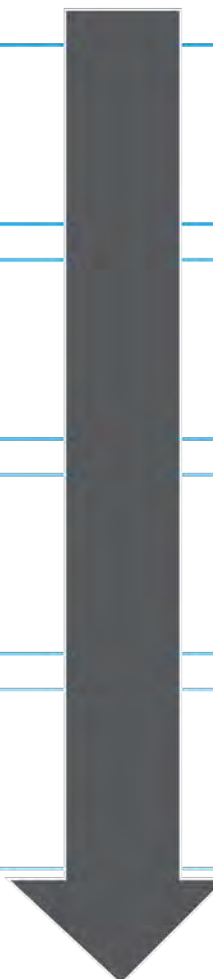
Background

California Climate Investments are funded by proceeds that are deposited into the GGRF from the sale of state-owned allowances through quarterly Cap-and-Trade auctions. Figure 1 shows the amount of funding categorized by its status, progressing from when funds are initially appropriated by the Legislature through the implemented stage, along with definitions for the terms used to describe the status of California Climate Investments funds.⁹

As shown in Figure 1, funds are considered appropriated when the Legislature authorizes an agency to make expenditures from the GGRF and are then allocated when the agency distributes funds for a program or subprogram. Funds are awarded when an agency announces recipients of funding and commits funding to a project. A project is considered implemented once the project has received monies, attributable GHG emissions, and priority population benefits. Project achievements and their associated co-benefits described in the Annual Report are based on implemented dollars.

Funds following the steps showed in Figure 1 may take several years to go from the initial appropriation to implementation. Administering agencies undertake important duties between the time that they receive an appropriation and the time that they begin implementing a project, which include conducting community engagement, allowing time for applicants to prepare and submit project proposals, and carefully selecting recipients.

Figure 1: Terms for Funding Status & Summary of Funding by Status



	2023	Cumulative
Appropriated Legislature authorizes an agency to make expenditures from the GGRF	\$3.8B	\$27.9B
Allocated Agency distributes funds for a program or subprogram	\$5.4B	\$20.9B
Awarded Agency announces funding recipients and commits funding to a project	\$2.1B	\$13.9B
Implemented Funding recipient receives monies, projects have attributable GHG and priority population benefits	\$1.7B	\$11.0B

⁹ These terms are specific to the reporting and tracking of California Climate Investments and may differ from the terms used by individual administering agencies.



2023 IN THE SPOTLIGHT

California Climate Investments are directing billions of dollars into our state's transition to a low-carbon and more equitable future. From December 2022 through the end of November 2023, California Climate Investments programs implemented nearly \$1.7 billion. Over \$1.4 billion of the \$1.7 billion implemented by California Climate Investments programs, or 85% of funds in 2023, are benefiting priority populations.

The over 17,000 new projects implemented in 2023 are expected to reduce 14.7 MMTCO₂e over project lifetimes.¹⁰ In 2023, investments in low-carbon transit, land conservation and restoration, dairy methane reduction practices, and affordable housing projects are driving most of the expected reductions. Other investments, such as those focused on waste diversion, wildfire risk reduction, nature-based adaptation solutions, and capacity building for priority populations are taking a holistic approach to improving air quality, job opportunities, and climate adaptation and climate resilience, while still leading the way toward California's climate goals.

In 2023, the Legislature authorized new programs in multiple sectors, with major investments in a suite of programs supporting energy equity, low-carbon technologies, energy storage systems, and grid reliability across California. One noteworthy example is the California Energy Commission's (CEC) [Equitable Building Decarbonization Program](#), which will invest in decarbonization retrofits for under-resourced and tribal communities, as well as incentives for increased adoption of low-carbon technologies. To help maintain grid reliability as California transitions to clean energy, new programs are investing in energy storage technologies and projects, such as the CEC's Long Duration Energy Storage Program and the California Public Utility Commission (CPUC)'s [Self-Generation Incentive Program](#). Other programs are supporting zero-emission transportation projects through investments in infrastructure, transit equipment, and operations, such as the California State Transportation Agency's (CalSTA) [Zero-Emission Transit Capital Program](#). Other examples include new programs administered by the CEC's [Clean Transportation Program](#) that will fund electric vehicle and hydrogen charging infrastructure, including the Equitable At-home Charging Program and the [Charging and Hydrogen Refueling Program](#).

In 2023 alone,
17,000+ new
projects implemented
\$1.7B and are expected
to reduce 14.7 MMTCO₂e
over project lifetimes

¹⁰ Carbon dioxide equivalent is a metric used to compare emissions of various greenhouse gases. It is the amount of carbon dioxide by weight that would produce the same global warming impact as a given weight of another greenhouse gas. Carbon dioxide equivalents are computed by multiplying the mass of the gas emitted by its global warming potential over a 100-year time span.



California Climate Investments also celebrated major milestones in 2023:

- The *Affordable Housing and Sustainable Communities Program* administered by the California Strategic Growth Council (SGC) implemented \$424.6 million in 2023 through 20 projects that are creating over 2,200 affordable housing units and accessible low-carbon modes of transportation, while also providing other benefits and services such as urban green spaces and workforce development services. Projects implemented in 2023 are expected to reduce GHG emissions by 787,022 metric tons of carbon dioxide equivalent (MTCO₂e).
- CalSTA's *Transit and Intercity Rail Capital Program* implemented \$353.5 million in 2023 creating or improving clean transit capacity with 60 new projects, which are expected to substantially reduce 5.6 MMTCO₂e of GHG emissions, over 2,358 tons of criteria air pollutants, and 11.5 billion vehicle miles traveled.
- CARB's *Community Air Protection Incentives* implemented 2,500 new projects in 2023 that are expected to reduce over 1,700 tons of criteria air pollutants. The program provides incentive grants to help replace older, polluting vehicles and equipment with newer, cleaner alternatives and supporting related infrastructure projects, such as zero-emission charging stations. This program also has a framework for air districts to develop community-identified projects consistent with the actions identified in an applicable Community Emissions Reduction Program pursuant to [AB 617](#),¹¹ and developed with community input through a public process.
- The *Forest Health Program* administered by the California Department of Forestry and Fire Protection (CAL FIRE) implemented 32 new projects that are expected to conserve or restore over 42,000 acres of land with multifaceted strategies, including fuels reduction, prescribed fire, and reforestation and biomass removal.

¹¹ (Garcia, Chapter 136, Statutes of 2017)



Appropriations in 2023

In 2023, the Legislature appropriated \$3.8 billion in GGRF funds for fiscal year (FY) 2023-24 and an additional \$128 million in GGRF funds from FY 2022-23 to new and existing programs.¹² The programs and project types that newly received GGRF appropriations include:

- **Green Schoolyards, CAL FIRE:** Invests in grants to plan and develop nature-filled outdoor spaces at schools to protect children from increasing temperatures and extreme heat.
- **Food Production Investment Program, CEC:** Funds grants for food producers to implement projects that reduce on-site energy consumption and GHG emissions.
- **Long Duration Energy Storage, CEC:** Invests in the demonstration of energy storage technologies that do not use lithium-ion batteries and projects that can maintain grid reliability across California as more renewable energy is deployed to meet clean energy goals.
- **Clean Transportation Program, CEC:** Funds electric vehicle and hydrogen infrastructure for drayage, medium, and heavy-duty vehicles.
- **Technology and Equipment for Clean Heating, CPUC:** Funds incentives, pilot activities, technical assistance, and training to address barriers associated with clean space and water heating technologies across California homes.
- **Self-Generation Incentive Program, CPUC:** Provides incentives to support the installation of distributed energy generation systems (e.g., wind turbines, technologies that convert waste heat to power).
- **Zero-Emission Transit Capital Program, CalSTA:** Funds zero-emission transit equipment and operations at regional transportation planning agencies.
- **Equitable Building Decarbonization Program, CEC:** Invests in decarbonization retrofits for low- and moderate-income households and incentives for increased adoption of low-carbon technologies.
- **Industrial Decarbonization and Improvements to Grid Operations, CEC:** Provides incentives for industrial projects that benefit the electrical grid, including by electrifying processes that use fossil fuels, incorporating energy storage or renewable resources, and increasing energy efficiency.

¹² Budget bills that made GGRF appropriations in 2023 are [AB 102](#) (Ting, Chapter 38, Statutes of 2023), [SB 101](#) (Skinner, Chapter 12, Statutes of 2023), [AB 103](#) (Ting, Chapter 33, Statutes of 2023), [SB 104](#) (Skinner, Chapter 189, Statutes of 2023), and [SB 105](#) (Skinner, Chapter 862, Statutes of 2023).



To date, the sale of state-owned allowances through Cap-and-Trade auctions has generated \$28.3 billion for the GGRF. The Legislature appropriates money from this fund to agencies for the administration of California Climate Investments programs. Table 1 shows which programs were appropriated new GGRF dollars for FY 2023-24, as well as cumulative appropriations for investments as of November 30, 2023.

FY 2023-24 Appropriations
\$3.8 B

Cumulative Appropriations
\$27.9 B

Five administering agencies receive approximately 65% of the Cap-and-Trade auction proceeds each year through continuous appropriations to support a collection of programs focused on transit, affordable housing, and safe drinking water.¹³ The Legislature has also continuously appropriated \$200 million annually for forest health, fire prevention, and fuels reduction programs.¹⁴ Additional legislation identifies other transfers and obligations from the GGRF, including a transfer to offset a suspended manufacturing tax and use fee and the replacement of a fire prevention fee in State Responsibility Areas.¹⁵ The Legislature appropriates the remaining available GGRF funds through the annual budget process. Cumulatively, the Legislature has appropriated \$27.9 billion to California Climate Investments.

In 2023, the state's budget also included significant General Fund investments in programs and projects that support the state's transition to a zero-emission transportation future and further the state's climate goals. These investments include roughly \$3.6 billion in General Fund resources for investments in additional transit and grade separation projects through CalSTA's Transit and Intercity Rail Capital Program.

¹³ [SB 862](#) (Committee on Budget and Fiscal Review, Chapter 36, Statutes of 2014) established continuous appropriations totaling 60% of the GGRF monies beginning in FY 2015-16 and [SB 200](#) (Monning, Chapter 120, Statutes of 2019) commits 5%, or up to \$130 million, of the annual proceeds of the GGRF to the Safe and Affordable Drinking Water Fund until June 30, 2030. Continuous appropriations listed in Table 1 are current as of November 30, 2023.

¹⁴ [SB 901](#) (Dodd, Chapter 626, Statutes of 2018) and [SB 155](#) (Committee on Budget and Fiscal Review, Chapter 258, Statutes of 2021) commit \$200 million of the annual proceeds of the GGRF until and through the end of FY 2028-29.

¹⁵ [AB 398](#) (E. Garcia, Chapter 135, Statutes of 2017).

Table 1: Appropriations made for FY 2023-24 and FY 2022-23, and Cumulative Appropriations by Program¹⁶

Administering Agency	Program	Appropriations in 2023 ¹⁷		Cumulative Total (\$M) ^{18,19}
		FY 2022-23 ²⁰ (\$M)	FY 2023-24 ²¹ (\$M)	
California Air Resources Board	Community Air Protection	–	\$250	\$1,603
	Fluorinated Gases Emission Reduction Incentives	–	–	\$11
	Funding Agricultural Replacement Measures for Emission Reductions	–	–	\$419
	Low Carbon Transportation	–	\$170	\$3,643
	Methane Monitoring and Accountability	–	–	\$105
	Prescribed Fire Smoke Monitoring	–	–	\$4
	Statewide Mobile Monitoring Initiative	–	–	\$30
	Woodsmoke Reduction	–	–	\$18
California Coastal Commission	Coastal Resilience Planning	–	\$1	\$7
California Conservation Corps	Training and Workforce Development Program	–	\$16	\$103
California Department of Community Services and Development	Low-Income Weatherization Program	–	\$25	\$272
California Department of Fish and Wildlife	Wetlands and Watershed Restoration	–	–	\$46

¹⁶ Appropriations listed are estimates based on published budgets, legislation, quarterly Cap-and-Trade auction results, and reversions of unused funds, rounded to the nearest million dollars. Administering agencies may also transfer appropriations to other state agencies to implement programs.

¹⁷ Appropriations listed here were made during 2023 budget process.

¹⁸ Listed values may not sum due to rounding.

¹⁹ Appropriations from previous budget acts may be retroactively adjusted to account for budget control sections or for special legislation (e.g., trailer bills). As a result, reported cumulative appropriations may not reflect summations of budget act line items.

²⁰ FY 2022-23 funds appropriated through [AB 103](#) amendments to the Budget Act of 2022.

²¹ FY 2023-24 funds appropriated through [SB 101](#), [AB 102](#), [SB 104](#).

Administering Agency	Program	Appropriations in 2023 ¹⁷		Cumulative Total (\$M) ^{18,19}
		FY 2022-23 ²⁰ (\$M)	FY 2023-24 ²¹ (\$M)	
California Department of Food and Agriculture	Dairy and Livestock Methane	–	–	\$319
	Healthy Soils Program	–	\$50	\$116
	Renewable and Alternative Fuels	–	–	\$3
	State Water Efficiency and Enhancement Program	–	–	\$66
California Department of Forestry and Fire Protection	Sustainable Forests	–	\$228	\$1,502
	Fire Prevention	–	\$92	\$931
California Department of Resources Recycling and Recovery	Waste Diversion	–	–	\$456
California Department of Transportation	Active Transportation Program	–	–	\$10
	Low Carbon Transit Operations Program ¹³	–	\$114	\$1,198
California Department of Water Resources	State Water Project Turbines	–	–	\$20
	Water-Energy Grant Program	–	–	\$42
California Energy Commission	Food Production Investment Program	–	\$40	\$164
	Equitable Building Decarbonization	\$60	\$345	\$405
	Long Duration Energy Storage	–	\$190	\$190
	Clean Transportation Program	–	\$330	\$330
	Industrial Decarbonization and Improvements to Grid Operations	\$68	–	\$68
	Low-Carbon Fuel Production Program	–	–	\$13
	Renewable Energy for Agriculture Program	–	–	\$10
	California Schools Healthy Air, Plumbing, and Efficiency Program	–	–	\$20
California Environmental Protection Agency	Transition to a Carbon-Neutral Economy	–	–	\$3
California Governor’s Office of Emergency Services	Wildfire Response and Readiness	–	\$1	\$35

Administering Agency	Program	Appropriations in 2023 ¹⁷		Cumulative Total (\$M) ^{18,19}
		FY 2022-23 ²⁰ (\$M)	FY 2023-24 ²¹ (\$M)	
California High-Speed Rail Authority	High-Speed Rail Project ¹³	–	\$574	\$6,461
California Natural Resources Agency	Regional Forest and Fire Capacity	–	–	\$20
	Urban Greening Program	–	–	\$156
California Ocean Protection Council	Sea Level Rise	–	–	\$38
California Public Utilities Commission	Technology and Equipment for Clean Heating	–	\$95	\$95
	Self-Generation Incentive Program	–	\$280	\$280
California State Coastal Conservancy	Climate Ready Program	–	–	\$124
California State Transportation Agency	Transit and Intercity Rail Capital Program ¹³	–	\$229	\$2,508
	Zero-Emission Transit Capital Program	–	\$220	\$220
California State Water Resources Control Board	Safe and Affordable Drinking Water Fund ^{13, 22}	–	\$114	\$604
California Strategic Growth Council	Affordable Housing and Sustainable Communities Program (Including Sustainable Agricultural Lands Conservation Program) ¹³	–	\$458	\$4,837
	Climate Change Research Program	–	–	\$36
	Community Assistance for Climate Equity	–	–	\$6
	Transformative Climate Communities Program	–	–	\$241
California Wildlife Conservation Board	Climate Adaptation and Resiliency Program	–	–	\$20
California Workforce Development Board	Low-Carbon Economy Workforce	–	\$18	\$52
San Francisco Bay Conservation and Development Commission	Climate Resilience Planning	–	\$2	\$10
Total		\$128	\$3,841	\$27,877

²² SB 101 allows the Director of Finance to make additional transfers to the Safe and Affordable Drinking Water Fund as needed to achieve a total amount of \$130 million for FY 2023-24.

Recent Developments

Since the last Annual Report, there have been several notable legislative and policy developments for California Climate Investments. As California Climate Investments enters its tenth year of projects, CARB will update guiding policy documents that will reflect the latest policy developments and apply lessons learned from the first decade of the program. Additionally, in collaboration with local, state, and federal partners, California Climate Investments are exchanging lessons learned and best practices to help bring the program into the future and share approaches from the California Climate Investments model that can be used by other growing climate programs.



LEGISLATIVE DEVELOPMENTS

There were several new pieces of legislation in 2023 that added programs to the California Climate Investments portfolio:

- [AB 102](#)²³: Appropriates GGRF funds to multiple existing programs, new programs, and new project types within existing programs, including energy storage, zero-emission transit, hydrogen fueling infrastructure, green schoolyards, and clean heating.
- [AB 103](#)²⁴: Amended the Budget Act of 2022 to appropriate GGRF funds for the support of equitable building decarbonization, industrial decarbonization, and grid operations improvements programs administered by CEC.

Visit [CARB's website](#) for more information about key legislation related to California Climate Investments.

FUNDING GUIDELINES UPDATE

CARB released the initial [Funding Guidelines for Agencies Administering California Climate Investments](#) (Funding Guidelines) in 2015 and revised them in 2018. CARB initiated the next update to the Funding Guidelines in fall 2022 with a public [survey](#) to solicit ideas for designing California Climate Investments' upcoming work. This survey was one of many steps in the process to update the Funding Guidelines to gather important feedback. CARB is continuing to work on the next Funding Guidelines update in 2024 and will offer ongoing engagement opportunities through the release of draft guidance and public workshops. The Funding Guidelines will be updated to clarify existing language, address recent legislation, and incorporate lessons learned from program implementation over the last several years.

The Funding Guidelines update will also include workforce development recommendations to support creation of high-quality jobs and incorporate requirements established by [AB 680](#).²⁵ CARB has been engaging workforce policy experts and other parties interested in the intersection of climate projects and workforce development to support this effort. CARB invites comments, ideas, or questions on the Funding Guidelines update. [Learn more.](#)

²³ (Ting, Chapter 38, Statutes of 2023)

²⁴ (Ting, Chapter 33, Statutes of 2023)

²⁵ (Burke, Chapter 746, Statutes of 2021)



DEVELOPMENT OF THE FIFTH INVESTMENT PLAN

In 2023, CARB initiated the development of the *Cap-and-Trade Auction Proceeds Fifth Investment Plan* (Fifth Investment Plan or Investment Plan), which will cover fiscal years 2025-26 through 2027-28. The Investment Plan serves as a strategic tool, mandated by [AB 1532](#),²⁶ aiming to prioritize investments aligned with California’s multifaceted climate, environmental, economic, and equity goals. The Investment Plan focuses on sector-specific GHG emissions reduction targets, promotes cost-effective investments, and provides recommendations to prioritize investments that benefit disadvantaged and low-income communities.

The process for developing the Fifth Investment Plan involves information gathering, data analyses, and public engagement. Two upcoming public workshops are planned for spring and summer 2024 to gather input on the development process and share initial recommendations. The resulting Fifth Investment Plan will be presented to the CARB Board and released in early 2025. To be notified of the latest Fifth Investment Plan development events, subscribe to the California Climate Investments [Listserv](#).

LOCAL, STATE, AND FEDERAL COLLABORATION

Many of California’s climate policies continue to serve as models for similar policies in other states and at national and international levels. As other states and the federal government expand climate programs, the California Climate Investments framework can serve as a useful model. In 2023, California Climate Investments staff collaborated with local, state, and federal programs to exchange lessons learned and best practices on such topics as:

- Quantification methodologies to estimate GHG emissions reductions and co-benefits;
- Funding guidelines that emphasize inclusive outreach and benefits to priority populations;
- Reporting requirements that enable the Legislature and the public to track progress and assess co-benefits, equity, and transparency;
- Rigorous criteria for claiming benefits for priority populations; and
- Promoting workforce development and workforce standards through climate investments.

²⁶ (Pérez, Chapter 807, Statutes of 2012)

CELEBRATING 10 YEARS OF CALIFORNIA CLIMATE INVESTMENTS

This year marks the 10-year anniversary of the inception of California Climate Investments. For the past decade, California Climate Investments programs have effectively reduced GHG emissions while providing an array of other benefits, such as improved public health, employment opportunities, restoring healthy forests, and much more. Figure 2 highlights major achievements of California Climate Investments projects over the last decade.

California Climate Investments programs arose from a landmark piece of legislation, [AB 32](#),²⁷ also known as the California Global Warming Solutions Act of 2006, which requires an overall reduction of GHG emissions to reach 1990 levels of emissions by 2020. A key mechanism that was developed to reduce GHG emissions in California is the Cap-and-Trade Program that went into effect in 2013. As part of the Cap-and-Trade Program, the state’s portion of auction proceeds are deposited in the GGRF to fund California Climate Investments projects. Since then, other major climate policies and programs have been enacted, including [SB 32](#),²⁸ a bill that requires further GHG emissions reductions to 40% below 1990 levels by 2030 and allows for the continuation of the Cap-and-Trade Program to meet those targets, in addition to other policies focused on clean energy and efficiency,²⁹ low-carbon transportation,³⁰ short-lived climate pollutants,³¹ and criteria and toxic air pollutants,³² among many others.

It is critical for California Climate Investments to deliver meaningful benefits to underserved communities given that the most severe harms from climate change and environmental pollution are disproportionately impacting people of color and low-income and disadvantaged communities.³³ When the program began,

27 (Núñez, Chapter 488, Statutes of 2006)

28 (Pavley, Chapter 249, Statutes of 2016)

29 [SB 100](#) (De Leon, Chapter 312, Statutes of 2018), [SB 350](#) (De Leon, Chapter 546, Statutes of 2015)

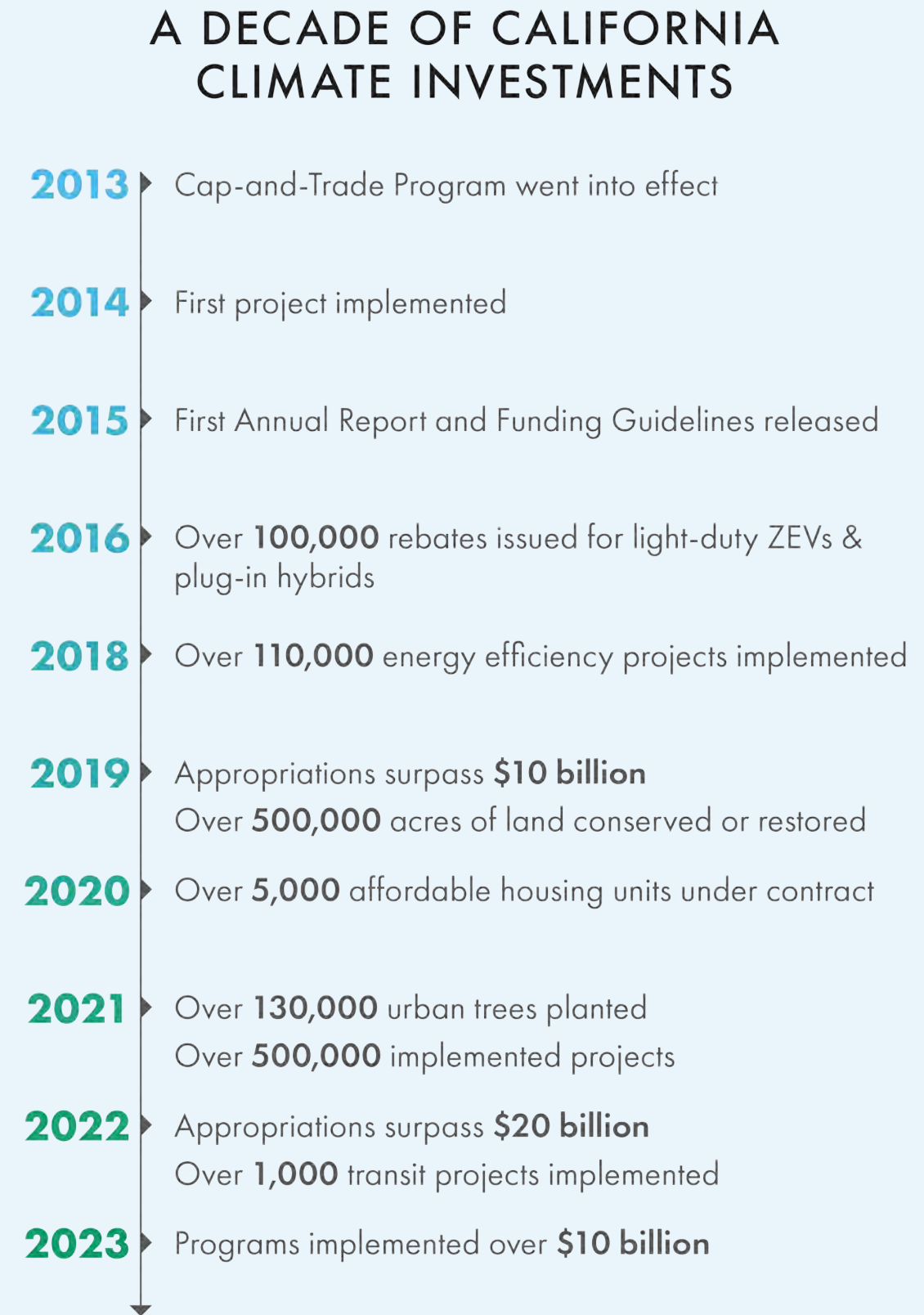
30 [AB 1236](#) (Chiu, Chapter 598, Statutes of 2015)

31 [SB 605](#) (Lara, Chapter 523, Statutes of 2014), [SB 1383](#) (Lara, Chapter 385, Statutes of 2016)

32 [AB 617](#) (Garcia, Chapter 136, Statutes of 2017)

33 [CalEnviroScreen 4.0 Report](#) (2021)

Figure 2: A Decade of California Climate Investments





the Legislature established investment minimums for California Climate Investments to benefit disadvantaged communities through [SB 535](#).³⁴ Later, [AB 1550](#)³⁵ amended SB 535 to change the requirements for investment in disadvantaged communities, and to add minimum investment requirements for low-income communities and low-income households, increasing the amount of California Climate Investments funding that is directed towards the communities most impacted by climate change.

Statute requires CARB to develop and submit an Investment Plan to the Legislature every three years to help guide the investment of Cap-and-Trade auction proceeds; support with coordinated implementation of California Climate Investments programs by developing Funding Guidelines for Agencies Administering California Climate Investments; and track progress of California Climate Investments through the Annual Report. To date, a total of four Investment Plans, ten Annual Reports, and an update to the Funding Guidelines have been published. In 2025, the Fifth Investment Plan and updates to the Funding Guidelines will be released. The [California Climate Investments website](#) has also grown to include interactive data visualizations, such as the [Data Dashboard](#), [Story Map](#), [Project Map](#), [quantification methodologies](#) and [co-benefit assessment methodologies that are built into calculator tools](#); evaluation of [ecosystem services](#); a [Funding Workbook for All California Tribes](#); and [project profiles](#) that highlight how projects are benefiting communities across the state. These resources improve access to funding opportunities, implementation of projects, and support data transparency and track the impact of California Climate Investments.

Cumulatively, California Climate Investments programs have implemented more than \$11.0 billion since the first appropriations were made in 2014. Over 578,500 projects have been implemented and are expected to reduce more than 109.2 MMTCO₂e over project lifetimes. Projects are providing rebates and vouchers for zero-emission vehicles, conserving or restoring land, providing technical assistance, planting trees, expanding and developing new transit operations, and building affordable housing. Figure 3 details more of these achievements and demonstrates how funds flow from the GGRF to implemented projects.

[Appendix A: 2023 Cumulative Statistics](#) details cumulative summary statistics for each California Climate Investments program, including information on funding status, intermediary administrative expenses,³⁶ expected GHG emissions reductions, the number of implemented projects, and the amount of funding benefiting priority populations. For more information or resolution about the way administrative funds flow through the agency, look at [Appendix B: Cumulative Budgetary Expenditures](#).

³⁴ (De León, Chapter 830, Statutes of 2012)

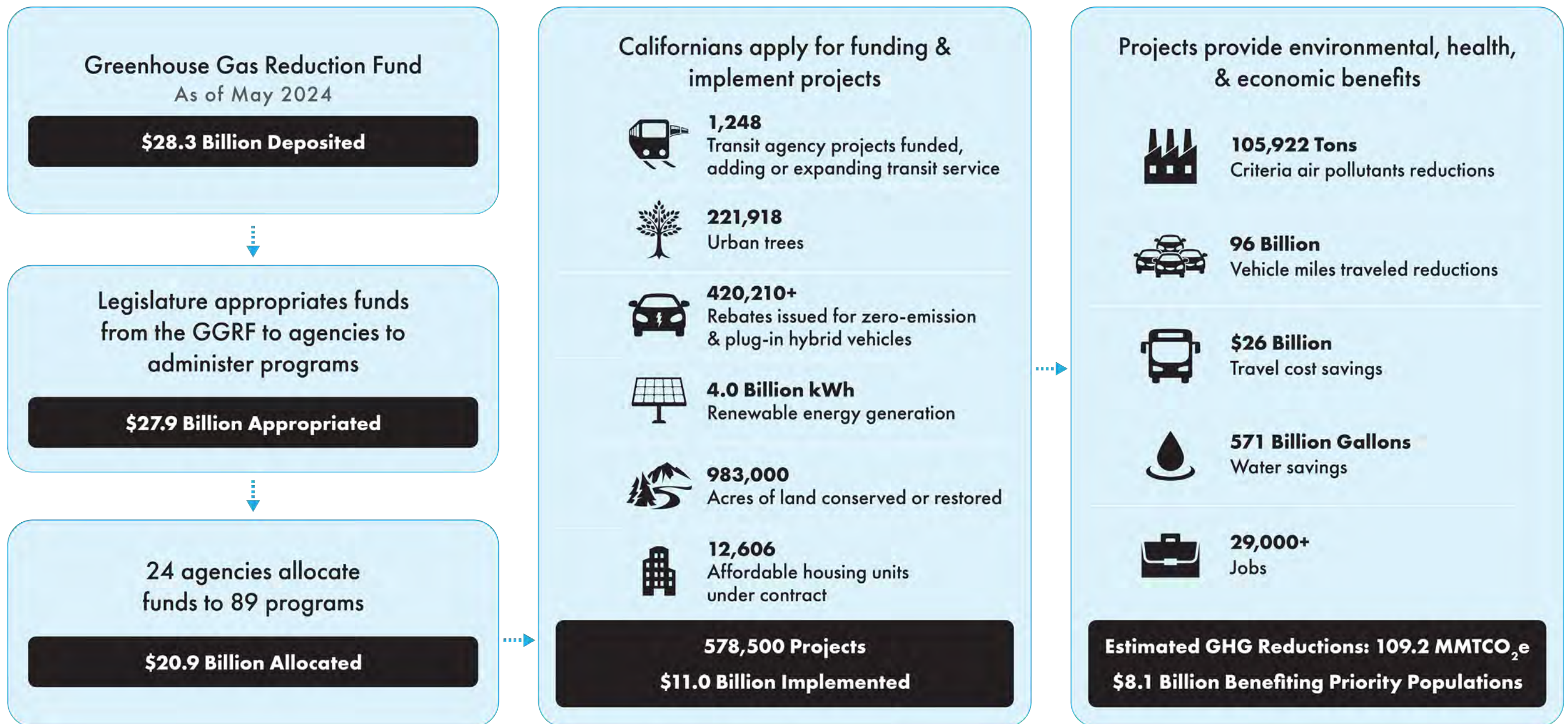
³⁵ (Gomez, Chapter 369, Statutes of 2016)

³⁶ Intermediary administrative expenses refer to funds provided to intermediaries (such as grantees, third party administrators, or local agencies) that use part of the funding to cover the administrative costs associated with distributing incentives, implementing projects, or tracking and reporting data.

Figure 3: California Climate Investments Cumulative Statistics through 2023

CALIFORNIA'S CAP-AND-TRADE DOLLARS AT WORK

As of November 2023



INVESTMENTS IN ACTION

SAN JOAQUIN VALLEY'S AGRICULTURAL COMMUNITY ADOPTS INNOVATIVE CHANGES WITH FARMER

In the heart of California, the San Joaquin Valley is a region where agriculture is not just an industry but a way of life for many. CARB's *Funding Agricultural Replacement Measures Emissions Reductions (FARMER) program* funds transformative initiatives that foster the adoption of innovative farming techniques, integrating advanced agricultural technologies, and promote community engagement and has been making monumental steps towards more sustainable agriculture across the valley.

The San Joaquin Valley faces some of the most challenging air quality issues in the nation. To address these challenges and work towards meeting ambient air quality standards, the San Joaquin Valley Air Pollution Control District (SJVAPCD), along with agricultural industry stakeholders and other federal, state, and local agencies, has been working to reduce GHG emissions while providing cost-effective criteria pollutant reductions in the region. Through the process of program implementation and incentive contributions, the FARMER program has also evolved beyond merely providing financial support to the farmers in the area; it has transformed into a flourishing partnership with the agricultural community.

Since 2018, the launch of this journey in creating a more sustainable agricultural environment, history has already been made. In November 2023, representatives of the FARMER program, SJVAPCD, Natural Resources Conservation Services, and the United States Environmental Protection Agency Region 9 came together to sign a proclamation in celebration of their huge achievement of successful efforts in reducing agricultural air pollutants. The proclamation recognizes the milestone of achieving over 11 tons per day of oxides of nitrogen (NO_x) emission reductions by 2024. This accomplishment could not have occurred without the collaboration among the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program), FARMER, the Diesel Emissions Reduction Act, Targeted Airshed Grant, and the Environmental Quality Incentives Program (EQIP).

Through this collaborative commitment, the San Joaquin Valley's agricultural industry turned over and scrapped over 12,800 pieces of older agricultural equipment which had little to no emissions control. The accelerated turnover rate of older agricultural equipment has been achievable with the help of significant funding from programs like FARMER, the Carl Moyer Program, and EQIP. The combination of public and private investments totaled about \$1.6 billion since 2015.

Liane Randolph, Chair of CARB, emphasized the significance of transitioning to cleaner equipment in the region at the proclamation's signing. "The agricultural sector in the San Joaquin Valley is an economic powerhouse for the state. Moving towards the cleanest available technology in this sector continues to be critical to improving the air in the Valley. We all have a role to play in building a healthier, more sustainable California, and today's event shows what we can achieve when we work together," she said at the event. The proclamation highlights the ongoing commitment of FARMER and the other funding programs to building a healthier California one region at a time.

As the FARMER program celebrates this milestone, the program doesn't stop there. The program's legacy extends beyond the Central Valley, influencing state-level policies and inspiring similar initiatives across California. "The District applauds the leadership of local and state legislators, as well as Valley farmers in recognizing the public health and climate benefits provided throughout California from clean air investments," said Samir Sheikh, Executive Director and Air Pollution Control Officer for SJVAPCD. Looking forward, the FARMER Program will continue its commitment to creating a sustainable future for agriculture by innovating and incorporating new and improved techniques and cleaner technologies.



INVESTMENTS IN ACTION

SUCCESSSES IN SOIL STEWARDSHIP: FUNDING COMMUNITY COMPOSTING ACROSS CALIFORNIA

California Department of Resources Recycling and Recovery's (CalRecycle) *Community Composting for Green Spaces Grant Program* is funding community composting at hundreds of sites across California. In the first cycle of funding, the grant program awarded \$1.5 million to the People, Food, and Land Foundation, which supported community composting at 117 sites throughout California, planted 488 trees, created 4,418 cubic yards of compost, and reduced emissions by 2,508 MTCO₂e of GHG emissions. An additional \$4.2 million was awarded to the California Alliance for Community Composting and LA Compost in the second cycle of the program. Through the establishment or expansion of community composting sites, communities receive benefits such as part time jobs and training on composting practices, fresh produce from adjacent gardens, training on farming practices, an increase in shade from tree planting, and the development of green spaces.

In cities, sites participating in the Community Composting for Green Spaces Grant Program support small communities or neighborhoods. At larger rural sites, the program serves a diverse range of businesses and residences over broader areas. Sites can be found as far north as Klamath, and as far south as San Diego. Through this program, the grantee works on project design with the community group that will be hosting the site to support the unique needs of the community each site serves.



One community composting site is on the tribal lands of the Yurok Tribe, who established community composting to divert waste created from garden spaces, fruit and vegetable scraps from school kitchens and nearby households, and yard and green waste from across the Yurok Reservation. With the presence of black bears and other scavenger wildlife species in the area, tribal members encountered unique challenges to safely maintaining their composting site, so the grant funded the purchase and installation of electric fencing to keep potentially dangerous wildlife from snacking and napping on the warm compost pile.

Another site at New Roots Farm in West Sacramento, run by the International Rescue Committee (IRC), is teaching farming practices to refugees and the wider community, using the compost generated to provide soil fertility for their crops. Many of those composting and farming at this site are refugees themselves who received help from the IRC when resettling in the area, and more than 10 languages are spoken on-site. “We call our farm a global local farm, growing healthy food without using fossil fuels and working with the soil biology, working with the biomass that we produce,” the site’s director Ram Khatiwoda explained. “We are growing soil, we are growing healthy food, and my farmers are using a lot of this compost, and it is keeping our soil biology healthy. We are really making this land a thriving land, where we grow food.” In the second cycle of the program, New Roots Farm has been equipped with a solar-powered aerated static pile system, which will greatly increase the amount of compost that this site is able to produce.

In the San Joaquin Valley, Fresno Metro Ministry operates *Yo’Ville Community Garden and Farm* which produced an impressive 562 cubic yards of compost in the first cycle of the Program. Fresno Metro Ministry has partnered with the Fresno Housing Authority to engage Fresno Housing residents and transform an empty 7 acre lot into a community garden that reflects the community, serves residents, and improves access to fresh produce and green space. The area is designated as both a disadvantaged community and a low-income community. In the second cycle of funding, Cypress Compost Company will establish a secondary composting site on 0.25 acres of Fresno Housing Authority land behind Yo’Ville Community Garden and Farm, which is expected to divert 5,000-8,000 pounds of food scraps and green waste materials per week once operational.

The third cycle of the program, currently being solicited, is open only to qualifying tribal entities within the state, with the aim of increasing the number of tribal communities operating small-scale composting programs that support green spaces. This effort will also increase local composting capacity while expanding community knowledge about the benefits of compost use and proper composting techniques. CalRecycle’s goal is to assist tribal communities in overcoming barriers to starting and managing community-based composting programs by providing targeted resources. These resources will increase the ability of tribal community groups to divert materials from landfills, increase their knowledge and experience with composting, and help foster climate resilience.

PROVIDING BENEFITS TO CALIFORNIANS

The portfolio of California Climate Investments programs is designed to facilitate GHG emissions reductions, benefit priority populations, and provide a suite of environmental, economic, and public health benefits. From energy savings and clean transportation to affordable housing, training and workforce development to waste diversion, the diversity of California Climate Investments program types reflects the cross-sectoral and collaborative approaches necessary to effectively reduce GHG emissions and provide benefits to Californians across the state. Figure 4 shows just some of the many benefits California Climate Investments are providing over project lifetimes.

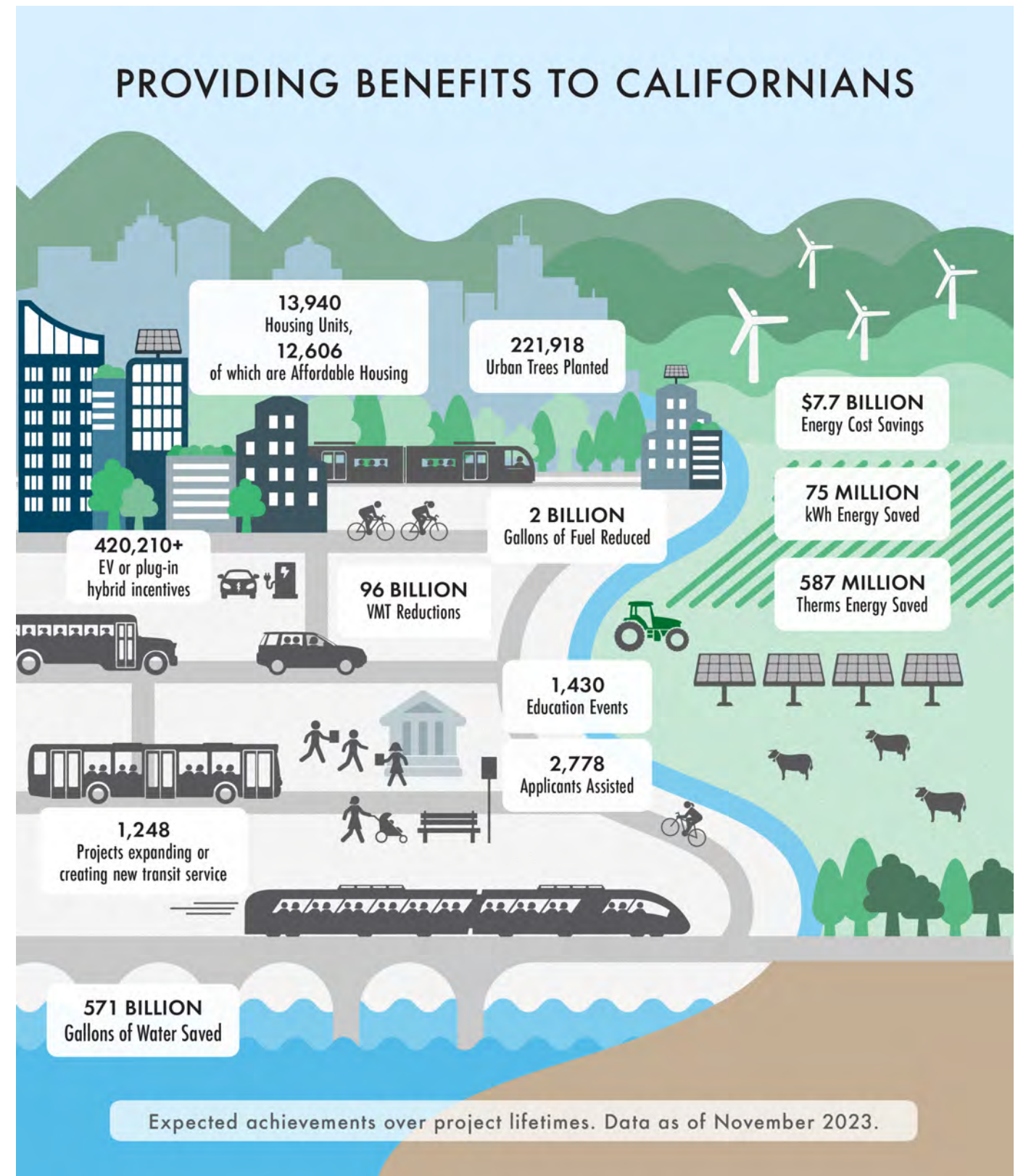
Benefiting Priority Populations

California Climate Investments are focused on providing benefits to California's disadvantaged communities and low-income communities and households, collectively referred to as *priority populations*. SB 535 and AB 1550 require that at least 35% of California Climate Investments funding benefits these priority populations. In 2022, the definition of disadvantaged communities was updated to now include lands under the control of federally recognized tribes, expanding funding access to more communities across the state.

Once the Legislature appropriates funds from the GGRF, CARB works with administering agencies to identify program-level investment targets for the proportion of funds benefiting priority populations for that fiscal year. These targets include investment minimums for disadvantaged communities and low-income communities and households.³⁷ To count implemented projects toward the investment minimums, administering agencies must use *Benefit Criteria Tables* that CARB develops to determine whether a project provides direct, meaningful, and assured benefits and meets an important community need. More information about priority populations, statutory minimums, and disadvantaged community designations is provided on the [California Climate Investments website](#).

³⁷ AB 1550 defines "low income households" as those with: 1) a household income at or below 80% of the statewide median income, or 2) a household income at or below the threshold designated as low income according to the Department of Housing and Community Development State Income Limits.

Figure 4: California Climate Investments Project Benefits

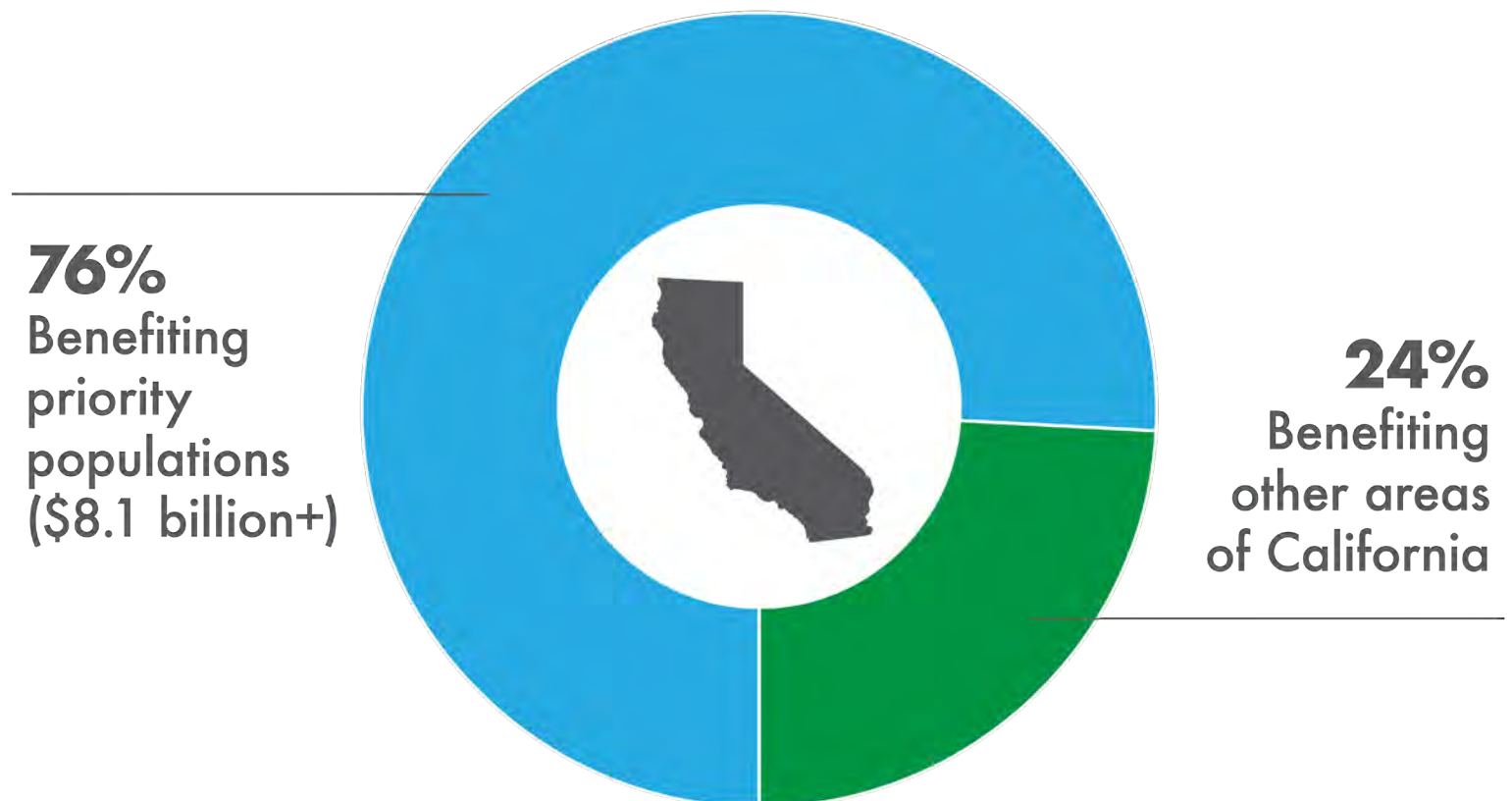


CUMULATIVE BENEFITS TO PRIORITY POPULATIONS

Cumulatively, 76%, or more than \$8.1 billion of implemented California Climate Investments projects, are benefiting priority populations, as shown by Figure 5. These investments provide a variety of benefits that include cleaner air, increased mobility options, expanded access to clean energy cost savings, and new employment opportunities.

Projects that were awarded funds prior to August 2017 were subject to the investment requirements established by SB 535,³⁸ projects awarded funds since then are subject to AB 1550's³⁹ investment requirements. Out of the cumulative \$11.0 billion in implemented projects, \$2.3 billion have been subject to the requirements of SB 535, and \$8.7 billion have been subject to AB 1550, as detailed in Figure 6.⁴⁰ Nearly all of the recently reported outcomes have occurred under the AB 1550 requirements, with a small set of programs that have projects with awarded funds prior to August 2017 operating under requirements established by SB 535.

Figure 5: Cumulative Benefits to Priority Populations



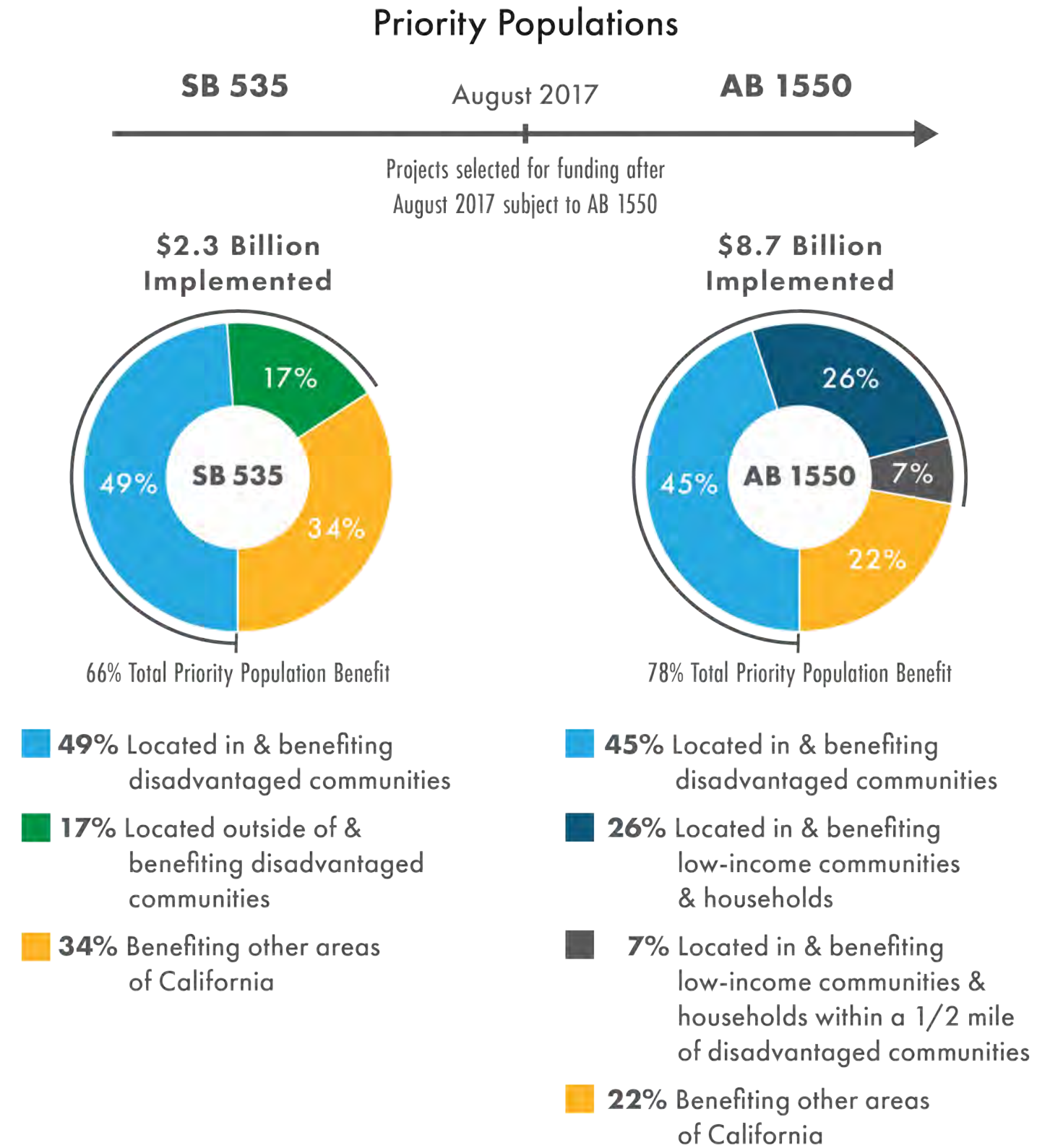
³⁸ SB 535 also established the following investment minimums: at least 25% of the proceeds fund projects that benefit disadvantaged communities; and at least 10% of the proceeds fund projects located within and that benefit disadvantaged communities.

³⁹ AB 1550 requires that: at least 25% of the proceeds fund projects that are located within and benefit individuals living in disadvantaged communities; an additional minimum of 5% fund projects that are located within and benefit individuals living in low income communities or benefit low income households statewide; and an additional minimum of 5% fund projects that are located within and benefit individuals living in low income communities or benefit low-income households within a ½ mile of a disadvantaged community.

⁴⁰ High-Speed Rail expenditures are not included in these calculations.



Figure 6: Cumulative Investments Contributing to Statutory Investment Minimums



INVESTMENTS IN ACTION

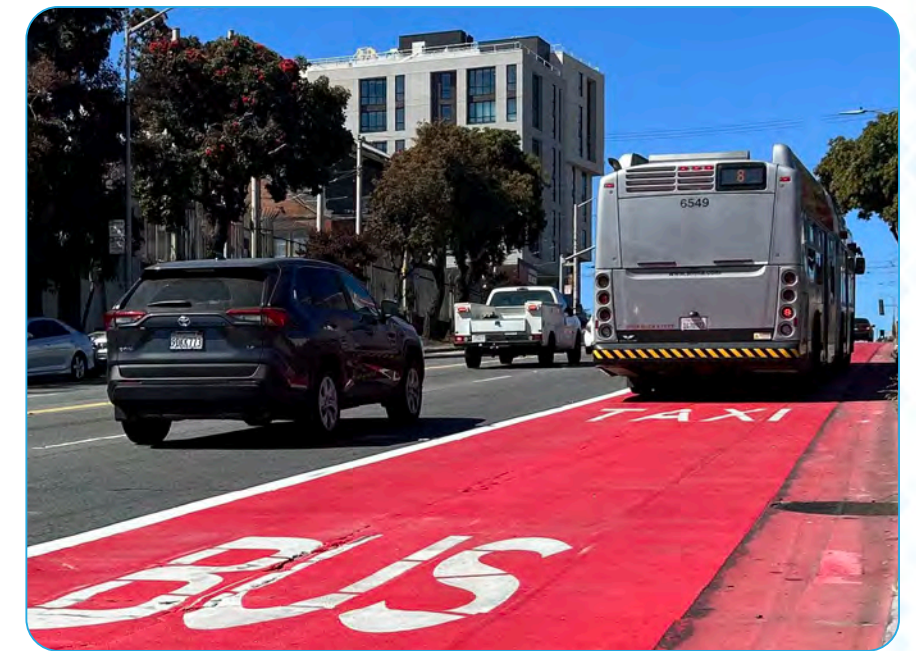
MANY HEARTS COMING TOGETHER FOR SAN FRANCISCO'S AHSC PROJECT

In October 2023, the City of San Francisco's Balboa Park Neighborhood held a ribbon cutting for 131 new affordable homes adjacent to the Balboa Park Bay Area Rapid Transit (BART) Station, known as *Kapuso at the Upper Yard*. These homes were built thanks to \$29.9 million from SGC's *Affordable Housing and Sustainable Communities* (AHSC), in its fifth round of funding. The AHSC program funds the construction of affordable housing near transit as a key strategy to reduce GHG emissions by reducing vehicle miles traveled, and Kapuso at the Upper Yard is a key example of the need for this work. As San Francisco continues to see sky-high housing prices, the construction of new affordable housing near transit is critical to help reduce risks of displacement and provide access to job centers and other key destinations.

"Kapuso at the Upper Yard is a prime example of transit-oriented development done right. By repurposing this underutilized parking lot into more than 131 new homes, we are doubling down on our commitment to increase public transit ridership and provide improved services for our residents," said Mayor Breed in the City's [press release](#). "As we work to continue to build affordable housing citywide to reach our housing goals, we need to keep in mind the families that need housing near public transit or in areas that are accessible by walking or biking."

The AHSC program requires coordination between the housing developer and local transportation planning. In partnership with the City of San Francisco, BART, Mission Housing, and Related Housing, the Kapuso at the Upper Yard housing project was complemented by three new BART trains to increase service frequency and capacity throughout the region as well as a public plaza for the BART station's entrance.

San Francisco Municipal Transportation Agency is currently constructing pedestrian access and circulation improvements around the station and providing residents free transit passes. The project will further fund new traffic signals, bulb-outs, sidewalk widening, bus stop relocation, bus bulbs, crosswalks, and bicycle infrastructure along Mission Street, a prominent commercial corridor.



The ground floor of the housing project includes a variety of other community resources, including a childcare facility with an outdoor activity area, ground floor retail, and a community services space coordinated through the Family Wellness Community Resources Center operated by Mission Housing Development Corporation.

To date, the AHSC program has awarded more than \$3.1 billion in California Climate Investments funding to more than 180 projects across the state. These projects continue to be a key strategy in the state's goal of building 2.5 million new homes by 2030 while also reducing GHG emissions and combating the risks of climate change.

INVESTMENTS IN ACTION

REALIZING CARSHARE BENEFITS IN PRIORITY POPULATIONS

Since 2015, the City of Los Angeles (LA), in partnership with the LA Department of Transportation and the Mayor's Office, has received a total of \$4.7 million from CARB's *Clean Mobility Options* program for a zero-emission car share pilot project. This project, known as BlueLA, is operating in 13 underserved communities that face significant air quality burdens and have historically been excluded from environmental benefits. BlueLA provides a clean and affordable mobility option in these communities, which include Downtown, Pico Union, West Lake, and Koreatown.

The innovative carshare service launched to the public in April 2018 and has progressed to include 40 charging stations, with 200 charge points installed to date and over 100 electric vehicles. In phase 2 of the project, Blink Mobility, the carshare operator, is planning to expand the service to include 300 electric vehicles and 100 stations by the middle of 2025. As of October 2023, BlueLA has a total of 4,250+ users that have taken 635,000 total trips and driven over 21 million gasoline-free miles throughout the Los Angeles area.



The BlueLA project is directed by a diverse steering committee consisting of members from six community-based organizations. Outreach agents known as Street Ambassadors have been hired from the targeted low-income communities to contribute to a face-to-face approach for creating awareness and excitement in local communities for electric vehicle car sharing. To ensure smooth implementation of the new car share program, BlueLA and the City of LA also put together the Tiger Team, a group of representatives of all city agencies, to install the charging stations.

The BlueLA project is making an impact. A recent study by UC Berkeley conducted a comprehensive evaluation of BlueLA's impact on vehicle ownership patterns, vehicle miles traveled and GHG emissions by incorporating trip activity data from nearly 60,000 trips in 2021 and 2022, as well as 200+ survey responses collected from BlueLA members in December 2022. Survey respondents were asked if they had sold their vehicle or chosen not to purchase

"The low cost of ownership was a driver in my final decision to go [electric]."

Lance Artis, Electric Vehicle Driver and Member

"I grew up loving cars and technology, [electric vehicles] are the perfect combination of the two."

Andrew H., Electric Vehicle Driver and Member

"Love it! Got all my errands done this morning; Home Depot, groceries, dry cleaning. So efficient and so clean."

@doAPA SF, BlueLA Member

one due to BlueLA. They were also asked to estimate the total change in how many miles they have driven annually in their personal vehicle(s) as a result of having the BlueLA service available.

The study found that BlueLA has led to an overall net reduction in vehicles miles traveled by project participants of 463,845 miles and associated GHG emissions reductions of 656 MTCO₂e, respectively, among the over 3,000 registered BlueLA users. The study also demonstrates greater reductions in GHG emissions and vehicle miles traveled from low-income qualified residents, who used the service more frequently and had higher rates of selling personal combustion-engine vehicles among users. This study provides new evidence for the benefits of electric vehicle carsharing services like BlueLA, which allow communities to address some of the social and environmental disparities of transportation in cities.



BENEFITS TO LOW-INCOME HOUSEHOLDS

Some California Climate Investments programs directly support individual households through electric vehicle vouchers and rebates, home solar and weatherization projects, wood stove change-outs, and more. Programs that serve individual households often target low-income households statewide and report those benefits to CARB.

Cumulatively, at least 83,506 implemented projects and \$415 million are benefiting low-income households.⁴¹ [Individual program pages on the California Climate Investments website](#) summarize reported benefits to low-income households for programs that target individual consumers and households meeting low-income requirements. The information presented on these pages reflects the minimum amount of funding directly received by low-income households. Many other California Climate Investments programs also indirectly benefit low-income households by improving the sustainability, resilience, and livability of the communities in which they reside. Some programs may also directly benefit low-income households without verifying income information, and therefore do not report those benefits under low-income households to CARB.

83,506 projects
\$415 million
in cumulative
implemented California
Climate Investments
are benefiting
low-income
households

⁴¹ While California Climate Investments priority populations include disadvantaged communities and low-income communities and households, administering agencies may only claim a benefit from one of these categories per project. A project that benefits a low-income household residing within a disadvantaged community may be claimed as benefiting a low-income household or a disadvantaged community, but not both. The values presented here should not be added to values presented in other discussions of benefits to priority populations elsewhere in this report as doing so will result in double counting.



UNDERSERVED POPULATIONS

California Climate Investments also provides benefits to historically disinvested populations that are not explicitly identified as priority populations. Programs are providing benefits to other populations such as farmers that have been subject to racial or ethnic prejudice, minority and women-owned businesses, small businesses, tribes, and others. Many programs have recognized the need to identify or define these marginalized and disadvantaged populations, and have taken initiative to design guidelines that help ensure these underserved populations can also successfully compete for funding.

For example, SGC's [Sustainable Agricultural Lands Conservation](#) (SALC) Program, which is jointly administered with the Department of Conservation, conducted evaluations to identify gaps in funding accessibility for priority populations and underserved communities, including socially disadvantaged farmers and ranchers, California tribes, and disadvantaged communities. In 2022, SALC began funding grants to help build organizational and financial capacity for agricultural conservation acquisition projects. Of the 19 capacity grants funded in 2023, four are for projects led by tribes or nonprofits serving tribes and 12 are from applicants that have never applied for a SALC acquisition grant before. Through building capacity, in combination with other targeted programmatic improvements, SALC has been able to expand access to the program and in 2023 funded the first land acquisition grant for tribes.

While California Climate Investments does not separately track or report the funds benefiting these populations, investments focused on these populations are consistent with the broader equity goals of the California Climate Investments portfolio and the state. These investments also support core principles of responding to community needs and maximizing the benefits of programs to underserved communities.

Reaching Across California

California Climate Investments deliver benefits to all regions throughout the state. Each administering agency designs programs and selects projects, with many targeting certain populations or geographies. From Imperial County to Modoc County, California Climate Investments are reducing GHG emissions and providing economic, social, and environmental benefits.

Figure 7 shows cumulative investments in each county. A more detailed breakdown of funding at various geographic scales and a map with an interactive display of the location of each implemented project is available on the [California Climate Investments website](#):

- [California Climate Investments Project Map](#)
- [Data Dashboard: Geographic Breakdown of Investments by Region, Metropolitan Planning Organization, County, and Legislative District](#)
- [Investment Fact Sheets by Assembly Districts](#)
- [Investment Fact Sheets by Senate Districts](#)
- [Investments by Region](#)

Figure 7: Geographic Analysis of Funding Distribution



ADVANCING EQUITY IN CALIFORNIA CLIMATE INVESTMENTS PROCESSES AND OUTCOMES

Amid a national reckoning in the wake of the Black Lives Matter Movement and national outcry in opposition to police violence against Black Americans, including the killing of George Floyd and many others, California state agencies are taking important steps to advance racial equity and develop more equitable processes and outcomes of their programs. These steps include adopting racial equity action plans that outline specific actions for programs to take to advance racial equity. For example, [SGC's 2023-2025 Racial Equity Action Plan](#) outlines concrete actions to take in five categories: Leadership, Operations, Grant Programs, Technical Assistance and Capacity Building, and Interagency Collaboration. SGC embeds equity in its vision for healthy, thriving, and resilient communities across California, and first adopted a racial equity action plan in 2019.

Programs are adjusting their eligibility requirements and outreach approaches to advance more equitable outcomes of California Climate Investments. For example, [SGC's SALC Program](#) is conducting evaluations to identify gaps in accessibility for priority communities, including farmers and ranchers that have been subject to racial prejudice, California tribes, and disadvantaged communities. As a result of identified gaps in accessibility for California tribes, SALC expanded eligibility of the program to support California tribes in acquiring land for the first time in 2023. Program staff expanded outreach to and engagement with tribes to support the program goal of increased tribal participation in SALC, helping advance the state's work to support tribal access, co-management, and acquisition of ancestral lands. Following these steps, SALC received its first acquisition applications for tribal-led land back projects in Round 9; in December 2023, a \$5.8 million SALC grant will return 310 acres to a coastal tribe for the restoration and cultivation of cultural resources.



SGC's [Climate Change Research Program](#) is collaborating with the UC Davis Center for Regional Change to build capacity among academic researchers and community partners representing Black, Native American, and communities of color to meaningfully collaborate in climate change research. This collaboration supports [SGC's Participatory Research to Policy Model](#) through promotion and utilization of community-based participatory research, in partnership with aligned and well-positioned existing statewide training and networking efforts like [Community-Academic Partnerships to Advance Equity-Focused Climate Action \(CAPECA\)](#). To achieve a future where all people in California live in healthy, thriving, and resilient communities, SGC's Participatory Research to Policy Model advances a collaborative, equity-driven approach to research that involves community members, including Native Americans and communities of color, and researchers in all aspects of the research process, and integrates diverse expertise (e.g., lived experience, tribal expertise, or Traditional Ecological Knowledge) into projects, engagement, partnerships, and solutions. It is critical



to recognize, value, and integrate the expertise, experiences, and leadership of communities facing disproportionate impacts of climate change which most often include people of color and low-income and disadvantaged communities. Elevating community-based participatory research can also help state agencies and academic institutions operationalize core stated principles and values, including the development of equitable, sustainable partnerships with under-resourced, disadvantaged, and vulnerable communities. Statewide training and networking efforts also include the advancement of racial equity goals like recruitment and retention of diverse staff, faculty, students, and partners.

New to California Climate Investments, the CEC's [Equitable Building Decarbonization Program](#) is using public input and engagement with community-based organizations to help guide program development. By incorporating the input of Californians from diverse backgrounds, CEC aims to improve energy equity and increase access to low-carbon home energy appliances for under-resourced communities. These households are the most energy cost-burdened and are the least likely to adopt low-carbon energy appliances without state assistance. The program will also include a tribal direct install program to be developed through engagement with tribes in California.

Changes to other existing programs are also underway to advance more equitable outcomes. To improve uptake of zero-emission vehicles in priority populations, CARB is implementing [Low Carbon Transportation](#) through a needs-based model that prioritizes disadvantaged and low-income communities and very low-income households. CARB has selected the Community Housing Development Corporation to administer the [Financing Assistance for Lower Income Consumers Project](#), the [Clean Cars 4 All](#) project, and the Zero-Emission Assurance Project under a joint program. Collaboration with community-based organizations is at the center of the outreach and education strategy to ensure that the needs-based model is effective, including working with interested organizations like the Charge Ahead Coalition.

INVESTMENTS IN ACTION

REVITALIZING RURAL AND CITY TRANSIT: ELECTRIC BUSES ARRIVE IN MERCED COUNTY

In the heart of the San Joaquin Valley, a transformative project is underway to reshape public transportation in communities around Merced. Thanks to \$3.1 million in funding from the California State Transportation Agency's *Transit and Intercity Rail Capital Program* (TIRCP)—half from California Climate Investments and half from *SB 142* funds—the Transit Joint Powers for Merced County initiative addresses critical transit needs in disadvantaged communities. The initiative improves air quality and spurs economic growth by adding battery-electric buses into The Bus, Merced County's public transit system.

The primary goal of this initiative is to enhance transit services in areas that need additional support. In Planada and Le Grand, unincorporated communities designated as low-income and disadvantaged, residents have voiced their need for better transit services. These communities are now set to benefit from three electric buses on the P-Commuter route in this rural part of the county. Similarly, Merced's M-2 route in the northern part of the county will see new services to neighborhoods previously devoid of public transit.

Recognition of the need for this project emerged from the annual unmet transit needs process, which incorporates community input from public hearings, emails, letters, social media, and a bilingual survey. The Merced County Association of Governments' Governing Board resolved to find solutions for residents' transit needs, leading the Board to apply for TIRCP funding.

Despite its simple objectives, the initiative to expand transit access in Merced faced significant hurdles. Global supply chain disruptions affected both bus manufacturer Gillig and battery supplier BorgWarner, resulting in significant delays to the production of the buses. The completion date is currently scheduled for September 2024, six months beyond what was originally anticipated for vehicle delivery.

42 (Beall, Chapter 5, Statutes of 2017)



"We are pleased to provide these essential public transit services to a disadvantaged area of our county," said Stacie Guzman, Executive Director of The Bus. "Despite the production delays, this award allows The Bus to achieve an important milestone in the transition to environmentally friendly public transportation in our region. The use of electric buses promises improved mobility of our workforce as well as a reduction in localized air pollutants and GHG emissions, which aligns with broader state environmental goals."

Overall, this project demonstrates the importance of addressing transportation inequities, and the need for agencies to adapt in the face of unforeseen challenges. The successful targeting of resources to these underserved communities reaffirms the critical role of community involvement in shaping public services, while paving the way for a greener future.

Reducing Greenhouse Gas Emissions

Given the urgency of climate change impacts, it is critical to slow the pace of rising global temperatures by effectively and rapidly cutting back GHG emissions. California Climate Investments are reducing important GHG emissions, including carbon dioxide, the most abundant GHG, along with potent short-lived climate pollutants, such as methane, fluorinated gases, and black carbon.

Administering agencies of California Climate Investments programs report to CARB on estimated GHG emissions reductions and co-benefits over the life of a project using [quantification methodologies and co-benefit assessment methodologies that are built into calculator tools](#). These tools are developed by CARB in consultation with administering agencies. The methodologies estimate future, anticipated GHG emissions reductions and related co-benefits, many of which support legislative priorities, state goals, climate resilience, or related community and ecosystem benefits. These estimates are not used to meet climate targets or air quality standards and do not count towards offsets or compliance with other regulations.

The over 17,000 new projects implemented in 2023 alone are expected to reduce 14.7 MMTCO₂e. Cumulatively, implemented investments are expected to reduce 109.2 MMTCO₂e over project lifetimes. As detailed in [Appendix A](#), California Climate Investments are reducing GHG emissions

at an average cost of \$101 per MTCO₂e. The cost-effectiveness of GHG emissions reductions does not fully capture the wide variety of benefits that California Climate Investments programs have provided for the past 10 years. In fact, the cost effectiveness of GHG emissions has decreased over time as programs are increasingly putting extra resources into ensuring projects are benefiting priority populations and effectively delivering a multitude of important benefits in addition to GHG emissions reductions. For example, nearly \$7.2 billion of implemented projects are expected to reduce over 105,000 tons of criteria air pollutants.

Across the portfolio, California Climate Investments programs are employing cross-sectoral strategies to reduce GHG emissions while supporting climate change resilience and other co-benefits. A few key examples include waste diversion projects that are reducing short-lived climate pollutants, incentives for zero-emission vehicles that are cutting carbon emissions, and nature-based solutions that are sequestering carbon and building the resilience of California's varied landscapes. The following sections explore the different benefits that California Climate Investments programs fund.

Learn more about how California Climate Investments programs across these sectors are working to reduce GHG emissions on the [California Climate Investments website](#) and on the [Data Dashboard](#). Explore GHG emissions reductions expected either by individual projects in the [Project List](#) or by each program in [Appendix A: 2023 Cumulative Statistics](#).

Estimated GHG Emissions Reductions from 2023 Implemented Projects:

14.7 MMTCO₂e
over project lifetimes

Cumulatively, California Climate Investments are expected to reduce **109.2 MMTCO₂e** over project lifetimes

GOING BEYOND CARBON DIOXIDE

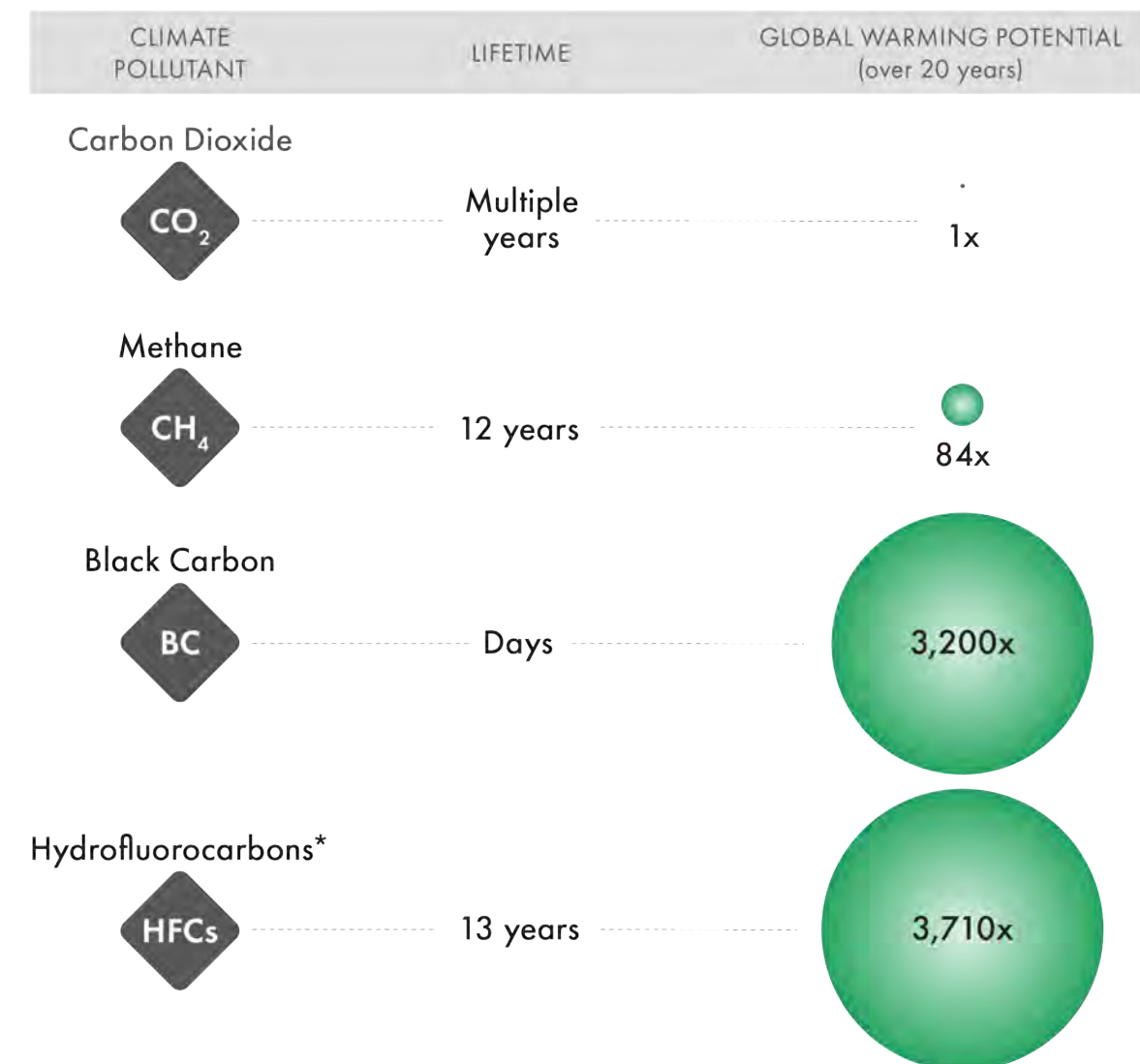
As the urgency for climate action increases, investments with immediate beneficial impacts on climate change and public health are critical. California Climate Investments are tackling short-lived climate pollutants, which are powerful climate forcers that include methane, fluorinated gases, and black carbon. As shown in Figure 8, these pollutants remain in the atmosphere for a much shorter period than carbon dioxide, but their potential to warm the atmosphere can be substantially greater.

Methane accounts for almost 30% of current global warming and is more than 80 times more potent than carbon dioxide in contributing to climate change over a 20-year period.^{43,44} Fortunately, methane’s short atmospheric lifetime of about 12 years means that emissions reductions can rapidly reduce concentrations in the atmosphere, slowing the pace of temperature rise within a brief period. In California, over half of methane emissions come from dairy and livestock operations.⁴⁵ Over the last decade, California Climate Investments has supported methane emissions reduction efforts with over 200 projects for dairies and livestock operations, which are expected to reduce 23.0 MMTCO₂e over project lifetimes. The California Department of Food and Agriculture’s (CDFA) [Livestock Methane Emission Reduction Research Program](#), a recently launched cattle feed research program, is expected to continue progress to reduce methane emissions from enteric fermentation.

Figure 8: Short-Lived Climate Pollutants

SHORT-LIVED CLIMATE POLLUTANTS

California Climate Investments are reducing short-lived climate pollutants, which are powerful climate forcers that include methane, hydrofluorocarbons, and black carbon



*Hydrofluorocarbons (HFCs) are a group of synthetic gases that have varying global warming potentials and lifetimes. Values presented are for HFC-134a, one of the most abundant HFCs.

43 [IEA \(2022\)](#), Global Methane Tracker 2022, IEA, Paris, License: CC BY 4.0

44 Intergovernmental Panel on Climate Change (IPCC). Climate Change 2013 – The Physical Science Basis: Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press; 2014. doi:10.1017/CBO9781107415324

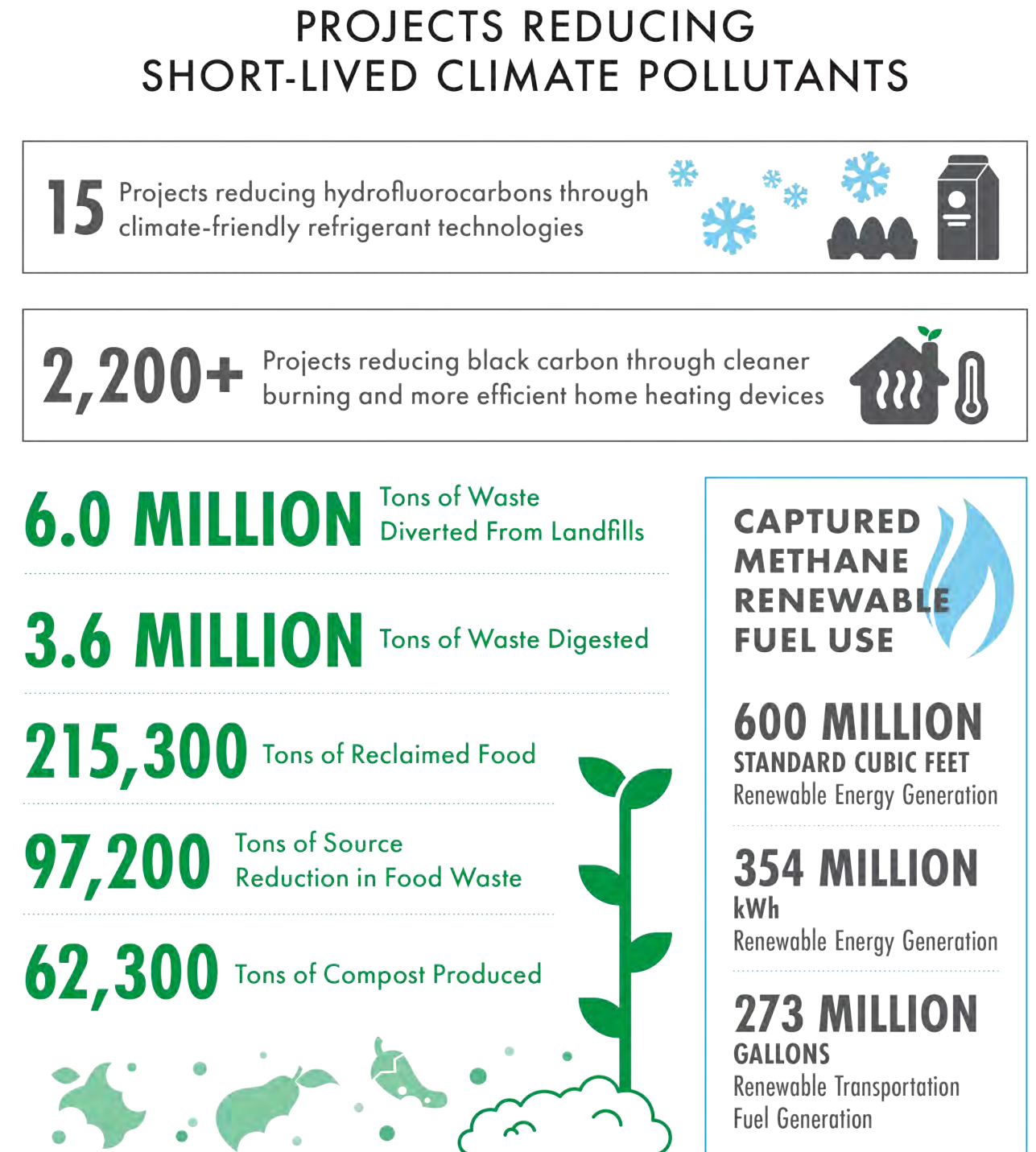
45 CARB (2023), 2000-2021 California Greenhouse Gas Inventory, 2023 Edition

California Climate Investments programs are also targeting methane through waste diversion efforts, as shown in Figure 9. CalRecycle is reducing methane emissions through a portfolio of programs that include food waste prevention and community composting, as well as organic waste digesters and co-digestion at wastewater treatment plants. Captured methane from these projects can be used to offset fossil fuel emissions from the transportation and energy sectors, further reducing GHG emissions. Across all California Climate Investments programs in the past decade, at least 776,800 metric tons of methane are expected to be reduced over project lifetimes. Additionally, the California Climate Investments is supporting the launch of satellites that will quickly detect, quantify, and inform mitigation of methane emissions.

Other important short-lived climate pollutants are fluorinated gases, such as hydrofluorocarbons (HFCs), that are used as refrigerants. Globally, as temperatures rise, adoption of cooling technologies and refrigerants is increasing rapidly, making HFCs the fastest growing source of GHG emissions.⁴⁶ CARB's *Fluorinated Gases Emission Reduction Incentives* program has implemented 15 projects that are expected to reduce GHG emissions by 36,715 MTCO₂e.

California Climate Investments also target black carbon, a short-lived climate pollutant that stays in the atmosphere only a few weeks but has a potency about 3,200 times greater than carbon dioxide over a 20-year period.⁴⁷ Black carbon emissions come largely from heavy-duty vehicles. CARB's *Low Carbon Transportation* program has made significant contributions to reducing black carbon emissions through transportation incentives. Other anthropogenic sources of black carbon include fuel combustion caused by activities like residential wood combustion. CARB's *Woodsmoke Reduction Program* has tackled this source head-on by providing 2,299 woodstove change-outs over the 10 years of California Climate Investments.

Figure 9: Reducing Short-Lived Climate Pollutants Over the Last Decade



Expected achievements over project lifetimes. Data as of November 2023.

⁴⁶ Bert Metz, Lambert Kuijpers, Susan Solomon, Stephen O. Andersen, Ogunlade Davidson, José Pons, David de Jager, Tahl Kestin, Martin Manning, and Leo Meyer (Eds). (2005). *Safeguarding the Ozone Layer and the Global Climate System*. Cambridge University Press, UK. pp 478

⁴⁷ Black carbon emissions are not considered in AB 32 and, as a result, are not included as part of the total GHG reduction estimates for California Climate Investments.

TRANSITIONING TO A ZERO-EMISSION TRANSPORTATION FUTURE

As part of the transition to a zero-emission transportation future, California Climate Investments are supporting expansion of charging infrastructure, including CEC’s [Charging and Hydrogen Refueling Program](#) that funds hydrogen refueling stations for zero-emission hydrogen fuel cell electric vehicles and CEC’s Equitable At-home Charging Program that expands charging opportunities in disadvantaged and low-income communities. CARB’s [Advanced Technology and Demonstration and Pilot Projects](#) is helping accelerate innovative technologies, including pre-commercial demonstrations of advanced vehicles, engines, equipment, transportation systems, commercial harbor craft, and accompanying infrastructure.

Over the past decade, a suite of clean vehicle and mobility projects have worked to reduce emissions from the transportation sector, as shown in Figure 10. For example, the California Department of Transportation’s [Low Carbon Transit Operations Program](#) reduces GHG emissions by providing operational assistance and funds to support new or expanding bus and rail services and transit facilities that connect multiple modes of transportation. CARB’s [Sustainable Transportation and Equity Project](#) (STEP) is also supporting a variety of clean mobility options based on community identified needs. These options include funding for active transportation, micromobility, and expanded transit to reduce GHG emissions. Over the last decade, CARB’s [Clean Vehicle Rebate Project](#) has distributed over 110,600 vouchers for zero-emission vehicles to disadvantaged communities statewide.

California Climate Investments programs also support emissions reductions through community partnerships, outreach and education, workforce training, and other efforts. The [Inclusive, Diverse, Equitable, Accessible, and Local Zero-Emission Vehicle \(IDEAL ZEV\) Workforce Pilot](#) has funded workforce training and development projects that support zero-emission vehicles and related infrastructure and commercial technologies in California by providing job training and related resources to priority populations. [Access Clean California](#) is a multi-faceted outreach effort that helps streamline access to California Climate Investments’ consumer-facing, equity-focused clean transportation and clean energy incentive programs for low-income and disadvantaged communities.

Figure 10: Major Achievements Towards a Zero-Emission Transportation Future

MAJOR ACHIEVEMENTS TOWARDS A ZERO-EMISSION TRANSPORTATION FUTURE

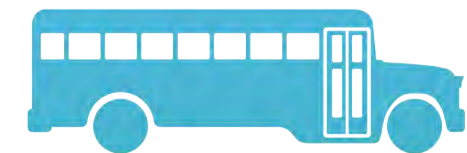
80+

micro mobility, active transportation, or shared mobility projects



185+

projects funding clean buses and mobility options for schools



230+

advanced technology demonstration vehicles in service



4,900+

projects funding zero- & near zero-emission trucks, buses, freight, and delivery vehicles



8,900+

projects funding clean off-road equipment



420,210+

rebates for light-duty ZEVs and plug-in hybrids



Data as of November 2023

INVESTMENTS IN ACTION

OVER A DECADE OF FUNDING TECHNOLOGY ADVANCEMENT – A LOOK AT LARGE SCALE TRUCK AND BUS REPLACEMENT INVESTMENTS

The *Clean Truck and Bus Voucher project*, also known as HVIP, has been a key facilitator in achieving California’s longterm strategy of transitioning its trucking fleet to zero-emission vehicles (ZEV). This transformation has been a multi-year process, starting with demonstration and pilot projects and moving to regulations combined with incentives.

Zero-emission vehicles and equipment powered by battery-electric and hydrogen fuel cell technologies are positioned to transform the medium- and heavy-duty commercial vehicle market. However, ZEV technologies have encountered several hurdles to full scale deployment and acceptance, including cost, skepticism about capabilities, and product availability. CARB and CALSTART, a network connecting companies and government agencies, are working collaboratively to address these issues with ZEV deployment by concentrating investments strategically and creating pathways for subsequent markets or work applications.

California’s transition to ZEVs began with school buses and transit buses in the late 2010s, which acted as cornerstones for the development of zero-emission heavy-duty vehicles and industries in the California trucking fleet.



California Climate Investments are funding the truck and bus transition at multiple stages. A specific initiative within CARB’s Low Carbon Transportation program dedicated to financing demonstration and pilot projects, such as the initial demonstration of an electric school bus, has played a key role in expediting the integration of advanced technologies in California. This effort has driven technological progress towards commercialization. In this first phase, CARB invests in individual vehicles, as well as grants for equipment development to spur the development of zero-emission truck manufacturers and markets.

These demonstration investments are essential because manufacturing is not standardized early in the development of a new technology or vehicle. As a result, funding is needed to help companies cover the costs of technology development and deployment and support infrastructure installations for each vehicle.

The second phase of funding comes from HVIP, which provides the bridge between demonstration projects and the development of viable markets for ZEV products. HVIP supports companies in purchasing advanced technologies that are ready to be on the road but have high barriers to widespread adoption. The fleet-friendly nature of HVIP and ease of use allow it to support fleets with limited resources; last year, CARB approved changes to support more equitable investments and started to focus HVIP on medium and smaller fleets.

HVIP facilitates the purchase of ZEVs by providing vouchers to offset the extra cost of medium- and heavy-duty trucks and buses. The program has been highly effective and critical, significantly developing the ZEV truck market and adoption in California. HVIP Standard—a subset of the various HVIP incentive programs—provides purchase incentives for various on-road vehicle types, and specific allocations within HVIP offer targeted support to particular markets like drayage trucks, public transit buses, and public school buses.

HVIP aims to boost sales by issuing vouchers that help bridge the price gap between advanced technology vehicles and their conventionally fueled counterparts, benefiting buyers and dealers. The program has been successful because of its unique partnerships with dealers to distribute funds at the time of purchase.



“The Dealer Training team has been extremely helpful and prompt in answering questions! I really appreciate the team’s support over the past year,” said Melaura Rice, a grant coordinator at Lion Electric, an equipment manufacturer participating in the program.

The program supports priority populations through community-driven clean transportation and equitable investments. HVIP has created enhanced voucher incentives (also called “plus-ups”) to support the deployment of these vehicles in disadvantaged and low-income communities, California Native American tribes, and small businesses.

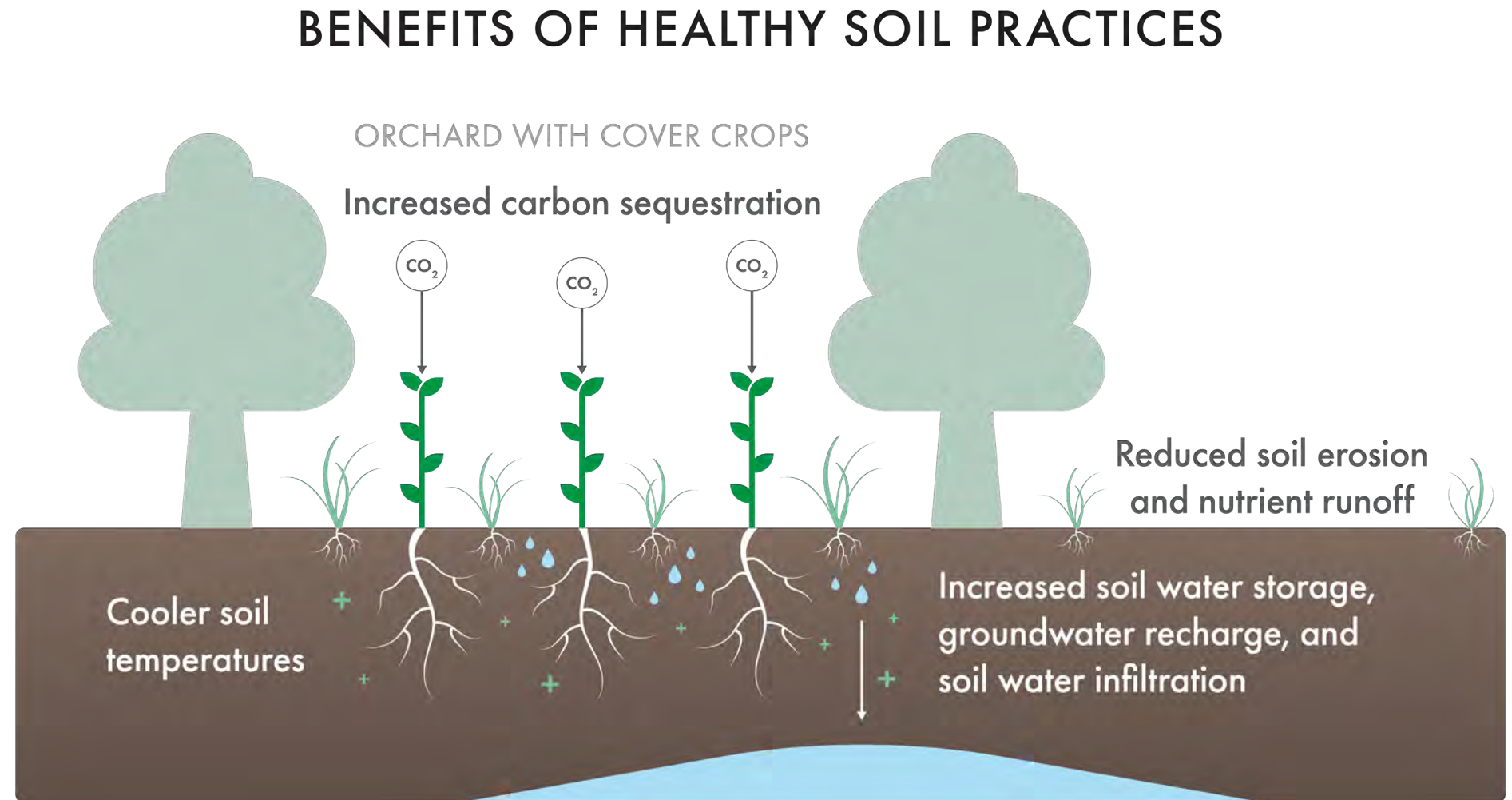
Annually, HVIP is evaluated and updated through the Low Carbon Transportation Investments and Air Quality Improvement Program Funding Plan. CARB submits a proposed funding plan for each fiscal year, seeking approval from the CARB Board. The plan is developed with input from the public and various stakeholders through multiple hearings. This process ensures that HVIP has evolved to meet the market’s needs and CARB’s goals concerning ZEV market development.

These incentives have paved the way for regulations such as the Advanced Clean Truck and Advanced Clean Fleet rules, which will further accelerate the widespread adoption and usage of ZEVs in the medium- and heavy-duty truck sector. As these regulations begin to take effect and HVIP enters its 13th year, HVIP is transitioning from its role as a bridge between demonstrations and market-ready vehicles, to instead support small business fleets and priority vehicle types. Now, HVIP is focused on supporting the deployment of zero-emission technologies in communities disproportionately impacted by pollution and increasing support for small and public fleets.

SEQUESTERING CARBON

California Climate Investments programs support various nature-based solutions that increase climate resilience while sequestering carbon and reducing GHG emissions. For example, the CDFA's *Healthy Soils Program* provides incentives for farmers adopting conservation management practices that bolster soil health. As shown in Figure 11, healthy soils practices like planting cover crops and hedgerows, applying compost, and using no-till practices can provide co-benefits to communities and the environment from reducing nutrient runoff and soil erosion to increasing soil water storage and rates of water infiltration into the soil. Projects implemented by the Healthy Soils Program over the last decade have reached over 65,000 acres and are expected to reduce GHG emissions by 518,127 MTCO₂e over their project lifetimes.

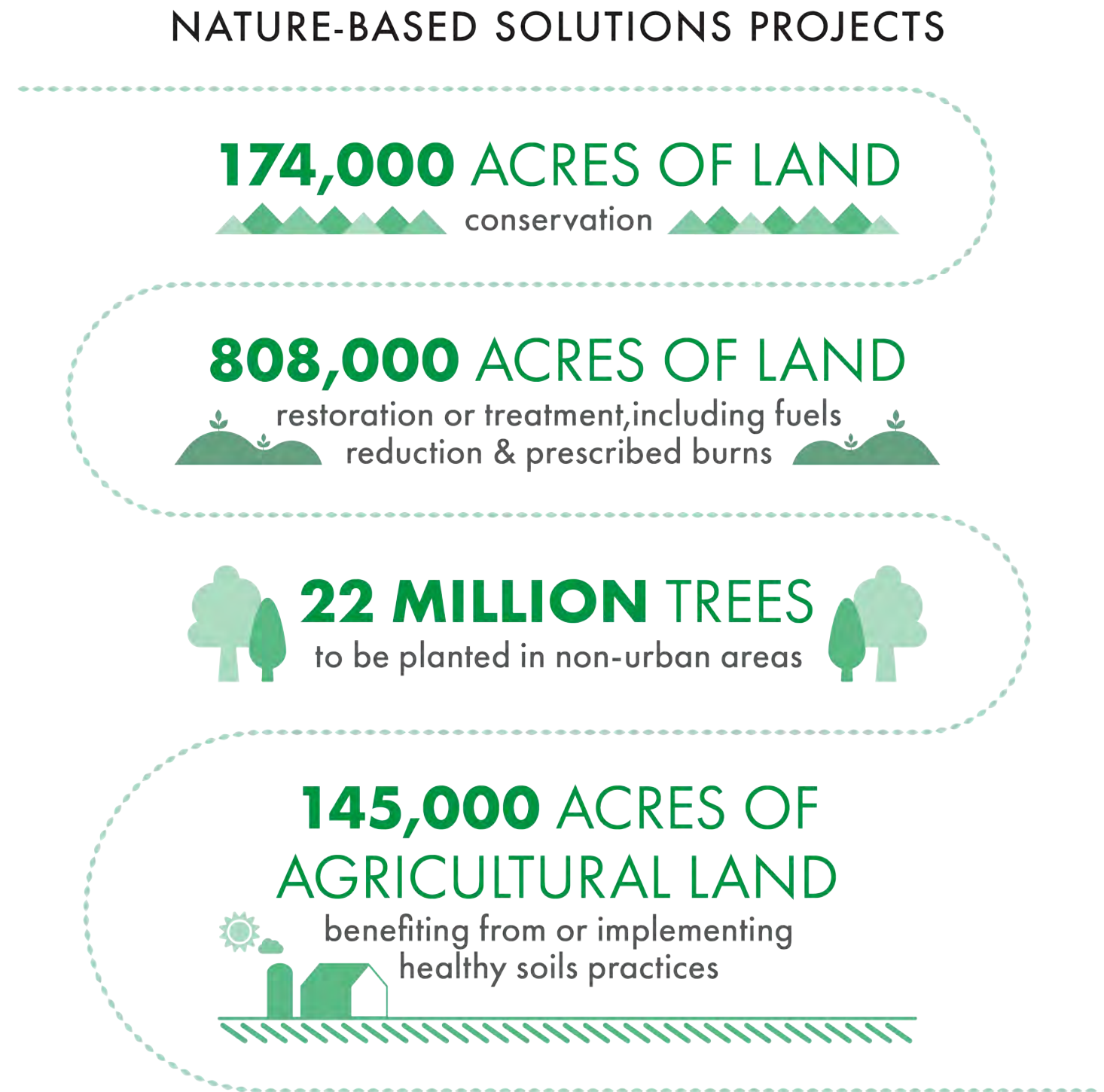
Figure 11: Benefits of Healthy Soil Practices



Similarly, California Climate Investments continue to help forest ecosystems provide critical climate mitigation services and wildfire resiliency. Examples of investments include climate-smart forest management practices, such as fuels reduction, fire reintroduction, and reforestation of degraded areas, as offered through CAL FIRE’s *Forest Health Program*. Cumulatively, the program is contributing to an estimated 20.6 MMTCO₂e in GHG emissions reductions. These emissions reductions do not include the effect of enhanced forest resilience on avoided emissions from firefighting, a substantial source of GHG emissions, nor the long-term climate benefits of avoiding conversion of forests to other ecosystem types, like shrublands or grasslands. The US Forest Service estimates that aerial fire retardant delivery alone on National Forests will emit over 24,000 MTCO₂e annually by 2029⁴⁸ (not including other machinery, water drops, nor emissions from retardant itself).

As shown in Figure 12, California Climate Investments are estimated to conserve over 174,000 acres of land, restore or treat 808,000 acres of land, and plant more than 22 million trees in wild landscapes. Additionally, urban tree canopy investments through several programs are providing public health benefits by reducing 46 tons of criteria air pollutants.

Figure 12: Cumulative Estimated Achievements from Nature-Based Solutions



48 *United States Department of Agriculture (2023), Nationwide Aerial Application of Fire Retardant on National Forest System Lands: Final Supplemental Environmental Impact Statement.*

Expected achievements over project lifetimes. Data as of November 2023.

INVESTMENTS IN ACTION

IMPROVING SACRAMENTO VALLEY SOIL HEALTH WITH WINTER COVER CROP SPECIES

Cover crops, or crops planted not to harvest but to cover the soil, are able to reduce soil erosion, increase water infiltration, improve soil health, and help mitigate climate change. However, in the Sacramento Valley, cover crop acreage remains low in the annual rotation of crops. Many growers have concerns over cover crop species and management costs, as well as uncertainty about how to effectively terminate cover crops in order to prepare the fields for cash crop planting.

In 2020, Sarah Light, agronomy advisor at the University of California Cooperative Extension, partnered with the Colusa County Resource Conservation District, Davis Ranch, Richter Ag, and the United States Department of Agriculture Natural Resource Conservation Service to apply for a CDFA [Healthy Soils Program](#) Demonstration Grant. The team received \$99,832 of grant funding to conduct a demonstration project on cover crops on two fields in the Sacramento Valley from fall 2020 to spring 2024. They aimed to show local farmers strategies for selecting cover crop species, based on the associated benefits of each species, as well as important tips for successful field-scale cover crop management. “Funding from this program strengthened our overall capacity for soil health outreach in the region that benefits growers in the Sacramento Valley,” said Light. The project has an estimated GHG reduction benefit of 15 MTCO₂e in its life span.

When in-person activity was a major challenge early in the COVID-19 pandemic, the team created a YouTube channel, “[The Soil Health Connection](#),” featuring 29 episodes in English and five in Spanish. These episodes featured soil health experts from around the state, including researchers, farmers industry representatives, technical assistance providers, and natural resource conservation agency representatives. “The collaboration was effective not only in sharing information on how to manage cover crops, but also allowed us to continue to extend knowledge and outreach during COVID, when regular in-person outreach activities were not available,” Light said.



Besides the YouTube channel, the team offered a virtual field day and a cover crop field tour early on, as well as a few in-person field days when pandemic conditions allowed. They were also able to present at local growers’ meetings and some conferences. The project team has found that sharing information about cover crops with growers directly has been very effective in breaking down barriers to implementation and encouraging growers to integrate cover crops into their agricultural production.

Liz Harper, the executive director of Colusa County Resource Conservation District, was very pleased with the project outcome. “We have had a very positive experience from this project and believe that this collaborative model is the most effective way to affect changes in our rural communities,” she said.

10 Years of Climate Investments Co-benefits

California Climate Investments programs have delivered benefits beyond GHG emissions reductions over the past decade. Beginning in 2015, CARB started tracking a growing number of co-benefits provided by California Climate Investments. As shown in Figure 13, these co-benefits are so named because they provide additional improvements to the environment, economy, and well-being of California and its residents that go beyond California Climate Investments' primary objective of reducing GHG emissions. As the scope and variety of programs supported by the GGRF has grown, so too has the list of metrics that CARB uses to assess the success of California Climate Investments. These investments save money for commuters by reducing vehicle miles traveled and improve public health by decreasing harmful criteria air pollutants like ozone and particulate matter. They support high-quality jobs to empower workers for a carbon-neutral future, and strengthen the health of our world renowned forest ecosystems with conservation easements and forest management practices. With these investments and others like them, California Climate Investments programs over the last decade have made California a safer, cleaner, and more prosperous place to live.

Learn more about California Climate Investments co-benefits by exploring the [Data Dashboard](#). See more details on [how CARB calculates these co-benefits](#).

Figure 13: Expected Project Co-Benefits

EXPECTED PROJECT CO-BENEFITS

As of November 2023

AIR QUALITY BENEFITS



3,133 Tons
Reduced Diesel
Particulate Matter



6,943 Tons
Reduced Particulate
Matter 2.5



76,716 Tons
Reduced Oxides
of Nitrogen



22,262 Tons
Reduced Reactive
Organic Gases



PUBLIC HEALTH BENEFITS

Less exposure to pollutants provides public health benefits.

1,071

Avoided premature cardiopulmonary mortality incidences in adults 30+ years

\$15.1B VALUATION

219

Avoided hospitalizations for cardiovascular & respiratory illness in adults 65+ years

\$4.3M VALUATION

984

Avoided emergency room visits for respiratory illness & asthma

\$1.3M VALUATION



ECONOMIC BENEFITS



2 Billion Gallons
Fuel Use Avoided



75 Million kWh
Electricity Savings



\$26 Billion
Travel Cost Savings

INVESTMENTS IN ACTION

HOOPA VALLEY TRIBE BRINGS FIRE BACK TO THE LAND

In the Hoopa Valley Tribe's homelands, California Climate Investments funding is helping the Hoopa Valley Tribe reintroduce fire to an important oak woodland ecosystem. The work is supported by a \$1.4 million grant from CAL FIRE's *Forest Health Program*.

The eastern side of the Hoopa Valley, on the current Hoopa Valley Reservation in what is known today as Humboldt County, has historically been home to extensive oak woodlands. Fire has always played an important role on this landscape—the people burned the hillsides for generations to maintain the oak trees and promote growth of other culturally important plants.

However, this practice ended following the colonization of California by Euro-American settlers and the subsequent disease and genocide of Native peoples, as well as colonial policies that forbade and severely punished cultural fire use. In the absence of fire, Douglas fir trees have spread into the oak woodlands, slowly altering the ecosystem and reducing habitat for woodland-dependent species.

In 2021, CAL FIRE awarded a Forest Health grant to the Hoopa Valley Tribe to help bring fire back to the landscape. Using the grant funds, the Tribe plans to burn more than 700 acres to reduce the number of Douglas fir seedlings and competing vegetation, and remove larger trees where needed. This can improve conditions for mature oaks and species that depend on the oak woodland habitat. Fire will also promote the growth of important plants for basket making.

Grant funds will additionally support the construction of two fuel breaks to reduce wildfire threats to the community. As a whole, the project is estimated to reduce GHG emissions by more than 11,000 MTCO₂e by improving the landscape's resilience to wildfire.



"We're excited to partner with the Hoopa Valley Tribe to advance many of the goals of the Forest Health Program," said Chris Poli, CAL FIRE's interim Forest Health Program manager. "The Tribe is applying beneficial fire and other treatments to restore the land, improve carbon sequestration, and protect local communities."

The project is underway, with significant portions of the fuel breaks already constructed, and site preparation work done for prescribed burning. The project is expected to be completed by spring of 2025.



PUBLIC HEALTH BENEFITS

Reducing GHG emissions in California presents important opportunities to improve public health and advance racial equity. People of color, especially Black and Hispanic/Latinx people, disproportionately reside in California communities with the highest pollution burdens and vulnerabilities.⁴⁹

Air pollution from the production and use of fossil fuels contributes to high rates of asthma, cardiovascular and respiratory diseases, cancer, and other public health effects. Research has shown that communities of color systematically experience higher exposure to criteria air pollutants, such as fine particulate matter (PM_{2.5}) from all sources and are particularly disproportionately impacted by major sources of toxic air pollutants including industrial and on-road sources.⁵⁰

Climate change impacts, such as extreme heat, wildfire smoke, and drought-related water scarcity further contribute to and exacerbate negative public health outcomes that disproportionately burden disadvantaged communities and low-income communities and households. This is especially true in communities of color.

California Climate Investments projects help improve public health outcomes through improved air quality, the physical and mental health benefits of increased access to active transportation and green spaces, reduced exposure to extreme heat, and access to healthy, fresh foods and clean drinking water. Many of these benefits are not currently quantified. However, CARB does estimate some health benefits associated with air pollutant emissions reductions for projects that have reported reductions of PM_{2.5} and NO_x.

Reduced exposure to these air pollutants can provide many health benefits. In this 2024 Annual Report, co-benefits have been expanded to include additional heart and lung health benefits, including avoided cases of nonfatal heart attack, onset of asthma cases, asthma symptoms and avoided lung cancer incidence. Improved health outcomes also provide monetary benefits from avoided emergency room trips and hospitalizations, avoided treatments for lung cancer and other diseases, and avoided premature deaths. Figure 14 displays the quantified health benefits from air pollutant emissions reductions. For the first time, estimates now also include avoided work loss days and neurological health benefits, including avoided hospitalizations from Parkinson's and Alzheimer's diseases. Health co-benefits are estimated based on reductions from all California Climate Investments projects with quantified local emission reductions, including projects from on-road mobile, off-road mobile, and stationary sources in the transportation, energy, agricultural, forestry, and waste sectors.⁵¹

49 [Analysis of Race/Ethnicity and CalEnviroScreen 4.0 Scores](#). Office of Environmental Health Hazard Assessment. 2021.

50 Apte, J. S., Chambliss, S. E., Tessum, C. W., Marshall, J.D. (2019). [A Method to Prioritize Sources for Reducing High PM_{2.5} Exposures in Environmental Justice Communities in California](#). Sacramento, CA: California Air Resources Board and California Environmental Protection Agency.

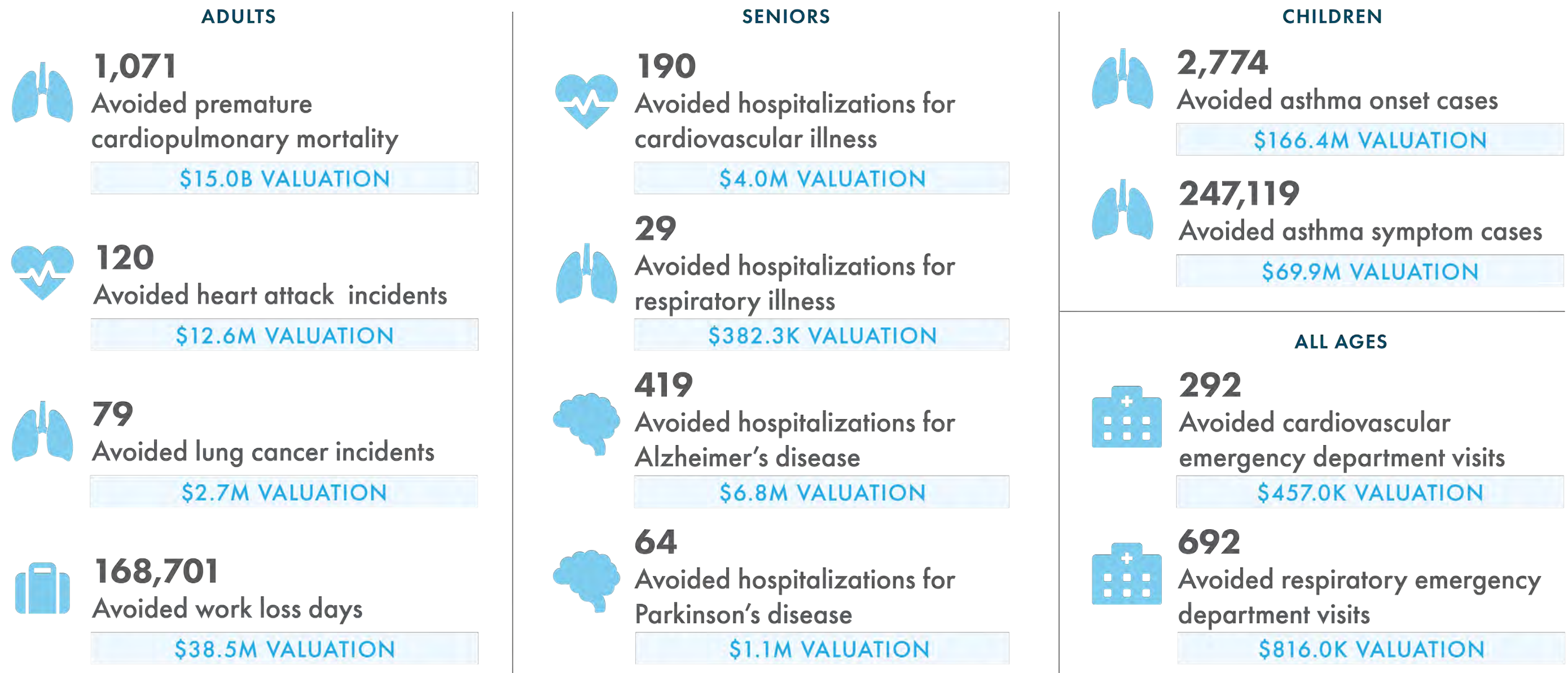
51 The [methods used to monetize the estimated health impacts](#) are the same as those used by CARB for statutorily required economic impact analyses of proposed regulations.

Figure 14: Cumulative Expected Public Health Benefits

CUMULATIVE EXPECTED PUBLIC HEALTH BENEFITS

As of November 2023

Less exposure to pollutants provides public health benefits valued at \$15.3 billion





CLIMATE RESILIENCE AND ADAPTATION

While California Climate Investments facilitate reductions to the GHG emissions that cause climate change, many California Climate Investments programs also help Californians adapt to the new realities of a changing climate. The science is clear: climate change is causing an increased risks of extreme weather events.⁵² The impacts of these events are being felt now, and urgent action is necessary to prevent the continued loss of lives and livelihoods. California Climate Investments can help communities prepare for these increasing risks through climate adaptation and building climate resilience.

The *California Climate Adaptation Strategy* defines **climate adaptation** as an action that reduces physical climate risk, and **climate resilience** as a state of readiness to face climate risks. A resilient California will have the ability to recover and capacity to support each other through future difficulties brought on by the changing climate. Read through the examples below to see how California Climate Investments help individuals, communities, and ecosystems adapt to this new reality.

⁵² *California's Fourth Climate Change Assessment (2019)*

Low-Income Weatherization Program: Climate change is already causing unprecedented heat waves, and these events are forecast to become more frequent as global temperatures continue to increase. Extreme heat worsens many existing health problems including heart disease, and air conditioning represents a major household expense for low-income and disadvantaged people who spend a large share of their income on home energy costs. The California Department of Community Services and Development works to increase resilience to extreme heat by funding energy efficiency upgrades for qualifying low-income households. Upgrades such as replacing insulation and installing electric heat pumps can dramatically reduce energy costs while improving comfort.

The *Low-Income Weatherization Program* also funds installation of rooftop solar photovoltaic systems, which generate clean power and shade rooftops from direct sunlight. When a region experiences extreme heat, demand on the electric grid can spike suddenly and raises the risk of unexpected power outages. Not only do solar panels reduce energy consumption from the grid, but they also reduce a household's energy expenses and can help power electricity needs during a power emergency. Energy efficiency measures paired with solar systems offer vital help for low-income households adapting to extreme heat by reducing their energy costs while contributing to the resilience of electrical grids.



Affordable Housing and Sustainable Communities and Transformative Climate

Communities Programs: The SGC's *Affordable Housing and Sustainable Communities* (AHSC) and *Transformative Climate Communities* (TCC) programs fund affordable housing and transportation infrastructure to provide Californians with affordable, secure housing in well-connected locations.

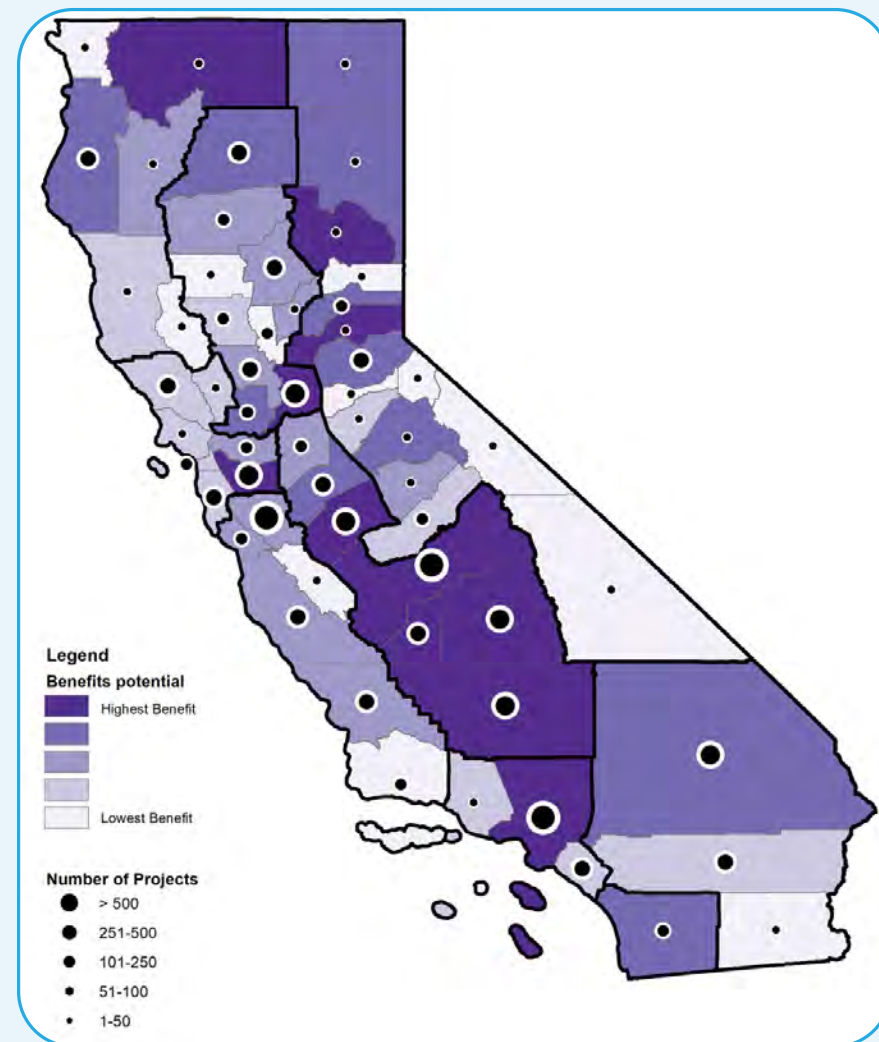
Together, these two programs have constructed a total of 12,606 housing units to-date. Beginning with the Round 7 AHSC Guidelines of 2022, all new housing funded by these programs must be fully electrified. Additionally, both programs require projects to enhance connectivity to public transit, bike and pedestrian infrastructure, and green spaces, which they accomplish by providing funding for transportation capital improvements, transit and mobility vouchers, and urban greening activities. Affordable housing supports residents' economic resilience, while proximity to key destinations like parks, healthcare services, grocery stores, and schools reduces dependency on automobiles. Urban greening contributes to an urban environment less prone to dangerous heat waves and also contributes to reducing air pollutants such as particulate matter, protecting the health of the most vulnerable Californians.

Climate Ready Program and Wetlands

Restoration: The California coast faces unprecedented impacts from a changing climate including rising seas, coastal erosion, severe storms, and associated flooding. The California State Coastal Conservancy's *Climate Ready Program* supports projects that focus on the resilience of natural coastal environments to protect the communities, cultural and recreational sites, and residents who call the region home. In 2023, the Climate Ready Program funded restoration of degraded beachside sand dunes in multiple areas, which stabilizes the beach and slows coastal erosion. Climate Ready also funds restoration of wetlands, which builds wetlands back to an elevation above the high tide line and protects the wetland from sea level rise. Coastal wetland and dune restoration projects are often undertaken simultaneously to ensure that coastal habitats can be restored to a healthy, natural baseline. Other agencies, such as the California Department of Fish and Wildlife, have also funded projects to restore wetlands throughout the state, protecting communities against flooding, reducing water pollution, and providing habitat for a multitude of species, including migratory birds, amphibians, and commercially important fish. Also in 2023, the Climate Ready Program funded conservation in an ecologically sensitive area of the Elk River watershed, protecting the estuary's natural ability to mitigate coastal flooding brought on by major storms. All of these actions ensure that coastal communities remain resilient and can naturally adapt to the new reality of rising seas.

ECOSYSTEM SERVICES

The benefits of California Climate Investments projects extend well beyond GHG emissions reductions. Many projects contribute to ecosystem services, or the benefits that healthy functioning ecosystems provide to improve the well-being of California residents and communities, as well as the economy. These projects enhance California’s agricultural land, forests, wetland, and urban spaces, in addition to improving water use and reducing waste and woodsmoke pollution.



CARB worked with *Industrial Economics, Inc. (IEc)* to identify and measure the many diverse ecosystem service benefits supported by California Climate Investments projects, with an emphasis on nature-based solutions. The resulting [report](#) identifies over 7,800 California Climate Investments projects implemented between 2015 and 2020 across 12 project type categories that improve environmental quality and ecosystem health.

For each relevant type of project, IEc mapped the activities supported by California Climate Investments to match with changes in environmental conditions. For example, certain projects administered by CDFA encourage farming practices that increase soil organic matter. Soils with higher levels of organic matter are less vulnerable to erosion, and this reduces the need to treat stormwater. The IEc report is therefore able to quantify the magnitude of avoided water treatment costs associated with improved farming practices promoted by California Climate Investments projects.

The magnitude of ecosystem service benefits varies considerably by project and benefit type. For the 4,900 projects administered by the California Department of Water Resources and others that replace domestic water appliances, the report estimates 1.5 billion gallons of water saved annually, valued at \$12 million each year over the lifespan of the projects. Various California Climate Investments programs administered by CAL FIRE and the California Natural Resources Agency have planted over 84,000 trees in urban areas, and the

expanded tree canopy will reduce energy costs for air conditioning by approximately \$3.3 million per year by the time the trees reach maturity. The benefits evaluated in the IEc report demonstrate how California Climate Investments fund climate projects that can help families and businesses save money in their day-to-day lives while improving the environment and reducing GHG emissions.

These are only a few of the ways that the IEc ecosystem services study uses California Climate Investments project data and well-established ecological and economic models and methods. In total, the report evaluates over 30 ecosystem services and describes several other types of benefits qualitatively. As this analysis shows, investing in climate mitigation projects not only helps combat climate change but also safeguards vital ecosystem services. These projects simultaneously improve quality of life for Californians, boost local economies, and ensure a more resilient future for communities across the state. The report provides meaningful analysis that can be a valuable resource to learn more about ecosystem benefits provided by California Climate Investments programs. [Download and read the fact sheet, individual chapters, or full report.](#)

California Climate Investments funding was used to launch the implementation



of Redwoods Rising in late 2019, when CAL FIRE awarded a \$7 million Forest Health grant to Save the Redwoods League. The partnership has since secured funding from a variety of federal, state, and private sources. Partner organizations are accomplishing forest restoration goals primarily through variable density thinning, which involves removing some small trees to redistribute growth among the remaining trees. This accelerates the development of old-growth forest characteristics. Some trees removed from the project site are transported as logs to local sawmills, and the revenue generated from their sale is reinvested in the project. Redwoods Rising has already made impressive progress toward its longterm goals. At a fifth anniversary event in late 2023, the partnership announced that it had completed forest restoration work on 3,200 acres in the Mill Creek and Prairie

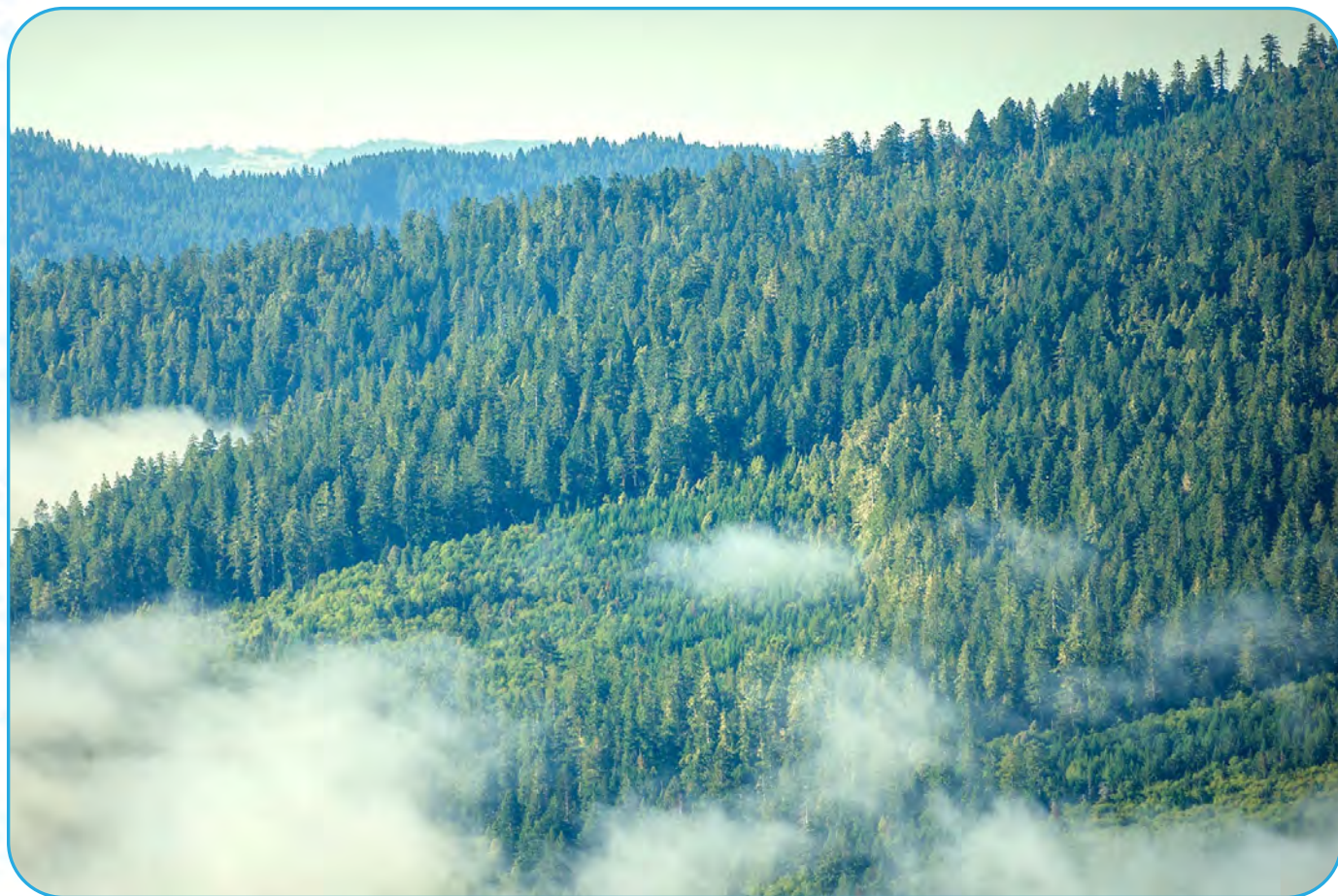
INVESTMENTS IN ACTION

AMBITIOUS PARTNERSHIP DELIVERING THE NEXT GENERATION OF OLD-GROWTH REDWOOD FORESTS

Old-growth redwood forests store more above-ground carbon than any other forest type on Earth. Unfortunately, only 5% of old-growth redwood forests survived extensive colonial logging in the 19th and 20th Centuries. Now, thanks in part to California Climate Investments funding awarded through CAL FIRE's *Forest Health Program*, a partnership is working to establish the old-growth forests of the future on California's northern coast.

Redwood National and State Parks, in Humboldt and Del Norte counties, contain nearly 80,000 acres of second-growth forest. These lands were heavily logged, indiscriminately reseeded, and fragmented by roads and stream crossings before they were designated as national and state parks. Because of this history of colonial resource extraction, the forests are now unhealthy and overgrown, making them susceptible to pests and wildfire. Abandoned roads throughout the parks continue to damage creeks and harm threatened and endangered fish species.

In 2018, Save the Redwoods League joined the National Park Service and California State Parks in an ambitious effort called Redwoods Rising. Together, the partners are working to rehabilitate more than 70,000 acres of second-growth redwoods and remove 300 miles of roads over the next 30 years. Their goal: to set previously logged areas back on a trajectory towards old-growth conditions and create landscapes that will be resilient in the face of climate change. In time, these restored ecosystems will provide the carbon sequestration, habitat, and cultural benefits of existing old-growth forests.



Creek watersheds, plus the removal and reforestation of 25 miles of roads. Most of the work to date was accomplished under the California Climate Investments grant.

CAL FIRE estimates that the initial grant-funded treatments will sequester more than 84,000 MTCO₂e over the project lifetime thanks to more vigorous tree growth and improved resilience to wildfire. The restored forests will also provide enhanced habitat for a variety of sensitive wildlife species.

Redwood National and State Parks superintendent Steve Mietz referred to the project as “the audacity of optimism” during the fifth anniversary event. “Facing the seemingly insurmountable challenges of climate change, wildfires, and tens of thousands of acres of unhealthy, second-growth redwood forests, parks staff and partners pulled together to form a public-private partnership that has engaged this monumental effort with grit and determination to achieve goals that could never be accomplished alone,” he said.

Beyond its climate and biodiversity benefits, Redwoods Rising is also investing in the regional economy. The project provides direct employment, including for residents of nearby low-income communities, and supports mills in the region through the sale of timber removed from the forest. The Redwoods Rising Apprenticeship Program gives students from Humboldt State University and College of the Redwoods hands-on field experience to build the next generation of environmental scientists and stewards.

Redwoods Rising partners are prepared to continue this ambitious work. Another 43,000 acres are ready for restoration work, having met environmental permitting requirements. CAL FIRE awarded another Forest Health grant, this one providing General Fund dollars, to Save the Redwoods League in 2022, which will fund restoration work on nearly 2,000 more acres through 2025.

“The early and continued success of Redwoods Rising is based on building and maintaining relationships with regulatory agencies as well as the community,” said California State Parks North Coast District Superintendent Victor Bjelajac. “By consulting with regulatory agencies, the Redwoods Rising initiative has demonstrated the benefits of programmatic permitting and compliance to increase the pace and scale of restoration efforts.”

INVESTMENTS IN ACTION

FULLY ELECTRIFIED HOMELESS SHELTER RUNS ON SOLAR

The 40 Prado Road Homeless Services Center, a shelter located in San Luis Obispo, serves up to 100 occupants at a time. While it was built in 2018 under the 2013 Energy Code and met energy efficiency standards of the time, it was under the *Low-Income Weatherization Program* (LIWP) that the shelter was able to become even more energy efficient, adding a 120-kilowatt solar system and other energy efficiency measures thanks to California Climate Investments funding. The success at this property—the first homeless shelter to receive funding under LIWP—has paved the way for many similar properties across the state to also receive funding.

The shelter at 40 Prado Road received over \$420,000 in funding to reduce operating costs and building energy use. These installations have a vital impact on the individuals that live and work there. The new solar photovoltaic panels installed at the property are expected to reduce operating costs and offset building energy use by around 46%. Other upgrades included the installation of heat pump water heaters to increase energy efficiency, as well as an insulated recirculation pump for the shelter’s domestic hot water heaters. Recirculation pumps save energy and water by redirecting cold water sitting in the pipes back to the heater until the desired temperature is reached, then moving it directly to the faucet or showerhead. The recirculation pump alone will save over 32% in energy costs.

While the property is still in the final closing stages of these retrofits, more than 140,000 kilowatt-hours in energy savings have been achieved so far, along with GHG emissions reductions of more than 67 MTCO_{2e}. This is the epitome of LIWP’s mission: to reduce GHG emissions and generate renewable power while lowering energy expenses for low-income households in California.



The combined installation of the heat pump water heaters, recirculation pump, and solar photovoltaic system will improve the overall energy and cost efficiency of the property, with the new solar photovoltaic panels providing an estimated \$30,000 per year in energy savings. By freeing up funds that would otherwise go towards energy operating costs, these retrofits will give the Community Action Partnership of San Luis Obispo (CAPSLO), which operates the shelter, the ability to redirect resources to help more people needing shelter.

“It’s going to reduce the overall [Operations] budget, and create funding that we haven’t had since 2018 to help support our guests that stay here, and upkeep on the facility in general, and that’s a win,” said Elizabeth “Biz” Steinberg, CAPSLO’s Chief Executive Officer.

In addition to 24/7 services, 40 Prado Road serves as a Warming Center for the City of San Luis Obispo when the weather is cold or wet.

SUPPORTING WORKFORCE DEVELOPMENT AND EMPLOYMENT OPPORTUNITIES

Workforce development is a key component of the strategy to meet California's carbon neutrality goals. The shift towards clean energy, clean transportation, improved mobility, affordable housing, and sustainable land use presents an opportunity to implement high road employment practices while facilitating GHG emissions reductions. The high road approach to workforce development emphasizes increasing the value of workers and promoting wages at or above the median, which ensures workers thrive both in the workplace and at home. California Climate Investments supports this high road approach by investing in projects that prioritize best-in-class employers, establishing partnerships with training programs and academic institutions, and providing employment opportunities that uplift priority populations.

California Climate Investments encourages a high road approach for all jobs funded through its investments, and supports workforce development in several ways:

- Programs provide funding for workforce training projects;
- Projects directly employ people for project development, implementation, and maintenance;
- Programs support indirect jobs in California industries that supply the goods and services needed to implement projects; and
- Programs indirectly add jobs throughout the California economy by generating additional household demand for goods and services.



While workforce policy guidelines have been a longstanding and important component of California Climate Investments policies, they are being strengthened in response to AB 680. This bill requires certain programs to integrate high road employment practices, including diverse and targeted hiring, compliance with applicable labor laws, payment of regionally competitive wages, and continued training opportunities to support career mobility. California Climate Investments encourages these high road practices across the portfolio.

Over \$72.6 million has been invested through the dedicated workforce training programs listed below to support employment and training opportunities for priority populations:

- The California Conservation Corps' [Training and Workforce Development Program](#) employs and trains young adults to implement forest fuel reduction, habitat restoration, and energy efficiency projects.
- The CEC, in partnership with CARB, administers the [IDEAL ZEV Workforce Pilot](#), which provides workforce training to support zero-emission vehicles, technology, and infrastructure in California with a focus on priority populations. Funded projects demonstrate community and employer engagement and create pathways for participants towards clean transportation jobs in California.
- The California Workforce Development Board's [Low Carbon Economy Workforce](#) program supports sector-based regional partnerships, research and development of workforce programs, planning for the transition to a low-carbon economy, and regional economic and workforce planning.

Alongside these investments, other California Climate Investment programs also support a suite of projects that provide workforce development and employment opportunities.

Jobs Reporting

California Climate Investments programs report on jobs-related metrics in two ways:

- All programs report the modeled number of jobs, which are estimates of the direct, indirect, and induced jobs a project may support.
- Programs report on employment outcomes for a subset of projects. Employment outcomes reflect the actual jobs supported by California Climate Investments dollars.

Modeled Jobs

The number of jobs is modeled using a [CARB-created methodology and calculator tool](#). This methodology uses information about general project expenses and known relationships between various economic sectors to estimate the number of direct, indirect, and induced jobs supported by California Climate Investments projects.

Directly Supported Jobs

Labor needed to complete work for a California Climate Investments project (e.g., housing construction, ecosystem restoration).

Indirectly Supported Jobs

Labor related to the supply chains that support projects. Funding a project generates demand for materials and equipment to complete the project, leading to expanded production and employment in upstream industries (e.g., manufacturing construction equipment, zero-emission vehicle parts, solar panel components).

Induced Jobs

Labor related to the spending of income from directly and indirectly supported jobs which in turn stimulates demand for goods and services in the wider California economy.

Since CARB began collecting these data in 2019, California Climate Investments has awarded funds to projects that have supported over 116,000 direct, indirect, and induced jobs. Over 28,000 of those jobs are attributable to funds implemented in 2023. However, it should be noted that there are limitations to this model. While it provides general estimates of the direct, indirect, and induced jobs, this model cannot estimate when these jobs will occur or how long the jobs will last, as there are differences between temporary construction jobs and permanent implementation or maintenance positions.

Cumulative Modeled Jobs

58,000+

directly supported jobs

21,000+

indirectly supported jobs

36,000+

induced jobs

INVESTMENTS IN ACTION

FUNDING ZEV WORKFORCE TRAINING AND CAREER DEVELOPMENT FOR PRIORITY POPULATIONS

San Joaquin Valley transit agencies are working to electrify their fleets as California continues to provide incentives and regulations that move ground transportation toward increased use of ZEV. As this transition advances, demand for automotive service technicians to work on these vehicles and support ZEV infrastructure will continue to increase.

Through the *IDEAL ZEV Workforce Pilot Project* administered by the California Energy Commission and co-funded by CARB, Fresno City College has offered three high schools in Fresno County the opportunity to introduce their automotive students to ZEV technology. Training was provided in December 2023 for high school teachers at each of the three schools, and they were provided with tools and equipment to offer the new ZEV curriculum starting in spring 2024. The partnership will also open up opportunities for dual enrollment at these high schools in the near future, establishing a pipeline into the Fresno City College course offerings, as well as the college's certificate in ZEV technology.

"It is imperative that we look toward future trends and industry and look for ways to be innovative in order to meet the demands of our future workforce," said Dean Becky Barabé, who oversees the Fresno City College Automotive Technology program. Without incorporating ZEV training into the existing training programs available at community colleges and high schools, there will not be enough ZEV technicians to meet the increasing demand within the transportation industry.



In addition to partnering with local high schools, Fresno City College is working with local businesses and municipalities. In partnership with Valley Clean Air Now, the college is working to introduce ZEV training to those local business and municipality employees working with or expected to work with electric fleet vehicles.

The marketing and recruiting campaign for these ZEV workforce training programs is well underway, as Fresno City College has prepared and posted flyers about their Advanced Technology Vehicle and dual enrollment programs. Faculty and staff have also presented information about these program options at the 2023 Career Skills Challenge tabling event in Fresno, the 2023 World Ag Expo, and local car shows throughout the San Joaquin Valley. With the completion of the high school teachers' training, Fresno City College is focusing on final Memoranda of Understanding with the three high schools for their dual enrollment program.



Employment Outcomes

Administering agencies report employment outcomes for jobs paid through the project. Employment outcomes include the number of full-time equivalent jobs, as well as other metrics like wages, retirement benefits, and the percentage of jobs funded for priority populations. While the modeled jobs presented in the previous section represent an estimate of the jobs supported by all California Climate Investments projects, administering agencies are required to also report information on actual employment outcomes for a subset of projects. Modeled jobs are based on estimates of industry-level relationships and do not consider specifics about the project's implementation. Furthermore, agencies cannot measure indirectly supported or induced jobs from individual projects and do not include those metrics as part of employment outcomes reporting.

Administering agencies are required to submit employment outcomes information for any project that exceeds one million dollars or uses the [jobs training benefit criteria table](#). This benefit criteria table can be used by administering agencies to claim priority population benefits when the project provides high-quality jobs or job training. Many California Climate Investments programs have projects that meet the reporting criteria, and several other programs that do not meet these criteria choose to report employment outcomes to document project benefits.

Cumulatively, agencies have reported the equivalent of 29,858 full-time jobs associated with implemented projects. Additional information about employment outcomes from individual California Climate Investments programs can be found on their respective program pages. As only a subset of projects are required to submit employment outcomes information, totals presented here and on the [California Climate Investments website](#) tend to understate the true employment outcomes achieved by California Climate Investments.

INVESTMENTS IN ACTION

THE HIGH-SPEED RAIL PROJECT PROGRESS OVER THE LAST DECADE

Funded in part by California Climate Investments, the *High-Speed Rail Project* has made investments to contribute to economic development and a cleaner environment, support jobs, and conserve and protect agricultural lands. Implementation of the *High-Speed Rail Project* provides a variety of benefits to Californians. Estimated GHG emissions reductions from the High-Speed Rail Project are 84 to 102 MMTCO₂e over its first 50 years of operating life, as detailed in the *2023 California High-Speed Rail Sustainability Report*.

The California High-Speed Rail Authority (Authority) is responsible for planning, designing, building, and operating the nation's first High-Speed Rail system that will connect the mega-regions of the state. When complete, it will be capable of running from San Francisco to the Los Angeles basin in under three hours at speeds of over 200 miles per hour, providing a clean alternative to driving or flying.

Examples of progress made over the last decade of investments include:

Grade Separations

Grade separations are one of the most significant investments the Authority is making to improve rail safety. In the Central Valley, the high-speed rail system will be fully grade separated, which is essential to safety because of the speeds at which the trains will travel. These new overpasses also allow traffic to travel over the future high-speed rail lines. Grade separations also produce environmental and economic benefits, including reduced GHG emissions and air pollution from idling vehicles and reduced noise due to decreased need for audible signals. To date, 18 overcrossings and grade separations have been completed resulting in critical safety benefits for communities.

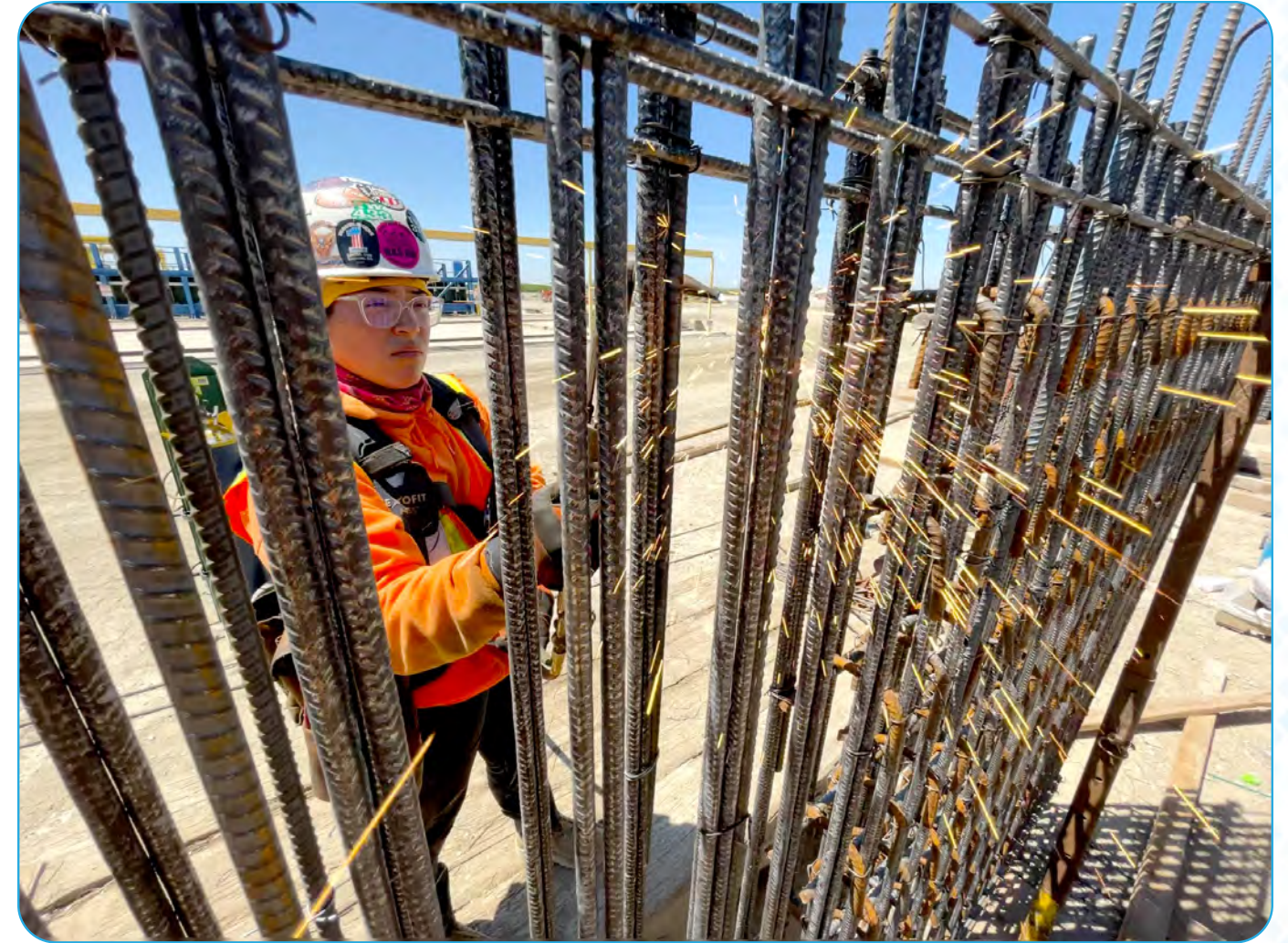


Caltrain Electrification Project

The Authority is delivering benefits now through investments in regional rail systems, creating an integrated rail network that will offer an attractive alternative to road and air travel. The Authority contributed \$714 million, including GGRF and other funding sources, towards the Caltrain Electrification Project, which is modernizing the corridor between San Francisco and San Jose and will be used jointly by Caltrain and High-Speed Rail. The Caltrain Electrification Project provides immediate benefits to the adjacent communities by improving the Caltrain system performance and by reducing noise, improving air quality, and lowering GHG emissions. In June 2023, the project successfully tested the first electric trains on the corridor, with electric passenger service scheduled for fall 2024.

Construction Progress

The Authority continues to make significant progress on the first 119 miles of construction. At the end of 2023, more than two-thirds of contracted construction is complete, including completion of utility relocations, track bed, viaducts, road over- and under-passes, wildlife crossings, and pedestrian walkways. As of September 2023, over \$775 million including GGRF and other sources have been expended on small and disadvantaged businesses. Within those businesses, the Authority's [Community Benefits Agreement](#) contains a Targeted Worker Program that ensures that 30% of all project work hours are performed by National Targeted Workers, and at least 10% of those work hours are performed by Disadvantaged Workers, including veterans.⁵³ Analysis by the Authority in the [2024 Business Plan](#) shows that 70% of construction jobs have been filled by individuals in disadvantaged communities.



⁵³ A Targeted Worker is an individual whose primary place of residence is within an Economically Disadvantaged Area or an Extremely Economically Disadvantaged Area in the United States. A Disadvantaged Worker is an individual who meets the income requirements of a Targeted Worker, and faces other barriers to employment (e.g., being a veteran, lacking a GED or high school diploma, experiencing homelessness).

Expenditures and Investments

As of November 2023, the High-Speed Rail Project has been appropriated \$6.5 billion from the GGRF. Of the total projected Phase 1 (San Francisco to Los Angeles/Anaheim) cost of \$106.2 billion, the Authority has a funded Expenditure Authorization of \$20.0 billion. Including future projected GGRF revenues through 2030, California Climate Investments will have provided approximately 40% of the overall funds allocated to fund the Expenditure Authorization budget, with a significant portion of funds leveraged from other sources, including a \$3.1 billion grant from the U.S. Department of Transportation in December 2023. Cumulatively, the High-Speed Rail Project has expended \$3.5 billion of appropriated GGRF funds toward project completion. See the California High-Speed Rail Authority's [2024 Business Plan and technical reports](#) for more information on methodologies, expenditures, and funding.

The Authority estimates that, from July 2006 through June 2023, 58% of total project expenditures, including GGRF and other sources, has occurred in disadvantaged community census tracts. These estimates were obtained using a different methodology than other California Climate Investments programs. For more information on the methodology, see the [Economic Impact of California High-Speed Rail 2024 report](#).

Total project expenditures have supported direct, indirect, and induced jobs in the California economy, over half of which are located in the Central Valley. These economic impacts have already taken place and do not consider the many future benefits once operations commence and the program delivers greater accessibility and station-area connectivity, reduced highway congestion, and travel time savings.



EXTENDING THE IMPACT OF FUNDING

Across jurisdictions, regions, and industries, California Climate Investments programs are making the most of public dollars by expanding access to programs through tailored outreach, engagement, and technical assistance; leveraging additional funding; and fostering new collaborations.



Increasing Access to California Climate Investments OUTREACH AND ENGAGEMENT

Outreach and engagement activities are crucial to achieving priority populations investment minimums and advancing equitable participation in California Climate Investments. In recognition of this, administering agencies have taken efforts to increase public awareness of their funding opportunities, adopted measures to make it easier for organizations serving priority populations to apply for funding, and increased efforts to engage and support communities during the many stages of project design, development, and implementation. In 2023, agencies continued to take actions to increase access to California Climate Investments, including providing technical assistance and accessible and translated materials, in addition to collaborating with diverse audiences through virtual meetings, public comment

periods, and peer learning workshops. As shown in Figure 15, California Climate Investments reached over 137,500 participants through 323 events.

The [California Climate Investments website](#), social media channels ([Facebook](#) and [Twitter/X](#)), and [newsletter](#), offered in English and Spanish, continue to serve as essential outreach tools for building awareness of programs and funding opportunities. Throughout 2023, the Lee Andrews Group provided critical support for these outreach efforts through a contract with CARB. The Lee Andrews Group is partnering with CARB to implement new outreach and engagement strategies that more effectively welcome the participation of all Californians in California Climate Investments. Some 2023 outreach milestones include:

- Conducting a statewide analysis of common needs and barriers, which has been used to shape ongoing outreach strategies;
- Engaging over 5,000 interested parties through digital media; and
- Creating bilingual outreach materials and public-facing documents.

Figure 15: 2023 California Climate Investments Outreach by the Numbers



323 EVENTS



OVER 137,500 PARTICIPANTS



53% OF EVENTS FEATURING REMOTE PARTICIPATION



PARTNERING WITH ORGANIZATIONS TO BUILD KNOWLEDGE OF NEEDS AND BARRIERS TO STATE FUNDING

Developing tailored outreach and community engagement plans and activities is key to ensuring that priority populations can access and benefit from California Climate Investments. In collaboration with the Lee Andrews Group, California Climate Investments worked in 2023 to develop outreach and engagement approaches that can increase access to funding for historically underserved areas or areas experiencing high needs. As part of this effort, California Climate Investments and the Lee Andrews Group are currently partnering with three community-based organizations and one tribe to assess funding needs and barriers and develop outreach and engagement plans. These partnerships, which are ongoing through 2024, aim to strengthen local knowledge of state funding opportunities and build California Climate Investments' understanding of community-specific needs and barriers around state climate programs. These partnerships were formed in areas that ranked highly for pre-determined equity factors, such as being pollution-burdened, climate-impacted, access-limited (e.g., linguistically isolated, limited internet access), or sovereign. Areas that have received a historically low share of California Climate Investments funding were also considered.

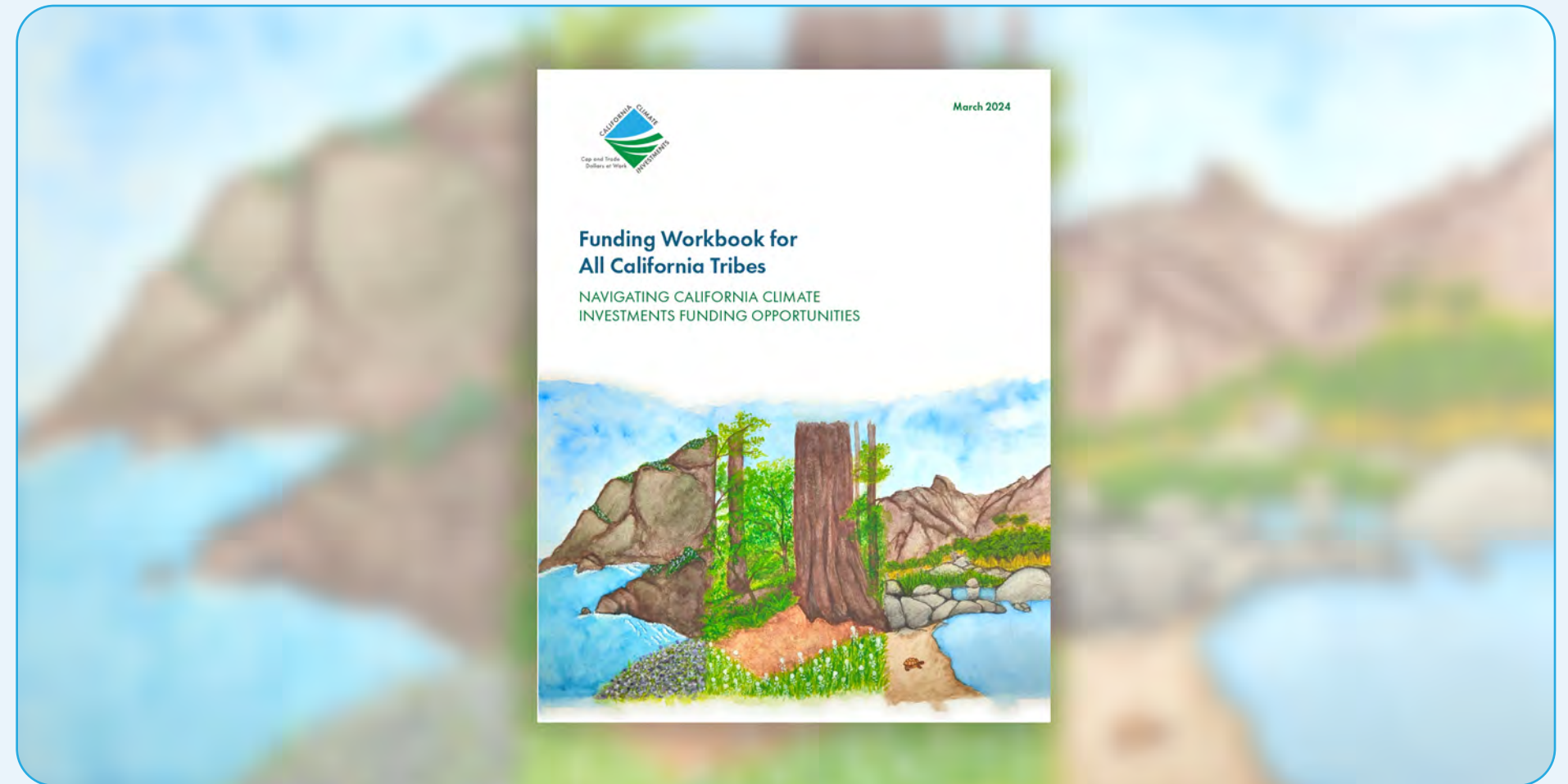
Work commenced in early 2023 with a series of nine in-person and hybrid workshops led by each organization and attended by local organizations, community leaders and residents, local businesses, and more. Following the workshops, each partner drafted needs and barriers reports and outreach plans, with support from California Climate Investments and the Lee Andrews Group. In 2024, these partnerships will continue with implementation of the outreach plans and evaluation of how these outreach approaches can be translated to other communities across the state facing similar barriers. Lessons learned from these efforts will be shared with administering agencies to 1) support information sharing on barriers and needs in each area, 2) support information sharing on how outreach and engagement can be tailored to better serve areas facing similar challenges, and 3) facilitate adoption of engagement approaches.

THE FUNDING WORKBOOK FOR ALL CALIFORNIA TRIBES

California tribes make up a key part of the broader California community and are among the populations prioritized by California Climate Investments. However, tribes face a unique set of barriers in accessing state climate programs that result from historic oppression, limited state and federal support, and limited capacity and resources, among other issues. Still, tribes navigate these barriers with resilience and develop priorities to best serve tribal members and preserve tribal culture.

California Climate Investments developed and launched a new resource fully tailored to tribes called the *Funding Workbook for All California Tribes* (Funding Workbook) in 2024. The Funding Workbook is an interactive physical workbook that walks tribes through:

- Identifying programs within the California Climate Investments portfolio that fund projects that align with tribal needs and priorities, including specific tribal cultural preservation priorities;
- Assessing program fit by describing program details of particular importance to tribes; and
- Determining next steps for tribes or tribal members to learn more and potentially begin an application process.



Throughout 2023, California Climate Investments staff sought out perspectives from tribes on questions ranging from their priorities when assessing fit for a state program, their experiences as grantees of state programs, and the barriers that prevent them from obtaining key information. The idea of creating a Funding Workbook came about as a response to what California Climate Investments staff have learned from tribes. California Climate Investments also sought out early feedback from the California Environmental Protection Agency’s Tribal Advisory Committee, who voiced their support for this resource.

No prior experience with California Climate Investments is needed to use the workbook, and the resource was created with first-time users in mind. The workbook is meant to be completed in whichever way the user would like, whether that is as a self-paced individual exercise, as a group activity, or with the support of California Climate Investments staff. The Funding Workbook is meant to serve all tribes, regardless of federal recognition, and inclusion was a priority in developing the resource.

California Climate Investments staff will be launching a series of engagement efforts to share the Funding Workbook and provide support to tribes as they explore this new resource. [Learn more.](#)

LEVERAGING FUNDS

Most California Climate Investment projects are not funded solely by GGRF dollars. These projects leverage additional funding that extends the reach of state funds and helps programs broaden the reach of California Climate Investments by increasing the overall number of projects that could be funded by the GGRF and increasing the scale of individual projects. Administering agencies are asked to report on total project costs throughout project implementation, including leveraged funds. In 2023, the total project costs were reported for \$1.6 billion of the total \$1.7 billion in implemented projects. The total costs for those projects were reported as \$19.8 billion. This means that in 2023 alone, those projects leveraged an additional \$18.2 billion in funding from other sources. Cumulatively, of the \$11.0 billion GGRF dollars spent on implemented projects, reported total project costs have leveraged an additional \$81.6 billion from other sources. [Appendix C: Cumulative California Climate Investments Leveraged Funds](#) provides more detail at the program level.

While the amount of leveraged funds is an important metric, securing match funding can be a barrier for communities that have limited access to additional funding sources. In some cases, California Climate Investments programs have responded to this issue by removing requirements for projects that provide benefits to priority populations to secure match funding, or by allowing resource contributions instead of matching funds.






Engage with California Climate Investments


Stay engaged with California Climate Investments throughout the year. Visit the [California Climate Investments website](#) to view the latest information about individual programs, projects, and California Climate Investments.

Follow California Climate Investments on social media to learn about funding opportunities, hear program updates, and more:

 [@CAClimateInvest](#)

 [@CAClimateInvest](#)

 Subscribe to the [quarterly newsletter](#) and [Listserv](#) to stay up to date on current news and opportunities to engage and provide comments.

 [Public events calendar](#): Learn about upcoming workshops, technical assistance events, and application deadlines.

Learn about open funding opportunities available to you by visiting [California Climate Investments Programs](#).

Contact California Climate Investments:

1-800-757-2907 | info@caclimateinvestments.ca.gov

APPENDICES



Appendix A: 2023 Cumulative Statistics

The table below includes cumulative summary statistics for each California Climate Investments program, detailing funding status, intermediary administrative expenses, amount of funding benefiting priority populations, expected GHG emissions reductions, and number of implemented projects. Reporting statistics at the program level provides opportunity for greater transparency and detail across a wide variety of program and project types. With the exception of expenses associated with intermediary (i.e., third-party) administrators or where the program itself is implemented using administrative funds, administrative expenses incurred by state agencies are not included in this table. For state agency administrative expenses, see [Appendix B: Cumulative Budgetary Expenditures](#) for more resolution. Additional summary statistics on every California Climate Investments program are also available on the [California Climate Investments website](#).

Administering Agency	Subprogram	Cumulative Funding Status (\$M)				Benefiting Priority Populations ⁵⁴		Implemented Projects		
		Allocated	Awarded ⁵⁵	Implemented	Intermediary Administrative Expenses ⁵⁶	(\$M)	%	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects
California Air Resources Board	AB 617 Implementation Funds	\$190.0	\$90.0	\$40.0	\$40.0	TBD		₅₇	–	–
	Community Air Grants	\$50.0	\$25.0	\$25.0	–	\$23.7	95%	₅₇	–	95
	Community Air Protection Incentives	\$1,369.0	\$1,195.7	\$588.8	\$77.2	\$483.2	94%	251	\$2,347.6	5,258
	Statewide Mobile Monitoring Initiative	\$27.0	This program has not yet awarded or implemented funds.							
	Fluorinated Gases Emission Reduction Incentives	\$11.0	\$1.0	\$1.0	–	\$0.0	0%	37	\$27.2	15
	Funding Agricultural Replacement Measures for Emission Reductions Program	\$419.1	\$419.1	\$377.3	\$12.8	\$259.9	71%	242	\$1,559.2	8,439

⁵⁴ Intermediary administrative expenses are not included when calculating benefits to priority populations. These costs are reported and included in the total implemented funds.

⁵⁵ Per statute, some administering agencies may plan for future projects by selecting projects for funding in advance of receiving appropriations to fulfill those commitments. For this reason, in some instances “Awarded” funds may exceed “Allocated” funds.

⁵⁶ Intermediary administrative expenses refer to funds provided to intermediaries (such as grantees, third-party administrators, or local agencies) that use part of the funding to cover the administrative costs associated with distributing incentives, implementing projects, or tracking and reporting data. Intermediary administrative expenses are reported as implemented when the final amount of the expense is known.

⁵⁷ These programs do not have a quantified GHG emission benefit.

Administering Agency	Subprogram	Cumulative Funding Status (\$M)				Benefiting Priority Populations ⁵⁴		Implemented Projects			
		Allocated	Awarded ⁵⁵	Implemented	Intermediary Administrative Expenses ⁵⁶	(\$M)	%	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects	
California Air Resources Board (cont.)	Advanced Technology Demonstration and Pilot Projects	\$123.4	\$123.4	\$123.4	\$6.2	\$117.2	100%	26	\$4,701.7	14	
	Agricultural Worker Vanpools	\$6.0	\$6.0	\$6.0	–	\$6.0	100%	7	\$841.8	1	
	Clean Cars 4 All	\$231.0	\$202.0	\$128.4	\$10.6	\$114.4	97%	127	\$1,014.5	16,104	
	Clean Mobility in Schools Project	\$34.6	\$34.4	\$34.4	–	\$34.4	100%	21	\$1,607.8	4	
	Clean Mobility Options	\$65.3	\$65.3	\$39.7	–	\$39.7	100%	17	\$2,392.3	62	
	Clean Off Road Equipment Voucher Incentive Project	\$425.4	\$345.3	\$82.4	\$7.6	\$62.8	84%	40	\$2,082.6	544	
	Clean Truck and Bus Vouchers (HVIP)	\$986.4	\$671.8	\$328.0	\$5.9	\$205.2	64%	1,016	\$322.7	4,909	
	Clean Vehicle Rebate Project	\$1,046.1	\$1,046.1	\$1,035.0	\$63.7	\$340.6	35%	2,812	\$368.0	399,824	
	Statewide Clean Cars 4 All and Financing Assistance Projects	\$79.4	\$79.4	New program for FY 2023-24							
	Financing Assistance for Lower Income Consumers	\$42.9	\$42.9	\$25.8	\$1.1	\$20.6	83%	29	\$890.5	4,287	
	Outreach, Education, and Awareness	\$11.6	\$11.6	\$11.6	–	\$11.6	100%	– ⁵⁷	–	3	
	Rural School Bus Pilot Projects	\$61.6	\$61.6	\$55.1	\$0.9	\$29.2	54%	50	\$1,092.3	181	
Sustainable Transportation Equity Project	\$44.5	\$44.5	\$44.5	–	\$44.5	100%	5	\$9,042.9	31		

Administering Agency	Subprogram	Cumulative Funding Status (\$M)				Benefiting Priority Populations ⁵⁴		Implemented Projects		
		Allocated	Awarded ⁵⁵	Implemented	Intermediary Administrative Expenses ⁵⁶	(\$M)	%	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects
California Air Resources Board (cont.)	Zero- and Near Zero-Emission Freight Facilities	\$148.7	\$148.7	\$148.7	–	\$148.7	100%	50	\$2,996.6	10
	Zero-Emission Truck and Bus Pilot Projects	\$85.0	\$82.8	\$82.8	–	\$64.5	78%	107	\$777.6	9
	Methane Monitoring and Accountability	\$105.0	This program has not yet awarded or implemented funds.							
	Prescribed Fire and Smoke Monitoring Program	\$7.2	\$3.9	\$3.9	–		0%	– ⁵⁷	–	51
	Woodsmoke Reduction Program	\$18.1	\$18.1	\$7.9	\$0.8	\$6.1	86%	99	\$79.5	2,299
California Coastal Commission	Coastal Resilience Planning	\$6.7	\$2.7	\$2.7	–	\$1.2	45%	– ⁵⁷	–	17
California Conservation Corps	Training and Workforce Development Program	\$103.1	\$47.2	\$47.2	–	\$37.3	79%	292	\$161.4	766
California Department of Community Services and Development	Community Solar Pilot	\$2.2	\$2.0	\$2.0	–	\$2.0	100%	10	\$204.4	1
	Farmworker Housing	\$26.6	\$26.6	\$12.2	\$1.8	\$10.4	100%	19	\$656.5	759
	Multi-family Energy Efficiency and Renewables	\$101.5	\$78.2	\$62.4	\$14.6	\$47.8	100%	223	\$280.4	12,290
	Single-family Energy Efficiency and Solar Photovoltaics	\$70.0	\$70.0	\$69.9	\$12.5	\$57.3	100%	210	\$333.3	15,765
	Single-family Solar Photovoltaics	\$51.0	\$51.0	\$51.0	\$6.8	\$44.1	100%	134	\$381.5	3,160
California Department of Fish and Wildlife	Wetlands and Watershed Restoration	\$46.2	\$39.2	\$39.2	–	\$20.5	52%	1,000	\$39.2	22

Administering Agency	Subprogram	Cumulative Funding Status (\$M)				Benefiting Priority Populations ⁵⁴		Implemented Projects			
		Allocated	Awarded ⁵⁵	Implemented	Intermediary Administrative Expenses ⁵⁶	(\$M)	%	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects	
California Department of Food and Agriculture	Alternative Manure Management Program	\$309.1	\$68.9	\$68.9	\$0.1	\$8.2	12%	1,107	\$62.2	116	
	Dairy Digester Research and Development Program		\$202.7	\$202.7	–	\$140.2	69%	21,881	\$9.3	123	
	Livestock Enteric Methane Emission Reduction Research Program	\$10.0	New program for FY 2023-24								
	Climate Smart Agriculture Technical Assistance Program ⁵⁸	\$6.0	\$6.0	\$6.0	–	\$3.7	63%	– ⁵⁷	–	74	
	Healthy Soils Program	\$115.5	\$55.2	\$55.2	\$0.1	\$25.6	46%	518	\$106.6	771	
	Renewable and Alternative Fuels	\$3.0	\$3.0	\$3.0	–	\$0.0	0%	– ⁵⁷	–	1	
	State Water Efficiency and Enhancement Program	\$66.1	\$61.8	\$61.8	\$0.5	\$22.9	37%	744	\$83.1	598	
California Department of Forestry and Fire Protection	Community Fire Planning and Preparedness	\$911.2	\$7.5	\$7.5	–	\$6.2	83%	– ⁵⁷	–	4	
	Forest Carbon Plan Implementation		\$110.1	\$110.1	–	\$19.4	18%	13	\$8,776.3	502	
	Forest Health Research		\$21.6	\$21.6	–	\$4.2	20%	–	–	77	
	Forest Health Program		\$557.4	\$557.4	–	\$260.3	47%	20,575	\$27.1	258	
	Green Schoolyards	New program for FY 2023-24									
	Urban and Community Forestry	\$74.8	\$74.8	–	\$71.6	96%	479	\$156.1	115		
	Fire Prevention Program	\$1,209.4	\$287.3	\$287.3	–	\$194.0	68%	– ⁵⁷	–	158	
Wildfire Prevention Grants Program	\$301.5		\$301.5	–	\$153.4	51%	– ⁵⁷	–	438		

⁵⁸ The CDFA Technical Assistance Program is jointly administered and funded by CDFA and SGC.

Administering Agency	Subprogram	Cumulative Funding Status (\$M)				Benefiting Priority Populations ⁵⁴		Implemented Projects		
		Allocated	Awarded ⁵⁵	Implemented	Intermediary Administrative Expenses ⁵⁶	(\$M)	%	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects
California Department of Resources Recycling and Recovery	SB 1383 Local Assistance Grant Program	\$166.2	\$56.6	\$56.6	–	\$0.0	0%	– ⁵⁷	–	467
	Community Composting for Green Spaces Grant Program	\$6.3	\$5.8	\$1.2	–	\$0.9	72%	3	\$474.1	137
	Food Waste Prevention and Rescue Grants	\$24.1	\$23.3	\$23.3	–	\$22.5	97%	569	\$40.9	76
	Organics and Recycling Loans	\$9.2	\$7.7	\$7.7	–	\$0.8	11%	772	\$10.0	5
	Organics Grants	\$204.1	\$68.3	\$68.3	–	\$52.8	77%	1,298	\$52.6	27
	Recycled Fiber, Plastic, and Glass Grant Program	\$36.5	\$30.5	\$30.5	–	\$21.8	71%	619	\$49.3	15
	Reuse Grant Program	\$2.0	\$2.0	\$2.0	–	\$1.5	75%	1	\$3,612.8	4
	Co-Digestion Grant Program	\$4.0	\$4.0	\$4.0	–	\$4.0	100%	334	\$11.8	1
California Department of Transportation	Active Transportation Program	\$10.0	\$10.0	\$10.0	–	\$10.0	100%	0.1	\$163,934.4	3
	Low Carbon Transit Operations Program	\$1,197.6	\$932.3	\$932.3	–	\$874.7	94%	6,972	\$133.7	1,003
California Department of Water Resources	State Water Project Turbines	\$20.0	\$20.0	\$20.0	–	\$0.0	0%	37	\$542.0	2
	Water-Energy Grant Program ⁵⁹	\$48.0	\$40.4	\$37.2	\$0.1	\$23.3	63%	388	\$95.8	96,555

⁵⁹ Pending additional information on expenditures.

Administering Agency	Subprogram	Cumulative Funding Status (\$M)				Benefiting Priority Populations ⁵⁴		Implemented Projects		
		Allocated	Awarded ⁵⁵	Implemented	Intermediary Administrative Expenses ⁵⁶	(\$M)	%	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects
California Energy Commission	California Schools Healthy Air, Plumbing, and Efficiency Program	\$20.0						This program has not yet awarded or implemented funds.		
	Charging and Hydrogen Refueling	\$218.6						This program has not yet awarded or implemented funds.		
	Equitable At-Home Charging	\$95.0						This program has not yet awarded or implemented funds.		
	Equitable Building Decarbonization Program	\$405.0						This program has not yet awarded or implemented funds.		
	Food Production Investment Program	\$164.0	\$117.8	\$117.8	–	\$98.0	83%	2,975	\$39.6	56
	IDEAL ZEV Workforce Pilot Project ⁶⁰	\$1.0	\$1.0	\$1.0	–	\$1.0	100%	– ⁵⁷		14
	Industrial Decarbonization and Improvements to Grid Operations (INDIGO)	\$68.0						This program has not yet awarded or implemented funds.		
	Long Duration Energy Storage Program	\$190.0						This program has not yet awarded or implemented funds.		
	Low-Carbon Fuel Production Program	\$12.5	\$12.5	\$12.5	–	\$11.7	94%	452	\$27.6	4
	Renewable Energy for Agriculture Program	\$10.0	\$9.5	\$9.5	–	\$1.4	15%	127	\$74.9	45
California Environmental Protection Agency	Transition to a Carbon-Neutral Economy	\$2.6	\$2.6	\$2.6	–	–	0%	– ⁵⁷	–	2

⁶⁰ The IDEAL ZEV Workforce Pilot is administered by CEC in partnership with CARB. CARB contributed \$1M in FY 202021 via an interagency agreement with CEC.

Administering Agency	Subprogram	Cumulative Funding Status (\$M)				Benefiting Priority Populations ⁵⁴		Implemented Projects		
		Allocated	Awarded ⁵⁵	Implemented	Intermediary Administrative Expenses ⁵⁶	(\$M)	%	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects
California Governor's Office of Emergency Services	Fire Engines and Maintenance	\$28.5	\$26.5	\$26.5	–	–	0%	– ⁵⁷	–	2
	Wildfire Response and Readiness ⁶¹	\$33.5	\$4.6	\$4.6	–	–	0%	– ⁵⁷	–	61
California Natural Resources Agency	Regional Forest and Fire Capacity	\$20.0	\$17.7	\$6.2	\$0.2	\$2.2	37%	– ⁵⁷	–	32
	Urban Greening Program	\$156.5	\$144.3	\$144.3	–	\$136.6	95%	54	\$2,657.4	89
California Ocean Protection Council	Sea Level Rise	\$37.5	This program has not yet awarded or implemented funds.							
California Public Utilities Commission	Self-Generation Incentive Program (SGIP)	\$280.0	This program has not yet awarded or implemented funds.							
	Technology and Equipment for Clean Heating (TECH)	\$95.0	This program has not yet awarded or implemented funds.							
California State Coastal Conservancy	Climate Ready Program	\$124.2	\$54.1	\$54.1	–	\$42.2	78%	5	\$11,836.6	38
California State Transportation Agency	Zero-Emission Transit Capital Program	\$220.0	New program for FY 2023-24							
	Transit and Intercity Rail Capital Program	\$2,508.0	\$2,681.2	\$1,694.3	–	\$1,600.4	94%	23,459	\$72.2	245
California State Water Resources Control Board	Safe and Affordable Drinking Water Fund	\$603.8	\$281.9	\$161.1	–	\$159.4	99%	<0	–	80

⁶¹ Pending additional information on expenditures. Data as of November 31, 2021.

Administering Agency	Subprogram	Cumulative Funding Status (\$M)				Benefiting Priority Populations ⁵⁴		Implemented Projects		
		Allocated	Awarded ⁵⁵	Implemented	Intermediary Administrative Expenses ⁵⁶	(\$M)	%	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects
California Strategic Growth Council	Affordable Housing and Sustainable Communities Program	\$4,478.8	\$1,932.9	\$1,932.9	\$3.8	\$1,672.0	87%	3,591	\$538.3	140
	Sustainable Agricultural Lands Conservation Program	\$358.7	\$309.8	\$122.4	–	\$8.2	7%	15,080	\$8.1	96
	Climate Change Research Program	\$36.5	\$31.5	\$31.5	–	–	0%	– ⁵⁷	–	23
	Community Assistance for Climate Equity Program	\$13.5	\$12.0	\$9.3	–	\$9.3	100%	– ⁵⁷	–	37
	Transformative Climate Communities Program	\$241.3	\$227.8	\$210.6	\$2.9	\$195.4	93%	154	\$1,367.2	1,019
California Wildlife Conservation Board	Climate Adaptation and Resiliency Program	\$20.0	\$18.5	\$18.5	\$0.0	\$5.9	32%	130	\$142.0	31
California Workforce Development Board	Low Carbon Economy Workforce	\$51.7	\$24.4	\$24.4	–	\$22.5	92%	– ⁵⁷	–	30
San Francisco Bay Conservation and Development Commission	Climate Change Adaptation and Coastal Resilience Planning	\$10.0	\$8.7	\$8.7	–	–	0%	– ⁵⁷	–	74
Total		\$20,858.0	\$13,913.1	\$11,019.7	\$270.3	\$8,121.2	76%	109,154	\$101.0	578,568

Appendix B: Cumulative Budgetary Expenditures

The table below includes information on cumulative budgetary expenditures by program including breakdowns along budget categories. While administering agencies report expenditures related to projects and third-party administration in the California Climate Investments Reporting and Tracking System, which are presented in [Appendix A: 2023 Cumulative Statistics](#), fiscal reporting on budgetary expenditures also includes expenditures related to program administration, which are presented here.

Agency	Program	Appropriations (\$M) ⁶²	State Ops (\$M)	Local Assistance (\$M)	Capital Outlay (\$M)	Cumulative Budgetary Expenditures (\$M)	Cumulative Program Administration Costs (\$M) ⁶³
California Air Resources Board	Community Air Monitoring; Community Air Protection; Fluorinated Gases Emission Reduction; Funding Agricultural Replacement Measures for Emission Reductions; Low Carbon Transportation; Methane Monitoring and Accountability; Prescribed Fire Smoke Monitoring; Woodsmoke Reduction; Program Administration	\$6,026.3	\$197.9	\$4,804.8	\$0.0	\$5,002.7	\$175.7
California Coastal Commission ⁶⁴	Coastal Resilience Planning	\$6.7	\$2.2	\$3.7	\$0.0	\$6.0	\$2.2
California Conservation Corps	Training and Workforce Development Program	\$103.1	\$53.7	\$0.0	\$0.0	\$53.7	\$53.7
California Department of Community Services and Development	Low-Income Weatherization Program	\$271.6	\$11.6	\$214.2	\$0.0	\$225.8	\$11.6
California Department of Fish and Wildlife	Wetlands and Watershed Restoration Program	\$46.2	\$5.7	\$39.2	\$0.0	\$44.9	\$5.7
California Department of Food and Agriculture	Dairy and Livestock Methane; Healthy Soils; Renewable and Alternative Fuels; State Water Efficiency and Enhancement Program	\$503.6	\$88.3	\$321.3	\$0.0	\$409.6	\$88.3

⁶² Certain administering agencies have provisional language allowing for the transfer of appropriated funds to other state agencies to implement California Climate Investments programs.

⁶³ Administrative expenditures include costs incurred directly by administering agencies for program implementation. Some programs use an intermediary (e.g., third-party contractor, regional administrator) to implement programs. Costs incurred by intermediaries are reported as implemented projects and included in the reported implemented funds.

⁶⁴ Denotes agencies which had difficulties closing in FISCAL and as such provided estimated budgetary expenditures.

Agency	Program	Appropriations (\$M) ⁶²	State Ops (\$M)	Local Assistance (\$M)	Capital Outlay (\$M)	Cumulative Budgetary Expenditures (\$M)	Cumulative Program Administration Costs (\$M) ⁶³
California Department of Forestry and Fire Protection ⁶⁴	Community Fire Planning and Preparedness; Fire Prevention; Forest Carbon Plan Implementation; Sustainable Forests	\$2,432.8	\$1,137.1	\$359.8	\$0.0	\$1,496.9	\$1,137.1
California Department of Resources Recycling and Recovery ⁶⁴	Community Composting for Green Spaces Grants; Food Waste Prevention and Rescue Grants; Organics and Recycling Manufacturing Loans; Organics Grants; Recycling Manufacturing Grants Reuse Grant Program; SB 1383 Local Assistance Grants	\$456.3	\$16.3	\$188.3	\$0.0	\$204.6	\$6.3
California Department of Transportation	Active Transportation; Low Carbon Transit Operations Program	\$1,207.6	\$6.6	\$557.7	\$0.0	\$564.3	\$0.0
California Department of Water Resources	State Water Project Turbines; Water-Energy Grant	\$61.9	\$2.8	\$33.2	\$20.0	\$56.0	\$2.8
California Energy Commission ⁶⁴	Food Production Investment; Low-Carbon Fuel Production; Renewable Energy for Agriculture, CalSHAPE, Equitable Building Decarbonization, Clean Transportation Program, Long Duration Energy Storage, INDIGO	\$1,199.5	\$12.0	\$157.7	\$0.0	\$169.7	\$12.0
California Environmental Protection Agency	Transition to a Carbon-Neutral Economy	\$2.5	\$2.6	\$0.0	\$0.0	\$2.6	\$0.0
California Governor's Office of Emergency Services	Wildfire Response and Readiness	\$35.4	\$28.5	\$3.8	\$0.0	\$32.3	\$28.5
California High-Speed Rail Authority	High-Speed Rail Project	\$6,461.0	\$0.0	\$0.0	\$3,528.5	\$3,528.7	\$0.2
California Natural Resources Agency	Regional Forest and Fire Capacity; Urban Greening Program	\$176.5	\$1.1	\$169.1	\$0.0	\$170.3	\$1.1

Agency	Program	Appropriations (\$M) ⁶²	State Ops (\$M)	Local Assistance (\$M)	Capital Outlay (\$M)	Cumulative Budgetary Expenditures (\$M)	Cumulative Program Administration Costs (\$M) ⁶³
California Ocean Protection Council	Sea Level Rise	\$37.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
California Public Utilities Commission	Technology and Equipment for Clean Heating; Self-Generation Incentive Program	\$375.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
California State Coastal Conservancy ⁶⁴	Climate Ready Program	\$124.2	\$2.5	\$52.1	\$0.0	\$54.6	\$2.5
California State Transportation Agency	Transit and Intercity Rail Capital Program; Zero-Emission Transit Capital	\$2,728.0	\$0.4	\$1,345.3	\$0.0	\$1,345.8	\$0.4
California State Water Resources Control Board ⁶⁴	Safe and Affordable Drinking Water Fund	\$603.8	\$0.0	\$93.5	\$0.0	\$93.5	\$0.0
California Strategic Growth Council	Affordable Housing and Sustainable Communities; Climate Change Research; Sustainable Agricultural Lands Conservation; Technical Assistance; Transformative Climate Communities	\$5,128.8	\$105.3	\$3,644.5	\$0.0	\$3,749.8	\$105.3
California Wildlife Conservation Board	Climate Adaptation and Resiliency Program	\$20.0	\$0.0	\$18.5	\$0.0	\$18.5	\$0.0
California Workforce Development Board	Low Carbon Economy Workforce	\$51.7	\$7.4	\$23.0	\$0.0	\$30.4	\$7.4
San Francisco Bay Conservation and Development Commission	Climate Resilience Planning	\$10.0	\$8.0	\$0.5	\$0.0	\$8.5	\$8.0
Totals for Program		\$28,086.5	\$1,690.0	\$12,030.5	\$3,548.5	\$17,269.2	\$1,648.9

Agency	Program	Appropriations (\$M) ⁶²	State Ops (\$M)	Local Assistance (\$M)	Capital Outlay (\$M)	Cumulative Budgetary Expenditures (\$M)	Cumulative Program Administration Costs (\$M) ⁶³
California Air Resources Board	Statewide Administration	\$143.8	\$89.6	\$0.0	\$0.0	\$89.6	\$89.6
Fund Controller Agencies	Controller's Fees and Adjustments	\$89.3	\$89.3	\$0.0	\$0.0	\$89.3	\$89.3
Office of Environmental Health and Hazard Assessment	Identification of Disadvantaged Communities	\$11.6	\$9.5	\$0.0	\$0.0	\$9.5	\$9.5
Other	Pension Payments	\$0.0	\$0.0	\$0.0	\$0.0	\$4.5	\$4.5
Totals for Programs Including Administration and Support		\$28,345.8	\$1,878.5	\$12,030.5	\$3,548.5	\$17,462.1	\$1,851.8

Appendix C: Cumulative California Climate Investments Leveraged Funds

Many California Climate Investments programs extend the reach of their appropriations by requiring or encouraging applicants to secure additional support from federal, state, local, nonprofit or private sources. The table below details cumulative reported leveraged funds by program across the suite of California Climate Investments. Programs that do not leverage funds or have not reported leveraged funds to CARB have been excluded. The programs shown in this table are leveraging, on average, an additional \$9 per GGRF dollar invested, with \$81.6 billion in total leveraged funds from other sources.

Administering Agency	Subprogram	Total GGRF Implemented (\$M)	Total Project Cost (\$M)	Funds from Additional Sources (\$M)	Leveraged Ratio (Funds from Additional Sources/GGRF Implemented)
California Air Resources Board	Community Air Grants	\$25.0	\$30.3	\$5.3	0.2
	Community Air Protection Incentives	\$588.8	\$1,141.3	\$552.5	0.9
	Funding Agricultural Replacement Measures for Emission Reductions Program	\$377.3	\$771.3	\$394.0	1.0
	Advanced Technology Demonstration and Pilot Projects	\$123.4	\$280.7	\$157.3	1.3
	Agricultural Worker Vanpools	\$6.0	\$7.5	\$1.5	0.3
	Clean Cars 4 All	\$128.4	\$135.5	\$7.1	0.1
	Clean Mobility in Schools Project	\$34.4	\$34.6	\$0.2	0.0
	Clean Mobility Options	\$39.7	\$78.0	\$38.3	1.0
	Clean Off Road Equipment Voucher Incentive Project	\$82.4	\$126.1	\$43.7	0.5
	Clean Truck and Bus Vouchers (HVIP)	\$328.0	\$1,335.3	\$1,007.3	3.1
	Outreach, Education, and Awareness	\$11.6	\$16.7	\$5.1	0.4
	Rural School Bus Pilot Projects	\$55.1	\$58.5	\$3.4	0.1
	Sustainable Transportation Equity Project	\$44.5	\$78.6	\$34.1	0.8
	Zero- and Near Zero-Emission Freight Facilities Project	\$148.7	\$403.4	\$254.7	1.7
	Zero-Emission Truck and Bus Pilot	\$82.8	\$143.9	\$61.1	0.7
	Prescribed Fire and Smoke Monitoring Program	\$3.9	\$4.0	\$0.1	0.0
Woodsmoke Reduction Program	\$7.9	\$12.1	\$4.2	0.5	

Administering Agency	Subprogram	Total GGRF Implemented (\$M)	Total Project Cost (\$M)	Funds from Additional Sources (\$M)	Leveraged Ratio (Funds from Additional Sources/GGRF Implemented)
California Coastal Commission	Coastal Resilience Planning	\$2.7	\$6.1	\$3.5	1.3
California Conservation Corps	Training and Workforce Development Program	\$47.2	\$47.3	\$0.1	0.0
California Department of Community Services and Development	Multi-family Energy Efficiency and Renewables	\$62.4	\$135.2	\$72.7	1.2
	Single-family Energy Efficiency and Solar PV	\$69.9	\$88.9	\$19.0	0.3
	Single-family Solar Photovoltaics (PV)	\$51.0	\$71.6	\$20.7	0.4
California Department of Fish and Wildlife	Wetlands and Watershed Restoration	\$39.2	\$86.2	\$46.9	1.2
California Department of Food and Agriculture	Alternative Manure Management Program	\$68.9	\$79.5	\$10.5	0.2
	Dairy Digester Research and Development Program	\$202.7	\$625.9	\$423.2	2.1
	Climate Smart Agriculture Technical Assistance Program	\$6.0	\$12.3	\$6.3	1.1
	Healthy Soils Program	\$55.2	\$66.1	\$10.9	0.2
	State Water Efficiency and Enhancement Program	\$61.8	\$99.8	\$38.0	0.6
California Department of Forestry and Fire Protection	Fire Prevention Program	\$287.3	\$300.5	\$13.2	0.0
	Wildfire Prevention Grants Program	\$301.5	\$306.3	\$4.8	0.0
	Forest Carbon Plan Implementation	\$110.1	\$120.7	\$10.7	0.1
	Forest Health Research	\$21.6	\$29.1	\$7.5	0.3
	Forest Health Program	\$557.4	\$837.7	\$280.2	0.5
	Urban and Community Forestry	\$74.8	\$107.8	\$33.0	0.4

Administering Agency	Subprogram	Total GGRF Implemented (\$M)	Total Project Cost (\$M)	Funds from Additional Sources (\$M)	Leveraged Ratio (Funds from Additional Sources/GGRF Implemented)
California Department of Resources Recycling and Recovery	SB 1383 Local Assistance Grant Program	\$56.6	\$56.6	\$0.0	0.0
	Food Waste Prevention and Rescue Grants	\$23.3	\$40.9	\$17.7	0.8
	Organics and Recycling Loans	\$7.7	\$139.2	\$131.5	17.0
	Organics Grants	\$68.3	\$329.3	\$261.1	3.8
	Recycled Fiber, Plastic, and Glass Grant Program	\$30.5	\$126.7	\$96.2	3.2
	Reuse Grant Program	\$2.0	\$2.2	\$0.2	0.1
California Department of Transportation	Active Transportation Program	\$10.0	\$16.3	\$6.3	0.6
	Low Carbon Transit Operations Program	\$932.3	\$8,777.6	\$7,845.3	8.4
California Department of Water Resources	State Water Project Turbines	\$20.0	\$43.1	\$23.1	1.2
	Water-Energy Grant Program	\$37.2	\$42.0	\$4.8	0.1
California Energy Commission	Food Production Investment Program	\$117.8	\$181.5	\$63.7	0.5
	IDEAL ZEV Workforce Pilot Project	\$1.0	\$7.3	\$6.3	6.3
	Low-Carbon Fuel Production Program	\$12.5	\$33.9	\$21.4	1.7
	Renewable Energy for Agriculture Program	\$9.5	\$14.9	\$5.4	0.6
California Natural Resources Agency	Regional Forest and Fire Capacity	\$6.2	\$8.2	\$1.9	0.3
	Urban Greening Program	\$144.3	\$270.2	\$126.0	0.9
California State Coastal Conservancy	Climate Ready Program	\$54.1	\$268.4	\$214.3	4.0
California State Transportation Agency	Transit and Intercity Rail Capital Program	\$1,694.3	\$64,844.7	\$63,150.4	37.3
California State Water Resources Control Board	Safe and Affordable Drinking Water Fund	\$161.1	\$184.1	\$23.0	0.1

Administering Agency	Subprogram	Total GGRF Implemented (\$M)	Total Project Cost (\$M)	Funds from Additional Sources (\$M)	Leveraged Ratio (Funds from Additional Sources/GGRF Implemented)
California Strategic Growth Council	Affordable Housing and Sustainable Communities Program	\$1,932.9	\$8,492.9	\$6,560.0	3.4
	Sustainable Agricultural Lands Conservation Program	\$122.4	\$212.3	\$89.9	0.7
	Climate Change Research Program	\$31.5	\$33.6	\$2.1	0.1
	Community Assistance for Climate Equity Program	\$9.3	\$9.5	\$0.3	0.0
	Transformative Climate Communities	\$210.6	\$508.8	\$298.3	1.4
California Wildlife Conservation Board	Climate Adaptation and Resiliency Program	\$18.5	\$53.1	\$34.5	1.9
California Workforce Development Board	Low Carbon Economy Workforce	\$24.4	\$41.4	\$17.0	0.7
Total		\$8,854.6	\$90,474.5	\$81,619.9	9.2

Appendix D: Statistics on Competitive Project Proposals Received

Appendix D provides statistics on applications received compared to applications selected for funding in 2023 for each competitive program. Programs that do not include a competitive process or did not release a solicitation in 2023 are not included.

In addition to reporting aggregate information to CARB, agencies are required to include basic information on their program websites about proposed and final funding decisions and are encouraged to post all project applications or proposals received, including those not selected for funding. This information can provide context for the demand for programs and competitiveness of project proposals, and may help future applicants identify areas where they can strengthen their projects.

Administering Agency	Program	Type of Award Recipient(s)	Response to Solicitation				Percent of Selected Funds Requested
			Proposals Received		Proposals Selected		
			Number	Amount Requested	Number	Amount Awarded	
California Air Resources Board	Advanced Technology Demonstration and Pilot Projects	Awarded Directly to Recipient	3	\$11,867,855	1	\$6,178,000	192%
	Clean Off Road Equipment Voucher Incentive Project	Awarded to an Intermediary	1	\$13,507,900	1	\$13,507,900	100%
	Statewide Clean Cars 4 All and Financing Assistance Projects	Awarded to an Intermediary	4	\$310,000,000	1	\$79,400,000	390%
	Fluorinated Gases Emission Reduction Incentives	Awarded to an Intermediary	1	\$10,000,000	1	\$10,000,000	100%
California Department of Food and Agriculture	Alternative Manure Management Program	Awarded Directly to Recipient	53	\$36,216,555	31	\$9,019,891	402%
	Climate Smart Agriculture Technical Assistance Program	Awarded Directly to Recipient	24	\$2,717,622	9	\$1,023,951	265%
	Healthy Soils Program	Awarded Directly to Recipient	12	\$1,823,086	8	\$1,142,620	160%
	Healthy Soils Program	Awarded to an Intermediary	24	\$106,870,844	14	\$62,039,376	172%
California Department of Forestry and Fire Protection	Forest Health Program	Awarded Directly to Recipient	44	\$225,087,718	17	\$95,476,791	236%
	Forest Health Research	Awarded Directly to Recipient	96	\$35,474,382	15	\$4,483,681	791%
	Wildfire Prevention Grants Program	Awarded Directly to Recipient	248	\$432,146,423	96	\$113,229,682	382%

Administering Agency	Program	Type of Award Recipient(s)	Response to Solicitation				Percent of Selected Funds Requested
			Proposals Received		Proposals Selected		
			Number	Amount Requested	Number	Amount Awarded	
California Department of Resources Recycling and Recovery	Co-Digestion Grant Program	Awarded Directly to Recipient	10	\$22,950,527	1	\$3,950,527	581%
	Community Composting for Green Spaces Grant Program	Awarded Directly to Recipient	10	\$5,152,000	8	\$4,240,000	122%
	SB 1383 Local Assistance Grant Program	Awarded Directly to Recipient	20	\$6,262,275	13	\$5,959,666	105%
California Energy Commission	Food Production Investment Program	Awarded Directly to Recipient	18	\$25,187,750	8	\$10,095,089	250%
California Strategic Growth Council	Affordable Housing and Sustainable Communities Program	Awarded Directly to Recipient	36	\$1,248,607,801	21	\$757,471,361	165%
	Sustainable Agricultural Lands Conservation Program	Awarded Directly to Recipient	56	\$77,492,378	47	\$70,897,617	109%

California Climate Investments

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