
# 2023

# ANNUAL REPORT

## Cap-and-Trade Auction Proceeds

CALIFORNIA CLIMATE INVESTMENTS

Cap and Trade Dollars at Work

Annual Report to the Legislature on

# California Climate Investments Using Cap-and-Trade Auction Proceeds

## GREENHOUSE GAS REDUCTION FUND

April 2023

Cover image courtesy of Los Angeles Cleantech Incubator (LACI)
Los Angeles, November 2022 | Clean Mobility Options

# FOREWORD

Extreme heat, drought, flooding, wildfires—Californians in every community, region, and sector have experienced some or all of these in the last year as climate change impacts pose more frequent and severe risks in our state. California's leading-edge, all-of-government approach to driving down greenhouse gas pollution and safeguarding the health of our communities while we do so is more important than ever.

Since the last report, California has taken significant action to achieve our ambitious climate targets while advancing equity, protecting public health, and strengthening our economy. In 2022, the California Air Resources Board adopted *Advanced Clean Cars II*, paving the way to a zero-emission transportation future by phasing out the sale of new internal combustion vehicles by 2035. Also in 2022, the California Public Utilities Commission set biomethane procurement targets for utilities to displace fossil gas and reduce short-lived climate pollutant emissions, and the California Energy Commission adopted goals to massively increase offshore wind energy.

Within the California Environmental Protection Agency and our sister agencies, a new set of plans laid out in 2022 demonstrate how the state is taking coordinated action to mitigate climate change and build a more resilient and equitable future for all Californians. From the *2022 Scoping Plan for Achieving Carbon Neutrality*, which lays out a vision to drastically slash pollution and accelerate the transition to clean energy, to *enhanced commitments to sustainable pest management* and the update of the *California Water Plan,* California is committing to the most robust, comprehensive climate action in state history and is raising the bar for governments around the world.

The climate budget, paired with robust regulation, is key to meeting the ambitious climate targets we've laid out in these world-leading plans. Years of successful California Climate Investments implementation laid the groundwork for Governor Newsom's historic *California Climate Commitment*. The budget continues to prioritize equity and investments in underserved populations, which face disproportionate harm from pollution and from the climate crisis. By serving as a transformative model for reducing greenhouse gas emissions in a way that strengthens the economy, advances equity and environmental justice, and improves public health and the environment, California Climate Investments will continue to play a key role in implementing strategies set forth in the state's climate plans.

With $1.3 billion in new projects implemented across California in 2022 alone, California Climate Investments is putting Cap-and-Trade dollars to work across nearly every sector of the economy with an emphasis on benefiting low-income communities and households. Over 20 state agencies are working together to administer programs that support jobs, provide clean transportation, reduce wildfire risk, build affordable housing, mitigate extreme heat, improve water infrastructure, and so much more. And with the designation of disadvantaged communities—including for the first-time lands under the control of federally recognized tribes—California Climate Investments programs can more meaningfully prioritize projects designed for, implemented by, and directly benefiting tribes.

This 2023 Annual Report demonstrates what we can accomplish together with coordinated action at all levels of government through on-the-ground solutions that benefit communities across our great state. California's world-leading actions and plans are simultaneously confronting the climate crisis while building a more resilient, just, and equitable future for all Californians. But there remains urgent action we still need to take. We look forward to continuing this work together, especially focusing on delivering immediate benefits where they are needed most.

Yana Garcia

California Secretary for Environmental Protection

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# EXECUTIVE SUMMARY

The *2023 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. The report highlights annual and cumulative achievements, the flow of funds from appropriations to implementation, major milestones, estimated greenhouse gas (GHG) emissions reductions, information on benefits to priority populations, estimates of co-benefits attributed to California Climate Investments programs, initiatives to increase access to funding through outreach, engagement, and technical assistance, and much more.

Across California, 75 California Climate Investments programs administered by 23 state agencies are continuing to direct billions of dollars into our state's transition to a low-carbon and more equitable future. In 2022, California Climate Investments implemented nearly $1.3 billion, in addition to $1.3 billion in expenditures by the High-Speed Rail Project. Since the first appropriations to administering agencies were made in 2014, California Climate Investments programs have implemented more than $9.3 billion, in addition to $4.3 billion in expenditures by the High-Speed Rail Project for a total of $13.6 billion.

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 providing incentives for zero-emission vehicles and equipment, increasing clean mobility options through transit and active transportation projects, diverting organic waste from landfills to composting, and more. California Climate Investments is also implementing a variety of nature-based solutions to sequester carbon and prevent GHG emissions through such strategies as protecting forests from catastrophic wildfire, supporting sustainable agricultural lands, and expanding urban tree canopies.

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

## CUMULATIVE PROJECT ACHIEVEMENTS

As of November 2022

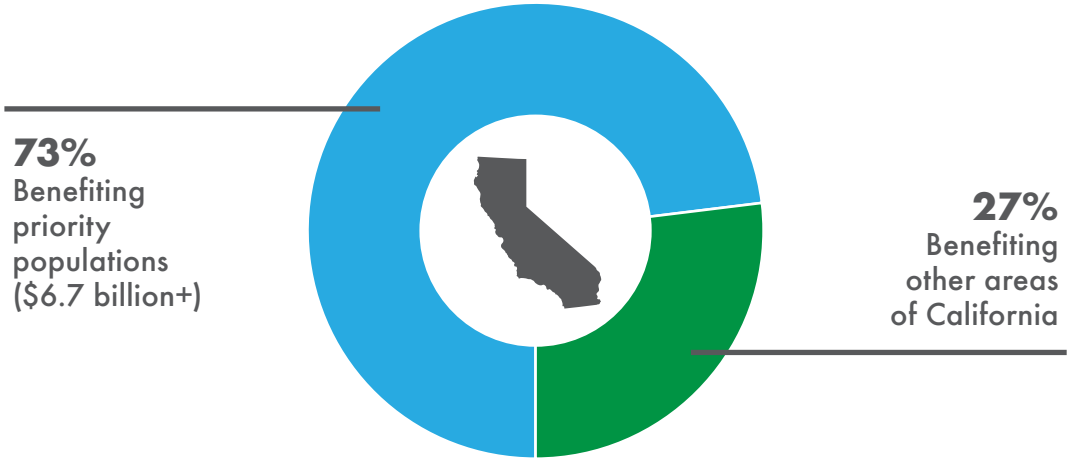
$9.3 billion implemented through November 2022

- GHG — 97.1 $MMTCO_2e$ estimated GHG emissions reductions
- 577,800 individual projects implemented
- 10,399 affordable housing units under contract
- 201,125 urban trees
- $6.7 billion+ (73%) benefiting priority populations
- 1,069 transit agency projects funded, adding or expanding transit service
- 427,470+ rebates issued for zero-emission and plug-in hybrid vehicles
- 891,000 acres of land conservation or restoration

In 2022 alone, California Climate Investments programs implemented[1] nearly 19,500 new projects, which are expected to reduce 10.4 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) over project lifetimes.[2] Investments implemented since the inception of California Climate Investments are expected to reduce more than 97.1 $MMTCO_2e$ over project lifetimes. Cumulatively, implemented projects added 10,399 new affordable housing units, issued 427,470 rebates for zero-emission or plug-in hybrid vehicles, and, over project lifetimes, are expected to reduce criteria air pollutants by over 82,700 tons, contributing to 372 avoided emergency room visits for respiratory illness and asthma.

As shown in Figure ES-1, 73 percent, or more than $6.7 billion, in cumulative implemented California Climate Investments project dollars are benefiting priority populations. These investments greatly exceed the statutory minimum requirements for priority populations.

Figure ES-1: Cumulative Benefits to Priority Populations




1 High-Speed Rail expenditures are not included in the calculation of implemented funds, and therefore the statistics presented here do not include the High-Speed Rail Project. For more information on the benefits provided by the project, see *Investments in Action: High-Speed Rail* and *Economic Impact of California High-Speed Rail 2023 report*.

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.

## Engage with California Climate Investments

The *2023 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 *Cap-and-Trade auction proceeds 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, hear program updates, and more:

*@CAClimateInvest*

*@CAClimateInvest*

Subscribe to the *bimonthly newsletter* to stay up to date on opportunities to engage and provide comments, current news, and upcoming solicitations for California Climate Investments programs.

# 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).[3]

With the impacts of climate change becoming more widespread, rapid, and severe around the globe and throughout the state, California Climate Investments programs are advancing new technologies and practices to accelerate the reduction of GHG emissions and build resilience to climate change in ways that address the pressing needs of communities. 23 agencies administer 75 programs across multiple sectors such as low carbon transportation, waste diversion, natural and working lands, clean energy, affordable housing, and more. In 2022 alone, these agencies implemented nearly $1.3 billion in new projects across the state, in addition to $1.3 billion expenditures by the *High-Speed Rail Project*. These investments are reducing GHG emissions while providing new opportunities for employment, improved air quality, affordable housing, and more.


As California Climate Investments approaches 10 years of investing in projects to support a carbon-neutral future, programs across the portfolio remain committed to benefiting priority populations and fostering equitable access to funds through outreach, technical assistance, and capacity building. California Climate Investments is continually working to target investments where they are most needed and support community priorities and leadership.

3 Senate Bill (SB) 535 (De León, Chapter 830, Statutes of 2012) and Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016) require that a minimum of 35 percent of California Climate Investments funding benefit disadvantaged communities and low-income communities and households.

# About the Annual Report

The *2023 Annual Report to the Legislature on California Climate Investments Using Cap-and-Trade Auction Proceeds* (2023 Annual Report) is a key resource for tracking 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 Department of Finance, the California Air Resources Board (CARB), and the 23 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 collection of project-level data that are used to develop the Annual Report and provide the public with transparent, accessible information on GGRF expenditures.

This report first introduces background information and definitions for funding status terms that are specific to reporting and tracking of California Climate Investments. Second, it highlights annual and cumulative achievements, appropriations, major milestones, estimated GHG emissions reductions, information on benefits to priority populations, and estimates of co-benefits attributed to California Climate Investments programs. Next, the report discusses efforts to increase access to California Climate Investments through outreach, engagement, and technical assistance and capacity building. Interspersed throughout, the report highlights "Investments in Action" that demonstrate how funds are improving lives across the state. The report concludes with discussion of policy developments relevant to California Climate Investments, including state and federal collaboration. The appendices provide summary statistics, budgetary expenditures, data on leveraged funds, and information on applications received for each program that undergoes a competitive application or solicitation process.

To complement the information in this report, the California Climate Investments website also includes such companion materials as:

- *Program pages and project profiles*: Discover achievements of individual programs and read about investments in action.
- *Downloadable datasets* and *geographic breakdowns of investments*: View project-level data and investments by legislative district and region.
- *Data dashboard*: Explore trends in funding, GHG emissions reductions, and other project benefits across time and programs.
- *Project map*: View locations of implemented projects along with an overview of the benefits they provide.

## DATA IN THE 2023 ANNUAL REPORT ARE REPORTED AS FOLLOWS:

**2022:** Data reported for December 1, 2021, through November 30, 2022.

**Cumulative:** Data reported since a program's inception through November 30, 2022. The Legislature created the GGRF in 2012 and first appropriated funds in 2014.

**To Date:** Information that is current as of the release of this Annual Report in April 2023.

# The High-Speed Rail Project

The *High-Speed Rail Project* is the nation's first High-Speed Rail system that will connect the megaregions of California. Funded in part by California Climate Investments, this project provides significant benefits to Californians by creating jobs, providing opportunities and job skills to disadvantaged workers, reducing GHG and air pollutant emissions, planting trees in urban areas, and much more. The High-Speed Rail Project predates California Climate Investments and has distinct approaches and methodologies for spending funds and tracking and assessing project benefits. Because of these differences, the 2023 Annual Report no longer includes High-Speed Rail expenditures in the calculation of total implemented dollars in order to increase consistency with how the High-Speed Rail Project is treated relative to all other programs and to provide increased clarity and transparency on the activities of the High-Speed Rail Project and all other programs. To read about the many benefits that the High-Speed Rail Project continues to provide, see *Investments in Action: High-Speed Rail.* Read the *Economic Impact of California High-Speed Rail 2023 report* to learn more.


# Background

California Climate Investments is funded by proceeds from the sale of state-owned allowances from quarterly Cap-and-Trade auctions that are deposited into the GGRF. Figure 1 shows the amount of funding by status—progressing from when funds are initially appropriated by the Legislature through the implemented stage—along with working definitions for terms used to report outcomes from California Climate Investments.[4] Administering agencies complete many tasks between receiving an appropriation and implementing a project, such as conducting community engagement, releasing and reviewing project proposals, and carefully selecting recipients. Because the progression from one step to the next may take several years, Figure 1 does not necessarily reflect the flow of funds over the course of one year. Achievements and benefits are based on implemented dollars. A project is considered "implemented" when the funding recipient receives all monies, and the project has attributable GHG emissions and priority population benefits are known.

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

| | 2022 | Cumulative |
|---|---|---|
| **Appropriated**<br>Legislature authorizes an agency to make expenditures from the GGRF | **$3.0B** | **$22.6B** |
| **Allocated**<br>Agency distributes funds for a program or subprogram | **$2.3B** | **$15.5B** |
| **Awarded**<br>Agency announces funding recipients and commits funding to a project | **$1.5B** | **$11.8B** |
| **Implemented**<br>Funding recipient receives monies, projects have attributable GHG and priority population benefits | **$1.3B** | **$9.3B** |

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

# 2022 IN THE SPOTLIGHT

California Climate Investments is directing billions of dollars into our state's transition to a Low-Carbon and more equitable future. From December 2021 through the end of November 2022, California Climate Investments programs implemented nearly $1.3 billion, in addition to $1.3 billion in expenditures by the *High-Speed Rail Project*, for a total of $2.5 billion. $933 million of the $1.3 billion implemented by California Climate Investments programs, or 74 percent of funds in 2022, are benefiting priority populations.

The nearly 19,500 new projects implemented in 2022 are expected to reduce 10.4 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) over project lifetimes, with large investments in natural and working lands and transit projects driving a majority of the expected reductions.[5] Other investments, such as those in affordable housing are helping to reduce criteria air pollutants, improve public health outcomes, and support the state's housing goals all while reducing GHG emissions.

In **2022** alone, **19,500** new projects implemented **$1.3B** and are expected to reduce **10.4 $MMTCO_2e$** over project lifetimes

In 2022, programs invested in unique project types to expand the impact of California Climate Investments and increase access to benefits. For example, the Legislature prioritized small businesses by appropriating funds for CARB's *Clean Off-Road Equipment Voucher Incentive Project,* which dedicated funding for small businesses and sole proprietors for the purchase of zero-emission lawn mowers, leaf blowers, and other professional landscape service equipment, in addition to incentives for small businesses located in disadvantaged communities to purchase zero-emission construction and material handling equipment. The California Strategic Growth Council's (SGC) *Sustainable Agricultural Lands Conservation Program* added capacity building projects to its scope, providing up to $250,000 to organizations to develop the financial and organizational capacity necessary to create competitive agricultural conservation project proposals.

5 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.


Also in 2022, SGC's *Affordable Housing and Sustainable Communities Program* awarded funds to expand homeownership and help more Californians build wealth. Throughout the year, SGC and the Department of Housing and Community Development staff worked to implement Assembly Bill (AB) 1095[6] by making meaningful changes to the *Program Guidelines* to reduce barriers and increase program access to homeownership project applications for future rounds.

California Climate Investments also celebrated major milestones in 2022:

- SGC's *Affordable Housing and Sustainable Communities Program* implemented over $200 million in 2022 through 13 projects across the state that are providing affordable housing loans and other capital grants for housing-related infrastructure, sustainable transportation infrastructure, transportation-related amenities, and related programs.
- The California State Transportation Authority's (CalSTA) *Transit and Intercity Rail Capital Program* made major investments in expanding or creating new transit capacity in 2022, implementing more than $100 million across 28 new projects. Projects implemented this past year provided nearly 11,000 full-time equivalent jobs and are expected to reduce emissions by 657,000 metric tons carbon dioxide equivalent ($MTCO_2e$).
- The California Department of Transportation (Caltrans) selected the 1,000th *Low Carbon Transit Operations Program* (LCTOP) project in 2022. These projects are providing operating and capital assistance for transit agencies to reduce GHG emissions and improve mobility, with a priority on serving disadvantaged communities.

6 Cooley, Chapter 355, Statutes of 2021.

# INVESTMENTS IN ACTION

## 1,000TH LOW CARBON TRANSIT OPERATIONS PROJECT

In 2022, Caltrans selected its 1,000th *LCTOP* project, the Stanislaus Regional Transit Authority's Free Fares Project. Through the project, the transit authority is providing free, safe, and reliable transportation services for residents to travel to such key destinations as educational institutions, employment centers, medical offices, grocery stores, and shopping malls. Transit fares are often a barrier to residents in disadvantaged communities, but the Free Fares Project has made it possible for residents to use public transportation for free. The project includes 26 urban bus routes, three intercity shuttle services, medivan services, and complementary paratransit services. Implementing the Free Fares Project has helped to reduce vehicle miles traveled and GHG emissions and improved access to public transportation across Stanislaus County, increasing ridership by 12,160 people in one year. *Learn more*.

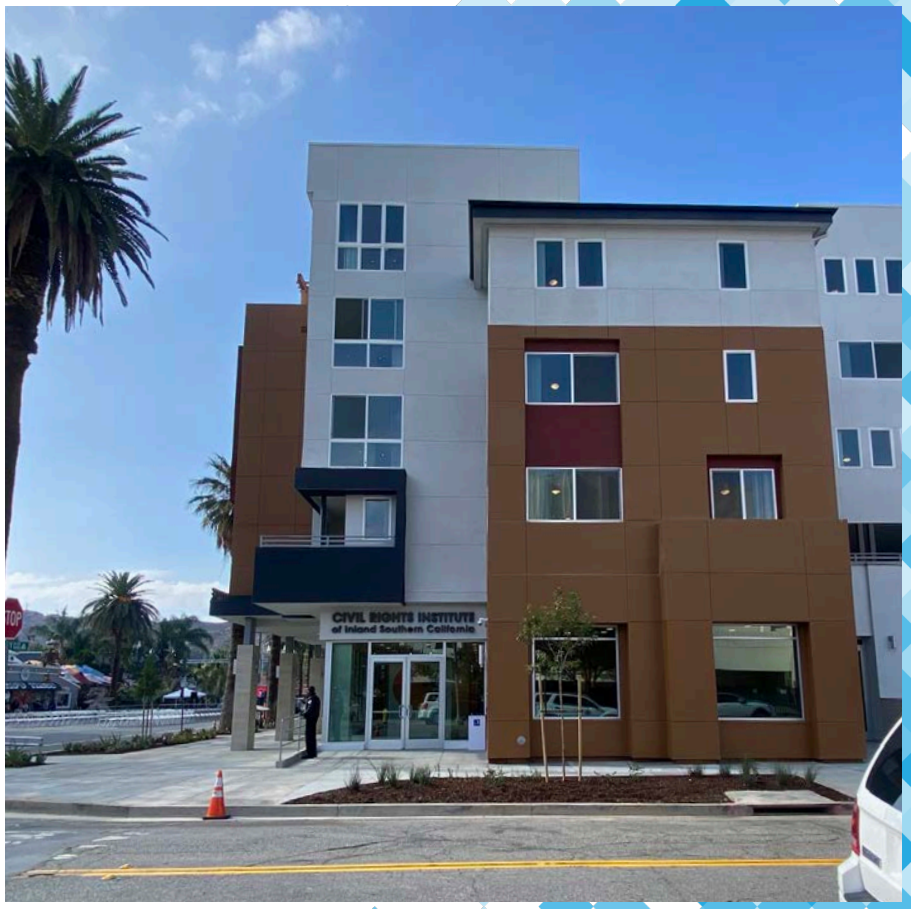
# INVESTMENTS IN ACTION

## NEW AFFORDABLE HOUSING OPENS ITS DOORS TO CALIFORNIANS IN NEED IN 2022

California Climate Investments dollars are benefiting priority populations by facilitating the construction of new, affordable housing connected to transit to help communities thrive.

The Mission Heritage Plaza project opened in downtown Riverside in October 2022, providing 72 new affordable homes. The project also includes commercial space that will contain the Headquarters for the Civil Rights Institute of Inland Southern California, a cultural exhibit and programming space focused on celebrating the civil rights contributions of local leaders, and a diversity center and meeting space. Supported by SGC's *Affordable Housing and Sustainable Communities Program*, the Mission Heritage Plaza Project is a partnership between Wakeland Housing and Development Corporation, the City of Riverside, and Riverside Transit Agency. The project supported a new regional multimodal transit hub, active transportation, nearly 250 shade trees, and more.

The Mission Heritage Plaza project is one of the 121 projects implemented by the AHSC program. In total, the program has awarded more than $1.5 billion in funding, including funding for more than 11,000 homes (90 percent of which are affordable). Cumulatively, these projects are estimated to reduce GHG emissions by over 2.8 $MMTCO_2e$. *Learn more*.



## Appropriations in 2022

In 2022, the Legislature appropriated $2.8 billion from the GGRF to new and existing California Climate Investments programs, as well as to new project types within existing programs.[7] Newly funded programs and project types that received GGRF appropriations for fiscal year (FY) 2022-23 include:

- **Community Air Monitoring, CARB:** Deploy new, mobile community air monitoring data collection and visualization approaches over a limited term to build on and complement existing CARB stationary air monitoring and data visualization tools.
- **Community Emission Reduction Incentives, CARB:** Fund new actions to reduce air pollution disparities in communities selected for community emissions reduction programs.
- **Lower-Emission Boats, CARB:** Incentives to reduce emissions from commercial harbor craft subject to regulation by CARB.
- **Methane Detecting Satellites, CARB:** Launch satellites for methane observations, which will measure large methane emissions in the state and enhance enforcement capabilities.
- **Methane Data and Technical Assistance, CARB:** Technical assistance grants to community-based organizations to support community engagement and distribute methane monitoring data which will be publicly accessible on a web-based portal.
- **Dairy Methane and Cattle Feed, California Department of Food and Agriculture (CDFA):** Livestock demonstration projects to supplement cattle feed and research into dietary modifications to reduce methane.
- **Organic Waste Infrastructure, California Department of Resources Recycling and Recovery (CalRecycle):** Expand food waste co-digestion projects at existing wastewater treatment plants.
- **Waste Diversion, CalRecycle:** Methane reduction strategies, and organic waste diversion and processing support for local jurisdictions.
- **California Schools Healthy Air, Plumbing, and Efficiency Program (CalSHAPE), California Energy Commission (CEC):** Upgrades to heating, ventilation, and air conditioning systems in public schools in low-income and disadvantaged communities.
- **Sea Level Rise, California Ocean Protection Council:** Support the development of sea level rise planning and adaptation efforts.

7 Budget bills that made GGRF appropriations are SB 154 (Skinner, Chapter 43, Statutes of 2022), AB 178 (Ting, Chapter 45, Statutes of 2022), and AB 179 (Ting, Chapter 249, Statutes of 2022).

To date, the sale of state-owned allowances through Cap-and-Trade auctions have generated $23.2 billion for the GGRF. The Legislature appropriates money from the GGRF to agencies to administer California Climate Investments programs and subprograms. Table 1 shows which programs were appropriated new GGRF dollars for FY 2022-23 and cumulative appropriations for investments as of November 30, 2022. In many cases, there are multiple subprograms under a program. Agencies may implement appropriations by allocating funds to subprograms. *Appendix A* provides more information on allocations to subprograms.

FY 2022-23 Appropriations
**$3.0 B**

Cumulative Appropriations
**$22.6 B**

Five agencies receive approximately 65 percent of the proceeds to support a collection of programs focused on transit, affordable housing, and safe drinking water.[8] The Legislature has also continuously appropriated $200 million annually through FY 2028-29 for forest health, fire prevention, and fuels reduction programs,[9] along with additional obligations.[10] The Legislature appropriates the remaining available GGRF funds through the annual budget process. Cumulatively, the Legislature has appropriated $22.6 billion to California Climate Investments.

8 *SB 862* (Committee on Budget and Fiscal Review, Chapter 36, Statutes of 2014) established continuous appropriations totaling 60 percent of the GGRF monies beginning in FY 201516 and *SB 200* (Monning, Chapter 120, Statutes of 2019) commits 5 percent, or up to $130 million, of the annual proceeds of the GGRF to the Safe and Affordable Drinking Water Fund.

9 *SB 901* (Dodd, Chapter 626, Statutes of 2018) and *SB 155* (Committee on Budget and Fiscal Review, Chapter 258, Statutes of 2021).

10 *AB 398* (E. Garcia, Chapter 135, Statutes of 2017).

Table 1: FY 2022-23 and Cumulative Appropriations by Program

| Administering Agency | Program | FY 2022-23[11,12] ($M) | Cumulative Total[13] ($M) |
|---|---|---|---|
| California Air Resources Board | Community Air Monitoring | $30 | $30 |
| | Community Air Protection | $270 | $1,354 |
| | Fluorinated Gases Emission Reduction Incentives | $10 | $11 |
| | Funding Agricultural Replacement Measures for Emission Reductions | – | $419 |
| | Low Carbon Transportation | $746 | $3,473 |
| | Methane Satellites | $105 | $105 |
| | Prescribed Fire Smoke Monitoring | – | $4 |
| | Woodsmoke Reduction | $5 | $18 |
| California Coastal Commission | Coastal Resilience Planning | $1 | $6 |
| California Conservation Corps | Training and Workforce Development Program | $16 | $86 |
| California Department of Community Services and Development | Low Income Weatherization Program | $15 | $242 |
| California Department of Fish and Wildlife | Wetlands and Watershed Restoration | – | $46 |

11 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.

12 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.

13 Listed values may not sum due to rounding.

| Administering Agency | Program | FY 2022-23[11,12] ($M) | Cumulative Total[13] ($M) |
|---|---|---|---|
| California Department of Food and Agriculture | Dairy Methane | $30 | $319 |
| | Healthy Soils Program | – | $66 |
| | Renewable and Alternative Fuels | – | $3 |
| | State Water Efficiency and Enhancement Program | – | $66 |
| California Department of Forestry and Fire Protection | Community Fire Planning and Preparedness | – | $10 |
| | Fire Prevention Program | $119 | $654 |
| | Forest Carbon Plan Implementation | $35 | $165 |
| | Forest Health Program | $125 | $1,099 |
| California Department of Resources Recycling and Recovery | SB 1383 Local Assistance Grant Program | $180 | $180 |
| | Waste Diversion | $10 | $278 |
| California Department of Transportation | Active Transportation Program | – | $10 |
| | Low Carbon Transit Operations Program[8] | $89 | $991 |
| California Department of Water Resources | State Water Project Turbines | – | $20 |
| | Water-Energy Grant Program | – | $48 |
| California Energy Commission | California Schools Healthy Air, Plumbing, and Efficiency Program (CalSHAPE) | $20 | $20 |
| | Food Production Investment Program | – | $124 |
| | Low-Carbon Fuel Production Program | – | $13 |
| | Renewable Energy for Agriculture Program | – | $10 |
| California Environmental Protection Agency | Transition to a Carbon-Neutral Economy | – | $2 |
| California Governor's Office of Emergency Services | Wildfire Response and Readiness | $1 | $34 |

| Administering Agency | Program | FY 2022-23[11,12] ($M) | Cumulative Total[13] ($M) |
|---|---|---|---|
| California High-Speed RailAuthority | High-Speed Rail Project[8] | $374 | $5,425 |
| California Natural Resources Agency | Regional Forest and Fire Capacity | – | $20 |
| | Urban Greening Program | – | $156 |
| California Ocean Protection Council | Sea Level Rise | $38 | $38 |
| California State Coastal Conservancy | Climate Ready Program | $118 | $124 |
| California State Transportation Agency | Transit and Intercity Rail Capital Program[8] | $179 | $2,096 |
| California State Water Resources Control Board | Safe and Affordable Drinking Water Fund[8] | $8,914 | $449 |
| California Strategic Growth Council | Affordable Housing and Sustainable Communities Program (Including Sustainable Agricultural Lands Conservation Program)[8] | $357 | $4,010 |
| | Climate Change Research Program | – | $36 |
| | Technical Assistance Program | – | $6 |
| | Transformative Climate Communities Program | – | $241 |
| California Wildlife Conservation Board | Climate Adaptation and Resiliency Program | – | $20 |
| California Workforce Development Board | Low-Carbon Economy Workforce | $3 | $42 |
| San Francisco Bay Conservation and Development Commission | Climate Resilience Planning | $2 | $8 |
| **Total** | | **$2,966** | **$22,575** |

14 AB 179 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 2022-23.

# CUMULATIVE ACHIEVEMENTS THROUGH NOVEMBER 2022

California Climate Investments programs have implemented more than $9.3 billion since the first appropriations were made in 2014, in addition to $4.3 billion in expenditures by the High-Speed Rail Project for a total of $13.6 billion. Cumulatively, California Climate Investments has implemented more than 577,800 projects, which are expected to reduce more than 97.1 $MMTCO_2e$ over project lifetimes. Projects are providing rebates and vouchers for zero-emission vehicles, conserving or restoring natural and working lands, providing technical assistance, planting trees, expanding and developing new transit operations, building affordable housing, and so much more. Figure 2 details more of these achievements and demonstrates how funds flow from the GGRF to implemented projects.

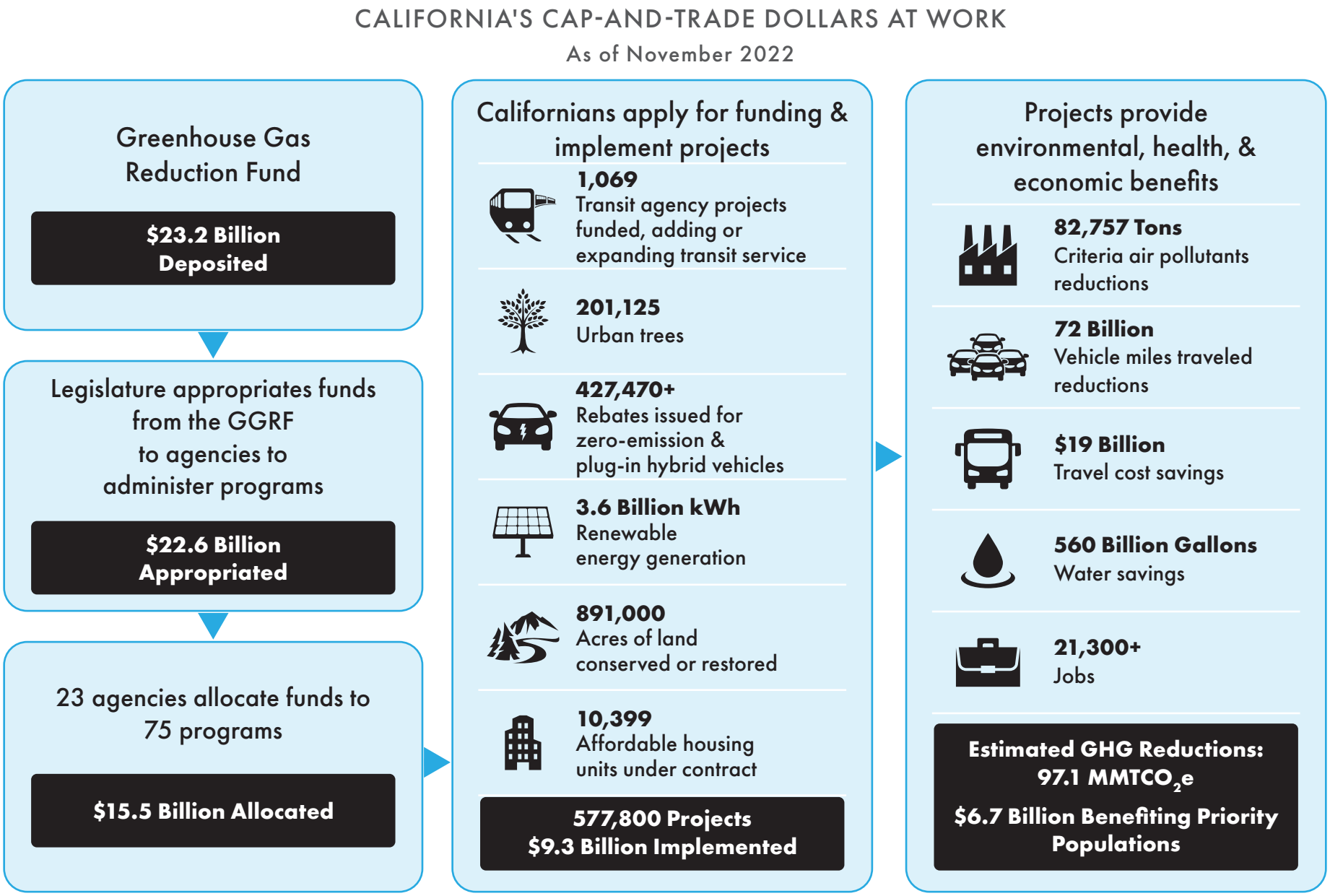
*Appendix A* details cumulative summary statistics for each California Climate Investments program, including funding status, intermediary administrative expenses,[15] expected GHG emissions reductions, number of implemented projects, and amount of funding benefiting priority populations. For information on cumulative budgetary expenditures by program including breakdowns along budget categories such as program administration, capital outlay, and local assistance funds expended, see *Appendix B*.

**Program Pages**

*View summary statistics on every California Climate Investments program* such as the amount of funds used to implement projects this year, benefits to priority populations, jobs created, pollution reductions, and more online. Additional information and downloadable datasets on individual implemented projects are also available on the *Annual Report webpage.*

15 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.

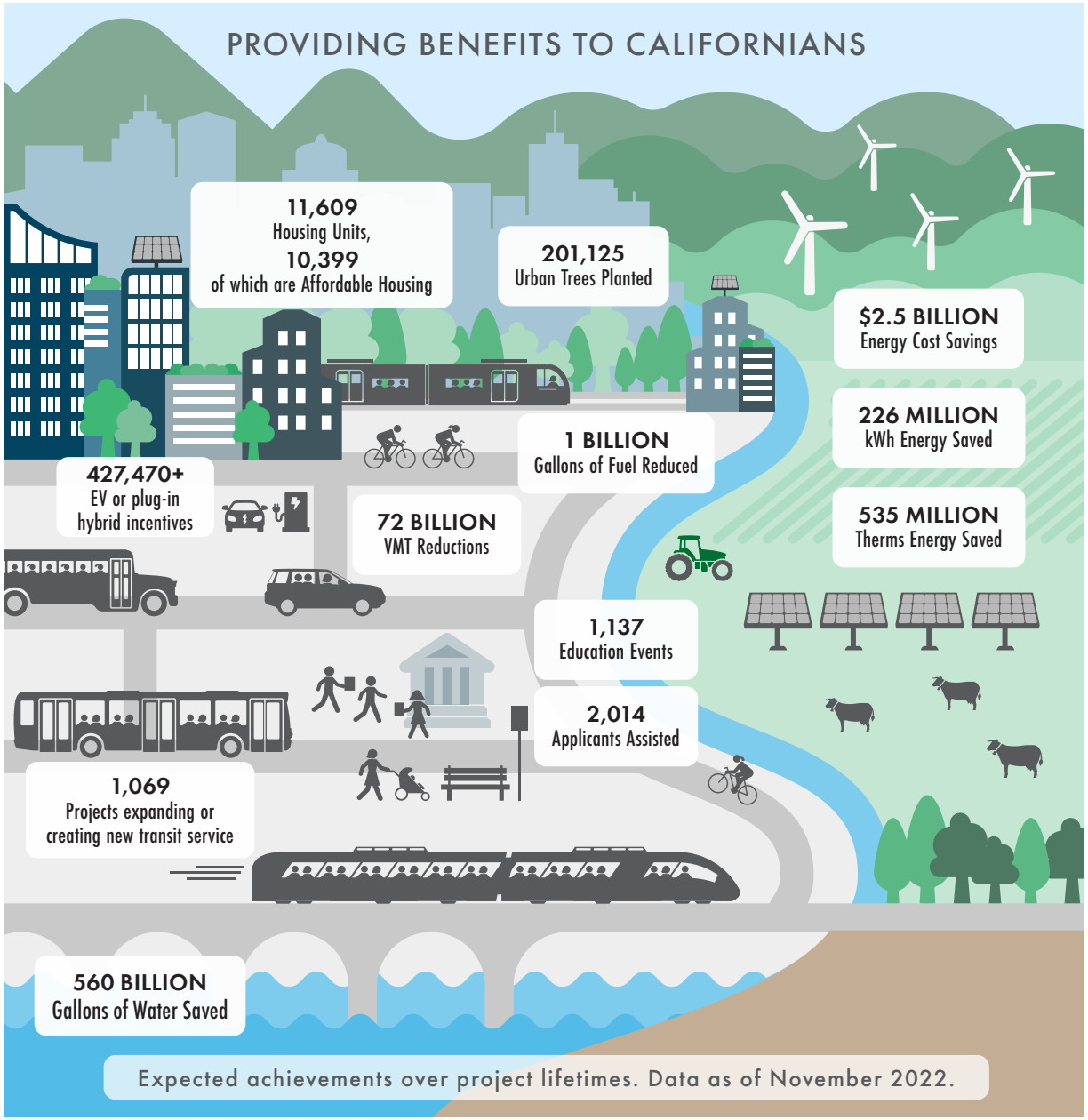
Figure 2: California Climate Investments Cumulative Statistics through 2022



# 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 clean transportation to affordable housing and sustainable communities, waste diversion to training and workforce development, and more, 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 3 shows just some of the many benefits California Climate Investments is providing over project lifetimes.

Figure 3: California Climate Investments Project Benefits



# Benefiting Priority Populations

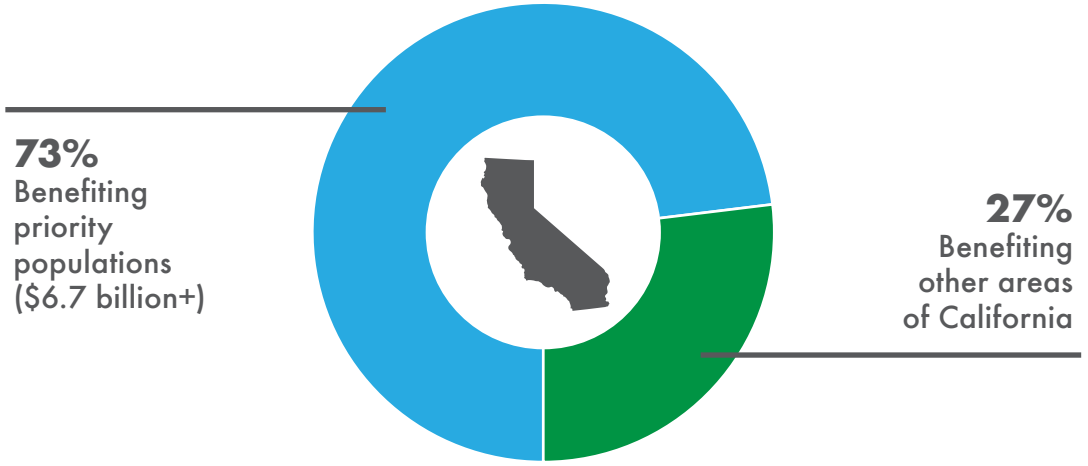
California Climate Investments are focused on providing benefits to the state's disadvantaged communities and low-income communities and households, collectively referred to as *priority populations*. SB 535 and AB 1550 require that at least 35 percent of California Climate Investments funding benefits priority populations.[16] Once the Legislature appropriates funds from the GGRF, CARB collaborates with administering agencies to identify program-level investment targets for each fiscal year to benefit disadvantaged communities and low-income communities and households. To count an implemented project toward the investment minimums, administering agencies must show that a project provides direct, meaningful, and assured benefits and meets an important community need by using *Benefit Criteria Tables* that CARB develops. Learn more about priority populations, statutory minimums, and disadvantaged community designations on the *California Climate Investments website.*

## CUMULATIVE BENEFITS TO PRIORITY POPULATIONS

Cumulatively, 73 percent, or more than $6.7 billion of the total $9.3 billion in implemented California Climate Investments project dollars, are benefiting priority populations, as shown by Figure 4. These investments are providing a variety of benefits including cleaner air, increased mobility options, expanded access to clean energy cost savings, and new employment opportunities.

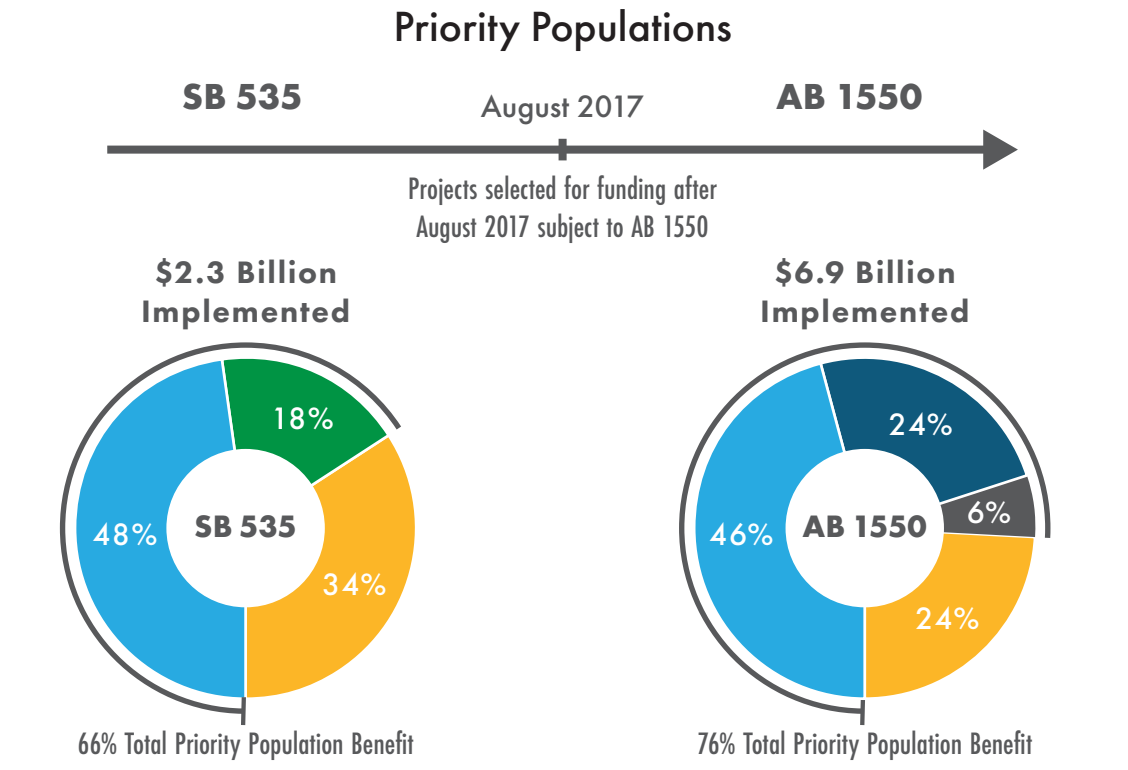
Projects awarded prior to August 2017 were subject to the investment requirements established by SB 535; projects awarded since then are subject to AB 1550. Out of the cumulative $9.3 billion in implemented projects, $2.3 billion have been subject to the requirements of SB 535, and $6.9 billion have been subject to AB 1550, as detailed in Figure 5. High-Speed Rail expenditures are not included in these calculations. While a small set of programs have continued to report projects awarded prior to August 2017 under the SB 535 framework, nearly all of the recent implementation has occurred under the AB 1550 framework.

Figure 4: Cumulative Benefits to Priority Populations




16 SB 535 required that 25 percent of funds benefit disadvantaged communities. In 2016, AB 1550 amended SB 535 to require that projects be located within and provide benefits to disadvantaged communities. AB 1550 also established new investment minimums for low income communities and low income households, requiring 5 percent of funds be allocated to projects that benefit low income households or to projects located within the boundaries of, and benefiting individuals living in, low income communities located anywhere in the state, and 5 percent to projects that benefit low income households that are outside of, but within a half mile of, disadvantaged communities, or to projects located within the boundaries of, and benefiting individuals living in, low income communities that are outside of, but within a half mile of, disadvantaged communities. Collectively, these areas are referred to as priority populations.

Figure 5: Cumulative Investments Contributing to Statutory Investment Minimums




**48%** Located in & benefiting disadvantaged communities

**18%** Located outside of & benefiting disadvantaged communities

**34%** Benefiting other areas of California

**46%** Located in & benefiting disadvantaged communities

**24%** Located in & benefiting low-income communities & households

**6%** Located in & benefiting low-income communities & households within a 1/2 mile of disadvantaged communities

**24%** Benefiting other areas of California

# INVESTMENTS IN ACTION

## NEW MULTI-BENEFIT COMMUNITY GREEN SPACE IN SALINAS

California Climate Investments is funding projects that build the capacity of communities to bring their vision to life. With funds from the California State Coastal Conservancy's *Climate Ready Program*, the Big Sur Land Trust, in partnership with community members, has taken a big step towards transforming Carr Lake into a new park and greenspace for residents in the heart of the City of Salinas. The community has long imagined transforming Carr Lake into a multi-benefit green space, serving as a central park in the heart of Salinas. Carr Lake was once a seasonal lake and wetlands until it was converted into farmland about one hundred years ago. Now, the area is prone to flooding and divides the city geographically.

The vision for Carr Lake is driven by community values and leadership through robust community engagement. This project will help address a need for parks and green space in the community of Salinas as well as restore seasonal wetlands and native vegetation. The multiple benefits from this project include carbon sequestration, improved air and water quality, and floodplain enhancement. *Learn more*.

## UPDATED DISADVANTAGED COMMUNITIES DESIGNATION

SB 535 requires the California Environmental Protection Agency (CalEPA) to identify disadvantaged communities. CalEPA has historically used the CalEnviroScreen tool to inform this designation. In May 2022, *CalEPA updated the designation of disadvantaged communities* based in part on the recently updated *CalEnviroScreen version 4.0*, identifying four types of geographic areas as disadvantaged:

1. Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2. Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3. Census tracts identified in the 2017 disadvantaged communities designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; and
4. Lands under the control of federally recognized tribes.[17]

Accordingly, *CARB issued an update to the Funding Guidelines and associated resources* to reflect the most recent disadvantaged communities designations. The updated guidance and resources also address CARB's corresponding update to low-income communities and households thresholds and half-mile buffer areas as defined in AB 1550. Additionally, CARB released a new version of the *Priority Populations Mapping Tool* to support project selection and implementation under the updated designations and thresholds.

With the updated disadvantaged communities designation, CalEPA, for the first time, designated lands under the control of federally recognized tribes as disadvantaged,[18] including but not limited to *Federal American Indian Reservations and lands held in trust by the United States for the benefit of American Indian Tribes in California*. This presents an opportunity for California Climate Investments programs to more meaningfully prioritize projects designed for, implemented by, and directly benefiting tribes.

CalEPA is providing for a consultation-based process with any interested federally recognized tribe to identify lands that are under its control but not accounted for in the American Indian Areas Related National Geodatabase. A tribe interested in participating in the consultation process should contact the *CalEPA Deputy Secretary for Environmental Justice, Tribal Affairs and Border Relations*.

While the inclusion of lands under the control of federally recognized tribes in the disadvantaged communities designation is an important development, the updated designation does not include all tribes, and continued work will be needed to reduce funding barriers. Tribes that are not included in the designation can still access many California Climate Investments programs. Audience pages on the California Climate Investments website highlight funding available to *federally recognized tribes*, *tribal nonprofits*, *tribal businesses*, and *individual tribal members*.

17 For purposes of this designation, a tribe may request a consultation with CalEPA to establish a particular area of land is under its control even if not represented as such on CalEPA's disadvantaged communities map.

18 Federal recognition refers to acknowledgment by the federal government that a tribal government and tribal members constitute a tribe with a government to government relationship with the United States, and eligibility for the programs, services, and other relationships established by the United States for Indians, because of their status as Indians (Title 25 United States Code § 83.2).

## Responding to and Learning from Tribes

As part of CARB's duty to provide guidance to state agencies on how to maximize benefits to disadvantaged communities, CARB is actively building agency capacity to foster and support tribal participation in California Climate Investments.

In 2022 and into 2023, CARB partnered with the National Indian Justice Center to host a series of trainings for administering agencies on tribal cultural competency, federal Indian law, and consultation with California tribes. The trainings provided context around the disproportionateand unique hurdles faced by tribes in California, both historically and presently, and the importance of inviting and weaving tribal perspectives into program design and implementation to advance equitable access for tribal applicants.

CARB also hosted a convening of California Climate Investments outreach liaisons to build a consistent understanding of the updated disadvantaged communities designations with an emphasis on the inclusion of tribal lands. This was an important step in ensuring that programs associated with California Climate Investments had the appropriate knowledge and tools to incorporate the updated guidance and clearly communicate the updated policy with their stakeholders.

CARB staff attended the Tribal EPA Region 9 Conference in fall 2022 to present directly to representatives from tribes and conference attendees about California Climate Investments, available funding opportunities, and mechanisms for providing feedback to programs, in addition to inviting feedback on outreach approaches.

In the coming year, CARB will build on these efforts and begin development of a tribal engagement strategy in partnership with tribes and representatives, administering agencies, and academic institutions. The tribal engagement strategy will serve as a foundation to build meaningful relationships between tribes and administering agencies, foster partnerships with tribes to implement climate mitigation and adaption projects, and increase awareness of California Climate Investments funding opportunities for tribes.

## Tribal Projects in the 2023 Annual Report

The 2023 Annual Report showcases programs that have funded or are engaging tribes. Several pages provide examples of how tribes have accessed funds and are implementing projects. Read the following highlights to learn more: *Sequestering Carbon Through Land Management and Tribal Partnerships*, *Protecting Forests from Catastrophic Fire*, *High Road to Tribal Forest Restoration and Stewardship*, and *Climate Mitigation and Adaptation at the Landscape Scale*.

## 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 72,058 projects and $348 million in implemented projects are benefiting low-income households.[19] *Individual program pages on the California Climate Investments website* summarize reported benefits to low-income households for programs that target individual consumers and households that meet low-income requirements.[20] The information presented reflects the minimum amount of funding directly received by low-income households that were subject to income verification.[21] 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 or directly benefit low-income households but do not verify income information and therefore do not report those benefits to CARB.

**72,058 projects**

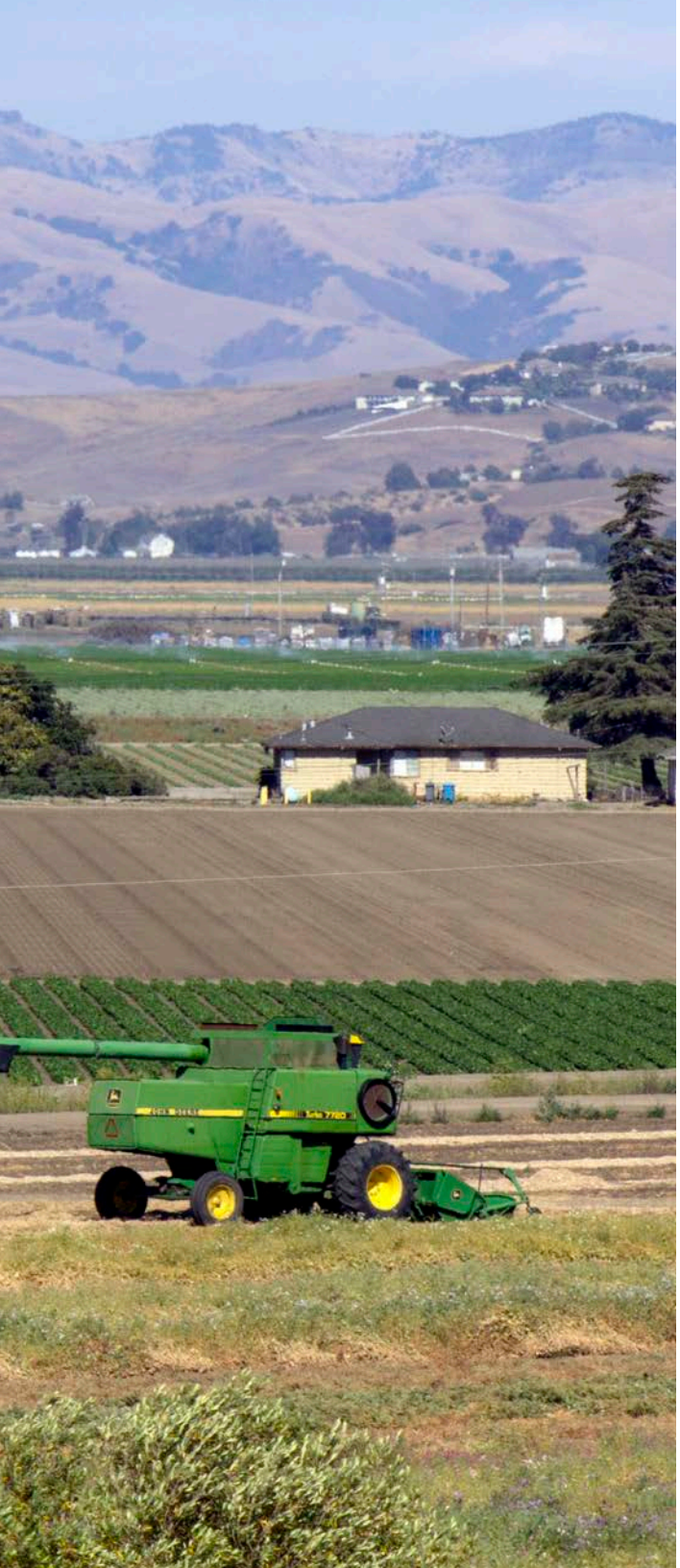
**$348 million**

in cumulative implemented California Climate Investments are benefiting low income households

19 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.

20 AB 1550 defines "low income households" as those with: 1) a household income at or below 80 percent 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.

21 For programs that target investments to benefit low income households for the purpose of meeting AB 1550 investment minimums, administering agencies must determine an approach to assess whether households meet the definition of low income. Programs may identify income eligibility by relying on the applicant's enrollment in public assistance programs that use an income level consistent with the low income household definitions in AB 1550, by having applicants self certify that they meet the low income household definition, or by requiring applicants to submit income information.



## GOING BEYOND PRIORITY POPULATIONS

California Climate Investments also provides benefits to underserved populations that are not explicitly identified as priority populations under statute. Programs are providing benefits to other populations such as socially disadvantaged farmers, minority and women-owned businesses, small businesses, and others. In many cases, programs have taken specific steps to identify or define these populations and designed guidelines or developed targets to help ensure they are also able to successfully compete for funding.

For example, in 2022 SGC and the Department of Conservation initiated a new effort to target outreach, education, and technical assistance to land trusts, tribal entities, nonprofits, landowners, farmers and ranchers, and others in underrepresented communities. This technical assistance will explore local opportunities and constraints, assess needs and resources, and help recipients develop viable projects and submit applications for *Sustainable Agricultural Lands Conservation Program* acquisition and capacity grants.

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 program and the state. These investments also support core principles of responding to community needs and maximizing the benefits of programs to underserved communities.

# Reducing Greenhouse Gas Emissions

Reducing GHG emissions is the core objective of California Climate Investments. Administering agencies report on estimated GHG emissions reductions and associated co-benefits over the life of a project using *quantification methodologies, calculator tools, and co-benefit assessment methodologies* that are developed by CARB staff in consultation with administering agencies. These methodologies prospectively estimate GHG emissions reductions and related co-benefits, which support legislative priorities, state goals, and community benefits. These estimates are not used for offsets, compliance purposes, or tracking progress in meeting climate targets or federal or state air quality standards.

The nearly 19,500 new projects implemented in 2022 alone are expected to reduce 10.4 $MMTCO_2e$. Cumulatively, implemented investments are expected to reduce 97.1 $MMTCO_2e$ over project lifetimes.

Across the portfolio, California Climate Investments programs are employing cross-sectoral strategies to reduce GHG emissions. A few key examples include incentives for zero-emission vehicles and funding new and expanded transit, waste diversion projects that are reducing short-lived climate pollutants, and nature-based solutions that are sequestering carbon and building the resilience of natural and working lands.

Estimated GHG Emissions Reductions from 2022 Implemented Projects:
**10.4 $MMTCO_2e$**
over project lifetimes

Cumulatively, California Climate Investments are expected to reduce
**97.1 $MMTCO_2e$**
over project lifetimes

Learn more about how California Climate Investments programs across these sectors and more are working to reduce GHG emissions on the *California Climate Investments website* and on the *Data Dashboard*. Explore GHG emissions reductions by individual projects in the Project List.

# TRANSITIONING TO A ZERO-EMISSION TRANSPORTATION FUTURE

A suite of clean mobility programs are reducing emissions from the transportation sector, which is responsible for nearly 40 percent of GHG emissions in California.[22] For example, CARB's *Clean Truck and Bus Vouchers (HVIP)* program is contributing to an estimated 987,000 $MTCO_2e$ in GHG emissions reductions by rolling out zero-emission trucks and buses and funding charging or fueling infrastructure. Programs such as *Financing Assistance for Lower-Income Consumers* and *Clean Cars 4 All* are designed to increase access to cleaner vehicles for all Californians, focusing on priority populations, and are expected to reduce GHG emissions by 5.3 $MMTCO_2e$. Programs like CalSTA's *Transit and Intercity Rail Capital Program* are modernizing California's rail, bus, and ferry transit systems to significantly reduce GHG emissions, vehicle miles traveled, and congestion, contributing to 18.0 $MMTCO_2e$ in estimated reductions. Other programs such as CARB's *Sustainable Transportation Equity Project (STEP)* are supporting a suite of clean mobility options such as active transportation, car sharing, and expanded transit to reduce GHG emissions.

22 *Current California GHG Emission Inventory Data*. CARB. 2022.

## TRANSITIONING TO A ZERO-EMISSION TRANSPORTATION FUTURE

Data as of November 2022

**50+** micro mobility, active transportation, or shared mobility projects

**175+** projects funding clean buses and mobility options for schools

**230+** advanced technology demonstration vehicles in service

**4,400+** projects funding zero- and near zero-emission trucks, buses, freight, and delivery vehicles

**7,300+** projects funding clean off-road equipment

**427,470+** rebates for light-duty ZEVs & plug-in hybrids

# INVESTMENTS IN ACTION

## CLEAN MOBILITY SOLUTIONS ARE SUPPORTING SENIORS AND LOW-INCOME CALIFORNIANS

CARB's *Clean Mobility Options* program is reducing GHG emissions, improving air quality, and advancing equity by connecting disadvantaged and low-income communities to key destinations through shared mobility projects. Cumulatively, the 51 projects implemented by the Clean Mobility Options program are contributing to an estimated 11,000 $MTCO_2e$ in GHG emissions reductions.

In Los Angeles, residents of the affordable housing community Rancho San Pedro lack reliable transit for errands, job opportunities, and appointments and suffer from severe air quality issues. The Los Angeles Cleantech Incubator's *Zero Emissions Shared Mobility for Rancho San Pedro* project will expand resident access to economic opportunities and promote public health by providing affordable, on-demand travel options and reducing harmful air pollution. Four electric bike (e-bike) hubs will equip the city's 21acre housing project with a fleet of 16 e-bikes and 4 e-cargo bikes. *Learn more*.

The City of Chula Vista is using close to $1 million in Clean Mobility Options program funding to launch an all-electric *on-demand community shuttle service in northwest Chula Vista.* This service focuses on the local senior community, many of whom cannot physically drive or cannot afford to drive. This funding will help make transportation for seniors in the community easier, smarter, safer, and more affordable with the operation of four zero-emission vehicles, one of which will be American Disabilities Act accessible. Focusing on trips to and from healthcare, grocery, senior living facilities, retail, and social activities, among other destinations, the project is enhancing access in a way the community has identified as important. *Learn more*.

## REDUCING SHORT-LIVED CLIMATE POLLUTANTS

Other California Climate Investments programs are reducing GHG emissions by tackling short-lived climate pollutants, which are powerful climate forcers that have relatively short atmospheric lifetimes. These pollutants include the GHGs methane, hydrofluorocarbons, and anthropogenic black carbon. Because short-lived climate pollutant impacts are especially strong in the near-term, acting now to reduce their emissions can have an immediate beneficial impact on climate change and public health.

CalRecycle's *Food Waste Prevention and Rescue Grants* program is reducing the short-lived climate pollutant methane by diverting food from landfills and promoting distribution of rescued food to members of low-income communities and households, contributing to an estimated reduction of 569,000 $MTCO_2e$. CARB's *Fluorinated Gases Emission Reduction Incentives* program is funding the installation of new refrigeration systems that operate without super-polluting hydrofluorocarbon gases, which result in significant near-term GHG emissions reductions.

Many of these projects not only reduce emissions from short-lived climate pollutants, but they also provide renewable energy benefits. For example, CalRecycle's *Organics Grants* program is capturing methane using anaerobic food waste digesters and injecting it into local gas utility pipelines as a replacement for fossil gas. CDFA's *Dairy Digester Research and Development Program* is implementing a first-of-its kind *fuel cell technology to capture methane and generate renewable electricity without combustion*. Over 10 years, this fuel cell project is estimated to reduce 374,400 $MTCO_2e$.

### PROJECTS REDUCING SHORT-LIVED CLIMATE POLLUTANTS

**15** Projects reducing hydrofluorocarbons through climate-friendly refrigerant technologies

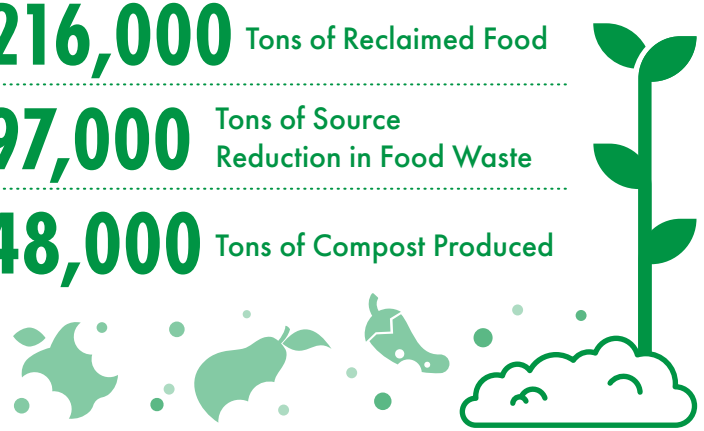
**4.8 MILLION** Tons of Waste Diverted From Landfills

**2.4 MILLION** Tons of Waste Digested

**216,000** Tons of Reclaimed Food

**97,000** Tons of Source Reduction in Food Waste

**48,000** Tons of Compost Produced



**CAPTURED METHANE RENEWABLE FUEL USE**

**600 MILLION STANDARD CUBIC FEET**
Renewable Energy Generation

**354 MILLION kWh**
Renewable Energy Generation

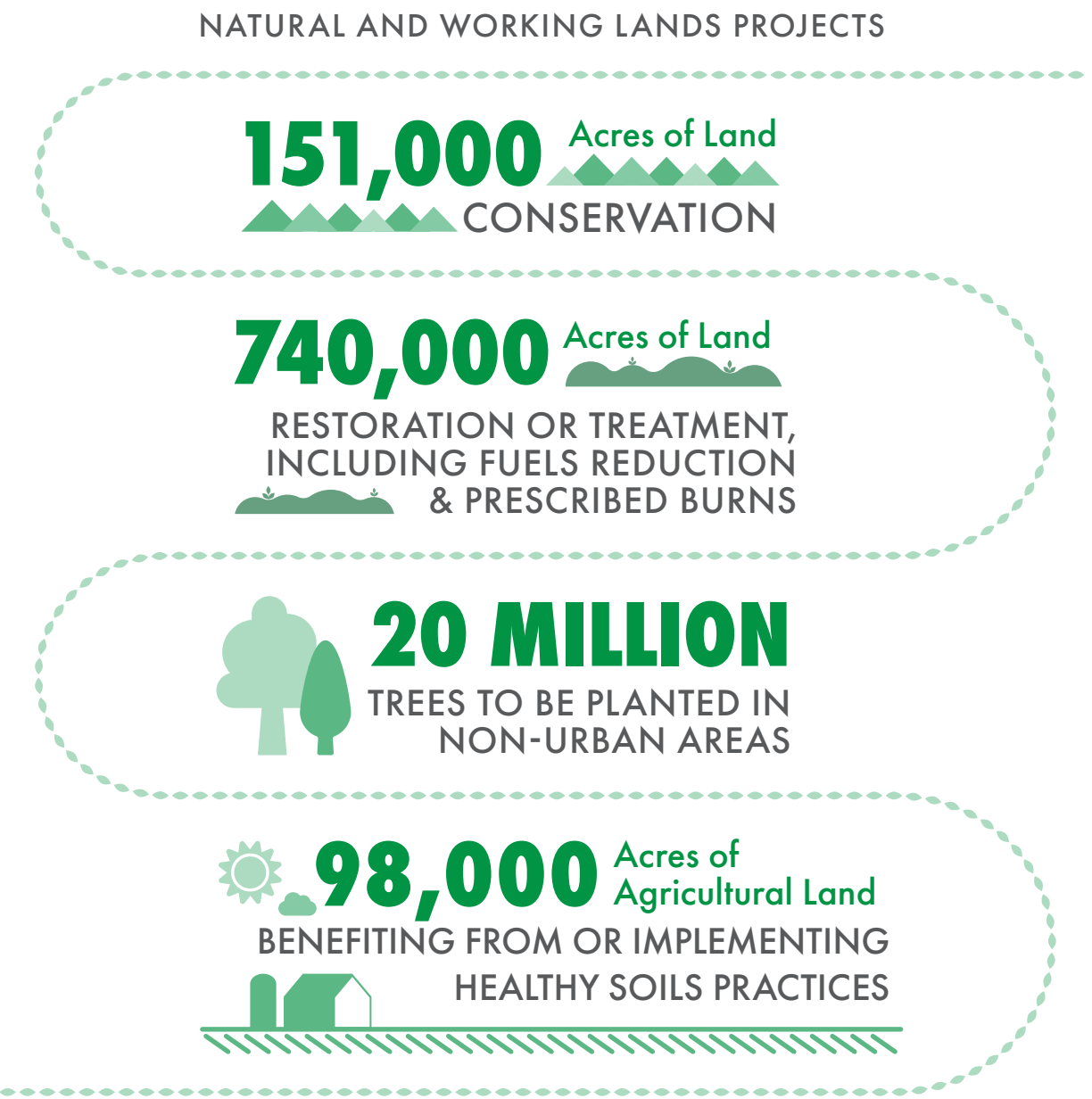
**244 MILLION GALLONS**
Renewable Transportation Fuel Generation

Expected achievements over project lifetimes. Data as of November 2022.

## SEQUESTERING CARBON AND REDUCING EMISSIONS THROUGH NATURAL AND WORKING LANDS PROJECTS

By implementing nature-based solutions, many California Climate Investments programs are sequestering carbon, increasing resilience to climate impacts, and preventing GHG emissions. For example, CAL FIRE's *Forest Health Program* supports projects that proactively restore forest health through reintroduction of fire into forests and woodlands to achieve wildfire resilience, reduce GHG emissions, and promote the longterm storage of carbon in forest trees and soils. Cumulatively, the program is contributing to an estimated 19.0 $MMTCO_2e$ in GHG emissions reductions.

Other programs, such as CDFA's *Healthy Soils Program,* provide financial incentives for on-farm management practices that sequester carbon, including soil management and establishment of herbaceous and woody cover, and demonstration projects showcasing these practices, all of which are estimated to reduce GHG emissions by 504,000 $MTCO_2e$. These programs, along with several others, support natural and working lands that provide life-sustaining resources including clean air, water, and food while contributing to a carbon neutral future.




Expected achievements over project lifetimes. Data as of November 2022.

# INVESTMENTS IN ACTION

## SEQUESTERING CARBON THROUGH LAND MANAGEMENT AND TRIBAL PARTNERSHIPS

Natural and working lands programs are addressing climate change by protecting and restoring organic carbon in soil while improving water quality, managing invasive pests, incorporating traditional ecological knowledge and cultural burning practices, and more.

Through a partnership between University of California Riverside and the La Jolla Band of Luiseño Indians, Squaxin Island Tribal member and graduate student Joelene Tamm is investigating how indigenous burning and traditional ecological knowledge can support management of goldspotted oak borer infestations over large areas in California oak woodlands. The goldspotted oak borer is an invasive wood-boring beetle that has caused widespread oak tree mortality throughout southern California. Funded through CAL FIRE's *Forest Health Research Program*, this research will develop heat treatment guidelines for infested firewood and inform beneficial fire practices to reduce infestations. Indigenous fire practices may offer a low-cost landscape-level management strategy to reduce goldspotted oak borer populations and promote healthy oak woodland ecosystems that sequester carbon throughout tribal, state, federal, county, and private lands. Researching indigenous perspectives on forest health and best management practices brings the indigenous community, neighboring land management agencies, and the University of California together to find a working solution to slow the impact and rate of spread of infestations. *Learn more*.

## SEQUESTERING CARBON THROUGH LAND MANAGEMENT AND TRIBAL PARTNERSHIPS *(continued)*

Van Norden Meadow, known by the Washoe Tribe as "Yayalu Ipbeh," is one of the largest sub-alpine meadows in the Sierras and lies within a valley home to a rich history, including use by tribes as a meeting area and a place of trade. With funding from the California Department of Fish and Wildlife's *Wetlands and Watershed Restoration Program*, the South Yuba River Citizens League, together with the Washoe Tribe and federal, state, local, and nonprofit partners, are restoring 485 acres of high-elevation meadow habitat in Placer and Nevada counties. The project is estimated to sequester 34,328 $MTCO_2e$, while simultaneously supporting wildlife, bolstering ecosystem, climate, and community resilience, and improving community access to natural resources—ultimately enhancing the socioeconomic benefits that the cultural and natural history of Van Norden Meadow have to offer. *Learn more*.

## COST-EFFECTIVENESS OF GHG EMISSIONS REDUCTIONS

As detailed in *Appendix A*, California Climate Investments are reducing GHG emissions at an average cost of $96 per $MTCO_2e$.[23] These figures do not account for other funding sources (leveraged funds) that may also support these investments.

Cost-effectiveness of GHG emissions reductions is an important metric but does not fully capture the important benefits that California Climate Investments programs provide in supporting the transition to an equitable, Low-Carbon future. Some programs are facilitating GHG emissions reductions by directing funding towards engagement, outreach, and capacity building to help ensure community members have the resources and skills necessary to design and implement projects that address local needs. Others are mobilizing public funds to spur innovation of the next generation of clean energy technologies, demonstrate proof of concept, and accelerate commercialization. These initial investments provide long-term benefits.

California Climate Investments programs are reducing GHG emissions at an average cost of **$96 per $MTCO_2e$**

23 Some programs are designed to facilitate GHG emissions reductions but not to directly reduce emissions. The costs of those programs are included in the cost effectiveness average, which represents the portfolio-wide average for all California Climate Investments.

# INVESTMENTS IN ACTION

## INCENTIVIZING NEXT GENERATION TECHNOLOGIES

CARB's *Advanced Technology Demonstration and Pilot Projects* program is deploying multiple projects throughout Los Angeles to accelerate innovation and uptake of emerging zero-emission technologies.

For example, the *Zero Emissions for California Ports project* is validating the commercial viability of zero-emission yard trucks at the Port of Los Angeles. This project is intended to demonstrate to port terminal operators that fuel cell-powered, zero-emissions yard trucks are a safe, reliable, and operationally preferable solution to meet the port's clean air action plan.

Through the deployment of 21 electric trucks, charging infrastructure, and solar energy generation at three Anheuser-Busch beverage handling and distribution services, the *Zero-Emission Beverage Handling and Distribution at Scale Project* is demonstrating how to reach zero emissions across the range of activities at distribution facilities with minimal modifications to fleet logistics.

## Climate Investment Co-benefits

In addition to reducing GHG emissions, California Climate Investments supports California's holistic approach to addressing the climate challenge by providing a wide array of environmental, economic, and public health co-benefits. Some programs are increasing access to transit and active transportation infrastructure, which lowers transportation costs, expands opportunities for employment, and can provide health benefits from more active travel. Other programs are helping to build community resilience by mitigating extreme heat through urban greening and reducing the risk of catastrophic wildfire. Agencies continue to report these co-benefits, which support state goals and legislative and community priorities.

Over project lifetimes, projects implemented in 2022 are estimated to provide such co-benefits as:

- Reduction of vehicle miles traveled reduced by 12 billion[24]
- 2,000 tons of waste diverted from landfills
- Fossil fuel use reduced by 400 million gallons
- More than $210 million in energy cost savings for Californians
- Nearly 290 tons diesel particulate matter reduced
- 7,584 tons criteria air pollutants reduced

24 This reduction includes changes in the total miles that vehicles travel due to mode shift from personal vehicles to biking, walking, transit, or vanpool or projects that restrict urban sprawl and promote infill development.

# INVESTMENTS IN ACTION

## MITIGATING EXTREME HEAT AND GREENING SCHOOL CAMPUSES

With funding from the California Natural Resources Agency's *Urban Greening Program*, TreePeople is partnering with Pacoima students and residents to transform Pacoima Middle School's asphalt campus into a more green, vibrant, and healthy learning space. This nature-based, multi-benefit initiative will remove about 13,000 square feet of heat-radiating asphalt at the school and replace it with ecologically diverse low-water-use gardens and shade trees. These parklike green spaces will reduce temperatures and improve students' mental and physical well-being. Through community planting events, community workshops, teacher workshops, and hands-on environmental service-learning projects, this project is empowering students and residents to act as stewards of their urban green spaces and forest and ensure that the project will be a community benefit for years to come. *Learn more*.

## PUBLIC HEALTH BENEFITS

Many sources of GHG emissions in California contribute to poor public health, particularly in communities with disproportionate pollution burdens and specifically, communities of color. There are clear disparities with respect to the racial makeup of the communities with the highest pollution burdens and vulnerabilities. People of color, especially Latino and Black people, disproportionately reside in highly impacted communities in California.[25] Air pollution from the production and use of fossil fuels contributes to high rates of asthma, cardiovascular disease, and other public health effects. Impacts from climate change like extreme heat, wildfire smoke, and drought-related water scarcity further contribute to negative public health outcomes. Across the board, climate impacts and other public health stressors are more likely to affect low-income and disadvantaged communities.

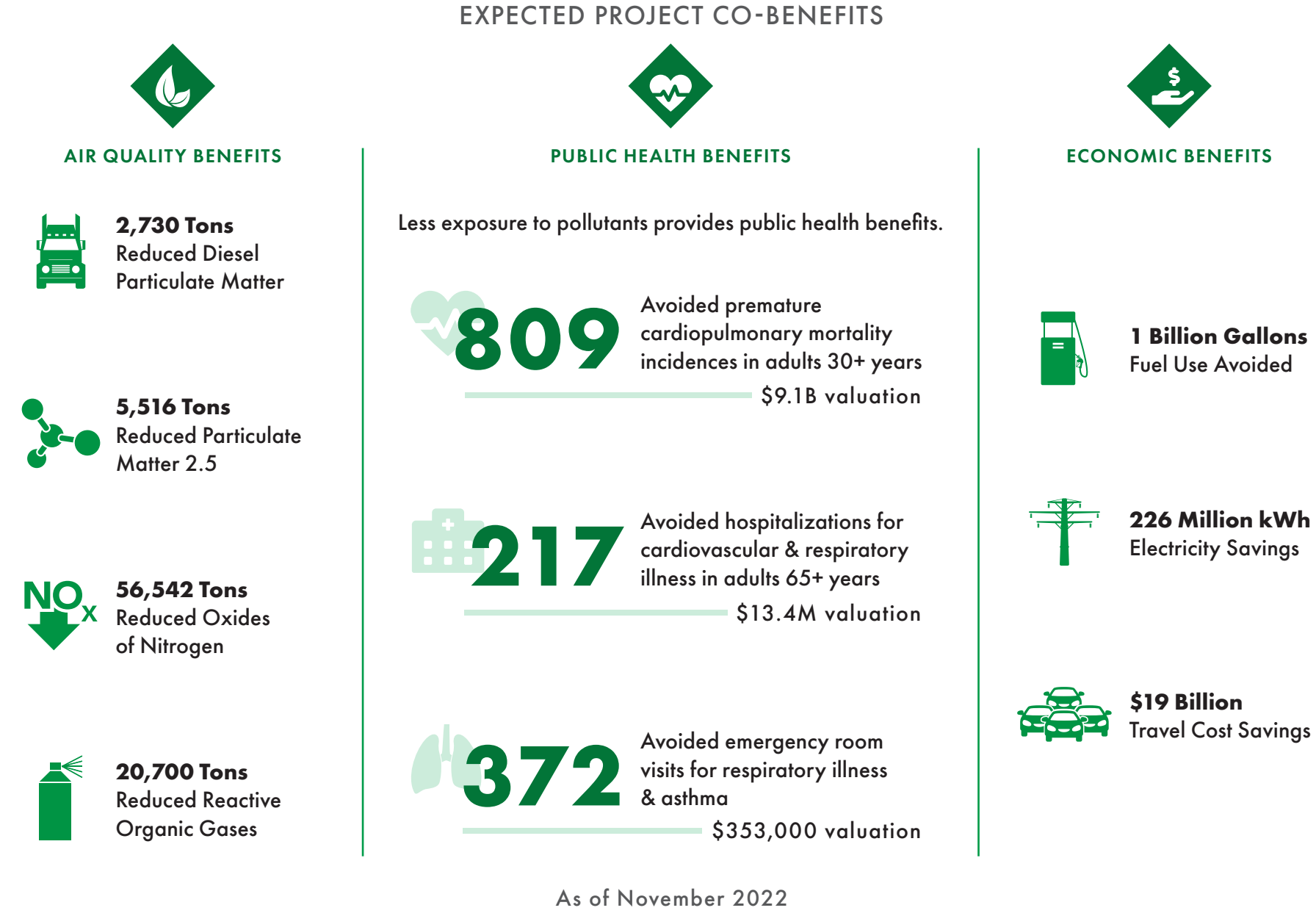
California Climate Investments projects can contribute to positive public health outcomes through such benefits as improved air quality, access to open space and physical activity, reduced exposure to extreme heat, and clean drinking water. While many of these benefits are not currently quantified, CARB does estimate the benefits associated with air pollutant emissions reductions for projects that have reported reductions of particulate matter, diesel particulate matter, oxides of nitrogen, and reactive organic gases. Reduced exposure to these air pollutants can provide health benefits, resulting in cost benefits associated with avoided trips to the emergency room, fewer hospitalizations, and avoided premature mortality.


Figure 6 displays the quantified health benefits from air pollutant emissions reductions. Heart and lung health co-benefits are estimated based on reductions from all California Climate Investments projects that were able to quantify and report these benefits, including projects from on-road mobile, off-road mobile, and stationary sources in the transportation, energy, natural and working lands, and waste sectors.[26]

25 *Analysis of Race/Ethnicity and CalEnviroScreen 4.0 Scores*. Office of Environmental Health Hazard Assessment. 2021.

26 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 6: Cumulative expected co-benefits from implemented projects



# INVESTMENTS IN ACTION

## PROTECTING FORESTS FROM CATASTROPHIC FIRE

California Climate Investments projects are increasing the resilience of forests across the state—work critical to achieving the state's carbon goals. CAL FIRE's *Forest Health Program* is protecting forests from catastrophic wildfire while providing multiple co-benefits such as reduced air pollution, improved water quality, enhanced wildlife habitat, and climate resilience.

Forest resilience treatments helped to save some of the world's most iconic trees in one of the most famous national parks. Protecting the ancient giant sequoias in the largest and most popular of Yosemite's sequoia stands was an immediate concern for land managers when the Washburn Fire broke out near Mariposa Grove in July 2022. Fortunately, fuels reduction work completed through a partnership between Mariposa County Resource Conservation District, the National Park Service, and local tribal forest crews reduced the fire's severity and helped firefighters protect the grove. Treatments included removal of roadside hazard and downed trees, fuels reduction, and transportation of the woody debris to local biomass facilities. This work was critical in helping firefighters to hold the fire line and protect the nearby community of Wawona and the giant sequoias. Additionally, these forest resilience treatments prevented the release of additional GHG emissions and maintained carbon sequestration benefits. *Learn more*.

## PROTECTING FORESTS FROM CATASTROPHIC FIRE *(continued)*

Forests in San Diego County have experienced heavy losses from catastrophic fires and invasive pest infestations. Now, at the home of one of San Diego County's last mixed conifer forests, a collaborative of landowners led by the San Diego Fire Safe Council and the Resource Conservation District of Greater San Diego County is implementing a landscape-scale restoration project to ensure Palomar Mountain's forests are resilient to future wildfires. California Climate Investments funding has been instrumental to this project from planning through implementation. A *2019 Regional Forest and Fire Capacity grant helped bring together landowners* across the 1,600 acre project footprint to strategize on the most appropriate measures to manage the landscape. The Forest Health Program is helping project proponents take the next step by reducing fuels and reintroducing fire to improve existing forest stands, and reforesting areas where forests have been decimated by fire and pests.

The project is also providing multiple education and on-the-job training avenues for tribal youth and other tribal members, helping prepare local tribal members for natural resource and fire employment opportunities. By reducing wildfire risk, project treatments are also intended to benefit the California spotted owl, a species of special concern. Project partners are monitoring the project's effects on owl habitat to improve understanding of the species' current and future status on Palomar Mountain. *Learn more*.

# Supporting Workforce Development and Employment Opportunities

As California's economy continues to transition to support clean energy and transportation, improve mobility, and sustainable land use and management, workforce needs will evolve. The types of available jobs and skills needed to obtain and progress in those careers will also change. California Climate Investments is helping to facilitate this transition through dedicated workforce development and training, establishing partnerships with training programs and academic institutions, and investing in projects that provide employment opportunities while facilitating GHG emissions reductions.

Some California Climate Investments programs are focused specifically on developing the workforce for a low-carbon future. The California Conservation Corps' *Training and Workforce Development Program* provides funding for job training and workforce development in building energy efficiency and forestry sectors. The CEC, in partnership with CARB, is administering the *Inclusive, Diverse, Equitable, Accessible, and Local (IDEAL) ZEV Workforce Pilot,* which provides workforce training and development for priority populations on zero-emission vehicles, infrastructure, and commercial technologies in California.

Funded projects demonstrate community and employer engagement and a path toward zero-emission vehicle jobs in the state. The California Workforce Development Board's *Low-Carbon Economy Workforce* program supports sector-based regional partnerships, research and development of workforce programs, transition planning, regional economic and workforce planning, and technical assistance. Together, these three programs have cumulatively invested over $55.7 million in activities that provide employment opportunities for priority populations.

Across the portfolio, California Climate Investments supports jobs in several ways:

- Projects directly employ people for project development, implementation, and maintenance.
- Projects increase access to employment opportunities through funding for workforce development programs, convenient and sustainable transportation options, and affordable housing near job centers.
- Programs indirectly support jobs in California industries that supply the goods and services needed to implement projects.
- Projects that support direct and indirect jobs provide economic benefits to project participants or support additional induced jobs throughout the California economy by generating additional household demand for goods and services.

Administering agencies report on jobs in two ways:

1. Modeled Jobs, which is an estimate of the number of direct, indirect, and induced jobs a project may support.
2. Employment Outcomes, which reflects actual employment associated with the project.

Both reporting types provide information on the employment benefits associated with investments, but these estimates should not be added together nor compared. For both reporting types, the number of jobs supported is estimated in annual full-time equivalent employee positions, equal to approximately 2,080 hours of work. Some project types will report more jobs per dollar spent than others because of differences in the mix of spending on materials, equipment, and labor across project types and funding arrangements.

## MODELED JOBS

For all projects, administering agencies estimate the number of jobs that will be supported using *CARB's jobs co-benefit assessment methodology and calculator tool*. This methodology uses a model to identify potential employment benefits from California Climate Investments projects using general employment information for various industries rather than employment information for an individual project. Modeled jobs include three types: direct, indirect, and induced.

Since CARB began collecting these data in 2019, California Climate Investments awarded funds to projects that are estimated to support 75,000 direct, indirect, and induced jobs, with over 15,000 of those jobs attributable to funds implemented in 2022.[27,28]

**Directly Supported Jobs**

Labor to complete projects through direct employment or contracted work (e.g., housing construction or ecosystem restoration) and labor to produce equipment or materials purchased (e.g., manufacturing zero-emission vehicles).

**Indirectly Supported Jobs**

Labor related to the supply chains supporting 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, or 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.

**Cumulative Modeled Jobs**

39,000+
directly supported jobs

13,000+
indirectly supported jobs

23,000+
induced jobs

27 These estimates are of jobs supported by GGRF dollars, not necessarily created by these investments. In addition, the model is unable to estimate when these jobs will occur or how long the jobs will last (i.e., the difference between temporary construction jobs and permanent implementation or maintenance positions).

28 The High-Speed Rail Project uses a different methodology than other California Climate Investments programs to estimate modeled jobs. See *the Economic Impact of California High-Speed Rail 2023 report* for modeled jobs attributable to the High-Speed Rail Project.

# INVESTMENTS IN ACTION

## HIGH ROAD TO TRIBAL FOREST RESTORATION AND STEWARDSHIP

California Climate Investments' workforce training and development projects are part of a larger initiative to transition to a low-carbon economy that prioritizes high-quality, family-supporting jobs across multiple industries and sectors.

The California Workforce Development Board's *Low-Carbon Economy Workforce* program is providing foundational training and skill building tied directly to work experience in forest health and landscape restoration through the High Road to Tribal Forest Restoration and Stewardship project. Forest restoration workers are in high demand and critical to reaching state goals surrounding forest and watershed health, carbon sequestration, and reduction of catastrophic wildfire risk. Through a partnership between tribes, nonprofits, and regional employers, the project has formally engaged with 14 tribes and trained participants from over 20 tribes. The partners are all working to increase employment opportunities and to build capacity for tribal forest restoration crews. In 2022 alone, the program served 272 unique individuals from California tribes. A central principle of the partnership is to support and develop tribal capacity for restoration work along with individual skills. *Learn more*.

## EMPLOYMENT OUTCOMES

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 encouraged, and in some cases required, to also report information on actual employment outcomes (the number of full-time equivalent jobs) from projects that provide jobs or job training. These are jobs that are actively putting Californians to work helping achieve carbon neutrality. Across the state, people are working on California Climate Investments projects in a variety of fields, including energy efficiency, forestry, research, engineering, accounting, administration, and logistics.

Administering agencies are required to submit information, if available and consistent with confidentiality protections, for any project that uses the *Jobs Training and Workforce Development benefit criteria table* to claim priority population benefits, or for any project where total project costs, including both GGRF and other funding sources, exceed one million dollars. Nearly half of all California Climate Investments programs have at least one project that meets these criteria and has reported employment outcomes. Several other programs report employment outcomes even when they are not required to do so. When reporting employment outcomes, administering agencies provide information on jobs immediately associated with implementation of the project, including employees of the awardee and subcontractors. Agencies do not report on jobs associated with the supply chain used to manufacture items used in the project.

Cumulatively, agencies have reported the equivalent of 21,300 full-time actual jobs associated with implemented projects.[29] Additional information about employment outcomes resulting from individual California Climate Investments programs can be found on their respective *program pages*. As only a subset of programs and projects are required to submit employment outcomes information, totals presented here and in the program pages tend to understate the true employment outcomes achieved by California Climate Investments.

**Cumulative employment outcomes**:

California Climate Investments projects reported

**21,300 actual jobs**

29 Many projects receive additional funding from other sources, in part leveraged by California Climate Investments funds. Employment outcomes reported by agencies include jobs supported by all funds associated with a given California Climate Investments project. Furthermore, reported employment outcomes do not include state administering agency staff and only track those jobs that are directly connected to investments.

# INVESTMENTS IN ACTION

## HIGH-SPEED RAIL

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 megaregions 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. Funded in part by California Climate Investments, the project is contributing to economic development and a cleaner environment, supporting jobs, and conserving agricultural and protected 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 $MMTCO_2e$ over its first 50 years of operating life, as detailed in the *2022 California High-Speed Rail Sustainability Report*.

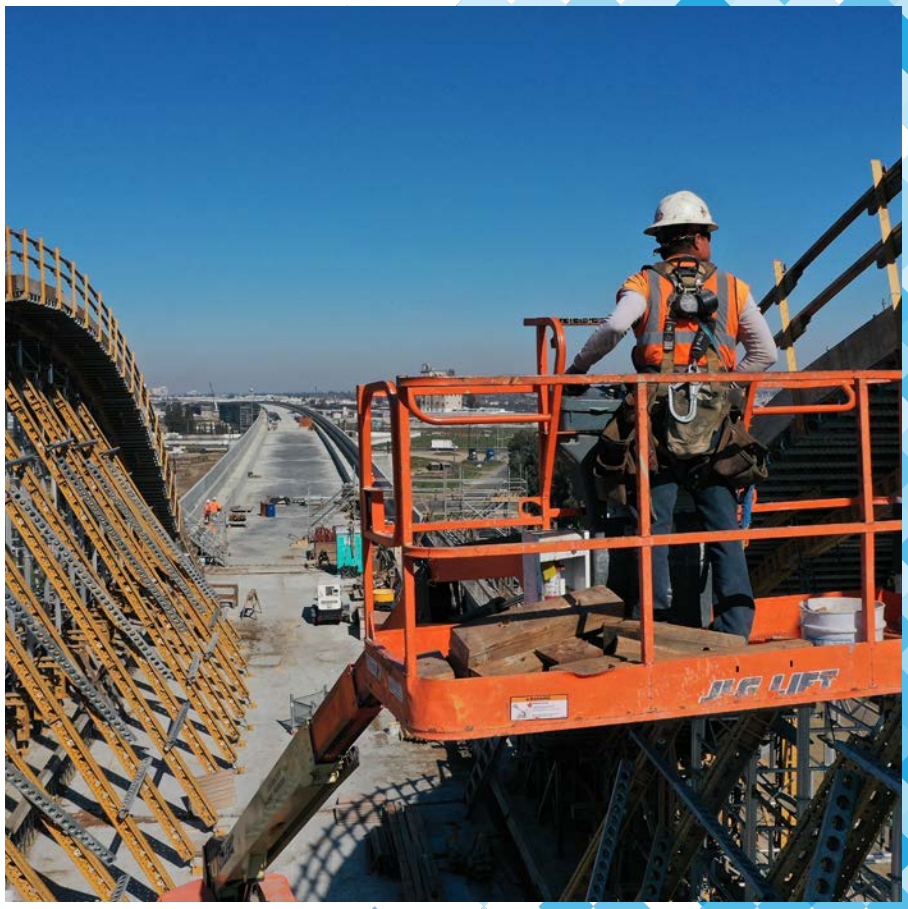
As of November 2022, the High-Speed Rail Project has been appropriated $5.4 billion from the GGRF. Of the total projected cost of $93-94 billion, California Climate Investments has provided approximately 5 percent of the overall funds, with a significant portion of funds leveraged from other sources. Cumulatively, the High-Speed Rail Project has expended $4.3 billion of appropriated GGRF funds toward project completion. See the *California High-Speed Rail Authority's 2022 Business Plan for more information on expenditures and funding.*

## HIGH-SPEED RAIL *(continued)*

The Authority estimates that, from July 2006 through June 2022, 56 percent of total project expenditures, including GGRF and other sources, has occurred in census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0. 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 2023 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.

The Authority's *Community Benefits Agreement* contains a Targeted Worker Program that ensures that 30 percent of all project work hours are performed by National Targeted Workers, and at least 10 percent of those work hours are performed by Disadvantaged Workers, including veterans.[30] Analysis by the Authority shows that 65 percent of work hours have been performed by Disadvantaged Workers.




30 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).

# 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 advance equitable participation in California Climate Investments. In recognition of this, administering agencies have continued to expand the awareness of funding opportunities, strengthen access for priority populations, and engage and support communities during the many stages of project design, development, and implementation. In 2022, agencies provided accessible and translated materials, conducted technical assistance, and collaborated with diverse audiences through virtual meetings, public comment periods, peer learning workshops, and more to increase knowledge of, and access to, California Climate Investments and to inform program development.

Working with communities to provide tailored outreach and community engagement helps ensure that priority populations can access and benefit from California Climate Investments. The California Climate Investments *website*, social media channels (*Facebook* and *Twitter*), and *newsletters* continue to serve as key outreach tools for building awareness of programs and funding opportunities and supporting interagency cooperation. Throughout 2022, the Lee Andrews Group provided critical support for these outreach efforts through a contract with CARB and are partnering with CARB to undertake efforts to implement new outreach and engagement strategies that more effectively welcome the participation of all Californians in California Climate Investments.

Outreach by the Numbers

**566 events**

**45,000+ participants**

**72% featuring remote participation**

# INVESTMENTS IN ACTION

## INCLUSIVE COMMUNITY ENGAGEMENT BENEFITS PRIORITY POPULATIONS

In addition to outreach and engagement activities aimed at building the awareness of California Climate Investments funding and participation opportunities, administering agencies fund community engagement as key components of programs. From community leadership and decision-making to collaboration and partnership to consultation, these activities are as diverse as the projects themselves.

For example, CARB's *Sustainable Transportation Equity Project* provides funding for communities to engage in planning activities that are needed to successfully apply for future grants and to implement projects that are responsive to community needs. In San Bernardino County, Omnitrans is partnering with community-based organizations to conduct meaningful and comprehensive community outreach and engagement to develop a transit plan driven by the needs of disadvantaged and hard-to-reach communities. Supported by a STEP planning grant, the ConnecTransit Plan will provide a blueprint for future clean transportation improvements that advance equity and expand access within the Omnitrans service area. In 2022, the project conducted outreach, held community-based organization-led community meetings, and conducted surveys to understand community priorities. *Learn more.*

The City of Commerce, together with a resident advisory group and nonprofit partners Climate Resolve and TreePeople, is providing residents with more clean transportation options via a STEP implementation grant. The project is addressing community-identified needs by expanding dial-a-ride shuttle service and weeknight bus service through new electric shuttles and buses, planting over 400 trees to provide shade to pedestrians, and constructing the city's first bike lanes. Paired with community events, interactive biking workshops, and community rides, the project is helping to advance mobility options and bringing the community's vision to life. *Learn more.*

## TECHNICAL ASSISTANCE

Across the portfolio, administering agencies are increasingly providing technical assistance as a component of programs to increase access to California Climate Investments programs, particularly for those applicants that live in the state's most disadvantaged communities. For example, SGC's *Technical Assistance Program* helps agencies and organizations serving priority populations provide application support, implementation assistance, and capacity building activities to eligible applicants. SGC works closely with administering agencies to design technical assistance that is tailored to the needs of each program and its applicants, including providing funding for partner agencies to hire third-party technical assistance providers with expertise in each program's focus area.

In 2022, SGC released a *third-party evaluation report*, which assesses the efficacy and impact of the California Climate Investments Technical Assistance Program. The evaluation report uplifts the strengths of the program to continue and replicate while also providing actionable recommendations to improve technical assistance provision. While this evaluation focused on the California Climate Investments Technical Assistance Program, the lessons learned from this effort can inform technical assistance, capacity building, and the removal of structural barriers across many state programs and initiatives.

This evaluation can be used by other programs and agencies beyond California Climate Investments to provide technical assistance in a way that advances equity and builds community capacity. For example, in February 2022, the SGC Council *passed a Resolution* to build on SGC's existing technical assistance efforts and further promote and integrate capacity building across SGC and partner agency initiatives.

This past year, SGC also unveiled the first-ever state *Racial Equity Resource Hub*, a public one-stop-shop of resources, best practices, and tools to help agencies, organizations, and individuals advance racial equity. Resources in the hub include technical assistance and capacity building best practices to help inform California Climate Investments programs as well as programs that receive funding from other sources. California Climate Investments resources such as *Community Connections* and fact sheets on funding opportunities by audience, such as for *farmers* or *businesses*, have been added to the Hub so far.

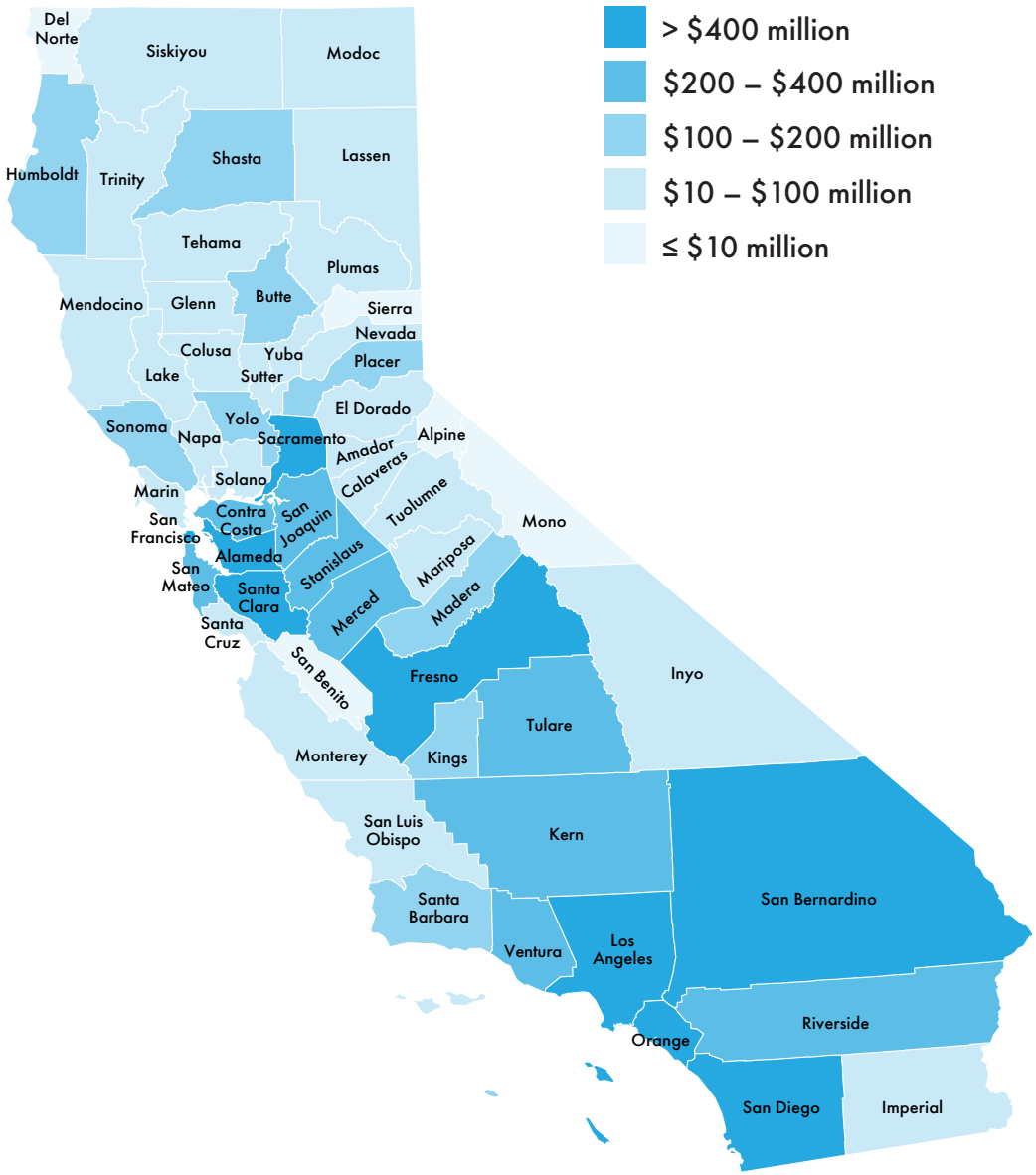
# Reaching Across California

California Climate Investments span all areas of the state. Each administering agency designs programs and selects projects, with many targeting certain populations or geographies. From Indio to Arcata, San Diego County to Modoc County, California Climate Investments is undertaking coordinated action throughout the state to reduce GHG emissions and provide 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*
- *Geographic Breakdown of Investments by Region, Metropolitan Planning Organization, County, Rural/Urban County Designation, and Legislative District*
- *Investment Fact Sheets by Assembly Districts*
- *Investment Fact Sheets by Senate Districts*

Figure 7: Geographic analysis of funding distribution



# INVESTMENTS IN ACTION

## TULARE CROSS-VALLEY CORRIDOR

California Climate Investments projects are expanding transit across regions, providing communities with new zero-emission options for accessing key destinations. The Tulare Cross-Valley Corridor Zero-Emission Bus Expansion project is working to reduce vehicle miles traveled, GHG emissions, and road traffic regionally by increasing transit ridership and helping to make transit a competitive option to driving. With funds from CalSTA's *Transit and Intercity Rail Capital Program*, the Tulare Country Regional Transit Agency and project partners are developing the long-planned east-west corridor mixed freight and passenger bus and rail system. The project includes new multimodal transit centers in both Kings and Tulare counties to provide greater connectivity and mobility options for rural communities, and new zero-emission feeder buses which will operate along the corridor. A regional zero-emission micro transit operation will connect north-south underserved communities to the corridor. This much anticipated transit corridor will also link to the upcoming Kings-Tulare High-Speed Rail Station. *Learn more*.

# INVESTMENTS IN ACTION

## MITIGATION AND ADAPTATION AT THE LANDSCAPE SCALE

Funding from CAL FIRE's *Forest Health Program* is supporting multiple projects in Northern California that are advancing climate mitigation and adaptation at the landscape scale.

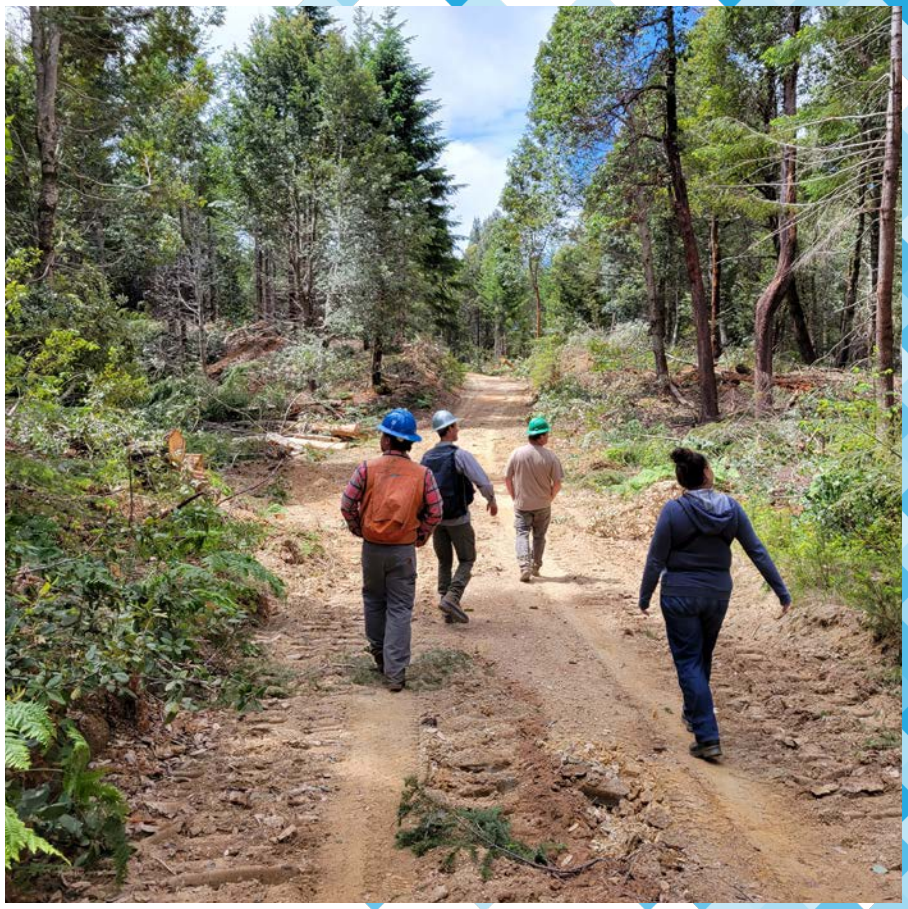
The Western Klamath Restoration Partnership, a collaborative group coled by representatives from the Karuk Tribe, Mid Klamath Watershed Council, Salmon River Restoration Council, the U.S. Forest Service, and many others, is working to restore forest resilience at the landscape scale along the Klamath River. This project is part of a larger effort by the Western Klamath Restoration Partnership to improve forest health and resilience across a 1.2 million-acre planning area that includes much of the Karuk Tribe's ancestral homelands.

Through this project, the partnership is carrying out integrated pest management and fuels reduction treatments across 8,000 acres. Project partners have completed over 4,000 acres of vegetation thinning and prescribed fire treatments through 2018 and 2021 CAL FIRE *Forest Health Program* funds, with project completion expected in early 2025. These efforts are reducing vulnerability for various communities including Happy Camp, Orleans, Somes Bar, Forks of Salmon, and Cecilville, as well as protecting natural and cultural resources. *Learn more*.

## MITIGATION AND ADAPTATION AT THE LANDSCAPE SCALE *(continued)*

In Humboldt County, the Yurok Tribe and Western Rivers Conservancy have worked together over the past decade to purchase lands in the Blue Creek watershed to return Yurok ancestral lands to Yurok ownership. Now, these partners are teaming up with the Humboldt County Resource Conservation District and CAL FIRE to implement forest health and fuels reduction work in the watershed to protect natural, cultural, and spiritual values in a key watershed in the Yurok Tribe's ancestral homeland.

When completed, the project will reduce fuel loads while retaining the healthiest and largest trees, facilitate the return of cultural burning practices, improve wildlife habitat, and create employment opportunities for Yurok Tribe members. CAL FIRE estimates that the project will have a GHG benefit of more than 57,000 $MTCO_2e$ over its lifetime, thanks to increased carbon sequestration on the landscape. *Learn more*.



# Leveraging Funds

In addition to investing in projects that serve multiple geographies and promote collaboration on shared priorities, leveraged funds can help extend the impact of California Climate Investments by increasing the overall number and scale of individual projects. Administering agencies are asked to report on total project costs if they are known at the time of implementation. In 2022, total project costs were reported for $1.1 billion of the total $1.3 billion in implemented projects. Those projects are leveraging an additional $2.2 billion in funding from other sources. Cumulatively, $9.1 billion in implemented projects that report total project costs have leveraged an additional $37.3 billion from other sources. *Appendix C* provides more detail at the subprogram level.

While 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 matching funds for projects that provide benefits to priority populations or allowing resource contributions in lieu of matching funds.

## Demand for Funding

In 2022, demand for funding continued to exceed available funds, with strong demand for forestry, wildfire prevention, and transit programs. The Forest Health Program, Wildfire Prevention Grants, and TIRCP continue to see exceptionally high demand. *Appendix D* provides statistics on applications received compared to applications selected for funding in 2022 for each competitive program.

Building on the success of California Climate Investments, the state is taking several steps to address the continued demand for funding. Many programs that have received or continue to receive funds from the GGRF are now also receiving appropriations from the General Fund to help expand the impact and increase access to funding. For example, the Legislature appropriated General Fund dollars to CARB's suite of low carbon transportation programs to augment funds appropriated from Cap-and-Trade auction proceeds. The multiyear, multi-agency zero-emission vehicle incentive package[31] to equitably decarbonize the transportation sector and improve public health included appropriations for CARB's *Clean Vehicle Rebate Project* and the *Clean Mobility Options* program among many others.

SB 27[32] also provides an opportunity to expand the impact of California Climate Investments programs by leveraging other funding sources to implement projects that achieve GHG emissions reductions and carbon removal benefits. In 2022, agencies began designing the framework for the implementation of SB 27, which requires the California Natural Resources Agency to develop and maintain a registry of projects seeking state and private funding to drive climate action on the state's natural and working lands. This registry will include projects that previously applied for but did not receive funding from California Climate Investments programs due to limited availability of funds. California Climate Investments quantification methodologies may play a role in ensuring registry projects provide carbon benefits.

31 *The California Blueprint: Forging an Oil-Free Future, Protecting Californians from the Extremes of Climate Change*. Office of Governor Gavin Newsom. 2022.

32 Skinner, Chapter 237, Statutes of 2021.

# ADDITIONAL POLICY DEVELOPMENTS

Since the last Annual Report, there have been several notable legislative and policy developments for California Climate Investments. In collaboration with local, state, and federal partners, California Climate Investments is exchanging lessons learned and best practices to help bring the program into the future and export the California Climate Investments model for other burgeoning climate programs. Additionally, CARB launched the multiyear process to update the guiding policy documents for California Climate Investments. As California Climate Investments enters its tenth year of projects, these updated documents will reflect the latest policy developments and apply lessons learned from the first decade of the program.

## Legislative Developments

Two new pieces of legislation in 2022 changed aspects of California Climate Investments programs:

- *AB 1644* (Flora, Chapter 202, Statutes of 2022): Exempts the CAL FIRE grant programs that receive GGRF dollars from the employer and procurement standards established by AB 680 (Burke, Chapter 746, Statutes of 2021).
- *SB 942* (Newman, Chapter 988, Statutes of 2022): Changes the frequency that transit agencies must submit allocation requests for transit pass programs in the *Low Carbon Transit Operations Program*.

Visit *CARB's website* for more information about key legislation related to California Climate Investments.

## State and Federal Collaboration

Many of California's climate policies have served as models for similar policies in other states and at national and international levels. Moving forward, California will continue its pursuit of collaboration and advocacy for action to address climate change at all levels of government. As other states and the federal government expand climate programs, the California Climate Investments framework can serve as a useful model. In 2022, CARB staff kicked off collaborations with CalSTA, Caltrans, and CEC to improve processes for ensuring clean transportation projects beyond the California Climate Investments portfolio benefit priority populations. At the federal level, staff from across California Climate Investments programs have participated in discussions with state and federal partners on implementation of the Infrastructure Investment and Jobs Act (also known as the Bipartisan Infrastructure Law), the Inflation Reduction Act, and the Justice40 Initiative on developing effective strategies to deliver benefits to disadvantaged communities.

Additionally, California Climate Investments has been collaborating with state agencies and federal programs to exchange lessons learned and best practices on such topics as:

- Quantification methodologies to estimate GHG emissions reductions a nd 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 the overarching focus on co-benefits, equity, and transparency.
- Rigorous criteria for claiming benefits for underserved communities based on community-identified needs.

## Funding Guidelines Update

In 2022, CARB initiated the process of updating the *Funding Guidelines for Agencies Administering California Climate Investments* (Funding Guidelines) to clarify existing language, help programs achieve their goals, and respond to new legislative requirements. CARB released a public survey in fall 2022, the results from which will be used to identify potential updates to the Funding Guidelines, develop resources to help stakeholders achieve the objectives and principles of California Climate Investments, and craft new engagement approaches to expand access to funding. Over 400 interested stakeholders participated in the survey, sharing their thoughts on how California Climate Investments can further support the development of programs, projects, and resources to serve communities while advancing state climate goals.

This survey was the first step in the public process to inform the update of the Funding Guidelines. CARB will continue work in 2023 to understand stakeholder priorities as part of the Funding Guidelines update. *Learn more*.


## 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 *bimonthly newsletter* to stay up to date on opportunities to engage and provide comments, current news, and upcoming solicitations for California Climate Investments programs.
- *Public events calendar*: Learn about upcoming workshops, technical assistance events, and application deadlines.

**Contact California Climate Investments**

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

# APPENDICES

# Appendix A: 2022 Cumulative Statistics

The table below includes cumulative summary statistics for each California Climate Investments subprogram, 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 subprogram 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, administrative expenses are not included in this table. For administrative expenses, see Appendix B. Additional summary statistics on every California Climate Investments program are also available on the *California Climate Investments website*.

| Administering Agency | Subprogram | Cumulative Funding Status ($M) | | | | Benefiting Priority Populations[33] | | Implemented Projects | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Allocated | Awarded[34] | Implemented | Intermediary Administrative Expenses[35] | ($M) | % | GHG Reduction (1,000 $MTCO_2e$) | Cost per GHG ($/ $MTCO_2e$) | Number of Projects |
| California Air Resources Board | Community Air Monitoring | $30.0 | New program for FY 2022-23 | | | | | | | |
| | AB 617 Implementation | $140.0 | $90.0 | $40.0 | $40.0 | TBD | | –[36] | – | – |
| | Community Air Grants | $45.0 | $25.0 | $24.7 | – | $23.4 | 95% | –[36] | – | 94 |
| | Community Air Protection Incentives | $1,164.0 | $958.2 | $494.4 | $61.1 | $409.4 | 94% | 232 | $2,129 | 3,076 |
| | Fluorinated Gases Emission Reduction Incentives | $11.0 | $1.0 | $1.0 | – | $0 | 0% | 37 | $27 | 15 |
| | Funding Agricultural Replacement Measures for Emission Reductions | $419.1 | $419.1 | $276.2 | $9.6 | $191.2 | 72% | 181 | $1,529 | 6,966 |

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

34 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.

35 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.

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

| Administering Agency | Subprogram | Cumulative Funding Status ($M) | | | | Benefiting Priority Populations[33] | | Implemented Projects | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Allocated | Awarded[34] | Implemented | Intermediary Administrative Expenses[35] | ($M) | % | GHG Reduction (1,000 $MTCO_2e$) | Cost per GHG ($/$MTCO_2e$) | Number of Projects |
| California Air Resources Board (cont.) | Advanced Technology Freight Demonstration Projects | $117.2 | $117.2 | $117.2 | – | $117.2 | 100% | 26 | $4,466 | 14 |
| | Agricultural Worker Vanpools | $6.0 | $6.0 | $6.0 | – | $6.0 | 100% | 7 | $842 | 1 |
| | Clean Cars 4 All | $217.0 | $177.0 | $103.6 | $10.6 | $92.9 | 100% | 94 | $1,097 | 12,747 |
| | Clean Mobility in Schools Project | $34.6 | $24.6 | $24.6 | – | $24.6 | 100% | 10 | $2,453 | 3 |
| | Clean Mobility Options | $55.2 | $55.1 | $30.2 | – | $30.2 | 100% | 11 | $2,729 | 51 |
| | Clean Off-Road Equipment Voucher Incentive Project | $425.4 | $152.4 | $55.9 | $4.4 | $42.4 | 82% | 28 | $1,992 | 372 |
| | Clean Truck and Bus Vouchers (HVIP) | $486.4 | $671.8 | $262.8 | $5.9 | $155.1 | 60% | 987 | $266 | 4,423 |
| | Clean Vehicle Rebate Project[37] | $1,046.1 | $1,020.1 | $997.8 | $15.3 | $307.3 | 31% | 5,171 | $193 | 410,830 |
| | Financing Assistance for Lower-Income Consumers | $57.4 | $41.9 | $22.8 | $1.1 | $18.3 | 85% | 26 | $873 | 3,893 |
| | Outreach, Education, and Awareness | $10.0 | $10.0 | $10.0 | – | $10.0 | 100% | –[36] | – | 2 |
| | Rural School Bus Pilot Projects | $61.6 | $61.6 | $52.8 | $0.3 | $27.6 | 53% | 49 | $1,082 | 175 |
| | Sustainable Transportation Equity Project | $44.5 | $28.2 | $28.2 | – | $28.2 | 100% | 4 | $6,400 | 26 |
| | Zero and Near Zero-Emission Freight Facilities | $148.7 | $148.7 | $148.7 | – | $148.7 | 100% | 50 | $2,997 | 10 |
| | Zero-Emission Truck and Bus Pilot Projects | $85.0 | $82.8 | $82.8 | – | $64.5 | 78% | 107 | $778 | 9 |

37 Pending additional information on expenditures.

| Administering Agency | Subprogram | Cumulative Funding Status ($M) | | | | Benefiting Priority Populations[33] | | Implemented Projects | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Allocated | Awarded[34] | Implemented | Intermediary Administrative Expenses[35] | ($M) | % | GHG Reduction (1,000 $MTCO_2e$) | Cost per GHG ($/$MTCO_2e$) | Number of Projects |
| California Air Resources Board (cont.) | Methane Satellites | $105.0 | New program for FY 2022-23 | | | | | | | |
| | Prescribed Fire and Smoke Monitoring Program | $4.0 | $3.9 | $3.9 | – | $0.0 | 0% | –[36] | – | 51 |
| | Woodsmoke Reduction | $18.0 | $8.5 | $7.8 | $0.8 | $6.0 | 86% | 98 | $79 | 2,260 |
| California Coastal Commission | Coastal Resilience Planning | $6.0 | $2.1 | $2.1 | – | $1.2 | 58% | –[36] | – | 16 |
| California Conservation Corps | Training and Workforce Development Program | $83.5 | $39.4 | $39.4 | – | $30.3 | 77% | 280 | $141 | 624 |
| California Department of Community Services and Development | Community Solar | $2.2 | $2.0 | $2.0 | – | $2.0 | 100% | 10 | $204 | 1 |
| | Farmworker Housing Single-Family Energy Efficiency and Solar Photovoltaics | $12.4 | $12.4 | $12.2 | $1.8 | $10.4 | 100% | 19 | $656 | 759 |
| | Multi-Family Energy Efficiency and Renewables | $78.9 | $63.9 | $56.3 | $12.8 | $43.5 | 100% | 205 | $274 | 10,053 |
| | Single-Family Energy Efficiency and Solar Photovoltaics | $70.0 | $70.0 | $60.8[38] | – | $60.7 | 100% | 216 | $281 | 16,145 |
| | Single-Family Solar Photovoltaics | $51.0 | $51.0 | $51.0 | $6.8 | $44.1 | 100% | 134 | $382 | 3,160 |
| California Department of Fish and Wildlife | Wetlands and Watershed Restoration | $45.7 | $39.2 | $39.2 | – | $20.5 | 52% | 1,000 | $39 | 22 |

38 This value reflects a pending data correction to account for third-party administrative expenses. Single-Family Energy Efficiency and Solar Photovoltaics has implemented all available funds.

| Administering Agency | Subprogram | Cumulative Funding Status ($M) | | | | Benefiting Priority Populations[33] | | Implemented Projects | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Allocated | Awarded[34] | Implemented | Intermediary Administrative Expenses[35] | ($M) | % | GHG Reduction (1,000 $MTCO_2e$) | Cost per GHG ($/ $MTCO_2e$) | Number of Projects |
| California Department of Food and Agriculture | Alternative Manure Management Program | $289.1 | $68.2 | $68.2 | $0.1 | $7.4 | 11% | 1,100 | $62 | 115 |
| | Dairy Digester Research and Development Program | | $195.3 | $195.3 | – | $130.1 | 67% | 21,024 | $9 | 118 |
| | Climate Smart Agriculture Technical Assistance Program[39] | $4.4 | $4.4 | $4.4 | – | $2.4 | 54% | –[36] | – | 74 |
| | Healthy Soils Program | $65.5 | $54.0 | $54.0 | $0.1 | $25.9 | 48% | 504 | $107 | 755 |
| | Renewable and Alternative Fuels | $3.0 | $3.0 | $3.0 | – | $0.0 | 0% | –[36] | – | 1 |
| | State Water Efficiency and Enhancement Program | $63.1 | $61.8 | $61.8 | $0.5 | $22.9 | 37% | 744 | $83 | 598 |
| California Department of Forestry and Fire Protection | Community Fire Planning and Preparedness | $7.5 | $7.5 | $7.5 | – | $6.2 | 83% | –[36] | – | 4 |
| | Fire Prevention Program | $348.3 | $254.1 | $254.1 | – | $175.6 | 69% | –[36] | – | 135 |
| | Wildfire Prevention Grants Program | $418.4 | $294.6 | $294.6 | – | $147.7 | 50% | –[36] | – | 430 |
| | Forest Carbon Plan Implementation | $164.5 | $84.9 | $84.9 | – | $14.5 | 17% | 13 | $6,767 | 334 |
| | Forest Health Research | $20.0 | $20.0 | $20.0 | – | $3.7 | 19% | –[36] | – | 72 |
| | Forest Health Program | $602.7 | $461.2 | $461.2 | – | $183.9 | 40% | 18,990 | $24 | 227 |
| | Urban and Community Forestry Program | $74.8 | $74.8 | $74.8 | – | $71.6 | 96% | 479 | $156 | 115 |

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

| Administering Agency | Subprogram | Cumulative Funding Status ($M) | | | | Benefiting Priority Populations[33] | | Implemented Projects | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Allocated | Awarded[34] | Implemented | Intermediary Administrative Expenses[35] | ($M) | % | GHG Reduction (1,000 $MTCO_2e$) | Cost per GHG ($/ $MTCO_2e$) | Number of Projects |
| California Department of Resources Recycling and Recovery | SB 1383 Local Assistance Grants | $240.0 | $50.6 | $50.6 | – | $0.0 | 0% | –[36] | – | 455 |
| | Community Composting for Green Spaces Grant | $1.5 | $1.5 | $1.0 | – | $0.7 | 74% | 2 | $467 | 119 |
| | Food Waste Prevention and Rescue Grants | $24.1 | $23.3 | $23.3 | – | $22.5 | 97% | 569 | $41 | 76 |
| | Organics and Recycling Manufacturing Loans | $9.2 | $7.7 | $7.7 | – | $0.8 | 11% | 772 | $10 | 5 |
| | Organics Grants | $135.4 | $69.5 | $69.5 | – | $54.0 | 78% | 1,305 | $53 | 28 |
| | Recycled Fiber, Plastic, and Glass Grant | $36.5 | $33.5 | $33.5 | – | $24.8 | 74% | 642 | $52 | 16 |
| | Reuse Grant Program | $2.0 | $2.0 | $2.0 | – | $1.5 | 75% | 1 | $3,613 | 4 |
| California Department of Transportation | Active Transportation Program | $10.0 | $10.0 | $10.0 | – | $10.0 | 100% | <1 | $163,934 | 3 |
| | Low Carbon Transit Operations Program | $943.2 | $776.8 | $776.8 | – | $748.8 | 96% | 6,327 | $123 | 884 |
| California Department of Water Resources | State Water Project: Turbines | $20.0 | $20.0 | $20.0 | – | $0 | 0% | 37 | $542 | 2 |
| | Water-Energy Grant Program | $48.0 | $45.3 | $37.1 | – | $23.3 | 63% | 387 | $96 | 96,366 |

| Administering Agency | Subprogram | Cumulative Funding Status ($M) | | | | Benefiting Priority Populations[33] | | Implemented Projects | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Allocated | Awarded[34] | Implemented | Intermediary Administrative Expenses[35] | ($M) | % | GHG Reduction (1,000 $MTCO_2e$) | Cost per GHG ($/ $MTCO_2e$) | Number of Projects |
| California Energy Commission | California Schools Healthy Air, Plumbing, and Efficiency Program | $20.0 | New program for FY 2022-23 | | | | | | | |
| | Food Production Investment Program | $124.0 | $107.7 | $107.7 | – | $89.3 | 83% | 2,783 | $39 | 48 |
| | Low-Carbon Fuel Production | $12.5 | $12.5 | $12.5 | – | $11.7 | 94% | 452 | $28 | 4 |
| | Renewable Energy for Agriculture Program | $10.0 | $9.5 | $9.5 | – | $1.4 | 15% | 127 | $75 | 45 |
| | IDEAL ZEV Workforce Pilot[40] | $1.0 | $1.0 | $1.0 | – | $1.0 | 100% | –[36] | – | 14 |
| California Environmental Protection Agency | Transition to a Carbon-Neutral Economy | $2.6 | $2.6 | $2.6 | – | $0 | 0% | –[36] | – | 2 |
| California Governor's Office of Emergency Services | Fire Engines and Maintenance | $28.5 | $26.50 | $26.5 | – | $0 | 0% | –[36] | – | 2 |
| | Wildfire Response and Readiness[41] | $33.5 | $4.6 | $4.6 | – | $0 | 0% | –[36] | – | 61 |
| California Natural Resources Agency | Regional Forest and Fire Capacity | $20.0 | $17.5 | $6.2 | – | $2.2 | 37% | –[36] | – | 32 |
| | Urban Greening Program | $156.5 | $144.9 | $144.9 | – | $137.3 | 95% | 55 | $2,614 | 91 |
| California Ocean Protection Council | Sea Level Rise | $38.0 | New program for FY 2022-23 | | | | | | | |
| California State Coastal Conservancy | Climate Ready Program | $124.4 | $6.7 | $6.7 | – | $4.1 | 62% | 5 | $1,454 | 18 |

40 The IDEAL ZEV Workforce Pilot is administered by CEC in partnership with CARB. CARB contributed $1M in FY 2020-21 via an interagency agreement with CEC.

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

| Administering Agency | Subprogram | Cumulative Funding Status ($M) | | | | Benefiting Priority Populations[33] | | Implemented Projects | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Allocated | Awarded[34] | Implemented | Intermediary Administrative Expenses[35] | ($M) | % | GHG Reduction (1,000 $MTCO_2e$) | Cost per GHG ($/$MTCO_2e$) | Number of Projects |
| California State Transportation Agency | Transit and Intercity Rail Capital Program | $1,998.7 | $2,183.7 | $1,340.8 | – | $1,292.8 | 96% | 17,869 | $75 | 185 |
| California State Water Resources Control Board | Safe and Affordable Drinking Water Fund | $327.8 | $185.80 | $105.9 | – | $104.3 | 98% | <0 | – | 53 |
| California Strategic Growth Council | Affordable Housing and Sustainable Communities Program | $3,276.2 | $1,512.4 | $1,512.4 | $3.8 | $1,247.4 | 83% | 2,816 | $537 | 121 |
| | Sustainable Agricultural Lands Conservation Program | $358.7 | $236.90 | $90.2 | – | $4.3 | 5% | 10,882 | $8 | 90 |
| | Climate Change Research Program | $36.5 | $31.9 | $31.9 | – | $0 | 0% | –[36] | – | 20 |
| | Technical Assistance Program | $13.5 | $9.9 | $8.7 | – | $8.7 | 100% | –[36] | – | 32 |
| | Transformative Climate Communities Program | $241.3 | $227.8 | $207.8 | $2.9 | $192.6 | 94% | 150 | $1,390 | 203 |
| California Wildlife Conservation Board | Climate Adaptation and Resiliency Program | $20.0 | $16.5 | $16.5 | – | $5.9 | 36% | 130 | $127 | 30 |
| California Workforce Development Board | Low-Carbon Economy Workforce | $41.5 | $24.4 | $24.4 | – | $24.4 | 100% | –[36] | – | 30 |
| San Francisco Bay Conservation and Development Commission | Climate Resilience Planning | $8.3 | $7.3 | $7.3 | – | $0 | 0% | –[36] | – | 40 |
| **Total** | | **$15,503.3** | **$11,777.2** | **$9,337.7** | **$178.2** | **$6,721.5** | **73%** | **97,142** | **$96** | **577,855** |

# 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,* fiscal reporting on budgetary expenditures also includes expenditures related to program administration, which are presented here.

| Agency | Program | Appropriations[42] ($M) | State Ops ($M) | Local Assistance ($M) | Capital Outlay ($M) | Cumulative Budgetary Expenditures ($M) | Cumulative Program Administration Costs[43] ($M) |
|---|---|---|---|---|---|---|---|
| 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 Satellites; Prescribed Fire Smoke Monitoring; Woodsmoke Reduction; Program Administration | $5,413.8 | $388.0 | $4,041.1 | $0.0 | $4,429.1 | $142.7 |
| California Coastal Commission[44] | Coastal Resilience Planning | $6.0 | $1.8 | $3.7 | $0.0 | $5.5 | $1.8 |
| California Conservation Corps[44] | Training and Workforce Development Program | $86.5 | $41.0 | $0.0 | $0.0 | $41.0 | $41.0 |
| California Department of Community Services and Development | Low-Income Weatherization Program | $241.7 | $11.6 | $204.9 | $0.0 | $216.5 | $11.6 |
| California Department of Fish and Wildlife | Wetlands and Watershed Restoration Program | $46.2 | $5.7 | $38.9 | $0.0 | $44.6 | $5.7 |

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

43 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.

44 Denotes agencies which had difficulties closing in FI$Cal and as such provided estimated budgetary expenditures.

| Agency | Program | Appropriations[42] ($M) | State Ops ($M) | Local Assistance ($M) | Capital Outlay ($M) | Cumulative Budgetary Expenditures ($M) | Cumulative Program Administration Costs[43] ($M) |
|---|---|---|---|---|---|---|---|
| California Department of Food and Agriculture | Dairy Methane; Healthy Soils; Renewable and Alternative Fuels; State Water Efficiency and Enhancement Program | $450.6 | $86.9 | $311.7 | $0.0 | $398.6 | $86.9 |
| California Department of Forestry and Fire Protection[44] | Community Fire Planning and Preparedness; Fire Prevention; Forest Carbon Plan Implementation; Sustainable Forests | $1,727.5 | $990.1 | $165.4 | $0.0 | $1,155.5 | $990.1 |
| California Department of Resources Recycling and Recovery[44] | 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 | $458.3 | $14.8 | $171.0 | $0.0 | $185.8 | $14.8 |
| California Department of Transportation | Active Transportation; Low Carbon Transit Operations Program | $1,001.1 | $5.7 | $557.7 | $0.0 | $563.4 | $0.0 |
| California Department of Water Resources | State Water Project Turbines; Water-Energy Grant | $68.0 | $2.8 | $33.2 | $20.0 | $56.0 | $2.8 |
| California Energy Commission[44] | Food Production Investment; Low-Carbon Fuel Production; Renewable Energy for Agriculture, CalSHAPE | $166.5 | $12.1 | $120.5 | $0.0 | $132.6 | $12.1 |
| California Environmental Protection Agency | Transition to a Carbon-Neutral Economy | $2.1 | $2.6 | $0.0 | $0.0 | $2.6 | $2.6 |
| California Governor's Office of Emergency Services | Wildfire Response and Readiness | $34.3 | $27.7 | $3.8 | $0.0 | $31.5 | $27.7 |

| Agency | Program | Appropriations[42] ($M) | State Ops ($M) | Local Assistance ($M) | Capital Outlay ($M) | Cumulative Budgetary Expenditures ($M) | Cumulative Program Administration Costs[43] ($M) |
|---|---|---|---|---|---|---|---|
| California High-Speed Rail Authority | High-Speed Rail Project | $5,496.5 | $0.0 | $0.0 | $4,260.4 | $4,260.4 | $0.0 |
| California Natural Resources Agency | Regional Forest and Fire Capacity; Urban Greening Program | $176.5 | $0.9 | $169.3 | $0.0 | $170.2 | $0.9 |
| California Ocean Protection Council | Sea Level Rise | $37.5 | $0.0 | $0.0 | $0.0 | $0.0 | $0.0 |
| California State Coastal Conservancy[44] | Climate Ready Program | $124.4 | $0.3 | $6.5 | $0.0 | $6.9 | $0.3 |
| California State Transportation Agency | Transit and Intercity Rail Capital Program | $2,093.8 | $0.4 | $1,192.8 | $0.0 | $1,193.2 | $0.4 |
| California State Water Resources Control Board[44] | Safe and Affordable Drinking Water Fund | $401.2 | $0.0 | $94.2 | $0.0 | $94.2 | $0.0 |
| California Strategic Growth Council | Affordable Housing and Sustainable Communities; Climate Change Research; Sustainable Agricultural Lands Conservation; Technical Assistance; Transformative Climate Communities | $4,293.4 | $98.6 | $2,885.2 | $0.0 | $2,983.8 | $98.6 |
| California Wildlife Conservation Board | Climate Adaptation and Resiliency Program | $20.0 | $0.0 | $14.8 | $0.0 | $14.8 | $0.0 |
| California Workforce Development Board | Low-Carbon Economy Workforce | $41.5 | $5.7 | $25.6 | $0.0 | $31.3 | $5.7 |
| San Francisco Bay Conservation and Development Commission | Climate Resilience Planning | $8.3 | $6.5 | $0.5 | $0.0 | $7.0 | $6.5 |

| Agency | Program | Appropriations[42] ($M) | State Ops ($M) | Local Assistance ($M) | Capital Outlay ($M) | Cumulative Budgetary Expenditures ($M) | Cumulative Program Administration Costs[43] ($M) |
|---|---|---|---|---|---|---|---|
| **Totals for Program** | | **$22,443.4** | **$1,703.2** | **$10,040.8** | **$4,280.4** | **$16,024.3** | **$1,452.3** |
| California Air Resources Board | Statewide Administration | $121.2 | $88.6 | $0.0 | $0.0 | $88.6 | $88.6 |
| Fund Controller Agencies | Controller's Fees and Adjustments | $90.9 | $90.9 | $0.0 | $0.0 | $90.9 | $90.9 |
| Office of Environmental Health and Hazard Assessment | Identification of Disadvantaged Communities | $10.1 | $6.7 | $0.0 | $0.0 | $6.7 | $6.7 |
| Other | Pension Payments | $0.0 | $0.0 | $0.0 | $0.0 | $3.7 | $3.7 |
| **Totals for Programs Including Administration and Support** | | **$22,665.6** | **$1,321.9** | **$5,999.7** | **$4,280.4** | **$16,210.5** | **$1,638.5** |

# 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, or private sources. The table below details cumulative reported leveraged funds by subprogram 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 $4 per GGRF dollar invested, with $37.3 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 | $24.7 | $30.0 | $5.3 | 0.2 |
| | Community Air Protection Incentives | $494.4 | $905.7 | $411.3 | 0.8 |
| | Funding Agricultural Replacement Measures for Emission Reductions Program | $276.2 | $606.5 | $330.2 | 1.2 |
| | Advanced Technology Demonstration and Pilot Projects | $117.2 | $269.2 | $152.0 | 1.3 |
| | Agricultural Worker Vanpools | $6.0 | $7.5 | $1.5 | 0.3 |
| | Clean Cars 4 All | $103.6 | $108.3 | $4.7 | 0.0 |
| | Clean Mobility in Schools Project | $24.6 | $24.8 | $0.2 | 0.0 |
| | Clean Mobility Options | $30.2 | $44.7 | $14.5 | 0.5 |
| | Clean Off-Road Equipment Voucher Incentive Project | $55.9 | $73.2 | $17.2 | 0.3 |
| | Clean Truck and Bus Vouchers (HVIP) | $262.8 | $1,136.1 | $873.4 | 3.3 |
| | Clean Vehicle Rebate Project | $997.8 | $3,365.9 | $2,368.1 | 2.4 |
| | Outreach, Education, and Awareness | $10.0 | $15.0 | $5.0 | 0.5 |
| | Rural School Bus Pilot Projects | $52.8 | $56.0 | $3.2 | 0.1 |
| | Sustainable Transportation Equity Project | $28.2 | $59.4 | $31.2 | 1.1 |
| | Zero and Near Zero-Emission Freight Facilities | $148.7 | $403.4 | $254.7 | 1.7 |
| | Zero-Emission Truck and Bus Pilot Projects | $82.8 | $143.9 | $61.1 | 0.7 |

| 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 (cont.) | Prescribed Fire and Smoke Monitoring Program | $3.9 | $4.0 | $0.1 | 0.0 |
| | Woodsmoke Reduction Program | $7.8 | $11.9 | $4.1 | 0.5 |
| California Coastal Commission | Coastal Resilience Planning | $2.1 | $5.5 | $3.5 | 1.7 |
| California Department of Community Services and Development | Multi-Family Energy Efficiency and Renewables | $56.3 | $113.3 | $57.0 | 1.0 |
| | Single-Family Energy Efficiency and Solar Photovoltaics | $60.8 | $80.1 | $19.4 | 0.3 |
| | Single-Family Solar Photovoltaics | $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 | $68.2 | $78.5 | $10.4 | 0.2 |
| | Climate Smart Agriculture Technical Assistance Program | $4.4 | $7.2 | $2.8 | 0.6 |
| | Dairy Digester Research and Development Program | $195.3 | $591.9 | $396.6 | 2.0 |
| | Healthy Soils Program | $54.0 | $64.9 | $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 | $254.1 | $267.3 | $13.2 | 0.1 |
| | Wildfire Prevention Grants Program | $294.6 | $299.4 | $4.8 | 0.0 |
| | Forest Carbon Plan Implementation | $84.9 | $95.5 | $10.7 | 0.1 |
| | Forest Health Research | $20.0 | $26.7 | $6.7 | 0.3 |
| | Forest Health Program | $461.2 | $712.3 | $251.1 | 0.5 |
| | Urban and Community Forestry Program | $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 | Food Waste Prevention and Rescue Grants | $23.3 | $40.9 | $17.7 | 0.8 |
| | Organics and Recycling Manufacturing Loans | $7.7 | $139.2 | $131.5 | 17.0 |
| | Organics Grants | $69.5 | $333.2 | $263.7 | 3.8 |
| | Recycled Fiber, Plastic, and Glass Grant | $33.5 | $130.7 | $97.2 | 2.9 |
| | 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 | $776.8 | $7,969.7 | $7,192.9 | 9.3 |
| California Department of Water Resources | State Water Project Turbines | $20.0 | $43.1 | $23.1 | 1.2 |
| | Water-Energy Grant Program | $37.1 | $41.9 | $4.8 | 0.1 |
| California Energy Commission | Food Production Investment Program | $107.7 | $163.7 | $56.0 | 0.5 |
| | 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 |
| | IDEAL ZEV Workforce Pilot | $1.0 | $7.3 | $6.3 | 6.3 |
| California Natural Resources Agency | Regional Forest and Fire Capacity | $6.2 | $8.2 | $1.9 | 0.3 |
| | Urban Greening Program | $144.9 | $270.9 | $126.0 | 0.9 |
| California State Coastal Conservancy | Climate Ready Program | $6.7 | $10.2 | $3.5 | 0.5 |
| California State Transportation Agency | Transit and Intercity Rail Capital Program | $1,340.8 | $19,472.7 | $18,131.9 | 13.5 |
| California State Water Resources Control Board | Safe and Affordable Drinking Water Fund | $105.9 | $128.0 | $22.1 | 0.2 |

| 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 | $1,512.4 | $6,801.9 | $5,289.5 | 3.5 |
| | Climate Change Research Program | $31.9 | $33.2 | $1.3 | 0.0 |
| | Sustainable Agricultural Lands Conservation Program | $90.2 | $153.1 | $63.0 | 0.7 |
| | Technical Assistance Program | $8.7 | $9.0 | $0.2 | 0.0 |
| | Transformative Climate Communities Program | $207.8 | $505.5 | $297.7 | 1.4 |
| California Wildlife Conservation Board | Climate Adaptation and Resiliency Program | $16.5 | $38.2 | $21.6 | 1.3 |
| California Workforce Development Board | Low-Carbon Economy Workforce | $24.4 | $41.4 | $17.0 | 0.7 |
| **Total** | | **$9,117.21** | **$46,383.0** | **$37,265.7** | **4.1** |

# Appendix D: Statistics on Competitive Project Proposals Received

Appendix D provides statistics on applications received compared to applications selected for funding in 2022 for each competitive program. Programs that do not include a competitive process and programs that did not release a solicitation in 2022 are not included.

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.

| Agency | Program | Type of Award Recipient(s) | Response To Solicitation | | | | Percent of Funds Requested |
|---|---|---|---|---|---|---|---|
| | | | Proposals Received | | Proposals Selected | | |
| | | | Number | Amount Requested | Number | Amount Awarded | |
| California Department of Food and Agriculture | Healthy Soils Program | Awarded Directly to Recipient | 1,340 | $30,712,500 | 947 | $22,500,000 | 137% |
| California Department of Forestry and Fire Protection | Forest Health Program | Awarded Directly to Recipient | 35 | $135,505,413 | 17 | $72,039,274 | 188% |
| | Wildfire Prevention Grants Program | Awarded Directly to Recipient | 241 | $242,158,718 | 144 | $117,609,265 | 206% |
| California Department of Resources Recycling and Recovery | SB 1383 Local Assistance Grant Program | Awarded Directly to Recipient | 476 | $54,947,783 | 393 | $41,782,906 | 132% |
| | SB 1383 Local Assistance Grant Program | Awarded Directly to Recipient | 82 | $9,063,484 | 62 | $8,835,452 | 103% |
| California Energy Commission | IDEAL ZEV Workforce Pilot | Awarded Directly to Recipient | 20 | $1,175,150 | 14 | $1,000,000 | 118% |
| California State Transportation Agency | Transit and Intercity Rail Capital Program | Awarded Directly to Recipient | 50 | $2,370,071,185 | 23 | $796,095,000 | 298% |
| California Strategic Growth Council | Affordable Housing and Sustainable Communities Program | Awarded Directly to Recipient | 53 | $1,140,995,291 | 37 | $808,303,114 | 141% |

**California Climate Investments**

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