California's program has planted more than 50,000 trees in urban areas.

2019

CALIFORNIA CLIMATE INVESTMENTS

Cap and Trade Dollars at Work

ANNUAL REPORT

Cap-and-Trade Auction Proceeds

Program Webpage

For more information on this topic and upcoming meetings, please see the program website for Administration activities at caclimateinvestments.ca.gov.

Document Availability

Electronic copies of this document and related materials can be found at caclimateinvestments.ca.gov.

Paper copies may be obtained from:
California Air Resources Board
1001 I Street, 1st Floor
Visitors & Environmental Services Center
Sacramento, California 95814
(916) 322-2990

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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 MONIES

March 2019

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EXECUTIVE SUMMARY

California is a leader in combating climate change on a national level and continues to make global headlines as we work toward a just and sustainable future. Achieving the State's ambitious climate goals requires coordinated support from State and local agencies and California communities. California Climate Investments have grown to include more than 20 State agencies that work collaboratively, learn from each other, and increase community engagement to ensure projects are meeting local needs. While California Climate Investments alone will not achieve our climate goals, the program serves as a model for the transformative change needed to ensure that California thrives on a vibrant, healthy planet for centuries to come.

To achieve these objectives, California Climate Investments are directing billions of dollars into our State's transition to a low-carbon, more equitable, and resilient future. Electric vehicle rebates and home solar installations lower the cost of energy and transportation for recipients, new transit lines and affordable housing units increase mobility and housing options, improved forest management decrease our risk of catastrophic wildfires, and new technologies increase water efficiency on agricultural lands. Across the suite of California Climate Investments, projects are improving air quality, supporting jobs, and creating safer, more resilient communities. With its strong focus on equity, more than 57 percent of funds implemented to date benefit our most vulnerable populations. 2018 was marked by significant progress in implementing critical

CUMULATIVE OUTCOMES

- 110,000 projects installing efficiency measures in homes
- 3,200+ affordable housing units under contract
- 207,000+ rebates issued for zero-emission and plug-in hybrid vehicles
- 500,000+ acres of land preserved or restored
- 50,000+ trees planted in urban areas
- 462+ transit agency projects funded, adding or expanding transit options
- 57% of funding for projects benefiting priority communities ($1.5 billion +)
- 343,000+ individual projects implemented

near-term projects and building a pipeline for transformative long-term investments. Agencies selected, awarded, and implemented funding at significantly higher rates than in previous years. Implemented funds in 2018 alone total $1.4 billion—almost doubling investments made in 2017—and billions more are planned for the years to come.

The Legislature and Administration continue to advance State climate and equity goals through California Climate Investments. New appropriations include technical assistance to increase equity in accessing funds, forest management to reduce fire risk, and community-based programs to improve air quality and meet local needs. Agencies are responding by adjusting programs, increasing community engagement, and using new tools to quantify additional benefits from funded projects.

Equity is central to California Climate Investments. Policy changes in 2017 increased the focus on disadvantaged communities and directed additional investments toward low-income communities and low-income households. In 2018, California Climate Investments are benefiting these "priority populations" more than ever.

Investing Auction Proceeds

The Legislature appropriates money from the Greenhouse Gas Reduction Fund (GGRF) to agencies to administer California Climate Investments programs that facilitate greenhouse gas (GHG) emission reductions and provide economic, environmental, and public health benefits. Four agencies receive a set portion of each quarterly auction through continuous appropriations enacted in Senate Bill (SB) 862 (Committee on Budget and Fiscal Review, Chapter 36, Statutes of 2014), and the Legislature makes additional annual investments through the Budget Act. SB 901 (Dodd, Chapter 626, Statutes of 2018) states that these annual Budget Acts shall include $200 million through Fiscal Year (FY) 2023–24 for forest health, fire prevention, and fuel reduction programs. Additional legislation identifies other expenditures from the GGRF, such as a credit from a manufacturing tax and use fee and offsetting residents' fire prevention fee in State Responsibility Areas. As of the end of 2018, there are more than 20 State agencies involved in the program development, project selection, and implementation of 60 California Climate Investments programs.

Table ES-1 shows the FY 2018-19 and cumulative appropriations for investments as of November 30, 2018. Note that program names may change over time.

Table ES-1: Cumulative Appropriations for California Climate Investments

Administering Agency	Program	Appropriations[1,2] ($M)		
		Cumulative Appropriations, Prior to FY 2018–19 Appropriations	FY 2018–19 Appropriations	Cumulative Total
CALIFORNIA AIR RESOURCES BOARD	Community Air Protection	$267	$290	$556
	Funding Agricultural Replacement Measures for Emission Reductions	$85	$112	$197
	Low Carbon Transportation	$1,263	$462	$1,725
Caltrans	Active Transportation	$10	--	$10
	Low Carbon Transit Operations	$231	$148	$379
CALIFORNIA High-Speed Rail Authority	High-Speed Rail Project[3]	$1,287	$736	$2,023
CalSTA CALIFORNIA STATE TRANSPORTATION AGENCY	Transit and Intercity Rail Capital	$575	$294	$869
CALIFORNIA STRATEGIC GROWTH COUNCIL	Affordable Housing and Sustainable Communities	$959	$596	$1,555
	Sustainable Agricultural Lands Conservation			
	Climate Change Research	$11	$18	$29
	Technical Assistance	$2	$2	$4
	Transformative Climate Communities	$150	$40	$190
CALIFORNIA AIR RESOURCES BOARD	Woodsmoke Reduction	$5	$3	$8
CSD	Low-Income Weatherization	$192	$10	$202
cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE	Alternative Renewable Fuels	$3	--	$3
	State Water Efficiency and Enhancement	$66	--	$66
	State Water Project Turbines	$20	--	$20
	Water-Energy Grant	$50	--	$50
	Food Production Investment	$60	$64	$124
	Low-Carbon Fuel Production	--	$13	$13
	Renewable Energy for Agriculture	$6	$4	$10

Administering Agency	Program	Appropriations[1,2] ($M)		
		Cumulative Appropriations, Prior to FY 2018-19 Appropriations	FY 2018-19 Appropriations	Cumulative Total
CALIFORNIA AIR RESOURCES BOARD	Prescribed Fire Smoke Monitoring	--	$6	$6
CALIFORNIA COASTAL COMMISSION	Local Coastal Program	$2	$2	$3
CCC	Training and Workforce Development	$10	$14	$24
CALIFORNIA DEPARTMENT OF FISH & WILDLIFE	Wetlands and Watershed Restoration	$42	$5	$47
cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE	Dairy Methane	$161	$99	$260
	Healthy Soils	$8	$5	$13
CAL FIRE	Fire Prevention	$77	$28	$105
	Prescribed Fire	--	$25	$25
	Sustainable Forests	$297	$160	$457
CalRecycle	Waste Diversion	$111	$25	$137
Cal OES GOVERNOR'S OFFICE OF EMERGENCY SERVICES	Wildfire Response and Readiness	$25	$25	$50
CALIFORNIA natural resources AGENCY	Regional Forest and Fire Capacity	--	$20	$20
	Urban Greening	$106	$20	$126
State of California Coastal Conservancy	Climate Ready	$4	$3	$7
WCB State of California Wildlife Conservation Board	Climate Adaptation and Conservation Easements	$20	--	$20
bcdc	Coastal Resilience Planning	$1	$1	$1
	Total	**$6,105**	**$3,227**	**$9,332**

1 Appropriations from previous fiscal years 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.

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

3 SB 862 states that $400 million shall be available to the California High-Speed Rail Authority beginning in FY 2015-16 as repayment of a loan from the GGRF to the General Fund. This money shall be repaid as necessary, based on the financial needs of the High-Speed Rail Project. This loan amount is not included in the reported $2.0 billion cumulative appropriations.

Reporting Outcomes

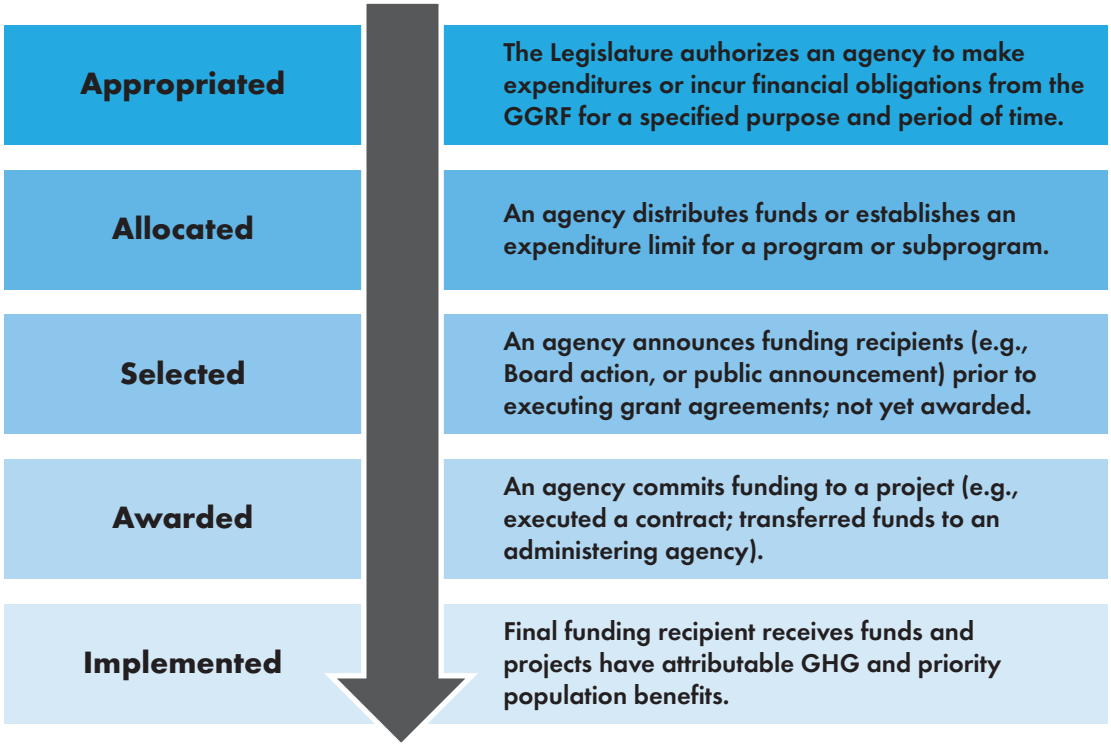
This report describes the status and outcomes of California Climate Investments, which are funded by Cap-and-Trade auction proceeds and distributed through GGRF. Assembly Bill (AB) 1532 (Pérez, Chapter 807, Statutes of 2012) requires the Department of Finance (Finance) to submit an Annual Report to the Legislature. The report fulfills the statutory requirements by describing the ongoing demand for funding and program-level benefits; providing estimates of benefits including GHG emission reductions and benefits to priority populations; and including project profiles demonstrating how these funds are improving lives across the State. Data are reported for 2018 as well as cumulatively, as follows:

- **2018**: Data reported for December 1, 2017—November 30, 2018.
- **Cumulative**: Data reported since a program's inception. 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 March 2019.

Administering agencies are responsible for reporting information on each funded project. To provide a clear and consistent approach for tracking and reporting funds and project benefits, the following terms describe how the funding flows from the Legislature to recipients: appropriated, allocated, selected, awarded, and implemented. These terms are specific to the reporting and tracking of California Climate Investments and may differ from the terms used by individual administering agencies.

Figure ES-1 provides working definitions for terms used to report outcomes from California Climate Investments.

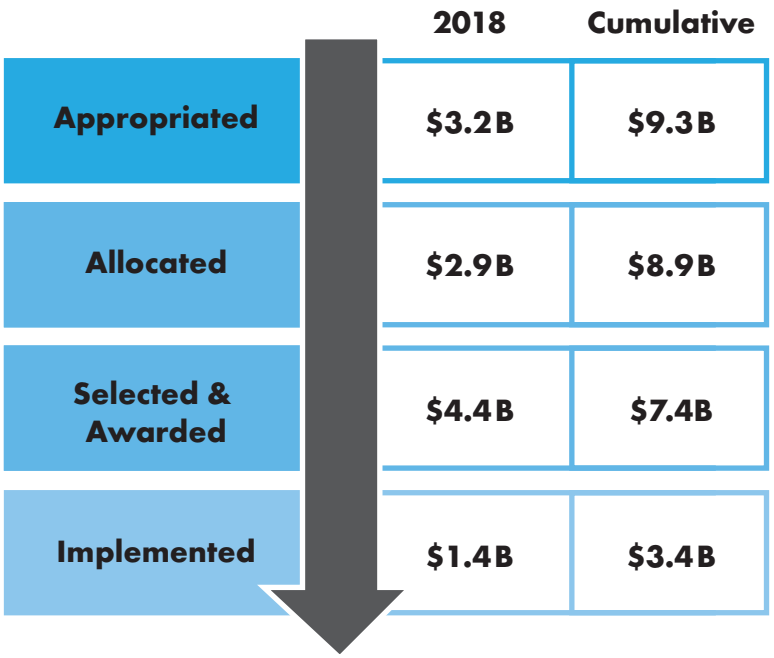
Figure ES-1: Terms for California Climate Investments



For more information on the reporting process for administering agencies, please refer to the Funding Guidelines and reporting templates available at www.arb.ca.gov/cci-fundingguidelines.

Figure ES-2 shows the status of California Climate Investments funding by category. Agencies and award recipients must complete many tasks between an appropriation and project implementation, and those are reflected in the gap between appropriated and awarded funds. Tasks can take more than a year and include: early and continued engagement with communities and stakeholders, determining the type of projects to fund, allowing time for applicants to develop projects and complete complex applications and quantification methodologies, carefully selecting recipients to ensure quality projects, and executing legal contracts to transfer funds to the recipient. These steps ensure that the expenditure of State funds is fair and transparent.

Figure ES-2: Summary of California Climate Investments Funding



Achieving New Priorities

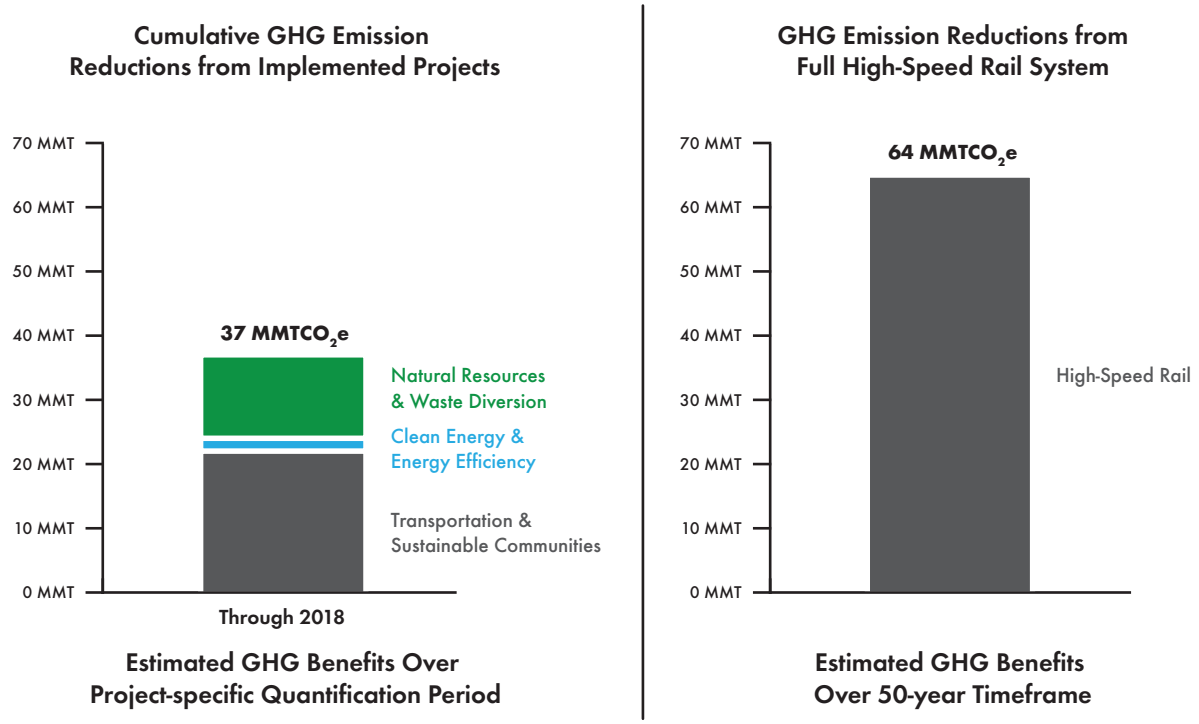
Experience implementing California Climate Investments is allowing administering agencies to build on lessons learned and continuously improve the efficiency and impact of investments. California Climate Investments is increasingly responsive to new priorities and stakeholder feedback, as reflected in recent guidance document updates. In 2018, the California Air Resources Board (CARB) updated the Funding Guidelines for administering agencies to increase focus on important co-benefits, and improve accountability and transparency. Also in 2018, a multi-agency effort led to the development of the Third Investment Plan for Fiscal Years 2019–20 through 2021–22. The Third Investment Plan recommends that the Legislature continue to invest in existing programs and prioritize programs that have a community focus, achieve near-term climate and health benefits, contribute to a long-term transformation to adaptable and resilient low-carbon communities and ecosystems, and support job training and apprenticeship opportunities. The Third Investment Plan also emphasizes the importance of providing funding certainty over multiple years so that programs can better support Legislative priorities.

The Legislature passed several new bills in 2018 related to California Climate Investments. In addition to annual appropriations, the Legislature passed SB 901 to help address wildfire. SB 901 established ongoing appropriations for new and existing CAL FIRE programs through FY 2023–24. Through SB 1072 (Leyva, Chapter 377, Statutes of 2018) and AB 2377 (Irwin, Chapter 868, Statutes of 2018), the Legislature signaled the importance of enhanced technical assistance to assist under-resourced communities access incentive funding, including California Climate Investments. SB 1072 also tasked the Strategic Growth Council with developing technical assistance guidelines, which will be a critical tool for all agencies administering California Climate Investments.

Delivering Climate and Other Environmental, Economic, and Public Health Benefits

The projects implemented through 2018 are expected to reduce GHG emissions by nearly 37 million metric tons of carbon dioxide equivalent ($MTCO_2e$) over time—GHG emissions equivalent to 4 billion gallons of diesel fuel use. Projects implemented in 2018 alone are expected to reduce GHG emissions by approximately 17 million $MTCO_2e$ over time. Figure ES-3 shows estimated GHG emission reductions from cumulative implemented projects. Additional GHG emission reductions are expected from planned investments, such as the High-Speed Rail project, which is expected to reduce GHG emissions by 64.3 to 75.9 million $MTCO_2e$ over the first 50 years of its operating life.

Figure ES-3: Estimated GHG Benefits from Cumulative Projects



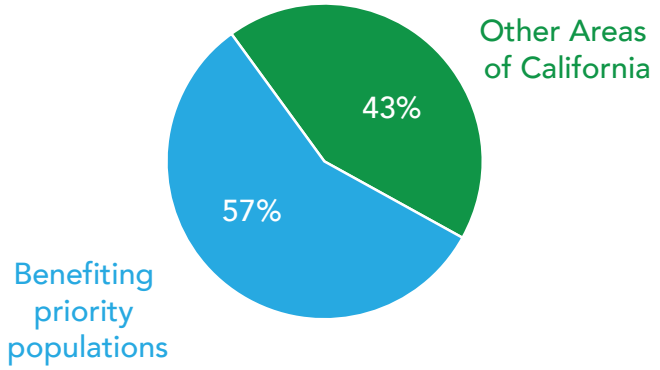
In addition to GHG emission reductions, investments improve community health because they reduce exposure to near-term air pollutants that impair heart and lung health. Implemented projects with quantified air pollution emissions reduction are cumulatively expected to reduce nitrogen oxide (NO_x) emissions by 7,000 tons and particulate matter (PM) emissions by almost 500 tons. Additionally, California residents are saving water and energy, and in turn, saving money by participating in Climate Investments. Efficiency projects implemented in 2018 alone will save 85 billion gallons of water and 161 gigawatt-hours (GWh) of electricity—enough to power more than 15,000 homes for a year. Similarly, new low-carbon vehicle owners are expected to save 12 million gallons of fuel from investments made in 2018. Projects are also greening our communities and strengthening our forests—cumulatively, implemented projects will plant more than 3,650,000 trees.

Benefiting Priority Populations

Cumulatively, 57 percent of investments are benefiting disadvantaged and low-income communities, vastly exceeding the 35 percent aggregate investment minimums established in statute. When the program began in 2012, the Legislature established investment minimums for California Climate Investments to benefit disadvantaged communities with SB 535 (De León, Chapter 830, Statutes of 2012). AB 1550 (Gomez, Chapter 369, Statutes of 2016) replaced and expanded those minimums to also include low-income communities and low-income households.[4] This report collectively refers to disadvantaged communities, low-income communities, and low-income households as "priority populations."

Since 2012, agencies have tailored their programs to meet the statutory objectives for benefiting priority populations. Figure ES-4 shows how cumulative investments made through 2018 have contributed to the investment minimums for priority populations.

Figure ES-4: Cumulative Investments Benefiting Priority Populations



The "Benefits to Priority Populations" section further describes the benefits of California Climate Investments.

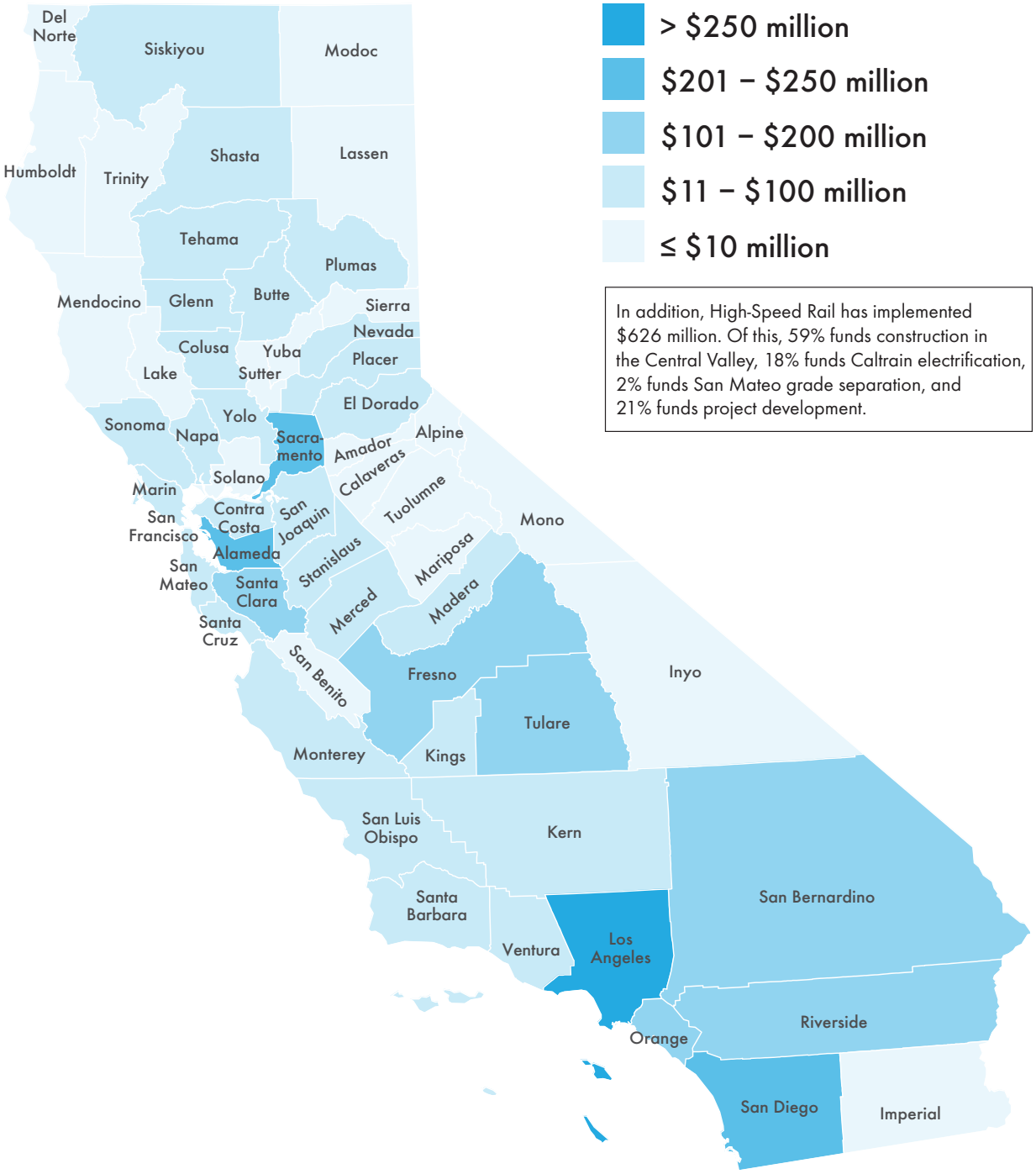
4 SB 535 requires that a minimum of 25 percent of investments fund projects that benefit disadvantaged communities and a minimum of 10 percent of investments fund projects that benefit and are located within disadvantaged communities. AB 1550 requires that a minimum of: 25 percent of investments fund projects that benefit and are located within disadvantaged communities; an additional 5 percent fund projects that benefit and are located in low-income communities or households located anywhere in the State; and an additional 5 percent to fund projects that benefit and are located in low-income communities or households that are outside of, but within ½-mile of, disadvantaged communities.

Reaching Across California

California Climate Investments span all areas of the State. Urban forestry projects are focused on developed areas while conservation easements are focused on undeveloped areas. Each agency designs their program and selects projects in accordance with the Funding Guidelines and program objectives, which can include targeting certain populations or geographies. Some programs, such as rebate programs, are better suited for wide distribution. In contrast, place-based programs such as Transformative Climate Communities focus on dense investments in a specific geographic region. Certain programs, such as CARB's Rural School Bus Program, specifically target all funds in rural areas; others, such as the Strategic Growth Council's Affordable Housing and Sustainable Communities program, have established a funding set-aside for rural areas.

CARB's online map provides an interactive display of the location of each project implemented. Figure ES-5 shows cumulative investments in each county. For more detailed maps of individual programs and projects, visit the online map at caclimateinvestments.ca.gov.

Figure ES-5: Cumulative California Climate Investments by County



Measuring Program Effectiveness

In addition to reducing GHG emissions, California Climate Investments programs are achieving multiple benefits including advancing technology, improving public health, and laying the groundwork for long-term transformative change. Appropriations reflect a range of legislative priorities such as reducing criteria air pollutants and toxic air contaminants or helping communities adapt to climate hazards. Promoting early-stage technology can help the longer-term transition to a low-carbon economy as such technologies need time to reach large-scale deployment. Investments can signal opportunities for new businesses and spur new jobs, establishing a supportive green economy.

These benefits are not only happening across California Climate Investments but within individual programs and projects, demonstrating a future-thinking approach to project design and implementation that is needed to meet multiple State goals.

Overall, California Climate Investments are reducing GHGs at an average rate of $75 per $MTCO_2e$. Table ES-2 details the GHG cost-effectiveness of each program's GGRF expenditures, and do not include the amount of non-GGRF (or "leveraged") funds. Individual programs are also achieving important co-benefits that are specific to the project type funded, including benefits to priority populations. For example, California Department of Food and Agriculture's State Water Efficiency and Enhancement Program saves 5,800 gallons of water per dollar of GGRF investment.

Leveraging Other Funding Sources

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. Cumulatively, $3.4 billion in implemented GGRF funds have leveraged an additional $10.8 billion from other sources, not including the other funds leveraged for the High-Speed Rail project, which could total more than $60 billion. These billions of dollars of non-GGRF funds support California Climate Investments projects that reduce GHG emissions, benefit priority populations, and generate co-benefits such as employment opportunities, cleaner air, and lower transportation costs. Affordable housing developments funded by the Strategic Growth Council's Affordable Housing and Sustainable Communities program, for example, leveraged $314 million from the GGRF into $1.6 billion in total funding, including federal and State Low-income Housing Tax Credits. An independent study by researchers from the University of California, Los Angeles (UCLA) Luskin Center for Innovation found that the $2.2 billion of California Climate Investments between 2013 and 2016 spurred an additional $6.4 billion from other funding sources.[5]

Appendix A provides more detail about the leveraged funds by program.

Growing the Demand for Funding

As awareness of and access to California Climate Investments improves, demand for funding continues to grow. On average, California Climate Investments' competitive funding programs receive applications requesting over 300 percent of available funding. Appendix B includes statistics on the applications received compared to the applications selected for funding in 2018 for each competitive program.

Agencies are required to post information on all project applications or proposals received, including those not selected for funding, on their program websites. This information can provide context for the competitiveness of project proposals and may help future applicants identify areas to strengthen their projects. Agencies also post information about proposed and final funding decisions on their program websites.

5 DeShazo, J.R., et al. (2018) Employment Benefits from California Climate Investments and Co-investments. http://innovation.luskin.ucla.edu/CCIJobsStudy

Understanding Cumulative Program Outcomes

Table ES-2 includes cumulative summary statistics for each California Climate Investments program. The "Outcomes from 2018" section of this report provides specific program pages that include more information on the program design and projects funded.

Detailed data are available at www.caclimateinvestments.ca.gov, including information on project location, GHG emission reductions, and benefits to priority populations. The information is available on an interactive map and can be downloaded as an Excel file.

Table ES-2: Summary of California Climate Investments and Outcomes through 2018

Administering Agency	Subprogram	Cumulative Funding Status ($M)			Implemented Projects				
		Allocated	Selected & Awarded[6]	Implemented	GHG Reduction (1,000 $MTCO_2e$)	Cost per GHG ($/$MTCO_2e$)	Number of Projects	Funds Benefiting Priority Populations	
								($M)	%
California Air Resources Board	Community Air Grants	$15.0	$9.9	$8.5	--[7]	N/A	24	$8.3	97%
	Community Air Protection Funds	$515.0	$235.0	$113.4	64	$1,768	787	$105.3	93%
	Funding Agricultural Replacement Measures for Emission Reductions	$197.0	$79.5	$13.2	10	$1,332	342	$9.7	74%
	Advanced Technology Freight Demonstration Projects	$84.0	$79.2	$79.2	16	$4,939	11	$79.2	100%
	Agricultural Worker Vanpools	$9.0	$6.0	$6.0	5	$1,307	1	$6.0	100%
	Clean Mobility Options for Disadvantaged Communities	$48.1	$9.6	$9.6	3	$2,952	7	$9.6	100%
	Clean Mobility in Schools Project	$10.0	NEW PROGRAM FOR FY 2018–19						
	Clean Off-Road Equipment	$40.0	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	Clean Truck & Bus Voucher Program	$362.9	$369.9	$227.4	879	$259	3,632	$158.0	69%
	Clean Vehicle Rebate Project	$708.4	$708.0	$484.0	5,478	$88	207,882	$156.4	32%
	Enhanced Fleet Modernization Program/Plus-Up	$102.0	$61.0	$21.2	19	$1,138	3,508	$21.2	100%
	Financing Assistance for Lower-Income Consumers	$25.9	$5.9	$1.6	2	$970	267	$1.6	98%
	Rural School Bus Pilot Projects	$55.0	$40.0	$9.4	8	$1,232	28	$2.7	29%
	Zero- and Near Zero-Emission Freight Facilities	$155.0	$153.5	TBD	TBD	TBD	TBD	TBD	TBD
	Zero-Emission Truck and Bus Pilot Projects	$85.0	$82.8	$82.8	107	$778	9	$64.5	78%
California Department of Transportation	Active Transportation	$10.0	$10.0	$10.0	<1	$163,934	3	$10.0	100%
	Low Carbon Transit Operations	$378.7	$305.7	$250.7	3,200	$78	441	$239.4	96%

Administering Agency	Subprogram	Cumulative Funding Status ($M)			Implemented Projects				
		Allocated	Selected & Awarded[6]	Implemented	GHG Reduction (1,000 $MTCO_2e$)	Cost per GHG ($/$MTCO_2e$)	Number of Projects	Funds Benefiting Priority Populations	
								($M)	%
California High-Speed Rail Authority	High-Speed Rail	$2,023.0	$626.0	$626.0	--[8]	--[9]	1	$0.0	0%
California State Transportation Agency	Transit and Intercity Rail Capital	$869.1	$2,715.0	$338.9	2,340	$145	21	$327.9	97%
Strategic Growth Council	Affordable Housing and Sustainable Communities	$1,121.8	$572.0	$314.5	842	$374	42	$247.2	79%
	Sustainable Agricultural Lands Conservation	$118.5	$114.6	$19.4	TBD	TBD	15	$4.3	22%
	Climate Research	$29.0	$23.6	$6.9	--[7]	N/A	8	$0.0	0%
	Technical Assistance	$4.0	$3.2	$0.9	--[7]	N/A	7	$0.9	100%
	Transformative Climate Communities	$190.0	$133.0	TBD	TBD	TBD	TBD	TBD	TBD
California Air Resources Board	Woodsmoke Reduction	$8.0	$5.3	$1.3	12	$106	381	$1.2	95%
California Energy Commission	Food Production Investment	$124.0	$27.3	TBD	TBD	TBD	TBD	TBD	TBD
	Low-Carbon Fuel Production	$12.5	NEW PROGRAM FOR FY 2018–19						
	Renewable Energy for Agriculture	$10.0	TBD	TBD	TBD	TBD	TBD	TBD	TBD
California Department of Community Services and Development	Community Solar	$4.4	$4.4	TBD	TBD	TBD	TBD	TBD	TBD
	Farmworker Housing Single-Family Energy Efficiency and Solar PV	$10.8	$0.2	TBD	TBD	TBD	TBD	TBD	TBD
	Multi-Family Energy Efficiency and Renewables	$54.4	$54.4	$20.7	97	$213	5,018	$20.7	100%
	Single-Family Energy Efficiency and Solar Photovoltaics	$70.3	$70.3	$51.5	185	$279	16,704	$51.5	100%
	Single-Family Solar Photovoltaics	$51.0	$51.0	$47.6	137	$348	1,800	$47.6	100%
California Department of Food and Agriculture	Alternative Renewable Fuels	$3.0	$3.0	$3.0	--[7]	N/A	1	$0.0	0%
	State Water Efficiency and Enhancement	$66.0	$61.5	$61.5	746	$83	600	$22.7	37%

Administering Agency	Subprogram	Cumulative Funding Status ($M)			Implemented Projects				
		Allocated	Selected & Awarded[6]	Implemented	GHG Reduction (1,000 $MTCO_2e$)	Cost per GHG ($/$MTCO_2e$)	Number of Projects	Funds Benefiting Priority Populations	
								($M)	%
California Department of Water Resources	State Water Project Turbines	$20.0	$20.0	$20.0	37	$542	2	$0.0	0%
	Water-Energy Grant	$50.0	$44.8	$32.3	337	$96	88,917	$21.1	55%
California Air Resources Board	Prescribed Fire Smoke Monitoring	$5.5	NEW PROGRAM FOR FY 2018–19						
California Coastal Commission	Local Coastal Program	$3.0	$1.0	TBD	--[7]	N/A	TBD	TBD	TBD
California Conservation Corps	Training and Workforce Development	$24.1	$6.1	$6.1	--[7]	N/A	81	$2.9	48%
California Department of Fish and Wildlife	Wetlands & Watershed Restoration	$47.2	$21.3	$21.3	571	$37	12	$13.4	63%
California Department of Food and Agriculture	Alternative Manure Management	$244.0	$31.5	$29.7	696	$43	54	$0.0	0%
	Dairy Digester Research and Development		$114.5	$112.6	12,587	$9	64	$71.2	63%
	Healthy Soils	$12.5	$5.7	$5.7	51	$111	105	$0.0	0%
California Department of Forestry and Fire Protection	Fire Prevention	$102.9	$75.5	$75.5	--[7]	N/A	39	$52.4	69%
	Prescribed Fire	$24.5	NEW PROGRAM FOR FY 2018–19						
	Fire Prevention Grants	$404.2	$43.8	TBD	2,433	N/A	31	$0.0	0%
	Forest Health		$127.1	$110.1	2,767	$40	27	$34.4	35%
	Urban and Community Forestry	$57.8	$52.8	$38.3	261	$147	12,309	$37.3	97%
California Department of Resources Recycling and Recovery	Food Waste Prevention and Rescue Grants	$15.1	$9.4	$9.4	358	$26	32	$9.4	100%
	Organics and Recycling Manufacturing Loans	$9.2	$2.6	$2.6	484	$5	3	$0.8	32%
	Organics Grants	$85.6	$60.7	$60.7	1,293	$47	24	$51.2	84%
	Recycled Fiber, Plastic, and Glass Grants	$18.0	$14.0	$14.0	495	$28	6	$6.0	43%

Administering Agency	Subprogram	Cumulative Funding Status ($M)			Implemented Projects				
		Allocated	Selected & Awarded[6]	Implemented	GHG Reduction (1,000 $MTCO_2e$)	Cost per GHG ($/$MTCO_2e$)	Number of Projects	Funds Benefiting Priority Populations	
								($M)	%
California Governor's Office of Emergency Services	Fire Engines and Equipment	$25.0	NEW PROGRAM FOR FY 2018–19						
	Wildfire Response and Readiness	$25.0	$2.5	$2.5	--[7]	N/A	47	$0.0	0%
California Natural Resources Agency	Regional Forest and Fire Capacity	$20.0	NEW PROGRAM FOR FY 2018–19						
	Urban Greening	$126.0	$100.7	$6.8	2	$3,253	5	$6.8	100%
California State Coastal Conservancy	Climate Ready	$7.0	$0.0	TBD	--[7]	N/A	TBD	TBD	TBD
California Wildlife Conservation Board	Climate Adaptation and Conservation Easements	$20.0	TBD	TBD	TBD	TBD	TBD	TBD	TBD
San Francisco Bay Conservation and Development Commission	Coastal Resilience Planning	$1.0	$0.1	TBD	--[7]	N/A	TBD	TBD	TBD
	TOTAL	**$8,918.3**	**$7,354.9**	**$3,356.6**	**36,519**	**–**	**343,298**	**$1,902.8**	**57%**

6 Some administering agencies may plan for future projects by selecting projects for funding in advance of receiving appropriations to fulfil those commitments. For this reason, in some instances "Selected & Awarded" funds may exceed "Allocated" funds. The High-Speed Rail Authority does not select or award funds, so this value represents implemented funds to date. The values reported here as "Selected and Awarded" also includes "Implemented" Projects.

7 These programs have no quantified GHG emission benefit.

8 Estimated GHG emission reductions from the California High-Speed Rail project range from 64.3 to 75.9 million $MTCO_2e$ over its first 50 years of operating life, as detailed in the 2018 California High-Speed Rail Sustainability Report available at www.hsr.ca.gov/docs/programs/green_practices/sustainability/Sustainability_Report_2018.pdf.

9 GGRF funds provide a critical part of the total funds for the system, though it is difficult to estimate precisely what the ultimate GGRF investment will be, and consequently, a comparable "GGRF investment per ton of GHG reduced" metric.

NOTE: TBD indicates additional forthcoming information that is not available at the time of this report.

BACKGROUND

Cap-and-Trade Auction Proceeds

California's integrated approach toward climate action began with the California Global Warming Solution Act of 2006 (AB 32, Nunez, Chapter 488, Statutes of 2006). AB 32 set California on a path towards a 2020 target of reducing GHG emissions to 1990 levels by 2020. Today, the State is on track to exceed its 2020 climate target while the economy continues to grow. The State is now developing and implementing measures that will achieve the goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 and is laying the groundwork to meet a 2050 target of 80 percent below 1990 levels and achieve carbon neutrality.

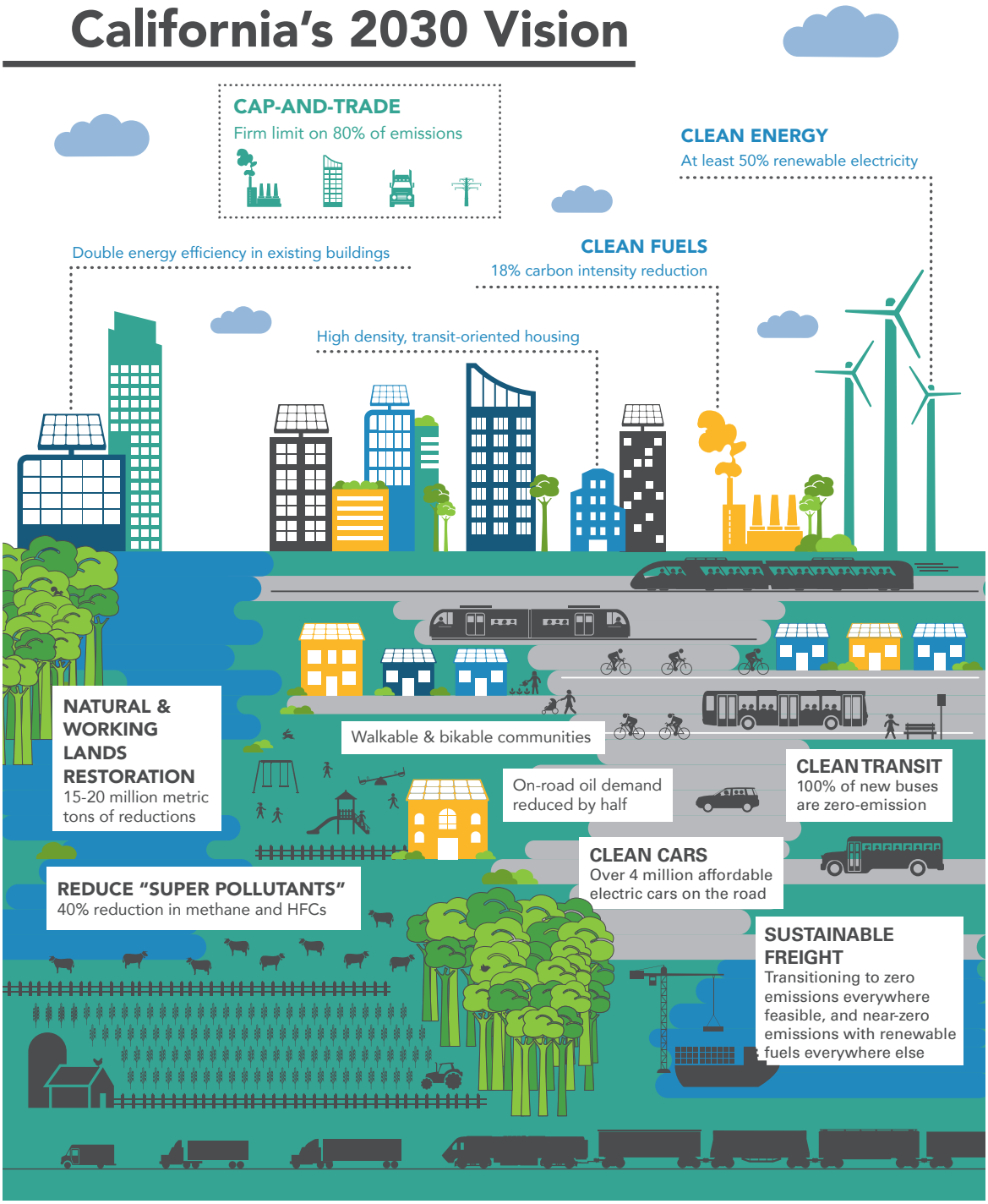
California's 2017 Climate Change Scoping Plan describes the State's approach to achieving our climate goals by building on the State's successes to date, proposing to strengthen established programs while further integrating efforts to reduce both GHG emissions and air pollution. The Scoping Plan identifies a suite of economically viable and technologically feasible measures for reducing GHG emissions, including California's Cap-and-Trade Program to ensure the State meets its ambitious targets. Figure 1 illustrates some of the key measures in achieving the State's 2030 goal.

The Cap-and-Trade Program is a market-based system that establishes a limit—or cap—on about 80 percent of statewide GHG emissions from the largest polluters ("covered entities") in the State, and the cap declines each year. The program sets a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. Covered entities must obtain allowances equal to their emissions. When these entities reduce emissions with equipment upgrades or efficiency improvements, the number of allowances they need also declines. A portion of their emissions may be offset by purchasing credits from non-covered entities that reduce GHG emissions or sequester carbon. Offset credits are derived from rigorously verified GHG emissions reductions or carbon sequestration projects and may be used to satisfy only a small portion of a covered entity's emissions. This market-based system provides flexibility to covered entities to seek the lowest-cost approach to reduce emissions, and the firm cap provides certainty that statewide emissions will continue to decline.

A portion of allowances are freely allocated to covered entities. For electrical distribution and natural gas utilities, the value of those allowances must be used to benefit ratepayers either by offsetting higher energy costs due to the Cap-and-Trade Program or through GHG emissions reductions. More information on utility investments is available in the "Electric utility and natural gas supplier investments" section

below. Large industrial facilities also receive some allowances at no cost to support transitioning to cleaner and more efficient technologies and discourage "leakage" of GHG emissions to other states. A portion of allowances is reserved to ensure stability in the cost of allowances. The remaining portion of allowances is available for auction.

Figure 1: California's 2030 Vision

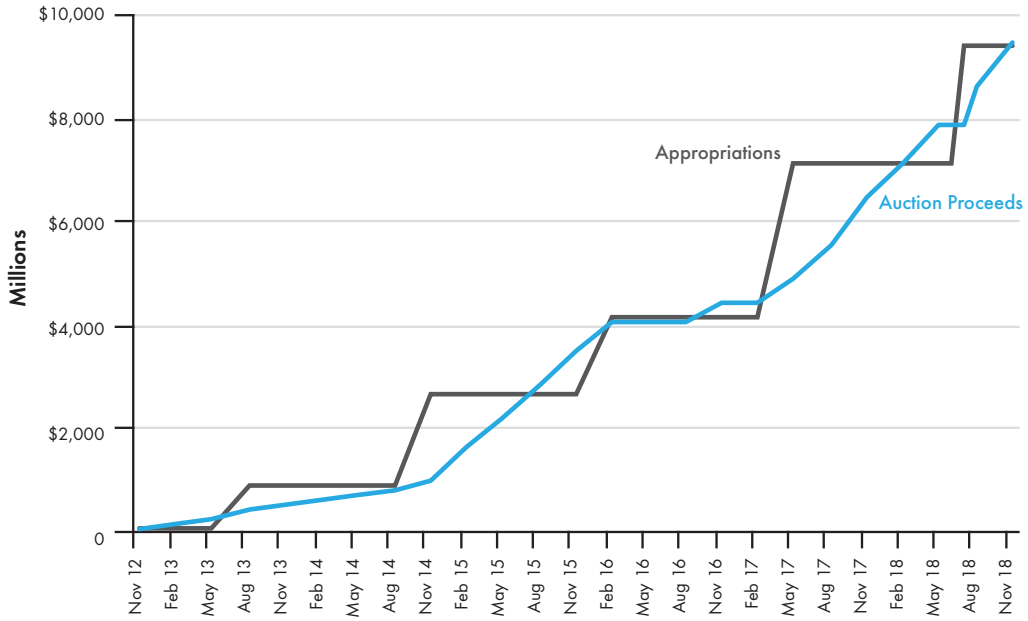


Proceeds from the sale of State-owned allowances are deposited into the GGRF for California Climate Investments. To date, the quarterly auctions have generated $9.5 billion for the GGRF.

When the Legislature established the GGRF, it set several requirements for California Climate Investments. The funds must facilitate GHG emission reductions, benefit priority populations, and maximize other economic, environmental, and public health benefits where applicable and to the extent feasible. For more information on this and subsequent legislation related to California Climate Investments, visit ww2.arb.ca.gov/resources/documents/cci-legislative-guidance.

The Legislature appropriates money from the GGRF to State agencies consistent with the Investment Plan. These administering agencies design and implement programs; establish eligibility requirements; develop guidelines and solicitation materials; and select, award, and implement projects. Figure 2 shows the cumulative deposits into and appropriations from the GGRF.

Figure 2: Cumulative State Auction Proceeds and Appropriations



Electric Utility and Natural Gas Supplier Investments

California Climate Investments are funded through the sale of the portion of allowances owned by the State at quarterly auctions. Electrical distribution utilities and natural gas suppliers are participants in the Cap-and-Trade Program and may consign allowances to be sold at quarterly auctions. These entities must use their auction proceeds for the benefit of ratepayers and annually report to CARB on how the funds were spent.

Electric utilities use auction proceeds to fund a variety of measures including: energy efficiency projects, electric vehicle infrastructure, renewable energy, and customer rebates. One example is the California Climate Credit, which, for investor-owned utilities, has provided direct bill credits since 2014 to protect households and eligible small businesses from costs associated with reducing GHG emissions and complying with Cap-and-Trade regulations. In 2018, natural gas suppliers began providing households with an annual natural gas Climate Credit.

CARB provides summaries of how utilities used their auction proceeds, available at www.arb.ca.gov/cc/Cap-and-Trade/allowanceallocation/EDU-NG-allowance-value.htm.

Policy Framework

The Department of Finance (Finance), the California Environmental Protection Agency (CalEPA), and CARB provide an overarching administrative framework for agencies administering California Climate Investments. Together, Finance, CalEPA, and CARB are responsible for developing tools, plans, guidelines, methodologies, reports, and other resources. These documents create a framework for ensuring that California Climate Investments meet the State's goals related to climate change, equity, and accountability for the use of public funds. Guidance documents and tools are developed through extensive dialogue with administering agencies, funding recipients, and members of the public. These materials provide important venues for public input that contribute to shaping the California Climate Investments framework and improving program transparency. Guidance documents and tools are updated periodically to reflect new legislation, updated information, or stakeholder feedback.

Investment Plan

State law requires the Department of Finance, in consultation with CARB and other State agencies, to submit a three-year Investment Plan to the Legislature to guide the investments of Cap-and-Trade auction proceeds. The Third Investment Plan was submitted in 2019.

Funding Guidelines

State law requires CARB to develop guidance for all State agencies that receive appropriations for California Climate Investments programs, including guidance on reporting, quantification methods, and maximizing benefits to disadvantaged communities. Administering agencies use the Funding Guidelines to design and implement programs that meet the State's statutory and policy objectives for California Climate Investments. The Funding Guidelines ensure that investments achieve GHG emission reductions; benefit disadvantaged communities, low-income communities, and low-income residents; and provide transparency and accountability of the funds. CARB updated this document in 2018.

THIRD INVESTMENT PLAN FOR FISCAL YEARS FY 2019-20 THROUGH 2021-22

The Third Investment Plan recommends that the Legislature:

1. Continue to invest in existing programs and prioritize programs that:
   i. Emphasize meaningful community input in program modifications and project solicitation and design, and fund community-led projects, both community-wide and on a small-scale.
   ii. Achieve near-term climate and health benefits and contribute to long-term transformation to low-carbon communities and ecosystems that are adaptable and resilient.
2. Provide funding certainty over multiple years for more of the existing California Climate Investments programs to better support Legislative priorities.
3. Support job training and apprenticeship opportunities, with a focus on disadvantaged communities, to provide the State's workforce with the job skills necessary to transition to a low-carbon economy.

The first two Investment Plans focused on project types that achieve GHG emission reductions and investments in disadvantaged communities. The Legislature appropriated funding consistent with those priorities. The Third Investment Plan builds on past efforts and existing programs. In 2018, CARB, as required, held two public workshops and a public hearing on the Third Investment Plan. In February 2019, the Department of Finance submitted the Third Investment Plan, which identifies current funding priorities and future opportunities.

2018 FUNDING GUIDELINES UPDATE

The updated Funding Guidelines allow flexibility for new programs that facilitate GHG emission reductions, increase focus on providing important co-benefits, and improve accountability and transparency. California Climate Investments have been successful in reducing GHG emissions and reaching disadvantaged communities.

The Legislature and administering agencies have learned from early years of implementation and identified areas to improve. In 2018, CARB updated the Funding Guidelines to reflect and build on that progress. The updated Funding Guidelines now require administering agencies to quantify and report on a suite of co-benefits. The Funding Guidelines also include an increased emphasis on fostering job creation and require all projects to estimate and report potential future jobs benefits when projects are awarded funds. After projects are implemented, large projects and projects that claim employment benefits for priority populations must also report information on the quantity and quality of jobs benefits provided.

Quantification Methodologies

As part of providing guidance to administering agencies, CARB develops quantification methodologies supported by empirical research to estimate project-level GHG benefits and other project benefits. CARB currently maintains 35 quantification methodologies with accompanying calculator tools. Administering agencies may use Expected Benefits to select projects for funding and demonstrate that investments facilitate GHG emission reductions.

Administering agencies must use and report benefits from a CARB quantification methodology to quantify GHG emission reductions if one exists for the project type. Some project types will not have quantifiable GHG emission reductions, and administering agencies need to develop a qualitative assessment to demonstrate how expenditures facilitate GHG emission reductions and support State goals.

Project Reporting

All administering agencies are required to track project status and report the Expected Benefits. CARB supports this effort by providing standardized reporting templates and consolidating the data reported from all administering agencies. Administering agencies are responsible for collecting and submitting project information and submitting data twice a year. Reporting consistency provides transparency on project outcomes and meeting statutory requirements, including benefits to priority populations.

This report includes data collected at the time projects are implemented. Administering agencies also report information on a subset of projects to show ongoing progress of projects after they are operational or completed. Over the past year, many projects are nearing completion, and in 2018 agencies began reporting project outcome information. As an early example of outcomes, CDFA reported that 27 completed agricultural water-energy efficiency projects saved an average of more than 100,000 kilowatt-hours each over a single growing season. CARB will publish project outcome data from operational projects as agencies report more information.

CO-BENEFIT QUANTIFICATION

The value of California Climate Investments extend far beyond GHG emission reductions. Continued legislation and stakeholder feedback have highlighted the importance of these investments to achieve economic, environmental, and public health co-benefits. An initial set of standardized assessment methods for 10 co-benefits are now available to agencies to quantify the benefits of their projects.

Of note, the new Job Co-benefit Modeling Tool provides a prospective estimate of each project's employment benefits. This tool uses an input-output model developed by the U.S. Bureau of Economic Analysis to estimate direct, indirect, and induced jobs likely to be supported by each project based on total project costs and the main funded activities (e.g., new construction, procurement of electric vehicles, forestry, and the like). Agencies must report estimated employment benefits from every project using this co-benefit assessment method.

CO-BENEFIT METHODOLOGIES

- Jobs
- Air pollutant emissions
- Travel cost savings
- Vehicle miles traveled
- Energy and fuel cost savings
- Water savings
- Soil health and conservation
- Climate adaptation
- Community engagement
- Heart and lung health

Broader Impact

For the past two decades, California has taken the lead on tackling the global challenge of climate change. Complementary to the State's current GHG reduction targets, previous Administrations and Legislatures have put forth mandates for producing energy from renewable sources, shifting the State's automobile fleet to zero-emission vehicles, coordinating transportation and land use plans to promote cleaner and more efficient modes of travel, and achieving carbon neutrality. California Climate Investments are a critical component of the measures needed to meet our GHG targets identified in the Scoping Plan. California Climate Investments projects are helping drive progress and serve as examples of how the State can approach many other important State goals, including:

- **Sustainable Communities:** SB 375 (Steinberg, Chapter 728, Statutes of 2008) incentivizes regional and local development patterns that promote better accessibility between people and their destinations through low-carbon and convenient transportation choices. Regional metropolitan planning organizations in California are required to develop Sustainable Communities Strategies, or long-range plans, which align transportation, housing, and land use decisions toward achieving GHG reduction targets set by CARB. California Climate Investments consisting of coordinated projects that improve mobility through transit-oriented development, urban greening, and walkability and bikeability serve as prime examples of SB 375 implementation.
- **Reducing Emissions from Freight:** The California Sustainable Freight Action Plan calls for improved freight efficiency, transition to zero-emission operations, and increased competitiveness of California's freight system. In addition to funding heavy-duty engine replacements, California Climate Investments programs support pilot and demonstration projects for advanced technologies that lay the groundwork for the large-scale deployment needed to transition the freight system and protect community health.

EMERGING INITIATIVES

California Climate Investments address climate change and other important issues. Agencies can and have adapted programs to address emerging initiatives, a few of which are introduced below. As you read the report, note the use of icons to indicate which programs and projects contributing to these initiatives.

JOBS: California Climate Investments have been putting people to work on clean transportation, clean energy, and sustainable natural resources projects. Projects support employment and workforce development, as well as a just transition to a low-carbon economy.

WILDFIRE & RESILIENCY: Tragic natural disasters in recent years illustrate California's extreme vulnerability to the impacts of climate change. In 2018, California experienced the largest, deadliest, and most destructive wildfires in State history. Wildfire smoke covered nearly the entire State, caused more than 1 million children to miss school, resulted in over 100 deaths, and destroyed the town of Paradise—all while communities statewide continue to recover from previous fire disasters. Many California Climate Investments programs and projects are taking steps to reduce wildfire risk and build resilient communities to adapt to a changing climate.

COMMUNITY FOCUS: California's communities want a voice in how investments are made. More than ever, State agencies are responding by building partnerships and collaborating on the ground with community members and advocacy groups. The California Climate Investments program is leading a change in the way the State implements incentive programs by engaging with communities throughout program design and implementation, and selecting projects aligned with community needs.

- **Renewable Energy and Energy Efficiency:** SB 100 (De León, Chapter 312, Statutes of 2018) sets a vision for the State to get 100 percent of its energy from renewable sources by 2045. SB 100 also expedites the existing requirements that 50 percent of the electricity sold to retail consumers be produced by renewable sources to 2026. California Climate Investments projects help achieve this goal by incorporating renewable infrastructure where feasible, such as in transit stations and residential housing, as well as funding community solar facilities. SB 350 (De León, Chapter 547, Statutes of 2015) aims to reduce GHG emissions in the electricity sector and sets a 2030 goal of doubling energy efficiency savings in electricity and natural gas. California Climate Investments in energy efficiency projects demonstrate effective practices necessary to achieve these goals.
- **Carbon Neutrality:** In September 2018, Governor Brown signed Executive Order B-55-18, which establishes a goal for the State to achieve carbon neutrality by 2045 and maintain net-negative emissions after that. Carbon neutrality will require both reductions in GHG emissions and resilient carbon storage and increased sequestration, particularly in our natural and working lands.
- **Natural and Working Lands Implementation Plan:** In January 2019, a consortium of State agencies released a draft Natural and Working Lands Implementation Plan that sets forth a united approach that will move California toward maintaining a resilient carbon sink and improving air and water quality, water availability, wildlife habitat, recreation, and other benefits. The Natural and Working Lands Implementation Plan lays the groundwork for the additional work necessary to meet our goals and cites California Climate Investments as an integral component in incentivizing projects that reduce emissions and sequester carbon.

JOBS

California Climate Investments are putting Californians to work on clean transportation, clean energy, transit-oriented affordable housing, and sustainable natural resources projects. Programs can support a just transition to a low-carbon economy by enabling workforce development through job training programs, providing direct employment across the State, and targeting these benefits to priority populations. California Climate Investments programs also indirectly support jobs in California industries that supply the goods and services needed to implement projects. Lastly, jobs directly and indirectly supported by California Climate Investments generate additional household demand for goods and services, which supports induced jobs throughout the California economy. In 2018, the UCLA Luskin Center for Innovation released a report that estimated the number of jobs supported by California Climate Investments programs from 2013 to 2016. The report estimated that the $2.2 billion in appropriations made in that period would support almost 20,000 jobs in California.

Implementing legislation emphasized the importance supporting of California workers and businesses (AB 1532) and prioritized investments in disadvantaged communities (SB 535 and AB 1550). The Legislature and stakeholders have expressed a need for a robust, standardized tracking system for measuring the quantity and quality of employment benefits. As an example of data reported in 2018, CalRecycle's Food Waste Prevention Program projects are supporting 78 full-time equivalent jobs with an average hourly wage of $23. More than 8,000 project work hours have been performed by priority populations.

- **Building Resiliency in Forests:** Released in 2018, the California Forest Carbon Plan was created in response to increased wildfire activity, an intense wave of tree mortality following years of drought, and a need to ensure the resilience of California forests. This plan calls for greatly increasing the pace and scale of forest restoration efforts, including new efforts to use prescribed burns to reintroduce fire into ecosystems and remove hazardous fuels. Unlike wildfires, prescribed fires are only permitted to burn when weather forecasters predict the exposure of people and communities to smoke will be limited. In support of the Forest Carbon Plan, the Legislature increased funding to existing California Climate Investments programs that work to create more fire-resilient communities and ecosystems and also created several new programs to reduce wildfire risk through controlled burns and protect public health from smoke exposure.

New Legislation

Several key pieces of legislation related to California Climate Investments passed in 2018, including annual appropriations, new ongoing appropriations, the establishment of new programs, and a focus on technical assistance.

- **Annual Appropriations:** SB 840 (Committee on Budget & Fiscal Review, Chapter 29, Statutes of 2018) and SB 856 (Committee on Budget & Fiscal Review, Chapter 30, Statutes of 2018) appropriate FY 2018–19 funds to existing and new programs.
- **Ongoing Appropriations:** SB 901 established new ongoing appropriations for forestry investments through FY 2023–24 and requires CARB to improve methods for quantifying the benefits of such investments.
- **New Program:** SB 1013 (Lara, Chapter 375, Statutes of 2018) established the Fluorinated Gases Emission Reduction Incentive Program administered by CARB to promote the adoption of new refrigerant technologies to achieve short- and long-term climate benefits, energy efficiency, and other benefits.
- **Technical Assistance:** SB 1072 (Leyva, Chapter 377, Statutes of 2018) established a regional Climate Collaborative program to assist underresourced communities in accessing grant money for climate change mitigation and adaptation projects, including California Climate Investments. The bill charged the Strategic Growth Council with developing technical assistance guidelines for all agencies administering California Climate Investments. In addition, AB 2377 (Irwin, Chapter 868, Statutes of 2018) requires California Department of Food and Agriculture to establish a technical assistance program for two California Climate Investments agricultural programs.
- **Additional Legislation:** SB 1119 (Beall, Chapter 606, Statutes of 2018) changed the way the Low Carbon Transit Operations Program can count investments as benefiting disadvantaged communities. Transit agencies will implement SB 1119 beginning in 2019 and these projects will be included in the analysis of benefits to priority populations in future Annual Reports.

For more information on legislation that influences California Climate Investments, visit ww2.arb.ca.gov/resources/documents/cci-legislative-guidance.

PRIORITY POPULATIONS

All Californians are impacted by climate change. However, certain populations are especially vulnerable to its impacts or need additional assistance to be a part of the State's climate solution. Disadvantaged communities in California face disproportionate impacts from substandard air quality in the form of higher rates of respiratory illness, hospitalizations, and premature death. Lower income households tend to spend a greater share of their income to pay for energy intensive goods such as electricity, heating, and transportation and the policies necessary to meet our climate goals can increase those costs. Recognizing that these Californians are particularly vulnerable to climate change, legislation requires at least 35 percent of California Climate Investments must benefit these "priority populations," which include disadvantaged communities, low-income communities, and low-income households. California Climate Investments are exceeding those statutory requirements.

Initial legislation in 2012 (SB 535) set minimum investments for projects that benefit disadvantaged communities and projects that are located within disadvantaged communities. In 2016, AB 1550 replaced the investment minimums for disadvantaged communities introduced by SB 535 and established new investment minimums for low-income communities and low-income households. AB 1550 requires the available monies for California Climate Investments be minimally allocated as follows:

- 25 percent to projects located within the boundaries of, and benefiting individuals living in, disadvantaged communities.
- 5 percent 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.
- 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.

HOW PRIORITY POPULATIONS ARE DETERMINED

CalEPA designated individual census tracts as disadvantaged communities using the CalEnviroScreen screening tool. More information is available at www.calepa.ca.gov/EnvJustice/GHGInvest. AB 1550 defines low-income as communities and households with incomes at or below: 1) 80 percent of the statewide median income, or 2) the threshold designated as low-income by California Department of Housing and Community Development's list of State income limits.

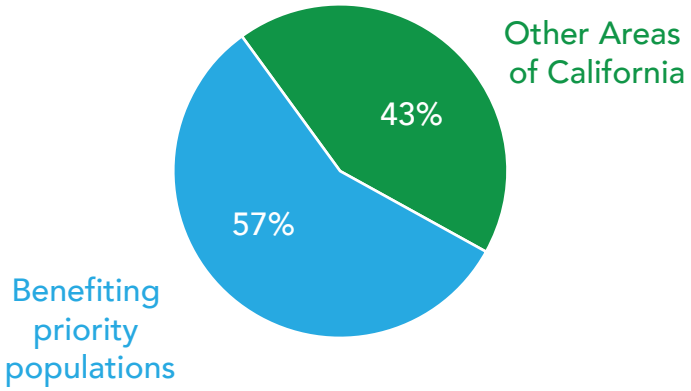
The AB 1550 investment requirements apply to the overall California Climate Investments portfolio, rather than to each individual administering agency's program. CARB collaborates with administering agencies to develop individual targets for each program to drive investments that achieve direct and meaningful benefits to priority populations and help ensure that the statutory investment minimums for California Climate Investments as a whole are met. Investment targets are created annually and are available at www.arb.ca.gov/cci-fundingguidelines.

To count a project toward the investment minimums, administering agencies must show that a project provides direct, meaningful, and assured benefits and meets an important community need according to CARB's Funding Guidelines. CARB works with administering agencies to develop criteria for providing benefits to priority populations and solicits input through a public comment process. The Funding Guidelines include other requirements and guidance for targeting investments to priority populations. Each project can only be counted as benefiting a single priority population. However, these projects may provide benefits to more than one priority population (e.g., both residents of disadvantaged communities and low-income households).

Cumulative Benefits to Priority Populations

Equity has always been a foundational part of California Climate Investments, and investments continue to reach the State's most vulnerable populations. Figure 3 shows that 57 percent ($1.9 billion) of the $3.4 billion in cumulative investments made through 2018 are benefiting priority populations. Projects awarded prior to August 2017 were subject to the investment requirements in SB 535; since then, projects awarded are subject to AB 1550.[10]

Figure 3: Cumulative Investments Benefiting Priority Populations



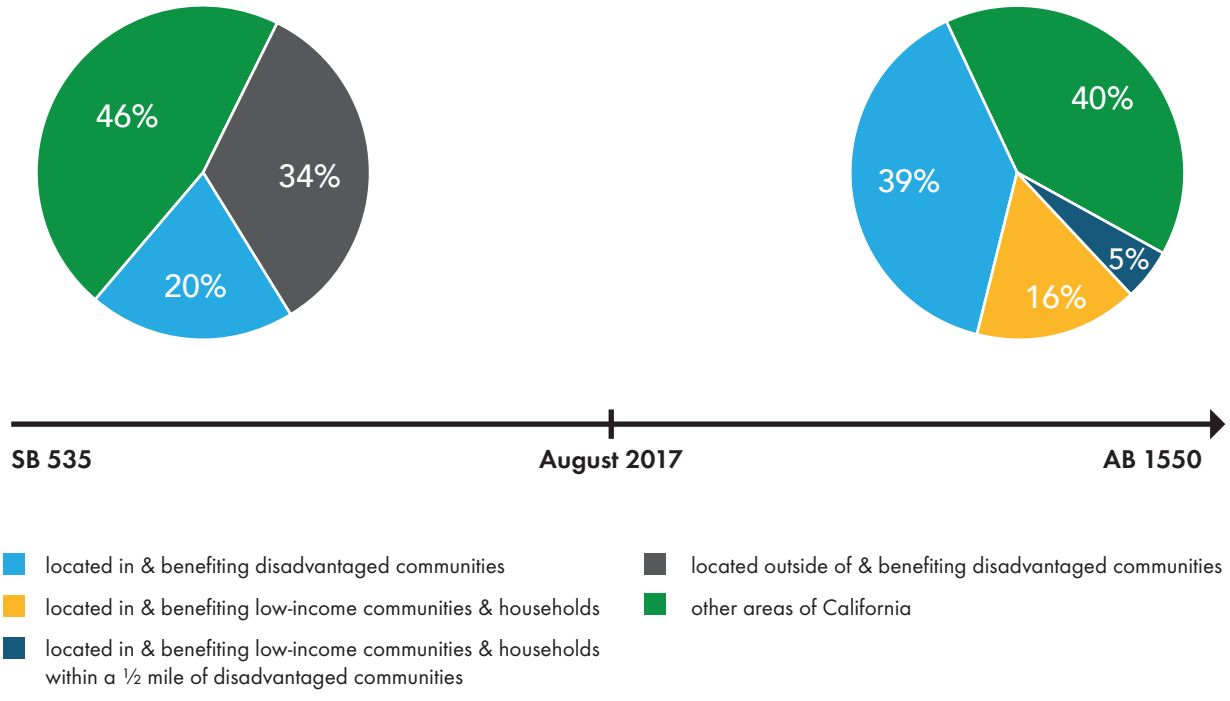
10 While current legislation (AB 1550) expands the percentage of projects located in and benefiting disadvantaged communities, it does not include targets for projects located outside of disadvantaged communities that also provide a benefit to those communities. Projects funded prior to 2017 counted toward the statutory targets if they were located outside that community but met criteria for providing a direct, meaningful, and assured benefit to a disadvantaged community. Project selected for funding after 2017 no longer count as "benefiting disadvantaged communities," because all projects must both benefit and be located in disadvantaged communities in order to count toward the statutory investment minimums.

Statutory Investment Minimums

Since August 2017, agencies have been implementing programs to benefit an expanded definition of priority populations, consistent with the direction in the Funding Guidelines on implementing AB 1550. Out of the $3.4 billion in projects to date, $1.1 billion are subject to AB 1550 requirements. Of those, 60 percent are benefiting priority populations (Figure 4).

SB 535 required 25 percent of funds to benefit disadvantaged communities and 10 percent to be located within a disadvantaged community. Projects subject to this requirement continue to report on progress, and of the $2.2 billion in projects awarded under SB 535 requirements, 54 percent are benefiting disadvantaged communities (Figure 4).

Figure 4: Cumulative Investments Contributing to Statutory Investment Minimums

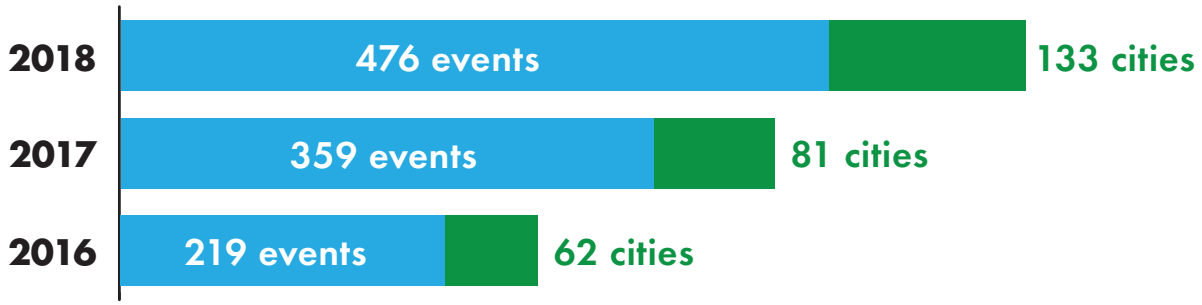


OUTREACH

Awareness and Outreach

Reaching priority populations is critical to the success of California Climate Investments. In addition to the investment requirements, administering agencies must design programs to target funding, meaningfully address community identified needs, and provide tangible benefits to priority populations. More than ever, agencies are involving communities throughout the many stages of program development and implementation. Administering agencies continue to improve public engagement and expand the range of program awareness. Year over year, agencies continue to expand the number of events held (Figure 5), and in 2018 alone had more than 25,000 participants.

Figure 5: California Climate Investments Outreach Statistics



Outreach and engagement activities included traditional program workshops, bus tours across impacted neighborhoods, webinars and online workshops, conferences convened by community and advocacy organizations, truck shows, festivals, presentations at tribal roundtables, and tours to hear lessons learned. Diversifying the kinds of outreach activities allows agencies to engage with more Californians, in more communities, in more places. More than 90 events included remote participation, so that people anywhere in California could participate. A complete list of outreach events by agency and program is available at www.caclimateinvestments.ca.gov.

In addition to the efforts from individual administering agencies, CARB facilitates outreach for all Climate Investments through a contract with the Foundation for California Community Colleges (Foundation). The Foundation works to raise awareness of California Climate Investments funding opportunities in disadvantaged and low-income communities. In 2018, the Foundation attended 45 community events across the State, including Chinese New Year parades, Earth Day celebrations, family health fairs, agricultural festivals, and Native American pow wows. The Foundation's events had a combined attendance of more than 116,000 attendees, and Foundation staff spoke directly with more than 5,600 people. This outreach increases the visibility of the program and provides a forum to ask questions and discuss individual programs. The Foundation distributes materials and information about funding opportunities, and follows up with people interested in sharing information with others in their community. The Foundation continues to operate a telephone hotline, social media accounts, and email for general questions about California Climate Investments, and distributes an electronic newsletter. Social media ads reached more than 420,000 people in 2018.

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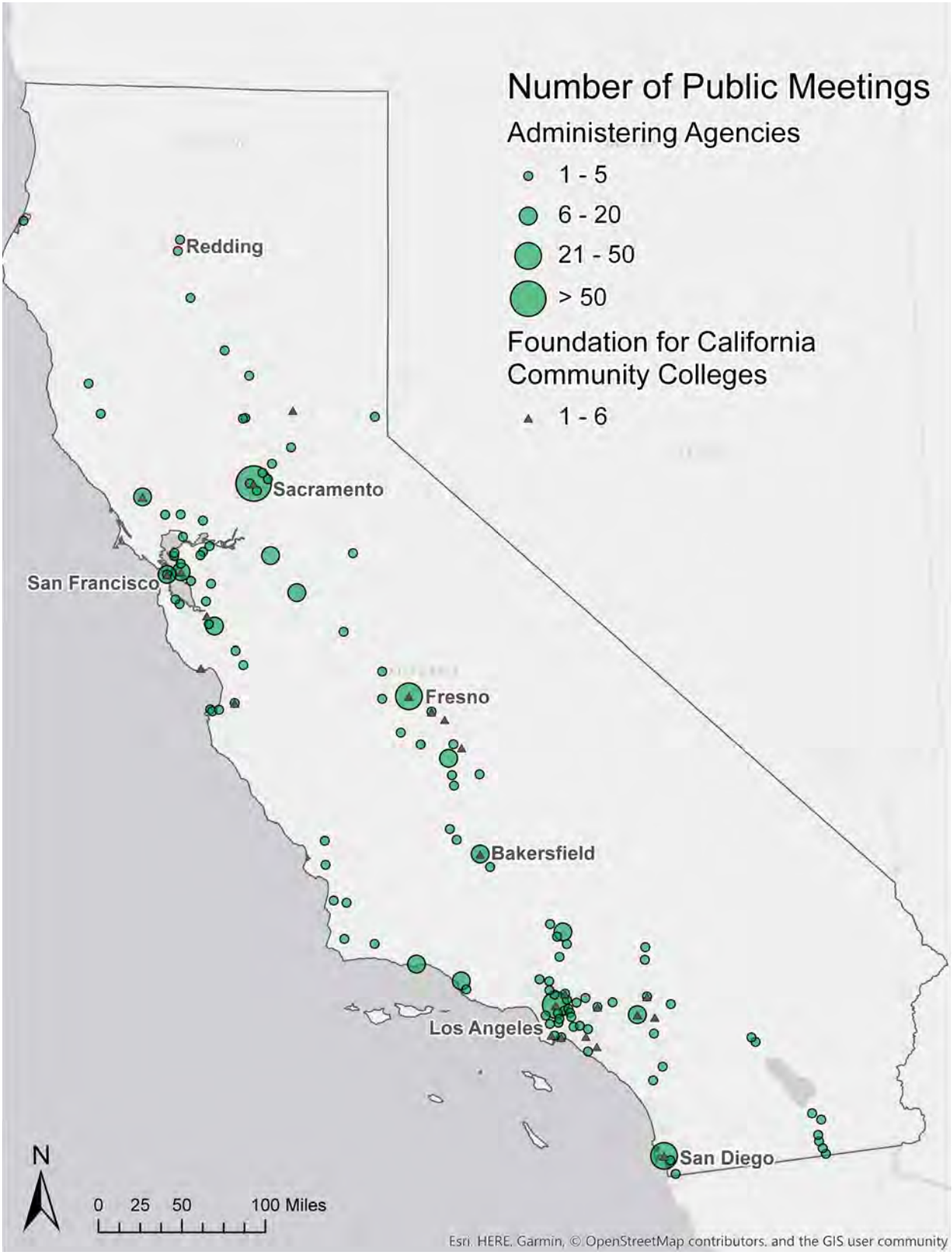
@CAClimateInvest

1-800-757-2907 English & Español

The Foundation used their relationship with community colleges to train operators of "Smog Check Referee" stations and phone hotlines on clean car rebates to inform people struggling to pass a smog check about funding available to buy a newer, cleaner vehicle. The Foundation also connected with dozens of student organizations on college campuses to share information about California Climate Investments, and launched the Student Ambassador program in the spring of 2018.

Together, administering agencies and the Foundation are increasing the number of events and hosting events in diverse locations throughout the State (Figure 6).

Figure 6: California Climate Investments Public Outreach Events in 2018



Student Ambassador Profile

NAME: Isabel
CURRENT ENROLLMENT: Riverside City College
GOAL: Earn B.S. & position at Engineers Without Borders

Isabel—a second-year, trilingual, mechanical engineering student at Riverside City College—has been passionate about environmental issues since she was a small child. Born in Bolivia, Isabel moved to Southern California with her family at age 7. Isabel's mom created beach and park "clean-up games" for her and her siblings to pick up trash, instilling the importance of taking care of and protecting the environment from a young age. According to Isabel, "growing up with these clean-up events shaped my need to get involved with environmental reform, especially within disadvantaged communities."

> The student ambassador program has been a great experience for me. I've been able to connect with people of all backgrounds and engage them in conversation about important environmental issues, which is very fulfilling."
>
> **–Isabel**

Initially, Isabel dreamed of attending film school, with interests ranging from short film, music video, and environmental documentary production, the latter specifically focusing on environmental justice issues. But in high school, Isabel took an environmental science class, inspiring her to shift her focus to studying environmental policy, and later, mechanical engineering. While acknowledging the importance of documentaries to bring public awareness to the numerous environmental issues currently plaguing our planet, Isabel was intrigued by the possibility of designing machinery to help reduce plastic in our oceans. A supporter of the Netherlands-based nonprofit The Ocean Cleanup, Isabel has a deep love for "practical design approaches that can make an immediate difference." She hopes to focus her future engineering work on ocean cleanup, with an eye towards protecting marine life and collaborating with scientists and other engineers to prevent plastics from ever entering our fragile marine ecosystem.

A STEM friend first alerted Isabel to the California Climate Investments student ambassador program, for which she applied and was accepted in Fall 2018. Through the California Climate Investments student ambassador program, Isabel has had the opportunity to engage diverse audiences in discussion of topics close to her heart. Recently, she gave a wildfire prevention presentation at the University of California, Riverside, in addition to representing California Climate Investments at Las Posadas de Riverside Holiday Celebration through impactful tabling.

Isabel is on the path to completing her associate's degree at Riverside City College and transferring to a four-year university to complete her bachelor's degree in mechanical engineering. Upon completing her degree, her goal is to work for Engineers Without Borders, a Boulder, CO-based nonprofit that designs and implements solutions for engineering projects worldwide that are community-based, community-owned, and community-maintained.

The California Climate Investments website (www.caclimateinvestments.ca.gov) is a central hub for program information and had more than 25,000 unique visitors in 2018 alone. Also in 2018, staff launched a shared event calendar, which administering agencies update with program milestones such as workshops, technical assistance events, and application deadlines to provide a single source for relevant program information.

Technical Assistance and Capacity Building

Equity is a key principle of California Climate Investments. Recognizing that applicants, particularly those in disadvantaged communities, often face challenges in accessing funding opportunities, the Legislature has appropriated funds specifically to provide technical assistance to improve their capacity to identify and apply for California Climate Investments. To date, the Legislature has appropriated $4 million to the Strategic Growth Council for the California Climate Investments Technical Assistance Program to prepare organizations serving disadvantaged communities to access California Climate Investments programs—including, but not limited to, those administered by Strategic Growth Council.

The type of support provided by the California Climate Investments Technical Assistance Program varies by program. A pilot program was established beginning in 2018 with the Low Carbon Transit Operations Program (LCTOP) and the Transit and Intercity Rail Capital Program (TIRCP) to help determine the best strategies transit agencies can implement towards enhancing the benefits of projects located in disadvantaged communities.

For the LCTOP's technical assistance, two consulting firms with records of engaging in community outreach and transportation planning were selected. The scope of work for LCTOP technical assistance included coordinating meetings for transit agencies and community-based organizations across California, to increase program awareness and facilitate new government-community based organizational partnerships.

For the TIRCP's technical assistance, one consulting firm was selected to help coordinate between four transit agencies, whose projects were awarded from the 2018 TIRCP award cycle to enhance project benefits located in disadvantaged communities.

Both LCTOP and TIRCP Technical assistance pilot programs received additional funding to provide financial support for community-based organizations that agreed to participate with each respective program.

Outside of the established Technical Assistance Program, agencies are encouraged, through the Funding Guidelines, to set aside appropriated funds to provide direct technical assistance where needed.

Interagency Coordination

Administering agencies continue to work together and share resources and strategies that improve program implementation, including creation of a coordinated workgroup for strategic outreach to priority populations. Agencies formed an interagency outreach workgroup in 2015 to share lessons and coordinate outreach, and it continues to grow in membership and collaboration. The workgroup, initially composed of administering agencies, has expanded to include outreach and technical assistance partners, as well as staff from programs that intersect with Climate Investments. The workgroup gathers monthly to share lessons, have open dialogue, and discuss ways to improve outreach efforts. As a result, staff from one program are inviting other program staff to outreach events and workshops to bring and present information on multiple funding opportunities, and agencies regularly co-host workshops and events.

This coordination builds interagency staff capacity to implement effective outreach through shared knowledge and experience and to leverage resources for coordinated and focused investments.

Accountability and Transparency

Accountability and transparency continue to be essential elements for all California Climate Investments. The public needs to know how agencies are investing funds and how those investments provide benefits, including those to priority populations.

Agencies are now in the second year of using an online system for tracking and reporting on projects. The reporting system improves consistency across programs, facilitates greater public access to data, and allows for more frequent reporting of data. 2018 marked the first year of administering agencies reporting data twice a year. In July 2018, CARB released updated semi-annual information on the California Climate Investments Project Map—an interactive map displaying project locations in a downloadable and searchable format to support independent analysis of investments data.

The Administration continues to host a website to provide a user-friendly and accessible web presence for California Climate Investments, and to communicate the program's benefits, achievements, progress, and updates to the public. The website includes descriptions of agency programs, current funding opportunities, upcoming agency events, and more. The website information from this and previous Annual Reports to the Legislature, as well as links to the California Climate Investments Project Map is available at www.caclimateinvestments.ca.gov.

COMMUNITY LEADERSHIP SUMMIT

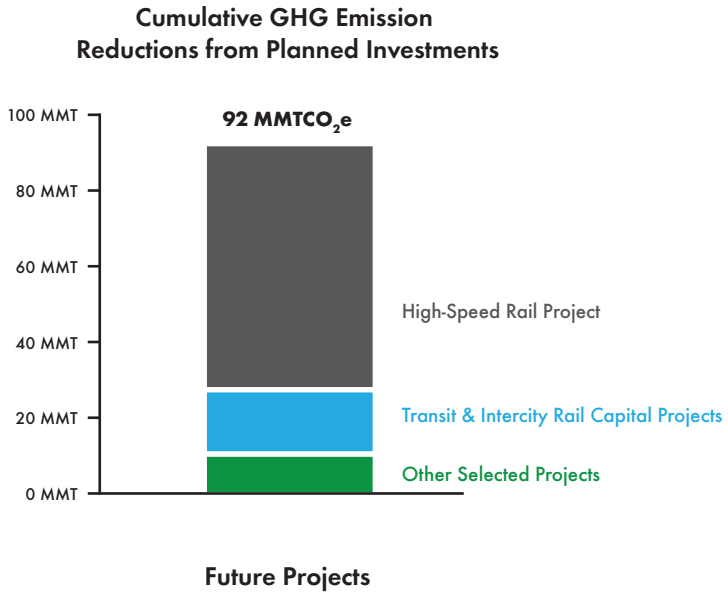
On March 12, 2018, agency outreach staff collaborated in hosting a Community Leadership Summit: Best Practices in Building Successful Projects. This Summit brought together more than 200 community members, advocates, technical assistance providers, outreach partners, local governments, and State agencies in Riverside to discuss how California Climate Investments can fund impactful projects that meet community needs. Panels and interactive discussion groups led by community leaders and agency staff fostered fruitful conversations and mutual learning. The workgroup synthesized information from the Summit, and observations from years of implementing these programs, into a Best Practices in Community Engagement and Building Successful Projects document, which is available at www.caclimateinvestments.ca.gov/community-leadership-summit-2018. The document provides a roadmap for improving community leadership and engagement, with core values and practical examples. State agency staff, contractors and awardees, and community partners can use the document at several stages in program and project development and deployment.

OUTCOMES FROM 2018

Planned Investments

In addition to the $3.4 billion in implemented projects, administering agencies have more than $7.4 billion of projects in the pipeline, such as the full High-Speed Rail project and several major transformative transportation and housing projects. These planned investments, those that are selected and awarded but not yet fully implemented, are expected to reduce GHG emissions by at least an additional 92 million $MTCO_2e$ (Figure 7).

Figure 7: Estimated GHG Emission Reductions from Planned Investments



Co-benefits

Agencies are beginning to report on important co-benefits, which support other Legislative priorities, State goals, and community benefits. In the coming years, more data will become available to better represent the wide range of benefits being achieved in addition to GHG reductions. While only a subset of projects currently have quantified co-benefits, early co-benefit reporting efforts demonstrate how these programs are achieving benefits beyond GHG emission reductions. Table 1 highlights a few of the quantified outcomes expected over the life of the projects implemented in 2018 alone.

Table 1: 2018 Co-benefits from a Subset of California Climate Investments Projects

Co-benefits	Outcomes from 2018
NO_x Emission Reductions	7,000 tons
PM2.5 Emission Reductions	475 tons
Diesel PM Emission Reductions	330 tons
Renewable Energy Generated	747 GWh
Energy Savings	161 GWh of electricity and 268 therms of natural gas
Water Savings	85 billion gallons
Natural and Working Lands Treated, Restored, or Preserved	247,667 acres
Trees To Be Planted	3.6 million

Reductions in the criteria air pollutants and toxic air contaminants from all sectors improve community health. Implemented projects are cumulatively expected to result in fewer incidents of premature cardiopulmonary mortality, hospitalizations for cardiovascular and respiratory illness, and emergency room visits for respiratory illness and asthma. These numerical outcomes are expected to grow substantially as more projects use the enhanced tools and reach the implemented stage.

In addition to quantitative benefits highlighted above, California Climate Investments programs support a range of other activities that help the State meet some of its most pressing challenges. The Strategic Growth Council's Affordable Housing and Sustainable Communities program, for example, has made investments to create more than 3,200 units of affordable housing near transit. The Strategic Growth Council structured the program to encourage local agencies and developers to plan and build projects together that address the State's serious housing crisis, mobility, and climate goals.

The new and rehabilitated housing developments funded include active transportation infrastructure and are located in close proximity to public transit, providing low-income families benefits that go far beyond the availability of shelter and a reduction in vehicle miles traveled and GHG emissions from transportation. The Affordable Housing and Sustainable Communities program, along with a number of other programs including the High Speed Rail project, Transit and Intercity Rail Capital Program, the Low Carbon Transportation and Operations Program, Active Transportation Program, and Urban Greening Program also increase access to transit and bicycle and pedestrian facilities, which lowers transportation costs, expands opportunities for employment, and can provide health benefits and time savings from shorter and more active commutes.

A suite of California Climate Investments programs are also tackling the challenge of adapting communities and ecosystems to the effects of climate change. A number of projects result in climate adaptation co-benefits based on their ability to reduce vulnerabilities to extreme heat, drought, sea level rise and inland flooding, agricultural productivity and conservation, species habitat, and wildfire.

New Programs Established in 2018

Clean Mobility in Schools — $10 M

CARB's Clean Mobility in Schools program is a new transportation equity project being funded through CARB's Low Carbon Transportation Program pursuant to SB 1275 (De León, Chapter 530, Statutes of 2014). The grant program will deploy scalable clean transportation and mobility strategies for reducing GHG emissions from schools in disadvantaged communities. Strategies may include electric vehicles and electric vehicle supply equipment in schools (K–12), car sharing for staff at schools to rotate using zero-emission vehicles, and outreach to students, parents and the community.

Low Carbon Fuel Production Program — $12.5 M

The California Energy Commission will provide incentives to support low-carbon fuel production projects in California. The program will support new and expanded renewable ultra-low carbon transportation fuel production at commercial scale, helping the State's fuel industry work towards a low-carbon future.

Fire Engines and Equipment Program — $25 M

The California Governor's Office of Emergency Services (Cal OES) will fund the procurement and maintenance of fire engines for local fire agencies and support of the California Fire and Rescue Mutual Aid System. The goal of the program is to increase and maintain emergency response capabilities within the State's Fire and Rescue Mutual Aid System in order to help protect communities from wildfires and other disasters.

Prescribed Fire Smoke Monitoring Program — $5.5 M

CARB's new program will enhance air quality monitoring for prescribed fires and provide a public awareness campaign regarding prescribed burns. The intent of the program is to protect public health while optimizing the existing prescribed burning program to help achieve the goals called for in the California Forest Carbon Plan. The program will provide grants to local air districts to facilitate increased smoke monitoring, utilize a common reporting platform for prescribed fire information, and develop an app that the public can use to understand smoke impacts in their area and learn how to minimize health impacts.

Prescribed Fire Program — $24.5 M

CAL FIRE will create six crews of wildland fire professionals dedicated to increasing the pace and scale of fuel reduction and land restoration treatments in support of the California Forest Carbon Plan. These crews will be located around the State and will conduct prescribed burns and other fuel reduction treatments to help protect communities from wildfires, create healthier and more climate-resilient ecosystems and watersheds, and stabilize carbon stored in natural lands.

Regional Forest and Fire Capacity Program — $20 M

The purpose of this new California Natural Resources Agency program is to increase local capacity in the northern, central, and southern regions of the State to develop region-wide plans and shovel-ready projects for forest restoration, fire protection, and watershed improvements in support of the California Forest Carbon Plan. The program will provide block grants to regional entities that will distribute funding to local organizations to assist in the creation of a regional plan, to develop specific projects, and to implement demonstration projects. Some grant funds will also be available statewide for project implementation.

WILDFIRE EMISSIONS

During 2017, 1.2 million acres burned in California wildfires. While the death and property destruction caused by these fires often dominates headlines, the smoke emitted by uncontrolled fires can have severe and widespread consequences for public health, increasing respiratory problems and mortality rates. In addition, these fires emitted an estimated 37.1 million metric tons of CO_2, equivalent to approximately 10 percent of all anthropogenic CO_2 emissions in the State. While wildfires and anthropogenic activities may emit similar amounts of CO_2, these emissions have very different influences on the global carbon cycle. The CO_2 emitted from anthropogenic activities comes largely from fossil fuels, bringing carbon to the surface that had been stored deep in the Earth for millions of years. In contrast, fire is a natural component of many natural and working lands, necessary to support biodiversity, and an important regulator of ecosystem function. The CO_2 emitted by wildfires is a natural part of the carbon cycle, which is constantly moving carbon between the atmosphere and biosphere through the processes of photosynthesis, respiration, and combustion. When emissions from wildfires and other disturbances are not balanced by new plant growth and carbon sequestration in other areas, this has a dramatic impact on atmospheric CO_2.

Over the last several decades, wildfire activity consistently increased across the western United States. In California, four of the five largest fires in State history have occurred in the last six years and most of the largest, deadliest, and most destructive fires in State history have occurred in the last 20 years. The increases in wildfire activity have been attributed to both changes in climate and shifts in land management, including a century of fire suppression policy. Across much of California and the western United States, emissions from increasing wildfire activity have counteracted many of the gains made in controlling pollution from transportation and industry over the last several decades. California Climate Investments in forestry and wildfire protect communities from wildfire, restore ecosystems, secure carbon sequestered in natural lands, and create more resilient forests.

Cross-sectoral Investments

California's population is projected to grow to 50 million people by 2050. Supporting this growth will require coordinated investments in land use, transportation, and affordable housing. California Climate Investments programs are demonstrating approaches to this by expanding access to housing and mobility options, promoting physical activity, improving air quality, increasing connectivity, and enhancing resilience.

Investments in the built and natural environment complement each other to reduce conversion of the State's most productive farmland, rangeland, and forests while supporting infill-oriented regional development. By promoting infill and providing clean, safe, and convenient travel options for Californians to get to work, school, shopping, and recreation, California Climate Investments increase accessibility and reduce congestion and reliance on single occupancy vehicles. California Climate Investments further reduce transportation emissions through the promotion of low- and zero-emission vehicles.

In addition to reducing emissions from personal vehicles through deployment of advanced technologies and incentivizing fewer and shorter trips, California Climate Investments continue to address social inequities by directing resources to disadvantaged and low-income communities. Efficient land use, transit-oriented development, and complete street designs prioritize transit, biking, and walking and result in more livable, vibrant communities. Health benefits also accrue to communities near freight corridors and a variety of stationary sources that are emitting fewer air pollutants because of incentive funds. Climate change mitigation measures can improve overall population health and safety and support a better standard of living through direct cost savings, access to opportunity, and economic development.

Service and infrastructure investments in transit, affordable housing, active transportation, urban greening, shared-use mobility, energy efficiency, air quality, and conservation of natural and working lands deliver benefits to these communities and across the State. California Climate Investments also provide funding for local planning efforts, technical assistance, capacity building, and partnership development that can result in greater coordination of future investments, enable policies, and inspire further action in support of sustainable and vibrant Californian communities.

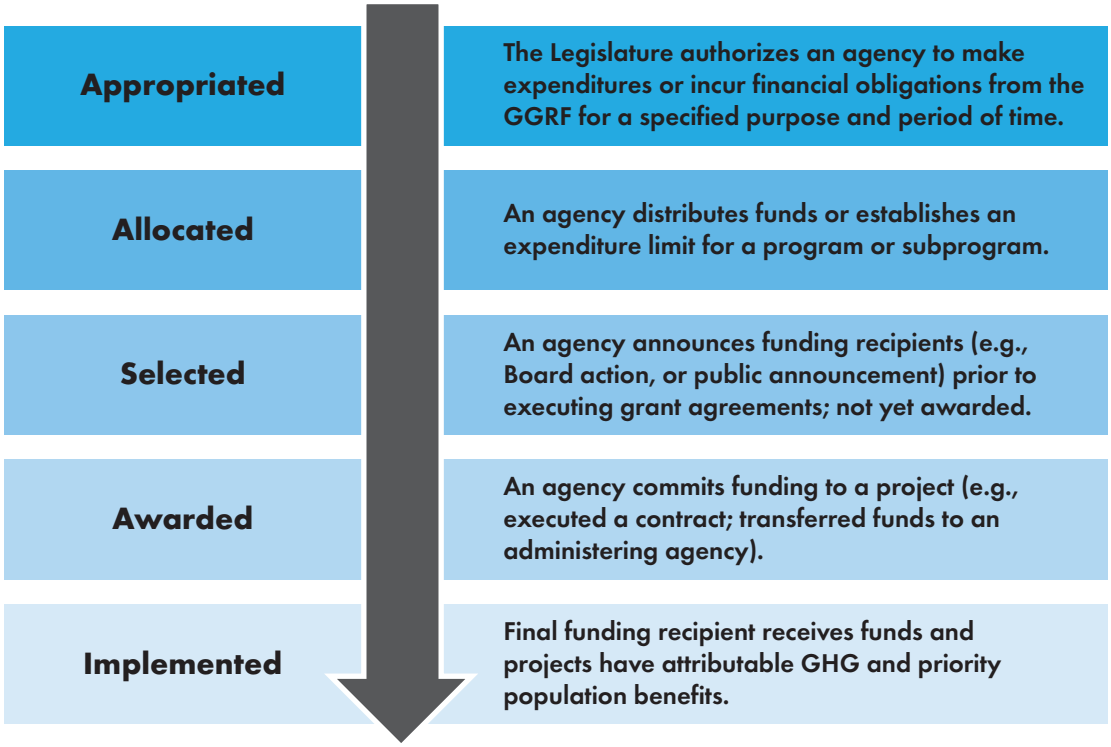
California Climate Investments programs span sectors and provide key linkages between sectors. For the purposes of this report, the programs are organized by the following sectors:

- Transportation and Sustainable Communities
- Clean Energy and Energy Efficiency
- Natural Resources and Waste Diversion

Individual Program Statistics

The remainder of this report provides summary pages of the status of each ongoing California Climate Investments program. Figure 8 defines the terms used in this report.

Figure 8: Reporting Terms for California Climate Investments



The summary pages include the following information for each program, where applicable:

- The total amount of funds available for the program to date ("appropriated" or "allocated");
- The total amount of funds implemented to date ("implemented");
- The amount of funds assigned to future projects that have been announced or committed for investment but have yet to be implemented ("selected" and "awarded");
- A high-level overview of the program including: administering agency; what type of projects are funded; how funds are distributed (whether competitive or first-come, first-served); who is eligible to receive funds; and how the funds reach priority populations;
- Estimated GHG emission reductions from the projects reported as implemented in 2018;
- Co-benefits that are expected from projects reported as implemented in 2018; and
- Benefits to priority populations from projects reported as implemented in 2018.[11]

Summary statistics on every California Climate Investments program can be found at www.caclimateinvestments.ca.gov. This report includes program pages for programs that have implemented less than 90 percent of their appropriated funds.

Additional information on individual implemented projects is also available on the website, both on the California Climate Investments Project Map that shows project location and in a spreadsheet for download.

11 The program pages display benefits to priority populations as counted towards statutory investment minimums. Projects counted for a specific statutory investment minimum may provide benefits to more than one priority population, but are not shown to avoid double counting.

TRANSPORTATION & SUSTAINABLE COMMUNITIES

Community Air Grants

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$15.0 million allocated.

How much has gone to implemented projects?
$8.5 million implemented.

How much has been assigned for future projects?
$1.4 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Air Grants fund projects that provide support for California community-based organizations and California tribes. Grants help awardees participate in the AB 617 process, and to build capacity to become active partners with government to identify, evaluate, and ultimately reduce air pollution and exposure to harmful emissions in their communities.

How to access funds?
Competitive application process (CARB's Environmental Justice Office administers the program).

Who receives funds?
California community-based and nonprofit organizations and California tribal governments.

How do funds reach priority populations?
Investments only target the state's most disadvantaged communities.

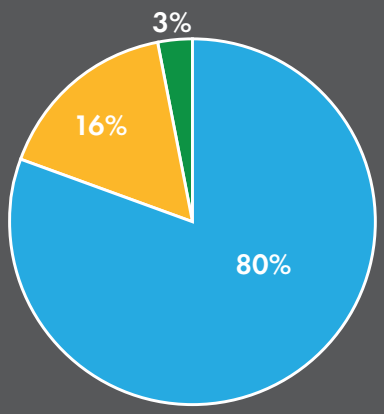
2018 OUTCOMES

FUNDING

$8.5 M IMPLEMENTED

FUNDING DISTRIBUTION

$8.3 M
TO BENEFIT PRIORITY POPULATIONS



Community Air Protection Grants

San Ysidro is a predominantly low-income, 93% Latino community, situated along the US-Mexico border, across from the Mexican city of Tijuana. Sources of air pollution include vehicle exhaust from traffic waiting to cross the San Ysidro Port of Entry, the largest land-border crossing in the Western Hemisphere, as well as air pollution from Mexico. This is where Casa Familiar, a community-based organization, has kicked off its Community Air Grant project, in order to empower community members to participate in the AB 617 process by helping to identify, evaluate, and ultimately reduce exposure to harmful emissions in their community.

The project will allow Casa Familiar to sustain and expand a current network of community-operated air monitors, providing residents of the border region, the local air district, CARB, and US EPA with the necessary data to better understand air quality impacts from vehicular border crossing at the new Port of Entry, currently under construction. "As a community that deals with 120,000 vehicles crossing the U.S.-Mexico border on a daily basis, San Ysidro residents and its local schools suffer 10 times higher levels of pollution than the neighboring city of Imperial Beach by the Pacific Ocean. We have learned from initial community air monitoring that for every 100-minute passenger vehicle wait time, there is a direct and relatable impact on air quality. This impacts 90% of all San Ysidro neighborhoods and schools," according to David Flores, Community Development Director for Casa Familiar.

The goals for the project are to inform San Ysidro residents of the air quality levels and leverage partnerships to work towards air quality solutions. A unique aspect of Casa Familiar's Community Air Grant is the planned community-to-community outreach. "As Casa continues to gain knowledge and expertise, we want to share this with other adjacent communities that are interested in establishing their own air monitoring and goal setting for community health & environmental justice. This is easier done when someone can point the way and identify challenges from experience," says Flores. Specifically, under the project, Casa Familiar will hold at least three community-to-community training events, sustain and expand their current network community air monitoring sites, and deploy new ultra-low cost sensors for PM to provide information on pollution reaching indoor environments.

Community Air Protection Funds

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

$515.0 million allocated.

How much has gone to implemented projects?

$113.4 million implemented.

How much has been assigned for future projects?

$121.7 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?

Incentive grants to help owners of older high-polluting vehicles and equipment replace them with newer models that have much lower emissions—or zero emissions. Grant funds may also be used for changes at local industrial facilities that reduce emissions of toxic or smog-forming pollutants, to build zero-emission charging stations, or to support local measures that air districts and communities identify through AB 617 Community Emissions Reduction Programs.

How to access funds?

Competitive application process (local air districts will select which projects to fund).

Who receives funds?

Local air districts receive funds based on a formula and distribute them to individual projects.

How do funds reach priority populations?

At least 55 percent of funds go to projects benefiting disadvantaged communities.

2018 OUTCOMES

FUNDING

$113.4 M IMPLEMENTED

EXPECTED BENEFITS

64,115
$MTCO_2E$ GHG REDUCTIONS

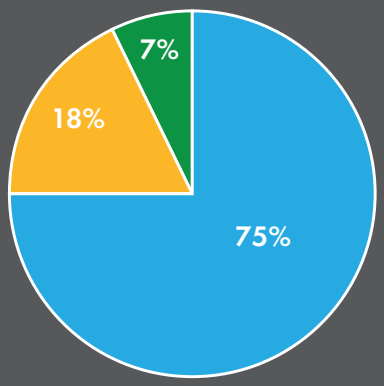
12,297,562
GALLONS FUEL REDUCTIONS

9,676,304
POUNDS NO_X REDUCTIONS

449,794
POUNDS DIESEL PM REDUCTIONS

FUNDING DISTRIBUTION

$105.3 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Community Air Protection Program

Solid waste collection vehicles are known for releasing diesel PM in communities as they idle during the pickup and removal of waste from homes and businesses. With Community Air Protection Funds, administered by the South Coast Air Quality Management District (SCAQMD) through the Carl Moyer Program, CR&R Inc. is reducing air pollution in southern California by replacing 61 of its heavy-duty diesel trucks with near zero-emission renewable natural gas (RNG) trucks.

The new trucks are fueled by RNG fuel produced from organic waste at CR&R's anaerobic digestion facility in Perris, California, which previously received California Climate Investments funding from CalRecycle's Organics Grant Program.

CR&R was awarded over $2,000,000 from the Community Air Protection program and is using the funds to begin operating the cleanest certified heavy-duty engines– with NO_x emissions 90% lower than the current on-road heavy-duty standard for RNG-fueled trucks. The vehicles are expected to be in service in by June 2019, years ahead of when the existing trucks would otherwise be required to meet emission standards under California's Truck and Bus Regulation. The project will provide significant NO_x, diesel PM, GHG emission reductions over the 7-year project life.

CR&R is also investing in strategically locating RNG refueling stations throughout its multi-county service area to minimize miles travelled and improve fleet operating efficiencies. In November 2018, SCAQMD awarded CR&R an additional $223,901 of Community Air Protection Funds for an RNG fueling station in Colton to support the operation of the near-zero emission vehicles.

Community Air Protection Funds continue to provide incentives for vehicle and equipment replacements to reduce pollution in the state's most impacted communities.

Funding Agricultural Replacement Measures for Emission Reductions

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$197.0 million appropriated.

How much has gone to implemented projects?
$13.2 million implemented.

How much has been assigned for future projects?
$66.3 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Agricultural harvesting equipment, heavy-duty trucks, agricultural pump engines, tractors, and other equipment used in agricultural operations.

How to access funds?
Potential participants apply for funding through their local air districts. Air districts then select projects for funding.

Who receives funds?
Local air districts receive funds based on a formula and award them to farmers and agricultural businesses for individual projects.

How do funds reach priority populations?
At least 50 percent of funds go to projects benefiting disadvantaged communities and 5 percent of funds go to projects benefiting low-income communities.

2018 OUTCOMES

FUNDING

$13.2 M IMPLEMENTED

EXPECTED BENEFITS

9,905
$MTCO_2E$ GHG REDUCTIONS

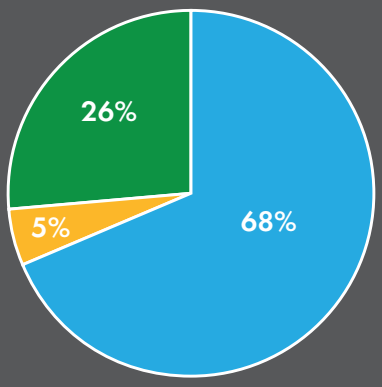
1,781,859
POUNDS NO_x REDUCTIONS

99,201
POUNDS DIESEL $PM_{2.5}$ REDUCTIONS

136,905
GALLONS FUEL REDUCTIONS

FUNDING DISTRIBUTION

$9.7 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Advanced Technology Freight Demonstration Projects

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$84.0 million allocated.

How much has gone to implemented projects?
$79.2 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
Advanced Technology Freight Demonstration Projects provide funding for pre-commercial demonstrations of advanced vehicles, engines, equipment, and transportation systems. These advanced technology projects demonstrate zero-emission or near zero-emission vehicles and equipment that use less petroleum and emit less GHG and air pollutant (NO_X, PM, carbon monoxide (CO), and ROG) emissions than conventional, diesel-fueled equipment.

How to access funds?
Competitive application process.

Who receives funds?
Local air districts, other California public entities, and nonprofits, which may partner with private sector parties (e.g., end-users, manufacturers) as providers or demonstrators.

How do funds reach priority populations?
All projects must benefit disadvantaged communities and projects within disadvantaged communities receive enhanced application scoring.

2018 OUTCOMES

FUNDING

$31.9 M IMPLEMENTED

EXPECTED BENEFITS

2,957
$MTCO_2E$ GHG REDUCTIONS

19,632
POUNDS NO_X REDUCTIONS

2,765
POUNDS ROG REDUCTIONS

22,400
GALLONS FUEL REDUCTIONS

FUNDING DISTRIBUTION

$31.9 M
TO BENEFIT PRIORITY POPULATIONS

- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Agricultural Worker Vanpools

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$9.0 million allocated.

How much has gone to implemented projects?
$6.0 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
Expanded access to cleaner, lower GHG-emitting transportation options for agricultural workers in disadvantaged communities with a focus on the San Joaquin Valley.

How to access funds?
Competitive application process open to government entities, public entities or non-profit organizations.

Who receives funds?
California Vanpool Authority (CalVans) is providing affordable vanpools for agricultural workers in disadvantaged areas of the San Joaquin Valley.

How do funds reach priority populations?
Program will be limited to projects that serve disadvantaged communities.

2018 OUTCOMES

FUNDING

$6.0 M IMPLEMENTED

EXPECTED BENEFITS

4,592
$MTCO_2E$ GHG REDUCTIONS

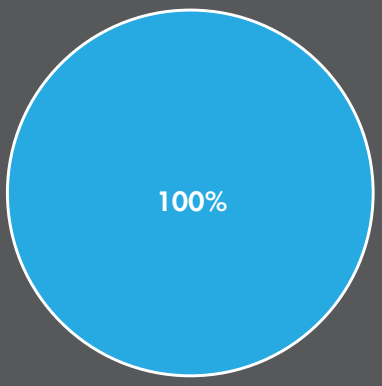
576
POUNDS NO_x REDUCTIONS

850
POUNDS PM2.5 REDUCTIONS

154
VEHICLES IN SERVICE

FUNDING DISTRIBUTION

$6.0 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Agricultural Worker Vanpool Pilot Project

Alejandro migrated to the United States as a boy from Oaxaca, Mexico. He finished high school while still working in the fields, and then went to community college and state university. Alejandro explains, "We had to start our day at five or six in the morning and my father would drive us to work." It is common for farmworkers to drive to the field site themselves or to pay to commute in a vanpool.

Between one-third and half of all farmworkers in America reside in California, or roughly 500,000 to 800,000 farmworkers.

Agricultural Worker Vanpools in the San Joaquin Valley is a new pilot project that will provide expanded access to reliable, clean technology vanpools for agricultural workers in the valley's disadvantaged communities. The California Air Resources Board awarded the program $6 million through the California Climate Investments program. CalVans, a public transit agency sponsored by the California Vanpool Authority that serves 17 mostly agricultural California counties, will deploy 154 new, 15-passenger hybrid vans that provide near-zero emission transportation to agricultural job sites in the San Joaquin Valley and other disadvantaged agricultural areas of California, such as the Coachella Valley and Salinas Valley.

Benito lives in Selma, California and is thankful for the program. "We've been part of the problem for more than 10 years. It is a great help for us. We put fewer cars on the roads of the San Joaquin Valley and we contribute to cleaning the air. And it feels nice to do that. Today we received a new van that will help the environment. We heard about CalVans through friends and it's helped us a lot. In the future for those of you who are interested, I invite you to call CalVans and get a van."

The vans reduce fuel consumption by 25 percent, resulting in immediate emission reductions benefits within disadvantaged communities, while also meeting a basic transportation need of agricultural workers.

Clean Mobility Options for Disadvantaged Communities

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$48.1 million allocated.

How much has gone to implemented projects?
$9.6 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
A variety of clean mobility projects (including car share, bike share, vanpool, and ridesourcing) in disadvantaged communities using advanced clean vehicles (zero-emission or plug-in hybrid electric vehicles) and associated infrastructure.

How to access funds?
Competitive application process.

Who receives funds?
Pilot project administrators serving disadvantaged communities throughout California.

How do funds reach priority populations?
Projects are placed in locations that serve disadvantaged communities.

2018 OUTCOMES

FUNDING

$5.5 M IMPLEMENTED

EXPECTED BENEFITS

2,313
$MTCO_2E$ GHG REDUCTIONS

3,519
POUNDS NO_X REDUCTIONS

447
POUNDS PM2.5 REDUCTIONS

63
VEHICLES IN SERVICE

FUNDING DISTRIBUTION

$5.5 M
TO BENEFIT PRIORITY POPULATIONS

- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Clean Mobility Options for Disadvantaged Communities Pilot Project

The Clean Mobility Options for Disadvantaged Communities pilot projects address the barriers and transportation needs of low-income residents and those living in disadvantaged communities. The City of Los Angeles received a $1.7 million grant to start a zero-emission car share pilot project, BlueLA, to operate in four Los Angeles disadvantaged communities.

Los Angeles Mayor Eric Garcetti welcomed the program, saying "BlueLA is the nation's largest effort to bring car sharing to low-income communities, so that a zip code doesn't define how you can contribute to saving this planet."

This BlueLA project will ultimately deploy 100 electric cars (EV) and 200 EV chargers and serve portions of Westlake, Pico Union, Koreatown, Echo Park, Downtown, Boyle Heights, and Chinatown by March 2019. Launching to the public in April 2018 with 25 EVs and 35 chargers in 7 locations, the project now has 70 EVs and 85 chargers in 17 locations.

"For the first time in the City of Los Angeles, we are focusing specifically on disadvantaged communities. These communities are low-income and are disproportionately impacted by air quality. It was really critical for us to work with our partner Bollore [BlueLA] to establish a geography that aligned with our vision to bring clean, convenient, accessible transportation to these areas. Also, we are offering low-income rates for households that make under $35,000," explains Marcel Porras, with the LA Department of Transportation.

For residents who do not own a car, this program enables them to get to their destinations more easily. They can also drop the car off at any BlueLA station. Currently, there are approximately 1,000 members.

Andrew Castillo uses the BlueLA electric cars. "I just turned 18 a few months ago and I don't have a car, so if I ever want to go with friends somewhere this will be a cheap and an affordable option."

Due to the success of the BlueLA car share project, the California Air Resources Board has tentatively selected the project to receive $3 million for expansion, which will add another 200 vehicles and 60 more stations throughout the disadvantaged communities, and an e-bike sharing program. This car share project will provide a reliable method of transportation at a low cost for residents in need and will help clean up the air at the same time. Visit bluela.com to learn how to rent an electric vehicle for your next trip.

Clean Off-Road Equipment

2018 OUTCOMES

No projects were implemented in 2018.

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$40.0 million allocated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
TBD

Program Description

What type of projects are funded?
Vouchers toward the purchase of zero-emission and near zero-emission equipment used in off-road freight transport (such as forklifts, transport refrigeration units, gantry cranes, and terminal trucks).

How to access funds?
First-come, first-served; program administration is awarded competitively.

Who receives funds?
Public and private off-road freight fleet operators.

How do funds reach priority populations?
Larger voucher values for vehicles located within disadvantaged communities.

Clean Truck & Bus Voucher Program

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$362.9 million allocated.

How much has gone to implemented projects?
$227.4 million implemented.

How much has been assigned for future projects?
$142.5 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Promotes clean vehicle adoption by offering vouchers for the purchase of zero-emission, hybrid, and low NO_x emitting trucks and buses.

How to access funds?
Vouchers available first-come, first-served; program administration awarded competitively.

Who receives funds?
Public and private operators of medium- and heavy-duty truck and bus fleets.

How do funds reach priority populations?
Larger vehicle rebates for vehicles located in disadvantaged communities.

2018 OUTCOMES

FUNDING

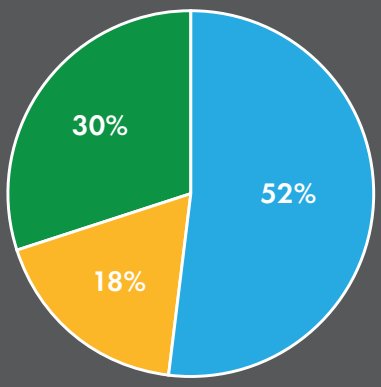
$196.4 M IMPLEMENTED

EXPECTED BENEFITS

759,228
$MTCO_2E$ GHG REDUCTIONS

FUNDING DISTRIBUTION

$137.1 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Clean Vehicle Rebate Project

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$708.4 million allocated.

How much has gone to implemented projects?
$484.0 million implemented.

How much has been assigned for future projects?
$224.0 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Rebates for the purchase or lease of new, eligible light-duty vehicles, including electric, fuel-cell, and plug-in hybrid electric vehicles.

How to access funds?
First-come, first-served statewide; administered by the Center for Sustainable Energy.

Who receives funds?
Individuals, businesses, and government entities.

How do funds reach priority populations?
Outreach events targeting priority populations; larger rebates for lower-income applicants and for public fleets located in disadvantaged communities.

2018 OUTCOMES

FUNDING

$143.2 M IMPLEMENTED

EXPECTED BENEFITS

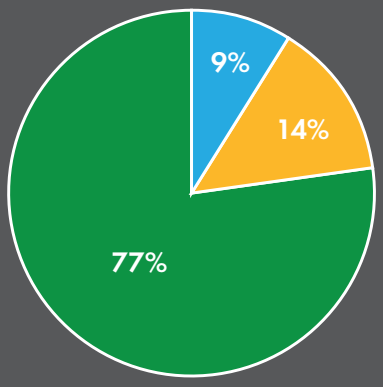
373,883
$MTCO_2E$ GHG REDUCTIONS

96,053
POUNDS NO_x REDUCTIONS

59,971
POUNDS PM2.5 REDUCTIONS

FUNDING DISTRIBUTION

$33.1 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Clean Vehicle Rebate Project

Under the Clean Vehicle Rebate Project (CVRP), California residents can receive up to $7,000 to purchase or lease a new, advanced technology vehicle. This includes plug-in hybrid electric, battery electric or fuel-cell electric vehicles (EVs). Through June 2018, CVRP provided rebates for over 256,000 vehicles at a cost of over $570 million since the project's launch in 2010.

The Clean Vehicle Rebate Project hopes to promote electric vehicle adoption, especially among lower-income buyers, with its new CVRP Rebate Now program. The pilot program launched in San Diego County in January 2018. Consumers can now complete a simple online registration process, and once pre-approved, they are eligible for an immediate discount toward the purchase or lease of eligible models. Making the process of buying a new electric vehicle easier will attract more lower-income customers and lead the way towards reaching the State's goal to put at least 5 million zero-emission vehicles on California roads by 2030.

The president of the Center for Sustainable Energy, Lawrence Goldenhersh, explains the simple process: "Car shoppers in San Diego can now get preapproved before they purchase or lease an EV and then transfer the rebate amount directly to the dealership rather than applying for the rebate after the transaction. In just a few simple steps, the car dealership can claim the transferred rebate and use it to lower the customer's down payment."

Erica, from San Diego, took advantage of CVRP and got a new Kia Soul electric vehicle. Her monthly budget for gas was $250 and the lease on her new Kia is $206.

"The financial benefits were what persuaded me to give this car a shot, but I have been pleasantly surprised with other bonuses that come with an EV," she said. "Our car has become a source of pride for our family. It feels good to break our dependency on gas. Plus, the kids love this car. It definitely has the 'cool' factor. I can't believe it took me so long to make the switch. Going back to a gas-powered vehicle is not even an option. Want my advice? Run the numbers for your family and do it today. The results just might surprise you."

Enhanced Fleet Modernization Program Plus-Up

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$102.0 million allocated.

How much has gone to implemented projects?
$21.2 million implemented.

How much has been assigned for future projects?
$39.8 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Financial incentives to retire older more polluting vehicles and replace them with newer cleaner advanced technology hybrid and zero-emission vehicles, or Alternative Mobility Options.

How to access funds?
First-come, first-served; administered by local air districts.

Who receives funds?
Low-income residents within and near disadvantaged communities of the San Joaquin Valley and South Coast air districts, with expansion underway in the Bay Area and Sacramento air districts.

How do funds reach priority populations?
Program designed with tiered incentive structure to provide maximum incentives to the lowest income participants purchasing or leasing the cleanest technology vehicles that reside within and near disadvantaged communities.

2018 OUTCOMES

FUNDING

$10.3 M IMPLEMENTED

EXPECTED BENEFITS

6,568
$MTCO_2E$ GHG REDUCTIONS

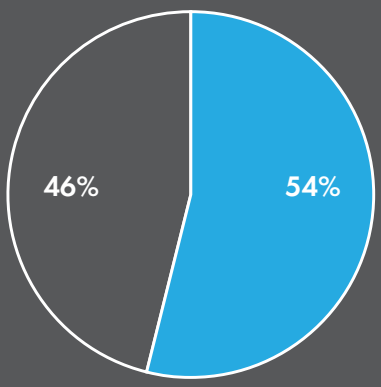
25,121
POUNDS NO_x REDUCTIONS

3,770
POUNDS ROG REDUCTIONS

1,043
POUNDS PM2.5 REDUCTIONS

FUNDING DISTRIBUTION

$10.3 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Financing Assistance for Lower-Income Consumers

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$25.9 million allocated.

How much has gone to implemented projects?
$1.6 million implemented.

How much has been assigned for future projects?
$4.3 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Offers lower-income consumers a low-interest loan and a vehicle price buy-down to purchase a new or used zero-emission, plug-in hybrid electric, or hybrid vehicle. Lenders are offered a loan loss reserve to mitigate their risk.

How to access funds?
Low-interest loans and buy-downs available first-come, first-served; program administration awarded competitively.

Who receives funds?
Lower-income residents statewide.

How do funds reach priority populations?
Outreach to disadvantaged communities to engage lower-income residents to participate in the program.

2018 OUTCOMES

FUNDING

$1.4 M IMPLEMENTED

EXPECTED BENEFITS

1,553
$MTCO_2E$ GHG REDUCTIONS

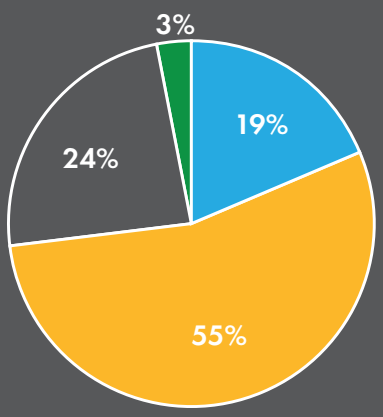
560
POUNDS NO_x REDUCTIONS

246
POUNDS PM2.5 REDUCTIONS

120
POUNDS ROG REDUCTIONS

FUNDING DISTRIBUTION

$1.3 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Rural School Bus Pilot Projects

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$55.0 million allocated.

How much has gone to implemented projects?
$9.4 million implemented.

How much has been assigned for future projects?
$30.6 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
School bus fleet expansion with zero-emission buses and replacement of conventional-fuel buses with hybrid or conventional-fuel buses using renewable fuels.

How to access funds?
Competitive application process.

Who receives funds?
Public School Districts, Public Charter Schools, County Office of Education, joint powers authorities, and the Division of State Special Schools in the State Department of Education.

How do funds reach priority populations?
Not applicable.

2018 OUTCOMES

FUNDING

$0.8 M IMPLEMENTED

EXPECTED BENEFITS

570
$MTCO_2E$ GHG REDUCTIONS

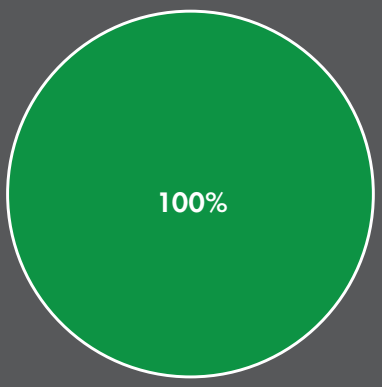
26,955
GALLONS FUEL REDUCTIONS

13,300
POUNDS NO_X REDUCTIONS

197
POUNDS ROG REDUCTIONS

FUNDING DISTRIBUTION

$0.0 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Rural School Bus Pilot Project

Parents can now breathe a little easier knowing their kids are doing the same going to and from school. In 2018, the Ukiah Unified School District in Mendocino County received funding to replace three older diesel school buses with three new zero-emission electric models. Earlier this year, Lion Electric, the manufacturer of the electric buses, delivered Ukiah Unified School District's first zero-emission electric school bus, with delivery of the remaining two expected in early 2019. In addition, the whole community benefits from reduced exposure to diesel exhaust pollution.

Recent studies show older school buses expose kids to higher concentrations of pollution while riding inside the bus, which is becoming an increasing concern to parents whose kids rely on these buses to get to school. Herlinda Calderon explains, "The saddest thing is when I realized that dirty school buses were worsening my daughter's asthma, worsening her breathing problems." In addition, Martha Favela would rather drive her three daughters to three different schools each morning than to have them ride in a diesel school bus. "Even just dropping them off at school, we pass the buses idling and breathe in the diesel fumes. Children go to school to learn, not to get sick from pollution."

Traditionally, rural school districts lack funds to replace their old and polluting diesel school buses. Through a partnership with Senator Mike McGuire and the California Air Resources Board, the Rural School Bus Pilot Project provides funding to replace old school buses with vehicles running on cleaner fuel, and even zero-emission school buses.

"At Ukiah Unified School District, we are excited to add electric school buses to our fleet; it makes us very happy any time we can improve our impact on the environment. Our students and staff will enjoy a much quieter ride, and we are being better stewards of our environment. In addition to environmental benefits, electric school buses are less expensive to run and maintain. They do have a large up-front cost, but we know that over the long haul, they will pay for themselves and actually save our district money," said Deb Kubin, Ukiah Unified School District Superintendent.

The Rural School Bus Pilot Project owes its success to the 2014–2015 Zero-Emission Truck and Bus Pilot projects, which featured electric transit and school buses and demonstrated that zero-emission electric buses are a reliable, cleaner mode of public transportation. Now the technology expands to the rural areas of the state. The Rural School Bus Pilot Project funded over 60 new school buses, which will cut approximately 10,000 $MTCO_2e$.

Zero-Emission Truck and Bus Pilot Projects

2018 OUTCOMES

No projects were implemented in 2018.

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$85.0 million allocated.

How much has gone to implemented projects?
$82.8 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
Supports pilot deployment of clusters of zero-emission trucks, transit buses, or school buses, including potential funding for charging or fueling infrastructure.

How to access funds?
Competitive application process.

Who receives funds?
Local air districts, transit agencies, school districts, other California-based public entities, and California-based nonprofit organizations, which may partner with private sector parties as technology providers.

How do funds reach priority populations?
Projects benefiting disadvantaged communities receive additional points during application scoring, with the majority of funding going to these projects.

Zero- and Near Zero-Emission Freight Facilities

2018 OUTCOMES

No projects were implemented in 2018.

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$155.0 million allocated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
$153.5 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Advanced technology demonstration projects provide funding for pre-commercial demonstrations of advanced vehicles, engines, equipment, and transportation systems.

How to access funds?
Competitive application process.

Who receives funds?
Local air districts, other California public entities, and nonprofits, which may partner with private sector parties (e.g., end-users, manufacturers) as providers or demonstrators.

How do funds reach priority populations?
All projects must benefit disadvantaged communities and projects within disadvantaged communities receive enhanced application scoring.

Zero- and Near Zero-Emission Freight Facilities Project

The East Yard Communities for Environmental Justice organization puts on a yearly bike tour through Long Beach to raise awareness about the air pollution in local neighborhoods from locomotives, transport trucks, loading/unloading equipment and ships. Kevin Shin, cofounder of Walk Bike Long Beach, notes, "By walking and biking, people develop a greater appreciation for the impact that toxic infrastructure has on them and their neighbors."

Tour leader, Jan Victor Andasan, who grew up in West Long Beach and has asthma, felt some lung tightness during some parts of the ride. While exploring the area, they also had to share the roads with a steady stream of trucks, which Andasan pointed out were "not running on zero-emission technology."

A decade ago, the thought of heavy-duty zero-emission equipment was only a dream, but today it is a reality. In 2015, the California Collaborative Advanced Technology Drayage Truck Demonstration Project began to deploy 44 zero-emission battery electric and plug-in hybrid drayage trucks at major California ports. It brought together major manufacturers, including BYD, Kenworth, Peterbilt and Volvo. This demonstration project forged the way for the Zero- and Near Zero-Emission Freight Facilities (ZANZEFF) program, a sub-program under the California Air Resources Board's Low Carbon Transportation Program, which has eleven different projects throughout the state and more than $400 million invested.

For one of these projects, the Port of Long Beach received a $50 million award in 2018 and project partners will match with another $52.9 million. Across this and other projects in Oakland and Stockton, ZANZEFF will deploy 38 electric yard trucks, 9 electric gantry cranes, 18 electric heavy lift forklifts, and 15 zero-emission Class 8 trucks. The program is also including a workforce development component with curriculum being developed to support the deployment of this technology with local school districts near the three port locations, community colleges and Long Beach State University.

"I applaud the California Air Resources Board for its vision and commitment to helping disadvantaged communities in California improve their air quality by fostering innovative clean technologies," said Senator Connie M. Leyva (D-Chino). "These significant investments show that California businesses can thrive while helping to further our efforts to clean the air of our state's most impacted communities. I look forward to witnessing firsthand the benefits that these projects will bring to the 20th State Senate District and the Inland Empire."

Locals hope that in the future there will no longer be a need for a bike tour to raise awareness about the air pollution, but rather about how clean the air is at the ports and railyards.

Low Carbon Transit Operations Program

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)

Cumulative Funding[12]

How much funding has the program received?
$378.7 million appropriated.

How much has gone to implemented projects?
$250.7 million implemented.

How much has been assigned for future projects?
$55.0 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Operating and capital assistance for transit agencies to reduce GHG emissions and improve mobility, with a priority on serving disadvantaged communities.

How to access funds?
Non-competitive, formula-based list of eligible recipients prepared by the State Controller's Office for annual apportionment.

Who receives funds?
The State Controller's Office provides a list of transportation planning agencies and transit operators that are eligible for State Transit Assistance Funds. There are nearly 200 eligible recipients throughout California.

How do funds reach priority populations?
Transit agencies whose service areas include a disadvantaged community are required to expend at least 50 percent of their apportionment on projects that benefit a disadvantaged community.

12 By statute, the LCTOP program is appropriated 5% of the proceeds of each quarterly auction. These appropriated funds are then allocated annually to transit agencies via an established formula. This results in a temporary gap between appropriated and selected/awarded/implemented funds each year.

13 Benefits to priority populations shown here account for statutory investment minimums in SB 535 and AB 1550. In addition to these investment minimums, SB 862 requires that, for transit agencies whose service areas include disadvantaged communities, at least 50 percent of their LCTOP funds must benefit those disadvantaged communities. Cumulatively, 89 percent of implemented LCTOP funds benefit disadvantaged communities.

2018 OUTCOMES

FUNDING

$135.7 M IMPLEMENTED

EXPECTED BENEFITS

1,547,053
$MTCO_2E$ GHG REDUCTIONS

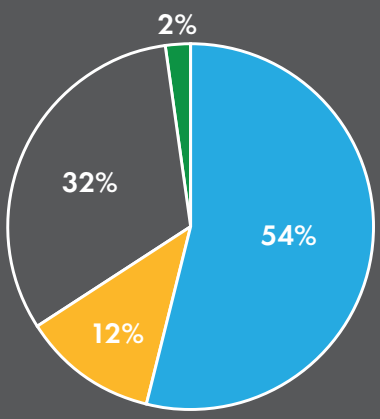
2,823,340,321
VMT REDUCTIONS

235,750
kWh ENERGY SAVINGS

511,680
POUNDS NO_x REDUCTIONS

FUNDING DISTRIBUTION

$132.7 M
TO BENEFIT PRIORITY POPULATIONS[6]



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Low Carbon Transit Operations Program

Yosemite Area Regional Transportation System (YARTS) successfully completed its 'Reduced and Free YARTS to Yosemite' program for 2018 funded through the California's Low Carbon Transit Operations (LCTOP) grant program. In Merced County, the program allowed adults to ride to Yosemite National Park for $5, and children, ages 0–12 rode free. In Mariposa County, residents were provided free passes to ride the bus to and from the Park.

In total, YARTS provided over 500 adult reduced round trips and 850 child trips from Merced County and over 2,800 free round trips from Mariposa County to Yosemite. The ridership also saw a significant increase in low-income populations as a result of the program.

"We met a group on the bus that was from Merced that had service dogs and bought the reduced tickets to spend the day in Yosemite. There's no better way to spend a weekend than with a trip to Yosemite National Park," said Jennifer S. of Mariposa.

Cindy Kelly, YARTS Assistant Transit Manager, said that one of the goals of the program was to be able to offer residents in Merced and Mariposa Counties a way to enjoy outdoors spaces with families and friends, at little to no cost. "We want to teach our next generation of Californians to be good stewards of our public lands by showing them the beauty of Yosemite," she said.

Jessica M. of Merced couldn't believe that tickets were only $5 for adults and children were free. "We took the whole family. My husband, mom, dad, brother and grandma. We all spent a beautiful day walking around the park and just being together. I'm glad we were all able to go together. It was so much fun; the bus was very clean, and it was a comfortable ride."

Kelly said the program was originally scheduled to last until June 30, 2019 but that it was so popular all the passes were distributed within just a few months. "We never thought the program would be such a hit," she said. "Obviously, we're thrilled that so many people chose YARTS over driving their personal vehicles. We wish we could offer this service more frequently to our communities." And she's doing her best to make that very thing happen with YARTS staff already working on a plan to expand the program for the 2019–2020 year.

High-Speed Rail Project

2018 OUTCOMES

The California High-Speed Rail Authority has taken steps to ensure that jobs supported by the project benefit disadvantaged populations through its Community Benefits Agreement (CBA).[15]

The Authority is pleased to report that, as of December 2018, 496 small businesses were working on the project, including 161 Disadvantaged Business Enterprises and 53 Disabled Veteran Business Enterprises.

Cumulatively, the high-speed rail project has provided a living wage for more than 2,500 workers that have worked more than 1.6 million work hours. More than 70 percent of work hours were performed by Targeted Workers and almost 30 percent of those work hours were performed by Disadvantaged Workers, vastly exceeding the targets set in the CBA.

CALIFORNIA HIGH-SPEED RAIL AUTHORITY (HSRA)

Cumulative Funding[14]

How much funding has the program received?
$2,023.0 million appropriated.

How much has gone to implemented projects?
$626.0 million implemented.

Program Description

California's high-speed rail system will connect the megaregions of the State, contribute to economic development and a cleaner environment, support jobs and preserve agricultural and protected lands. The Phase 1 system will run from San Francisco to the Los Angeles basin in under three hours at speeds capable of over 200 miles per hour. The system will eventually extend to Sacramento and San Diego, totaling 800 miles with up to 24 stations (Phase 2).

The Authority's 2018 Business Plan presented a cost range of $63.2 billion to $98.1 billion (YOE) for the Phase 1 System. In addition, the California High-Speed Rail Authority is working with regional partners to implement a statewide rail modernization plan that will invest billions of dollars in local and regional rail lines to meet California's 21st century transportation needs. This investment includes the electrification of the Caltrain corridor and the LINK Union Station Project, among others.

The California high-speed rail system will decrease GHG emissions by 64.3 to 75.9 million metrics tons of CO_2e and air pollutants (NO_x, ROG, CO, PM, and toxics) by more than 100,000 tons. The system is unique in that it will shift air travelers and drivers to an electrified high-speed rail system, running entirely on renewable energy.

Currently, reductions in air pollutant and GHG emissions from high-speed rail construction in the Central Valley are being achieved by recycling construction waste and using clean construction equipment. The Authority is offsetting emissions through an agreement with San Joaquin Valley Air Pollution Control District to replace diesel engines in the Central Valley, and an agreement with CAL FIRE to fund urban and rural tree planting programs in disadvantaged communities. The Authority has also identified permanent agricultural easements of more than 1,200 acres and preserved and restored more than 2,500 acres of habitat.

14 By statute, the High-Speed Rail project is appropriated 25% of the proceeds of each quarterly auction. HSRA does not select or award funds, as all appropriated funds are used for the HSR project.

15 The CBA encourages a 30 percent small business participation goal and ensures that 30 percent of all project work hours are performed by National Targeted Workers, with at least 10 percent of those work hours be performed by Disadvantaged Workers. The CBA definitions of Targeted Worker and Disadvantaged Worker are not aligned with the designations of priority populations for the purposes of meeting the investment minimums in SB 535 or AB 1550. For this reason, these employment benefits are not credited as benefiting priority populations, but provide a direct and assured benefit to those targeted employees. Targeted Workers include individuals that reside in low-income ZIP codes. A Disadvantaged Worker is a Targeted Worker with additional barriers to employment.

High Speed Rail: San Mateo 25th Avenue Grade Separation

Improving safety and air quality for Californians is a priority. The California High-Speed Rail Authority, in partnership with the city of San Mateo and the Peninsula Corridor Joint Powers Board, is in the midst of construction of a grade separation project at East 25th Avenue, which will raise the Caltrain tracks and slightly lower East 25th Avenue in San Mateo.

The rail-roadway crossing is considered a "top priority" for safety improvement by the California Public Utilities Commission (CPUC). The intersection sits between San Mateo County Events Center and a busy shopping center. Further, Caltrain reports that 92 of its trains pass through the intersection each weekday.

Idling vehicles and traffic congestion are generally a result of trains and automobiles at the same ground level height. By separating the road and train tracks, removing traffic at idle will improve air quality and safety.

"Like everyone else on the Peninsula, I have to plan my day around traffic," San Mateo City Councilwoman Maureen Freschet noted to the San Mateo Daily at the groundbreaking ceremony. "There is no quick fix for regional traffic congestion, but the grade separation at 25th Avenue is certainly a good place to start. I know that our residents will appreciate and benefit from the elimination of train-vehicle conflicts as well as enjoy safer pedestrian options."

Grade separations raise or lower roadways to improve safety for motorists and pedestrians as well as reduce traffic congestion.

In addition to raising the Caltrain tracks, the project includes creating new east-west street connections at 28th and 31st Avenues as well as the construction of a new and elevated Hillsdale Station at East 28th Avenue.

Funding for the $180 million project came from State Section 190, the California High-Speed Rail Authority, local Measure A and the city of San Mateo. Completion of the project is estimated in fall 2020.

Transit and Intercity Rail Capital Program

CALIFORNIA STATE TRANSPORTATION AGENCY (CALSTA)

Cumulative Funding[16]

How much funding has the program received?
$869.1 million appropriated.

How much has gone to implemented projects?
$338.9 million implemented.

How much has been assigned for future projects?
$2,376.1 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Transformative capital improvements that are modernizing California's intercity, commuter, and urban rail systems, bus and ferry transit systems, to significantly reduce GHG emissions, vehicle miles traveled, and congestion.

How to access funds?
Biennial competitive application process.

Who receives funds?
Public agencies that operate or have planning responsibility for existing or planned intercity or commuter passenger rail service, urban rail transit, or bus or ferry service.

How do funds reach priority populations?
Projects benefiting disadvantaged communities are encouraged and taken into consideration during the evaluation process. The program has a statutory requirement of providing at least 25 percent of available funds to projects that provide direct, meaningful, and assured benefits to disadvantaged communities.

16 By statute, the TIRCP program is appropriated 10% of the proceeds of each quarterly auction. SB 9 (Beall, Chapter 710, Statues of 2015) directed TIRCP to fund transformative capital improvements and authorized CalSTA to make multi-year funding commitments in furtherance of that purpose. In doing so, the amount of funding for selected projects may exceed the cumulative appropriations, in anticipation of future funding availability.

2018 OUTCOMES

FUNDING

$40.6 M IMPLEMENTED

EXPECTED BENEFITS

512,000
$MTCO_2E$ GHG REDUCTIONS

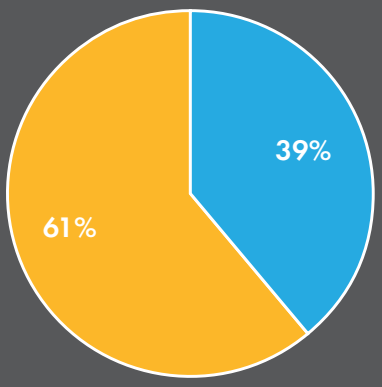
63,059,483
VMT REDUCTIONS

341,441
POUNDS NO_x REDUCTIONS

3,858
POUNDS PM2.5 REDUCTIONS

FUNDING DISTRIBUTION

$40.6 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Transit and Intercity Rail Capital Program: Antelope Valley Transit Authority Sees a Zero-Emission Future

Serving Northern Los Angeles County and the cities of Palmdale and Lancaster, the Antelope Valley Transit Authority (AVTA) provides mobility and access to the residents of a region with a rich history of aerospace innovations that includes the Air Force Test Center and Edwards Air Force Base. The Antelope Valley is home to a robust manufacturing sector that features Northrup Grumman (building the F35, the worlds most advanced combat aircraft), General Atomics, Lockheed Martin and many others.

Meeting the transportation needs of this dynamic and diverse region requires AVTA buses to travel more than 3 million miles per year, making the move to zero-emission buses not just important but absolutely necessary. By taking public transit, AVTA customers are choosing the most inexpensive mode of transport, doing their part to relieve congestion, and with our zero-emission buses, they are also helping create a healthier region for themselves and the community at large by eliminating thousands of tons of PM and GHG from diesel- and CNG-fueled buses.

Eliminating exhaust by-products emitted by diesel and natural gas buses leads to a healthier environment on multiple fronts. It creates a healthy emission-free space for our customers and for the bus operators who no longer have to breathe recirculated exhaust, or deal with the clanking and vibration of an internal combustion engine. Maintenance technicians benefit from not having any exhaust fumes in the shop, no diesel fuel on their skin, no dirty harmful particulate residue from replacing and cleaning PM traps and no more caustic diesel emission fluid to handle, store and dispense.

"I think we're setting the standard for the entire country with electrifying the bus system in the Antelope Valley," stated Assemblyman Tom Lackey. AVTA first embarked on the journey toward an all-electric zero emission bus fleet in 2015. Thanks to funding awarded by the California State Transportation Agency in 2015, AVTA was able to purchase the first 29 of the 85 zero-emission battery-electric buses. AVTA was able to procure the world's first 60-foot zero-emission battery-electric articulated bus, as well as the nation's first battery-electric commuter coaches. With additional awards in 2016 and 2018, AVTA is making the entire fleet electric.

Affordable Housing and Sustainable Communities Program

STRATEGIC GROWTH COUNCIL (SGC)

Cumulative Funding[17]

How much funding has the program received?
$1,121.8 million allocated.

How much has gone to implemented projects?
$314.5 million implemented.

How much has been assigned for future projects?
$257.5 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Affordable housing loans and other capital grants for housing-related infrastructure, sustainable transportation infrastructure, transportation-related amenities, and related programs.

How to access funds?
Competitive application process.

Who receives funds?
Local government agencies or districts (e.g., housing, transit, redevelopment, or planning), developers, university, college, or school districts, and federally recognized tribes.

How do funds reach priority populations?
At least 50 percent of funds go to projects benefiting disadvantaged communities; projects should fulfill an identified community need and the community should be involved in project development.

2018 OUTCOMES

FUNDING

$166.1 M IMPLEMENTED

EXPECTED BENEFITS

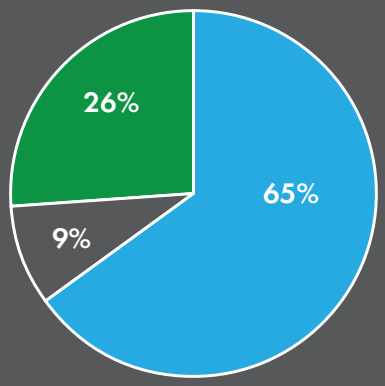
220,039
$MTCO_2E$ GHG REDUCTIONS

1,409
HOUSING UNITS

1,247
AFFORDABLE HOUSING UNITS

FUNDING DISTRIBUTION

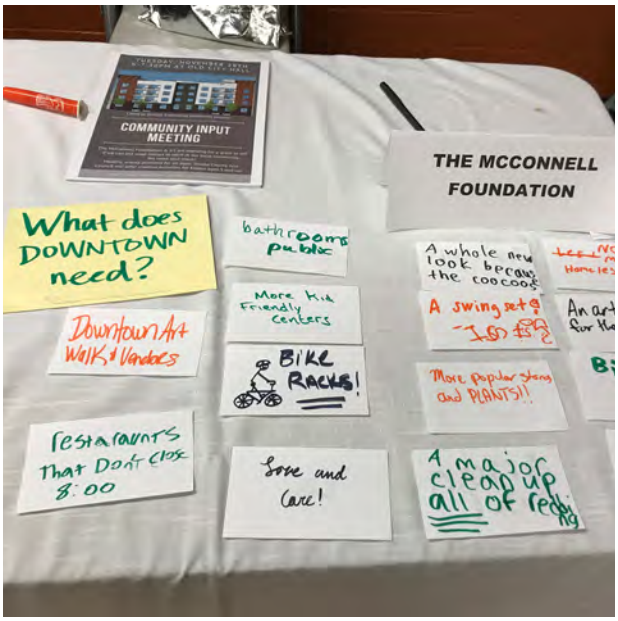
$122.4 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

17 By statute, the AHSC program is appropriated 20% of the proceeds of each quarterly auction. SGC conducts competitive solicitations for AHSC funding awards on a 12 month cycle. This results in a temporary gap between appropriated and selected/awarded funds each year. The AHSC program is currently in another solicitation round and SGC plans to select approximately $400 million in new projects in June 2019.

Affordable Housing and Sustainable Communities: New Housing & Retail Development in Redding



In June 2018, the City of Redding, located in northern California's Shasta County, was awarded $20 million through the Strategic Growth Council's Affordable Housing Sustainable Communities (AHSC) Program to support the development of the Block 7 Net Zero Housing and Downtown Activation Project.

Developed by K2 Land and Investment, LLC, in collaboration with the City of Redding, the McConnell Foundation, Shasta Living Streets, and a number of other community organizations, this project will build 78 new homes and over 12,000 square feet of commercial retail space in downtown Redding. The project also includes almost 4 miles of bike lanes and over half a mile of sidewalks and urban greening elements that will complete a river trail connection from Turtle Bay Exploration Park to downtown. In addition, there will be a bikeshare program for the broader community, and funding for active transportation education.

The AHSC program supports developments that make it easier for Californians to drive less by ensuring housing and jobs are accessible by walking, biking, and transit—precisely what the Block 7 project is designed to do. Shasta County ranks sixth highest for levels of pedestrian death and bicycle collision in the US, and Redding community members lack convenient access to transit. By partnering with a variety of local organizations, the developer was able to engage community members to ensure that the project would address their most pressing needs. Around 130 community members attended the first outreach event, which was hosted by The McConnell Foundation. The Shasta Arts Council provided child care at the event and engaged young people by asking them to draw their visions for the project, including ideas for greenery, playgrounds, and parks.

At the second outreach event, community members filled out comment cards with requests for bike rentals, more bike racks, accessible public bathrooms, and downtown shopping centers. All of these suggestions were incorporated into the final project. Now that the award has been granted, the McConnell Foundation has these comment cards displayed as a visual reminder of the importance of engaging community members in the decisions that impact their lives. According to Rachel Hatch of the McConnell Foundation, this venture will finally allow community members to "make the healthy choice, the easy choice."

Climate Research Program

STRATEGIC GROWTH COUNCIL (SGC)

Cumulative Funding

How much funding has the program received?
$29.0 million appropriated.

How much has gone to implemented projects?
$6.9 million implemented.

How much has been assigned for future projects?
$16.7 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Research on reducing carbon emissions, including clean energy, adaptation, and resiliency, with an emphasis on California.

How to access funds?
Competitive application process.

Who receives funds?
Researchers (including qualified scientists, engineers, and educators) affiliated with one of the following institutions: University of California, California State University, federally-funded national laboratories located in California, private, non-profit colleges and universities located in California, and private, non-profit research organizations located in California.

How do funds reach priority populations?
Research projects are required to demonstrate how the research will be used to benefit disadvantaged communities, low-income communities, or low-income households. In some cases, research projects specifically target priority populations by pursuing pilots in those communities; in others, the expected outcomes of the research will directly benefit priority populations' adaptation to the impacts of climate change.

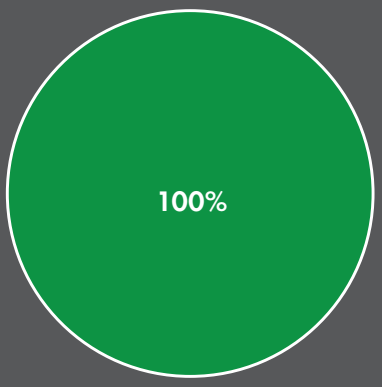
2018 OUTCOMES

FUNDING

$6.9 M IMPLEMENTED

FUNDING DISTRIBUTION

$0.0 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Sustainable Agricultural Lands Conservation Program

STRATEGIC GROWTH COUNCIL (SGC)

Cumulative Funding

How much funding has the program received?
$118.5 million allocated.

How much has gone to implemented projects?
$19.4 million implemented.

How much has been assigned for future projects?
$95.2 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Protection of critical agricultural lands from conversion to more GHG-intensive residential uses by facilitating conservation easements and strategy plans that result in direct protection of at-risk lands.

How to access funds?
Competitive application process.

Who receives funds?
Easement funding available to local and regional government entities and nonprofit organizations. Strategy and Outcome grants available to local governments in collaboration with other organizations, such as land trusts and open space districts.

How do funds reach priority populations?
Projects benefiting disadvantaged communities receive higher application scores and have a lower requirement for matching funds.

2018 OUTCOMES

FUNDING

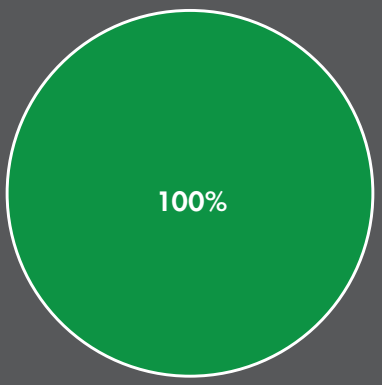
$10 M IMPLEMENTED

EXPECTED BENEFITS

TBD

FUNDING DISTRIBUTION

$0.0 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Sustainable Agricultural Lands Conservation Program: East Lake Berryessa Conservation Easements

The Sustainable Agricultural Lands Conservation Program (SALC) has awarded three consecutive years of funding to the Land Trust of Napa County to protect nearly 13,000 contiguous acres of grazing lands and oak woodlands along the eastern edge of Lake Berryessa in Napa County. The block of six conservation easements provides connectivity between Lake Berryessa, BLM lands to the east, and the 21,500-acre Knoxville Wildlife Area, which in turn connects to federal lands that extend to the Oregon border. Agricultural conservation easements protect important agricultural lands from conversion to urban or rural development to promote smart growth within existing jurisdictions and support a healthy agricultural economy.

"These projects are having a large-scale impact," said Doug Parker, CEO of the Land Trust of Napa County. "6,700 contiguous acres are protected already through SALC easements and nearly that much again are scheduled for 2019. And because the easements will protect hundreds of thousands of trees, these projects will lead to significant ongoing carbon sequestration, while also avoiding the emissions that would have resulted from development. These projects would not have happened without the SALC Program."

The ranches' large, open grasslands along Lake Berryessa transition to oak woodlands and forested land as they ascend to the ridge on the Napa-Yolo county line. In addition to conserving the ranching history and agricultural opportunities provided by each property, these projects will:

- Ensure that wildlife corridors across these habitats remain intact;
- Protect extensive oak woodlands, a habitat endemic to California and a priority for conservation statewide; and,
- Protect watersheds that contribute to Lake Berryessa, a key source of water for Solano County in perpetuity.

"With continued pressure from urban sprawl, large tracts of land like this are constantly under threat of being taken out of grassland production," said Pete Craig, landowner and ranch manager of the Berryessa Ranch properties. "This reality not only eliminates the ranching way of life, but takes away the ability of Mother Nature to work in combination with cattle ranchers to produce natural, low cost protein.....beef, and at the same time, help fight global warming, through enhanced carbon sequestering! Having this land protected and dedicated to ranching will help us achieve our dream of a sustainable ranching operation next to beautiful Lake Berryessa. And it will allow my son, Will, the opportunity to follow in my footsteps, if he has it in him!"

Technical Assistance

STRATEGIC GROWTH COUNCIL (SGC)

Cumulative Funding

How much funding has the program received?
$4.0 million appropriated.

How much has gone to implemented projects?
$0.9 million implemented.

How much has been assigned for future projects?
$2.3 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Application assistance, partnership development and capacity building activities for eligible California Climate Investments applicants.

How to access funds?
Program-specific solicitation process for administrators.

Who receives funds?
California Climate Investments applicants, especially those from disadvantaged and low-income communities.

How do funds reach priority populations?
95% of funds will be expended to assist applicants from disadvantaged and low-income communities.

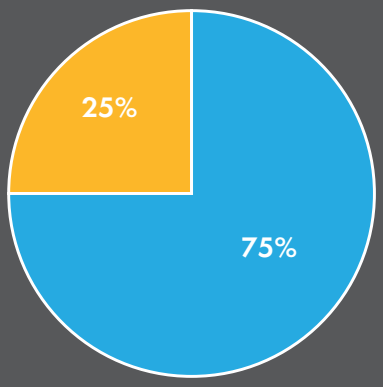
2018 OUTCOMES

FUNDING

$0.9 M IMPLEMENTED

FUNDING DISTRIBUTION

$0.9 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Technical Assistance Program: Deep Dive Technical Assistance for the City of Santa Rosa and Sonoma County

In 2018, in the wake of the Tubbs Fire that burned in Napa, Sonoma, and Lake Counties, the Strategic Growth Council was able to extend technical assistance to the City of Santa Rosa and Sonoma County to look at the suite of California Climate Investments programs and provide assistance in pursuing funding to support wildfire recovery efforts.

A technical assistance (TA) team led by Enterprise Community Partners and Estolano Lesar Advisors participated in a kick-off meeting in Santa Rosa to gauge local recovery efforts and better understand community needs. From there, the TA team provided staff at both the city and county with a holistic overview of the California Climate Investments programs and worked on prioritizing programs based on community needs. The work culminated with an in-person stakeholder meeting in August focused on the Affordable Housing and Sustainable Communities Program and Urban Greening Program, where the TA team and state agency reps worked alongside county and city staff to brainstorm project components and create a plan for future applications.

Additionally, a representative from the McConnell Foundation in Redding was invited to give a profile on their efforts to build a more sustainable downtown Redding and offer best practices and a peer-to-peer exchange on how to participate successfully in California Climate Investments programs.

As a result of the meeting and peer-to-peer exchange, Redding and Santa Rosa staff have remained in close contact and have visited each other's cities to learn more about fire recovery and to share resources. Following the meeting, the TA team has been in touch for the current Affordable Housing and Sustainable Communities program round to assist with the submission of an application for much-needed affordable housing in Santa Rosa.

Transformative Climate Communities Program

2018 OUTCOMES

No projects were implemented in 2018.

STRATEGIC GROWTH COUNCIL (SGC)

Cumulative Funding

How much funding has the program received?
$190.0 million appropriated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
$133.0 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Community-driven, collaborative projects that integrate a variety of California Climate Investments project types within a five-square mile area to create transformative change at the neighborhood level.

How to access funds?
Competitive. In the first round of the program, half of the funds were allocated in the City of Fresno, one fourth of the funds in the City of Los Angeles, and the remaining one fourth of the funds in a third location.

Who receives funds?
Community-based organizations, local governments, nonprofit organizations, philanthropic organizations and foundations, faith-based organizations, coalitions or associations of nonprofit organizations, community development finance institutions, community development corporations, joint powers authorities, and tribal governments.

How do funds reach priority populations?
The majority of a project area must be in census tracts that are within the top five percent of the most disadvantaged communities, with the remainder of the project occurring within a disadvantaged or low-income community.

Transformative Climate Communities: Watts Rising

In January 2018, the Strategic Growth Council awarded $33.5 million to the Watts Rising Collaborative, led by the Housing Authority of the City of Los Angeles (HACLA) as part of the Transformative Climate Communities Program.

Located in the southeastern portion of the City of Los Angeles, Watts is surrounded by numerous sources of intense air pollution and faces serious health disparities and limited transportation options for its residents. Watt's Transformative Climate Communities (TCC) grant seeks to address these challenges through a suite of coordinated projects, including low-carbon transportation options, affordable housing, thousands of street trees, and other amenities that respond to the unique needs of the community. John King of HACLA explained that, "This investment will help improve the quality of life for the residents of Watts for years to come. From electric buses and solar paneling, to bike paths and clean, efficient, new affordable housing, it's just a blessing to build upon and be a part of transforming Watts."

The "Watts Rising" plan for neighborhood transformation through the TCC program builds upon a decade of community leadership and planning, including more than 200 community engagement activities and outreach to over 5,000 individuals. After learning about the TCC program, HACLA hosted six public workshops that were attended by over 400 community members, including Watts residents, local government and elected officials, medical providers, educators, environmental and business leaders, community group representatives, and religious leaders.

During the workshops, these diverse stakeholders set goals and selected strategies to reduce GHG emissions, improve public health, and provide economic benefits to the community. Participants then voted to select priority projects and worked collaboratively to define the details of the Watts Rising plan. The Housing Authority presented the final proposed plan at numerous stakeholder meetings and at four public housing sites to gather additional input before submitting its winning application.

When TCC awards were announced at the January 2018 Strategic Growth Council Meeting, a group of Watts residents traveled to Sacramento to express their excitement, appreciation, and determination to improve their community. One resident passionately told the Council, "The Transformative Climate Communities program will allow Watts to finally move away from survival mode to becoming an integrative, sustainable community."

CLEAN ENERGY & ENERGY EFFICIENCY

Woodsmoke Reduction Program

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?
$8.0 million appropriated.

How much has gone to implemented projects?
$1.3 million implemented.

How much has been assigned for future projects?
$4.0 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Vouchers or rebates for the replacement of uncertified residential wood burning stoves, inserts, and fireplaces used for primary space heating with cleaner, more efficient home heating devices.

How to access funds?
First-come, first-served, with preference to priority populations; administered via California Air Pollution Control Officers Association and local air districts.

Who receives funds?
Households using uncertified wood stoves or wood inserts, or utilizing a fireplace as a primary heat source.

How do funds reach priority populations?
Larger incentives for members of priority populations, as well as outreach targeting these residents and prioritization of applicants from these populations.

2018 OUTCOMES

FUNDING

$1.3 M IMPLEMENTED

EXPECTED BENEFITS

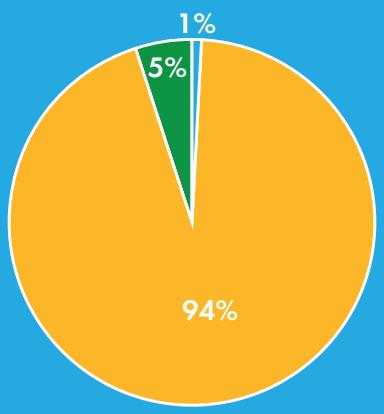
12,201
$MTCO_2E$ GHG REDUCTIONS

241,401
POUNDS PM2.5 REDUCTIONS

30,192
POUNDS BLACK CARBON REDUCTIONS

FUNDING DISTRIBUTION

$1.2 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Food Production Investment Program

2018 OUTCOMES

No projects were implemented in 2018.

CALIFORNIA ENERGY COMMISSION (CEC)

Cumulative Funding

How much funding has the program received?
$124.0 million appropriated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
$27.3 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Grants to food processors to implement projects that reduce GHG emissions and onsite energy consumption.

How to access funds?
Competitive application process.

Who receives funds?
California food processors.

Renewable Energy for Agriculture Program

2018 OUTCOMES

No projects were implemented in 2018.

CALIFORNIA ENERGY COMMISSION (CEC)

Cumulative Funding

How much funding has the program received?
$10.0 million appropriated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
TBD

Program Description

What type of projects are funded?
Adoption of on-site renewable energy technologies (such as wind and solar) at agricultural operations.

How to access funds?
Competitive application process.

Who receives funds?
Private entities, local governments, academic, educational, and nonprofit organizations, joint powers authorities, and tribal governments.

How do funds reach priority populations?
Higher application scores for projects benefiting disadvantaged communities.

Farmworker Housing Single-Family Energy Efficiency and Solar PV

CALIFORNIA DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT (CSD)

Cumulative Funding

How much funding has the program received?
$10.8 million allocated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
$0.2 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Direct installation of energy efficiency measures, solar water heating, and solar PV systems for farmworker dwellings (within 12 eligible counties) at no cost to residents.

How to access funds?
First-come, first-served for eligible farmworker households; Farmworker Housing Administrators selected through a competitive process.

Who receives funds?
Income-qualifying farmworkers within the 12 eligible counties.

How do funds reach priority populations?
All households receiving the program must qualify as low-income farmworker housing.

2018 OUTCOMES

No projects were implemented in 2018.

Multi-Family Energy Efficiency and Renewables

CALIFORNIA DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT (CSD)

Cumulative Funding

How much funding has the program received?
$54.4 million allocated.

How much has gone to implemented projects?
$20.7 million implemented.

How much has been assigned for future projects?
$31.1 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Technical assistance and incentives for the installation of energy-efficiency measures and solar photovoltaics (PV) in low-income multifamily dwellings in disadvantaged and other communities.

How to access funds?
First-come, first-served for eligible multi-family property owners; administered by the Association for Energy Affordability.

Who receives funds?
Owners of low-income multi-family properties in disadvantaged and other communities.

How do funds reach priority populations?
Program services and funding only available for property owners of low-income multi-family properties in disadvantaged communities. Service provider provides outreach to promote program awareness in disadvantaged and other communities.

2018 OUTCOMES

FUNDING

$5.3 M IMPLEMENTED

EXPECTED BENEFITS

18,247
$MTCO_2E$ GHG REDUCTIONS

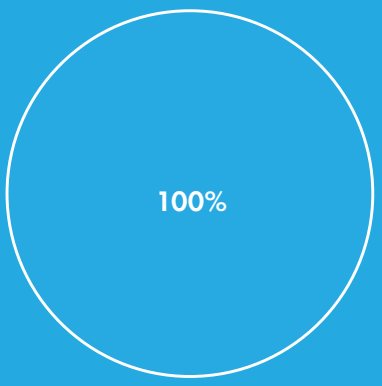
21,619,904
kWh ENERGY SAVINGS

19,404,875
kWh ENERGY GENERATION

15,874,281
GALLONS WATER SAVINGS

FUNDING DISTRIBUTION

$5.3 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Low-Income Weatherization Program: San Diego Supportive Housing Property

When the operator of affordable housing in San Diego that focuses on individuals who have experienced homelessness and mental health issues sought to renovate an aging supportive housing property, "The Allison," they turned to the Department of Community Services and Development's (CSD) Low-Income Weatherization Program (LIWP) to fund a rooftop solar photovoltaic (PV) system and energy efficiency improvements. Installed in 2018, these California Climate Investments funded improvements that are projected to reduce energy usage across the property by 35 percent, with tenant energy bills expected to decrease dramatically, and reduce GHG emissions by an estimated 75 $MTCO_2e$ per year over the life of the project.

"We're even more proud of The Allison apartments than we were before, if that was possible," said Jon Walters of Housing Innovation Partners. "This property is now highly energy efficient: we've got enhanced community spaces, enhanced apartment interiors, and we're ready to serve this community and our tenants for decades to come."

LIWP's Multi-Family Program Administrator, the Association for Energy Affordability, worked with The Allison's owner, Housing Innovation Partners, and the development team led by Wakeland Housing and Development to conduct an energy audit and identify the best suite of energy efficiency improvements and solar system size for the 58-unit property. Apartments were completely renovated and energy conserving refrigerators, LED lighting, and heat pump water heaters funded by LIWP were installed.

Another CSD contracted partner, GRID Alternatives, installed an 87-kilowatt rooftop solar PV system and provided a workforce development opportunity to ten trainees, nine of whom subsequently found employment in the solar industry.

"We're fortunate... that our property reduces its carbon footprint with solar panels as well as our smart phone-controlled water heaters, which are very cool!" said one Allison resident. "I know I can speak for all of the residents here for how grateful and humble I am for the renovation that has taken place."

The solar and energy efficiency improvements that LIWP funded will not only help The Allison's low-income tenants devote more of their financial resources towards necessities other than energy bills, they will also help ensure that The Allison continues for many years to provide critical supportive housing to help those who have struggled with homelessness live stable, healthy lives.

Low-income Weatherization

Community Solar

CALIFORNIA DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT (CSD)

Cumulative Funding

How much funding has the program received?
$4.4 million allocated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
$4.4 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Solar PV installations that benefit low-income households.

How to access funds?
Competitive application process.

Who receives funds?
A team composed of any of the following: nonprofits, local or tribal government entities, publicly owned utilities, community development corporations and finance institutions, joint powers authorities, and community choice aggregators.

How do funds reach priority populations?
All projects must benefit low-income households.

2018 OUTCOMES

No projects were implemented in 2018.

Single-Family Energy Efficiency and Solar Photovoltaics

CALIFORNIA DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT (CSD)

Cumulative Funding

How much funding has the program received?
$70.3 million allocated.

How much has gone to implemented projects?
$51.5 million implemented.

How much has been assigned for future projects?
$10.5 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
The installation of energy-efficiency measures, solar water heating, and solar PV in low-income single-family (and, previously, small multifamily) dwellings in disadvantaged communities at no cost to residents.

How to access funds?
First-come, first-served for eligible households; Regional Administrators selected through a competitive process (previously, service providers were selected from CSD's existing federally-funded statewide network).

Who receives funds?
Households with low-income residents in disadvantaged communities.

How do funds reach priority populations?
Program services only available for low-income residents in disadvantaged communities; Regional Administrators provide outreach to promote program awareness in disadvantaged communities.

2018 OUTCOMES

FUNDING

$40.8 M IMPLEMENTED

EXPECTED BENEFITS

119,041
$MTCO_2E$ GHG REDUCTIONS

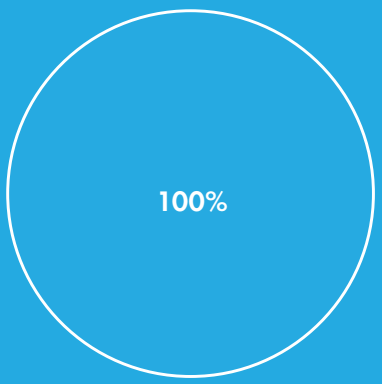
85,696,168
kWh ENERGY SAVINGS

169,671,125
kWh ENERGY GENERATION

56,402,450
GALLONS WATER SAVINGS

FUNDING DISTRIBUTION

$40.7 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Water-Energy Grant Program

CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)

Cumulative Funding

How much funding has the program received?
$50.0 million appropriated.

How much has gone to implemented projects?
$32.3 million implemented.

How much has been assigned for future projects?
$12.5 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Commercial and institutional water-energy efficiency programs or projects, and residential water-energy efficiency programs or projects benefiting disadvantaged communities.

How to access funds?
Competitive application process.

Who receives funds?
Local agencies, joint power authorities, and nonprofit organizations.

How do funds reach priority populations?
Projects benefiting disadvantaged communities received higher funding priority rankings.

2018 OUTCOMES

FUNDING

$12.9 M IMPLEMENTED

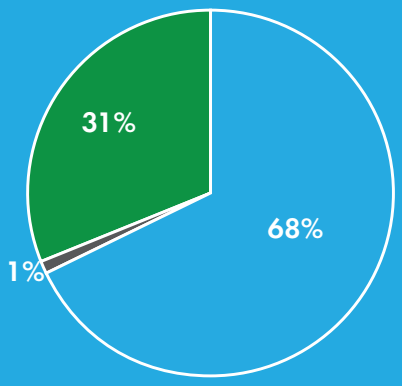
EXPECTED BENEFITS

138,850
$MTCO_2E$ GHG REDUCTIONS

68,867,334,136
GALLONS WATER SAVINGS

FUNDING DISTRIBUTION

$8.9 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
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- other areas of California

Water Energy Grants Program: Low-Income Residential Water Measure Project

Coordinated by the Association of California Community and Energy Services (ACCES), the Low-Income Residential Water Measure Project helps California residents in disadvantaged communities and low-income households save money by optimizing water and energy use within their homes, all while reducing GHG emissions and residential water use.

Thanks to a $1.9 million grant awarded by the Department of Water Resources (DWR) and funded by California Climate Investments' Water Energy Grant Program, ACCES partner agencies replaced 1,090 washing machines and 855 dishwashers with water- and energy-efficient machines, saving more than 181.5 million gallons of water and reducing GHGs by at least 3,348 $MTCO_2e$. These energy and water savings will continuously provide cost savings across various communities in Kern, Madera, Contra Costa, Kings, San Francisco, and Merced counties and other low-income homes in San Mateo, Shasta, and Tehama counties.

"Equity can be a concern for energy efficiency programs, especially for more rural areas. Families were very happy to receive these services, and our agency was appreciative of DWR and the program for assisting these rural low-income households," said Val Martinez, Executive Director with the Redwood Community Action Agency, an ACCES partner agency.

This effort coincides with state and federal weatherization programs such as the California Public Utilities Commission's Energy Savings Assistance Program, US Department of Energy's Weatherization Program, US Department of Health & Human Services' Low-Income Energy Assistance Program and the state Cap-and-Trade Low-Income Weatherization Program administered through the California Department of Community Services and Development.

NATURAL RESOURCES & WASTE DIVERSION

Local Coastal Program

2018 OUTCOMES

No projects were implemented in 2018.

COASTAL COMMISSION (CCC)

Cumulative Funding

How much funding has the program received?
$3.0 million appropriated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
TBD

Program Description

What type of projects are funded?
Projects facilitate GHG emission reductions through land use and planning to address the impacts of climate change through the development of new or amendment of existing Local Coastal Programs, which are local land use plans for the coastal zone of California.

How to access funds?
Competitive application process.

Who receives funds?
Local governments in the coastal zone.

How do funds reach priority populations?
Funding reaches priority populations through the direct engagement of communities in the local planning process and through the eventual implementation of policies that provide benefits; such as through land use policies that build better public transportation for priority populations to access the coast or policies that require shoreline management plans that increase protection against hazards associated with sea level rise or flooding for a vulnerable disadvantaged community.

Training and Workforce Development Program

CONSERVATION CORPS (CCC)

Cumulative Funding

How much funding has the program received?
$24.1 million appropriated.

How much has gone to implemented projects?
$6.1 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
Fire prevention and forest health management, energy conservation, and urban greening projects.

How to access funds?
The CCC has multiple Centers out of which crews operate, and each Center receives funding based on the number of full-time equivalent Corpsmembers positioned there. Centers access GGRF funding for specific projects on a first-come, first-served basis.

Who receives funds?
California Conservation Corps.

How do funds reach priority populations?
Most Corpsmembers are from disadvantaged or low-income communities or low-income households. While the CCC do not have formal targeted hiring practices, they do actively recruit from priority populations.

2018 OUTCOMES

FUNDING

$6.1 M IMPLEMENTED

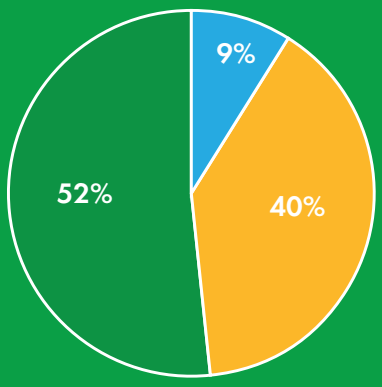
EXPECTED BENEFITS

4,125
TREE PLANTINGS

1,358
ACRE RESTORATION

FUNDING DISTRIBUTION

$2.9 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Workforce Development Program: Acorn-Sugarloaf Road Fuel Break Project

Nestled along Little Sandy Creek along the northern edge of Fresno County sits the Town of Auberry. More than 2,300 residents call the community home, and despite its idyllic nature, it is a community at high risk of wildfire.

The federal government identifies Auberry as one of hundreds of at-risk communities in the urban-wildland interface. To prevent catastrophe from hitting the communities on the western edge of the Sierra National Forest, the California Department of Forestry and Fire Protection (CAL FIRE) partnered with the California Conservation Corps (CCC) to reduce the flammable woody material in the area. Nearly $135,000 allocated to the CCC from California Climate Investments got the job done.

The CCC Fresno Center spent 4,480 hours using chainsaws and hand tools along Acorn and Sugarloaf Roads near the rim of the San Joaquin River Canyon. Under the direction of CAL FIRE, CCC crews spent several months reinforcing the key fire defense of Auberry known as the Acorn-Sugarloaf Road Fuel Break.

The work completed by the CCC covered 25 acres of State Responsibility Area. The crews removed live and dead vegetation, brush, trees up to eight inches in diameter, and ladder fuels up to eight feet high. More than 1,400 cubic yards of debris was assembled into slash piles for burning by CAL FIRE.

The Corpsmembers worked a 200-foot-wide swath along Acorn Road to reinforce the fuel break, often in difficult terrain. The area is vegetation-dense with a mix of conifers and brush. There are few natural fire barriers, which is why the fuel break is so critical to the area.

"The hardest part was just getting in there," said Fresno Corpsmember Andy Settle. "When stuff hasn't been cut in years it tends to be harder, stuff pokes you, and it's difficult to access. But putting in a fire break, that's a big deal, it will slow down a fire and give residents time to leave. Being able to see a difference in the work we did felt great."

The area has been hit by 25 major fires in the last 100 years, most notably the August 1989 Powerhouse Fire, which scorched about 21,000 acres and forced the evacuation of 4,000 residents in and around Auberry.

Wetlands & Watershed Restoration Program

2018 OUTCOMES

No projects were implemented in 2018.

DEPARTMENT OF FISH AND WILDLIFE (DFW)

Cumulative Funding

No projects were implemented in 2018.

How much funding has the program received?
$47.2 million appropriated.

How much has gone to implemented projects?
$21.3 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
The restoration of California wetlands and watersheds.

How to access funds?
Competitive application process.

Who receives funds?
Public agencies, nonprofit organizations, and recognized tribes.

How do funds reach priority populations?
Projects benefiting disadvantaged communities receive higher application scores.

Wetlands Restoration for Greenhouse Gas Reduction Program: Blue Carbon at Elkhorn Slough: Increasing Regional Carbon Sequestration through Salt Marsh Restoration

A substantial number of Californians live in cities that are directly on coastal shorelines. Despite the high populations around them, California coastal shorelines are some of the most threatened ecosystems because of conversions and degradation, largely driven by human activities and exacerbated by climate change. The protection and restoration of wetlands and salt marsh is a great way to help continue carbon sequestration and storage while providing coastal protection from such events as flooding to upland areas.

California's Elkhorn Slough, located about 100 miles south of San Francisco Bay, features the state's most extensive salt marsh, south of the Bay Area. Not only has Elkhorn Slough been described as an "environmental crown jewel" of the California central coast for hosting a rich diversity of plants and animals, it was recently recognized as a Wetland of International Importance by the Ramsar Convention on Wetlands. However, without restoration, this resource will "drown" within 50 years because of sea level rise.

The Blue Carbon at Elkhorn Slough Project is restoring 66 acres of rare salt marsh habitat and native plants while buffering the surrounding areas against future sea level rise. The Tidal Wetland Program at the Elkhorn Slough National Estuarine Research Reserve guided the project with input from more than 100 local partners, scientists, regulators, and community members. Almost half of the project cost was funded by the California Department of Fish and Wildlife's Wetlands Restoration for Greenhouse Gas Reduction Program, part of California Climate Investments.

In addition to its carbon storage benefits, the Blue Carbon Project at Elkhorn Slough also provides jobs and income to local economies, improves water quality, supports fish and wildlife, and extends coastal protection. Other benefits include:

- Helping safeguard local populations of pickleweed, a low-growing, succulent, perennial subshrub which not only filters water and improves fish and wildlife habitat but also is excellent at capturing and holding carbon. This is great news for California, which leads the nation in "blue-carbon" market initiatives that cut climate-heating gas emissions and boost the bottom line.
- Boosting available salt marsh habitat for a diverse assemblage of estuarine species such as sea otters to feed, rest, breed, and raise their young.
- Ensuring future protection: The restored, higher-set marsh area is expected to trap sediments that will help buffer the salt marsh against sea level rise.

Alternative Manure Management Program

DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)

Cumulative Funding

How much funding has the program received?
$48.0–76.0 million allocated.

How much has gone to implemented projects?
$29.7 million implemented.

How much has been assigned for future projects?
$1.9 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Financial incentives to implement non-digester practices to reduce or avoid methane emissions, including solid separation, conversion from flush to scrape manure collection and enhanced pasture-based management practices.

How to access funds?
Competitive application process.

Who receives funds?
Commercial dairy and livestock operators.

How do funds reach priority populations?
Higher application scores for projects benefiting disadvantaged and low-income communities.

2018 OUTCOMES

FUNDING

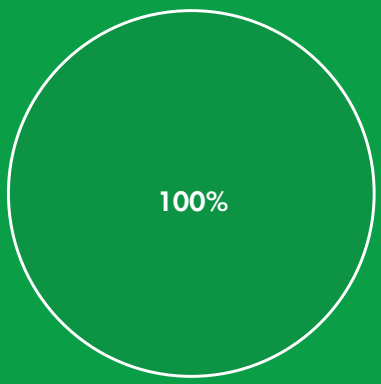
$29.7 M IMPLEMENTED

EXPECTED BENEFITS

695,814
MTCO2E GHG REDUCTIONS

FUNDING DISTRIBUTION

$0.0 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Alternative Manure Management Program: Manure Separator Project, San Joaquin Valley

Dennis DaSilva is a second-generation California dairy farmer whose parents began the family's first dairy farm in 1983 with 150 cows. Today, the DaSilva family owns and operates four dairy and five heifer facilities in the San Joaquin Valley. The family's success led to a facility becoming one of 18 inaugural recipients of the California Department of Food and Agriculture's Alternative Manure Management Program in 2017.

The $375,000 grant has allowed Mr. DaSilva to replace an existing solid separation system with a new, more efficient manure separator and concrete pad. Separated manure is dried and composted on the concrete pad and is then used for bedding and fertilizer for forage crops. The ability for Mr. DaSilva to produce his own compost will allow the facility to use this value-added product to their fields as soil amendments in lieu of using commercial fertilizers.

In addition to electricity savings and the estimated 37,500 $MTCO_2e$ of GHG reductions over five years, Mr. DaSilva is also seeing water savings and improvements to water quality. Mr. DaSilva is extremely satisfied with his new solid separation system and was surprised at how much a difference the system is making on the overall operational efficiency of his dairy facility. "The old system was not efficient, running 24 hours a day because it could only handle 300 gallons of flushed manure a minute with manure being pumped at a much faster rate of 2,000 gallons a minute," Mr. DaSilva stated. "The new system only needs to run 4 hours a day and the electricity savings alone will be enough to pay for the operation and maintenance of the entire system over the course of its life."

Mr. DaSilva hopes the success of this project will encourage other dairy farmers in the San Joaquin Valley and throughout California to consider similar improvements to their facilities by applying for grant funding. Mr. DaSilva has even considered applying for additional grant funding in the future for the family's other dairy facilities and is a firm believer that everyone can make a difference in the fight against climate change by making smart investments.

Dairy Digester Research and Development Program

DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)

Cumulative Funding

How much funding has the program received?
$168.0–196.0 million allocated.

How much has gone to implemented projects?
$112.6 million implemented.

How much has been assigned for future projects?
$1.9 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Financial incentives for the design and construction of new digester systems that decrease methane emissions.

How to access funds?
Competitive application process.

Who receives funds?
Dairy operations, dairy digester developers, and partnerships between these entities.

How do funds reach priority populations?
Outreach to local communities evaluated in application scoring for all projects, and higher scores possible for projects benefiting disadvantaged and low-income communities.

2018 OUTCOMES

FUNDING

$70.5 M IMPLEMENTED

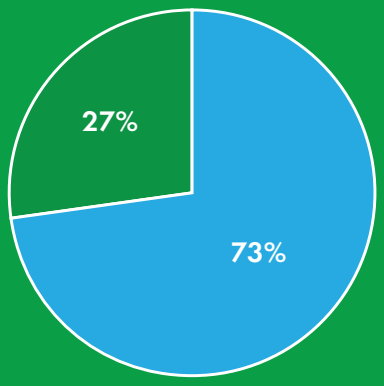
EXPECTED BENEFITS

7,391,126
$MTCO_2E$ GHG REDUCTIONS

147,674,698
GALLONS FUEL GENERATION

FUNDING DISTRIBUTION

$51.3 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
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- other areas of California

Dairy Digester Research and Development Program: California Bioenergy

As a recipient of funding from both the California Department of Food and Agriculture's Dairy Digester Research and Development Program and the California Public Utility Commission's (CPUC) Dairy Biomethane Pilot Projects, California Bioenergy (CalBio) and its farm partners are committed to providing benefits to local communities along with the digester projects they build.

Rob Vandenheuvel, Senior Vice President of Member & Industry Relations at California Dairies, Inc., the largest dairy farmer-owned cooperative in California, has noted that, "Projects like CalBio's digesters enable California's dairy families to help advance the state's environmental goals, while also creating new economic opportunities for local communities. CalBio's projects generate critical additional revenues that are reinvested into job-supporting dairy farms and the communities that surround them."

Ms. Isabel Lopez, CalBio's first intern.

CalBio builds dairy methane pipeline injection projects where there is a cluster of dairies. The initial projects are in the southern San Joaquin Valley. These projects provide significant economic development by generating tax revenues and supporting jobs in engineering, construction and operations.

The digester projects provide substantial environmental benefits by improving local air quality. Replacing the open-air lagoons of waste with a covered lagoon digester reduces manure-related emissions. Also, utilizing the methane in near-zero emissions natural gas vehicles replaces diesel vehicles and reduces NO_x emissions by an estimated 90%.

CalBio further advanced digester projects in 2018 by launching a collaboration with Land O'Lakes, Inc. to help California dairy farmer-members of the cooperative develop digesters. Matt Carstens, senior vice president of Land O'Lakes SUSTAIN, said "CalBio has worked alongside our cooperative, and our dairy members in California, to advance 'barn-to-biogas' through close collaboration with California farm families."

On the education front, CalBio and its farm partners are building relationships with College of the Sequoias (COS) serving Tulare and Kings counties, and California State University Bakersfield (CSU Bakersfield). The initiative includes classroom participation and internships as well as funding of academic research or scholarships. Programs focus on students, who are residents of the digester clusters and studying related areas.

At CSU Bakersfield, CalBio's first intern was Isabel Lopez, a chemistry major. She worked with CalBio's team performing daily digester rounds and conducting analytical testing to determine project performance. She also prepared data related to the quantification of GHG reductions. In addition, at CSU Bakersfield, CalBio will be funding student participation in academic research.

At COS, CalBio has committed to providing scholarships. Based on the CDFA and CPUC awarded projects, over thirty scholarships will be awarded. Louann Waldner, Provost, Tulare Center, College of Sequoias, who helped develop the program said, "We are delighted to partner with CalBio to bring financial assistance to our students. The program will help students further their education and develop real-world science skills while the projects will support local dairy farms."

Healthy Soils Program

DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)

Cumulative Funding

How much funding has the program received?
$12.5 million appropriated.

How much has gone to implemented projects?
$5.7 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
Financial incentives for on-farm management practices that sequester carbon, including soil management, establishment of herbaceous and woody cover, and demonstration projects showcasing these practices.

How to access funds?
Competitive application process.

Who receives funds?
Incentives available to farmers, ranchers, and recognized tribes; demonstration project funding to educational institutions, conservation districts, and nonprofit organizations collaborating with farmers, ranchers and recognized tribes.

How do funds reach priority populations?
Projects benefiting disadvantaged communities receive higher application scores.

2018 OUTCOMES

FUNDING

$5.7 M IMPLEMENTED

EXPECTED BENEFITS

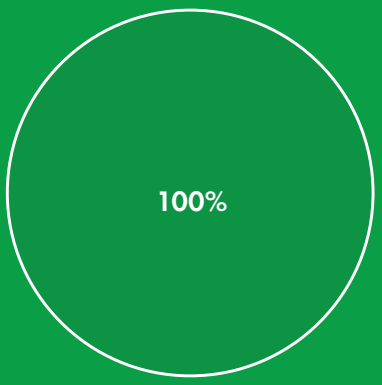
51,218
$MTCO_2E$ GHG REDUCTIONS

5,973
ACRE RESTORATION

2,083
TREE PLANTINGS

FUNDING DISTRIBUTION

$0.0 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
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- other areas of California

The State Healthy Soils Program

Charlie Starr grows wine grapes in San Joaquin County. In the past few years, he has been thinking about how to reduce nutrient leaching to groundwater and agricultural dust in the air. The state Healthy Soils Program helped him put his thoughts into action, providing him with the financial incentives to implement conservation management practices on his farmland. His project includes "Cover Crop" and "Reduced-Till."

According to Starr, tilling only every other row of the 96-acre vineyard reduces the release of particulates into the air, decreases water erosion during heavy rain events, and lowers fuel consumption and GHG emissions. It also builds soil organic matter.

Growing cover crops helps hold nutrients to the soil/plants and reduces water runoff, which minimizes nutrient leaching to the groundwater. Cover Cropping also helps reduce the amount of non-organic chemical additives and increases vegetative cover which will aid in the reduction of carbon dioxide in the air.

Combining reduced-till and cover cropping will improve soil health and increase biodiversity, which makes the production system more sustainable. Most importantly, both practices help improve water and air quality in the Central Valley.

The three-year project will allow for testing Starr's hypotheses while providing the opportunity to establish the economic viability of these practices over the long term. He is contemplating moving to a no-till practice, with the crop reseeding itself. If the measures are deemed successful in the short-term, they will be built into the practices and budgets for future years for his vineyards, and for any future vineyard development.

Fire Prevention Program

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Cumulative Funding

How much funding has the program received?
$102.9 million appropriated.

How much has gone to implemented projects?
$75.5 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
This allocation funds the operations of the CAL FIRE Fire Prevention program. This includes a variety of fire prevention services and programs in the State Responsibility Area, including defensible space inspections, helping communities create and update Community Wildfire Protection Plans, fire prevention education, fire hazard severity mapping, implementation of the State and local fire plans, fire-related law enforcement activities such as arson investigation fuels reduction projects that reduce the risk of wildfire to communities, evacuation routes, and infrastructure.

How to access funds?
CAL FIRE.

Who receives funds?
CAL FIRE. This appropriation directly funds State operations.

How do funds reach priority populations?
Some CAL FIRE units receiving program funds are located in and provide benefits to priority population communities.

2018 OUTCOMES

FUNDING

$75.5 M IMPLEMENTED

EXPECTED BENEFITS

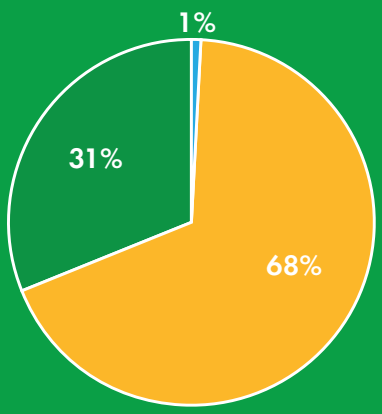
13,344
ACRE RESTORATION

271,636
DEFENSIBLE SPACE INSPECTIONS

27
COMMUNITY FIRE PLANS

FUNDING DISTRIBUTION

$52.4 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
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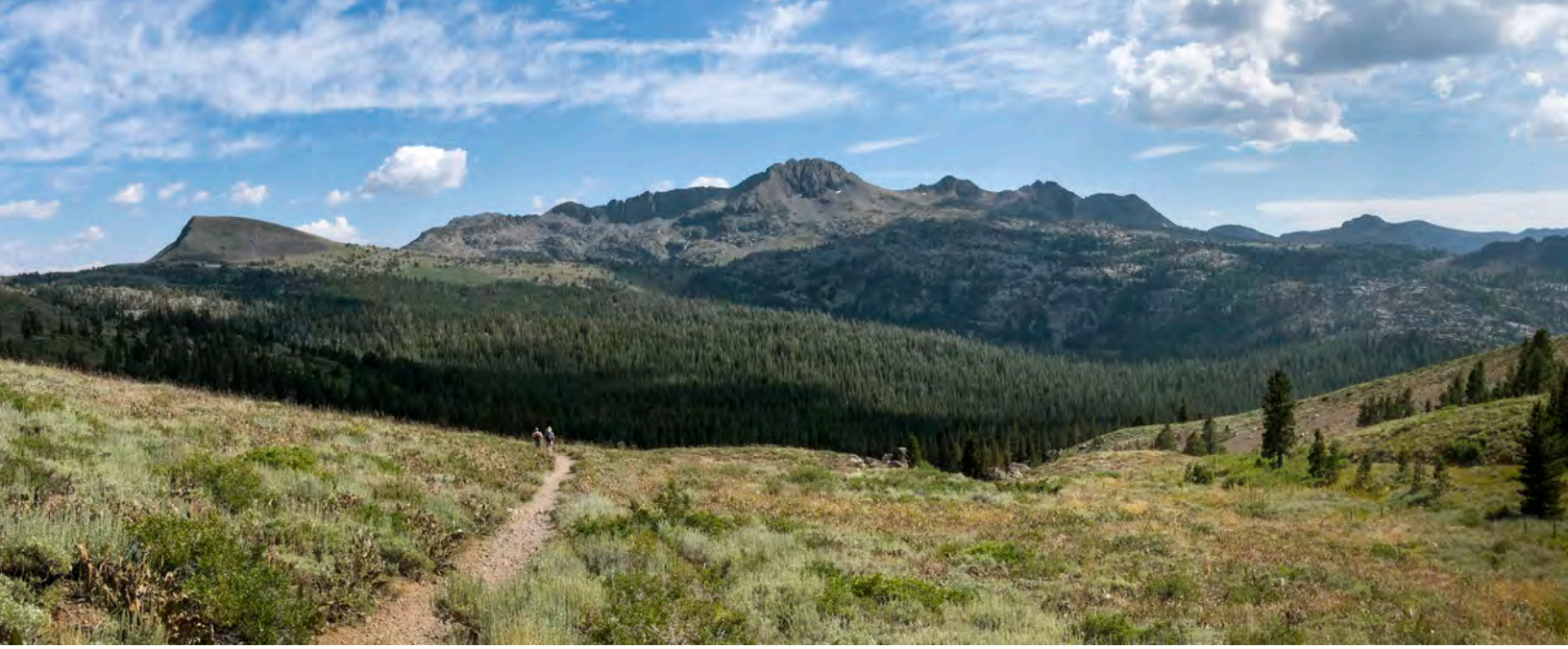


Forest Health and Fire Prevention Program

The project is a continuation of the Turtle Rock Park Biomass Collection site which serves communities in eastern Alpine County. The facility provides a location to collect green waste and biomass that is cleared from private property to create defensible space and thereby reduce wildland fire risk. It operates two times per season, in the spring and fall, for approximately 6–8 weeks at a time. There are an estimated 800 houses within this area. Approximately 130 of these utilize the facility to dispose of materials in order to create defensible space on their properties. Annually, an estimated 190 acres are treated with 4,000 to 7,000 yards of biomass collected, processed, and removed for composting, as an effective and environmentally sound alternative to pile-burning.

Biomass removed reduces the risk of wildfire and removes material that could burn in a wildland fire. This reduces wildfire emissions and the contribution of GHGs from fires in the treated areas.

From Brian Peters (Director, Alpine County Community Development): "I've lived in the County for 20+ years and the fuels collection at Turtle Rock predates my time. The community here strongly supports having this operation twice per year. In the early years it was a 'burn pile'—the accumulated materials were burned by the fire department. Now the material is chipped and hauled to green waste recyclers in the Carson Valley. About 10 years ago due to budget constraints, the Board of Supervisors dropped the operation to once per year. The community lobbied the Board to reinstate and it has been operating twice per year since. It is a very important part of fire hazard reduction and having it encourages individual property owners to do their part, and also helps to convince newcomers to participate as well. It's been around so long that it has become a normal part of the spring and fall in the county."

Fire Prevention Grants Program

2018 OUTCOMES

No projects were implemented in 2018.

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Cumulative Funding

How much funding has the program received?
$79.0–234.0 million allocated.[18]

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
$43.8 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Hazardous fuel removal; fire prevention public education, fire prevention and wildfire safety planning, and defensible space inspections.

How to access funds?
Competitive application process.

Who receives funds?
Nonprofit organizations, local agencies, tribes, Fire Safe Councils, and resource conservation districts.

How do funds reach priority populations?
Projects benefiting priority populations receive enhanced application scoring.

18 CAL FIRE was appropriated $155 million to be allocated between Forest Health and Fire Prevention Grants for FY 2018–19

Forest Health Program

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Cumulative Funding

How much funding has the program received?
$137.7–297.7 million allocated.[19]

How much has gone to implemented projects?
$110.1 million implemented.

How much has been assigned for future projects?
$17.0 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Reforestation, forest fuel reduction, pest management, conservation easements and fee acquisitions, and forest biomass utilization.

How to access funds?
Competitive application process.

Who receives funds?
Nonprofit organizations, State and local agencies, tribes, private forest landowners, and conservation districts.

How do funds reach priority populations?
Projects benefiting priority populations receive enhanced application scoring.

2018 OUTCOMES

FUNDING

$78.6 M IMPLEMENTED

EXPECTED BENEFITS

2,665,277
$MTCO_2E$ GHG REDUCTIONS

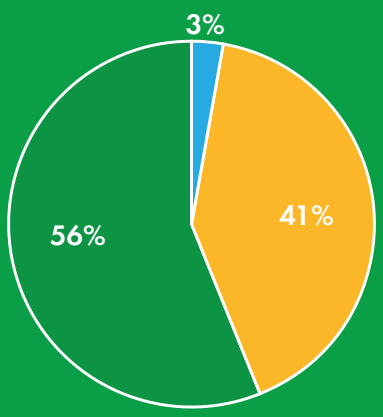
226,914
ACRE RESTORATION

3,603,428
TREE PLANTINGS

478,085,879
kWh ENERGY GENERATION

FUNDING DISTRIBUTION

$34.4 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

19 CAL FIRE was appropriated $155 million to be allocated between Forest Health and Fire Prevention Grants for FY 2018–19.

Urban and Community Forestry Program

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Cumulative Funding

How much funding has the program received?
$57.8 million allocated.

How much has gone to implemented projects?
$38.3 million implemented.

How much has been assigned for future projects?
$14.5 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Urban forest expansion, management, and improvement, and utilization of urban tree waste for wood products and bioenergy.

How to access funds?
Competitive application process.

Who receives funds?
Local government agencies and nonprofit organizations.

How do funds reach priority populations?
Projects benefiting disadvantaged communities are eligible for a cost-share waiver and receive enhanced application scoring.

2018 OUTCOMES

FUNDING

$15.7 M IMPLEMENTED[20]

EXPECTED BENEFITS

94,885
$MTCO_2E$ GHG REDUCTIONS

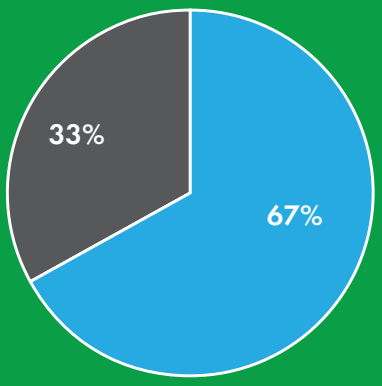
16,826,829
kWh ENERGY SAVINGS

73,827
THERMS ENERGY SAVINGS

12,131
TREE PLANTINGS

FUNDING DISTRIBUTION

$15.7 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

20 Projects that include tree planting are not considered implemented for reporting purposes until a sufficient number of trees have been planted in order to determine priority population benefits.

Urban and Community Forestry Program: El Centro "Free Trees" Grant Program

Friends of El Centro Community Services Foundation

The El Centro "Free Trees" program is an Urban Forest Expansion and Improvement project that will plant and maintain 1,000 climate appropriate trees within the city of El Centro. Planting sites are focused primarily on private property and school-grounds. This project will increase the public understanding of how urban trees are a valuable infrastructure component in the Imperial Valley by providing future shade benefits in a region where normal summer temperatures can reach 118 degrees F. To receive a tree through the program, education will be mandated for each applicant. Education and outreach through the "Imperial Valley Tree Steward" program will include teaching residents and students about proper tree planting and care, drought tolerant watering practices, and the various benefits of clean air, reduced energy consumption and long term health benefits that urban trees provide.

The El Centro "Free Trees" program will also help to combat an unemployment rate near 27% by supporting jobs and building strong partnerships with local organizations like Tree San Diego, Future Farmers of America, and local school districts. This project will train and provide stipend based jobs for 25 certified Tree Stewards to engage the community and help support planting and maintenance activities. These entry point "tree-jobs" will serve residents in low-income and disadvantaged communities by providing opportunities for a career pathway into the broader sector tree-care industry.

A healthy foundation starts from the ground up; with the right education, smart tree choices, and a little extra attention, the tiniest saplings will grow into advantageous sources of shade and hope. Friends of El Centro are not only planting trees for the community, but they are planting hope for the next generation of community members. This project represents one of many critical steps in creating a living, breathing Imperial Valley urban forest to help the City of El Centro become a leading example of how using the best urban forestry practices in climate challenged areas can be sustained, and improve the everyday lives of residents in urban settings.

Food Waste Prevention and Rescue Grants

CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CalRecycle)

Cumulative Funding

How much funding has the program received?
$15.1 million allocated.

How much has gone to implemented projects?
$9.4 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
Projects to prevent food waste from being generated and/or becoming landfill waste, promote distribution of rescued food to people, and require food waste residuals to be composted or digested when available.

How to access funds?
Competitive application process.

Who receives funds?
Local governments, nonprofit organizations, for-profit entities, state agencies, public universities and colleges, solid waste facilities, public school districts, and qualifying tribes.

How do funds reach priority populations?
Outreach to disadvantaged communities and projects benefiting disadvantaged communities receive additional points during application scoring.

2018 OUTCOMES

FUNDING

$9.4 M IMPLEMENTED

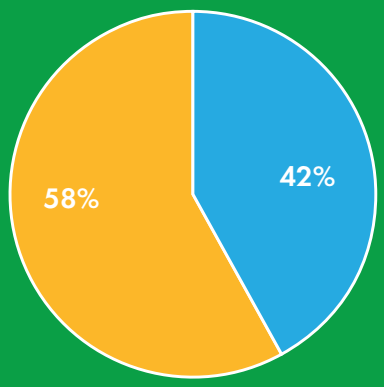
EXPECTED BENEFITS

358,134
$MTCO_2E$ GHG REDUCTIONS

163,388
TONS FOOD DIVERSIONS

FUNDING DISTRIBUTION

$9.4 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Food Waste Prevention and Rescue Grants: Food Forward: Wholesale Produce Market Recovery Program Expansion, Southern California

Food Forward, which recovers produce and makes it available to hunger relief agencies in eight southern California counties, is expanding its Wholesale Produce Market Recovery Program. With the help of California Climate Investments, Food Forward will open a new "Produce Depot" near the wholesale produce market in downtown Los Angeles and double its food recovery capacity. In addition to fighting food insecurity in southern California, the project will benefit disadvantaged communities and the environment by supporting jobs and combating climate change.

Hunger is a big issue in Los Angeles and the surrounding counties that Food Forward serves. There are more than 1.2 million people facing food insecurity in Los Angeles alone. Unfortunately, much of the food grown in California is wasted during the distribution process, where ugly or overripe produce is grown and picked but not sellable to grocery stores.

Since 2014, Food Forward has been recovering excess fresh produce from the wholesale produce market in downtown Los Angeles and delivering it to large-scale agencies that distribute food to those in need. With the aid of a $500,000 California Climate Investments grant, the Produce Depot will help increase capacity to recover an estimated 15,220 tons of edible produce for disadvantaged communities. The new hub will enable Food Forward to collect, store, and distribute produce to hunger relief agencies from a central location, including a new walk-in refrigerator that will enable a larger time frame for pickup. The grant will also enable Food Forward to hire new staff and purchase new box trucks to increase collection capacity.

Food Forward's programs are also helping California combat climate change, which disproportionately impacts low-income and minority communities. Much of the state's excess produce is sent directly to landfills, where it decomposes anaerobically and emits methane gas, a superpollutant 25 times more powerful than CO_2 over a 100-year horizon. By diverting 15,220 tons of food waste from landfills, Food Forward is preventing the release of 25,841 metric tons of carbon dioxide equivalent into the atmosphere. That's like taking 5,486 cars off the road.

Food Forward's Produce Depot project will serve more than 1,800 hunger relief agencies and become a new model for regional, large-scale rescue and distribution of fresh produce, creating a profound, positive impact on the environment and health of southern Californians in need.

Organics and Recycling Manufacturing Loans

CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CalRecycle)

Cumulative Funding

How much funding has the program received?
$9.2 million allocated.

How much has gone to implemented projects?
$2.6 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
Loans to fund construction, renovation, or expansion of facilities for preprocessing, digesting, or composting organics, or the preprocessing or manufacturing of value-added finished products using recycled fiber, plastic, or glass.

How to access funds?
First-come, first-served.

Who receives funds?
Local governments, nonprofit organizations, for-profit entities.

How do funds reach priority populations?
Projects benefiting disadvantaged communities receive preferential points during application scoring.

2018 OUTCOMES

No projects were implemented in 2018.

Recycled Fiber, Plastic, and Glass Grants

CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CalRecycle)

Cumulative Funding

How much funding has the program received?
$18.0 million allocated.

How much has gone to implemented projects?
$14.0 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
The construction, renovation, or expansion of facilities to process or manufacture value-added products from California-derived, newly diverted fiber, plastic, or glass waste.

How to access funds?
Competitive application process.

Who receives funds?
Local governments, nonprofit organizations, for-profit entities, state and federal agencies, public universities and colleges, solid waste facilities, public school districts, and qualifying tribes.

How do funds reach priority populations?
Outreach to disadvantaged communities and projects benefiting disadvantaged communities receive additional points during application scoring.

2018 OUTCOMES

FUNDING

$9.0 M IMPLEMENTED

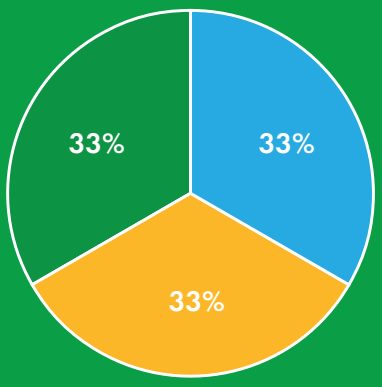
EXPECTED BENEFITS

172,261
$MTCO_2E$ GHG REDUCTIONS

144,339
TONS WASTE DIVERSIONS

FUNDING DISTRIBUTION

$6.0 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Organics Grants

CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CalRecycle)

Cumulative Funding

How much funding has the program received?
$85.6 million allocated.

How much has gone to implemented projects?
$60.7 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
The construction, renovation, or expansion of facilities to preprocess, digest, or compost organics into compost, soil amendments, biofuels, or bioenergy.

How to access funds?
Competitive application process.

Who receives funds?
Local governments, nonprofit organizations, for-profit entities, state and federal agencies, public universities and colleges, solid waste facilities, public school districts, and qualifying tribes.

How do funds reach priority populations?
Outreach to disadvantaged communities and projects benefiting disadvantaged communities (notably those that have a food waste prevention or reduction component) receive additional points during application scoring.

2018 OUTCOMES

FUNDING

$33.1 M IMPLEMENTED

EXPECTED BENEFITS

169,796
$MTCO_2E$ GHG REDUCTIONS

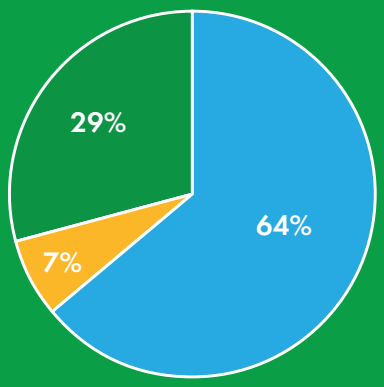
211,400
POUNDS NO_x REDUCTIONS

220,306
POUNDS WASTE DIGESTION

3,320
POUNDS PM2.5 REDUCTIONS

FUNDING DISTRIBUTION

$23.6 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Wildfire Response and Readiness

CALIFORNIA GOVERNOR'S OFFICE OF EMERGENCY SERVICES (Cal OES)

Cumulative Funding

How much funding has the program received?
$50.0 million appropriated.

How much has gone to implemented projects?
$2.5 million implemented.

How much has been assigned for future projects?
No additional funds have been selected or awarded.

Program Description

What type of projects are funded?
Local assistance grants to fire departments within High Hazard Severity Zones to pre-position emergency services crews and equipment during red flag events in order to protect communities from wildfires.

How to access funds?
Operational areas submit mobilization and resource order sheets to Cal OES for approval.

Who receives funds?
Local fire agencies, Cal OES State Fire and Rescue, operational area fire and rescue coordinators.

2018 OUTCOMES

FUNDING

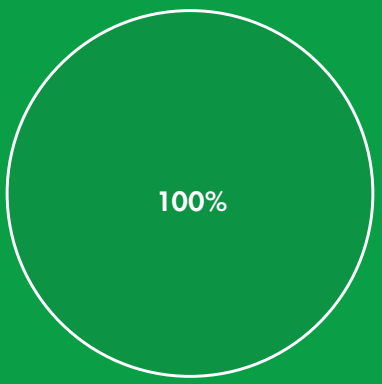
$2.5 M IMPLEMENTED

EXPECTED BENEFITS

47
RED FLAG EVENT EMERGENCY SERVICES PRE-DEPLOYMENTS

FUNDING DISTRIBUTION

$0.0 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

Urban Greening Program

CALIFORNIA NATURAL RESOURCES AGENCY (CNRA)

Cumulative Funding

How much funding has the program received?
$126.0 million appropriated.

How much has gone to implemented projects?
$6.8 million implemented.

How much has been assigned for future projects?
$93.9 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
Establishment, enhancement, and expansion of community spaces and parks, tree planting, green infrastructure in streets and alleys, and the construction of active transportation infrastructure.

How to access funds?
Competitive application process.

Who receives funds?
Local governments, special districts, nonprofit organizations, and joint powers authorities.

How do funds reach priority populations?
Projects benefiting disadvantaged communities receive higher application scores.

2018 OUTCOMES

FUNDING

$6.8 M IMPLEMENTED[21]

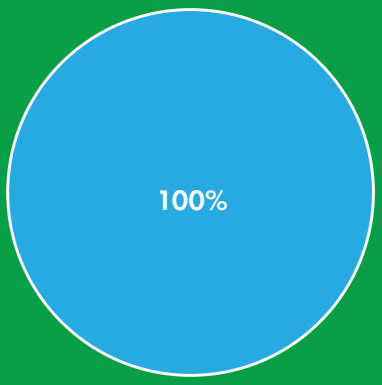
EXPECTED BENEFITS

2,100
$MTCO_2E$ GHG REDUCTIONS

325
TREE PLANTINGS

FUNDING DISTRIBUTION

$6.8 M
TO BENEFIT PRIORITY POPULATIONS



- disadvantaged communities
- low-income communities & households
- outside & benefiting disadvantaged communities
- other areas of California

21 Projects that include tree planting are not considered implemented for reporting purposes until a sufficient number of trees have been planted in order to determine priority population benefits.

Urban Greening Program: Richmond, California's "Greening the Yellow Brick Road" Project

In 2009, in response to the high levels of violence and the dangers of the streets, youth from the Iron Triangle community in Richmond imagined a project that would create a safe, green, walkable route connecting community assets. Their original vision evolved into the Greening the Yellow Brick Road project.

With $4.1 million from California Natural Resources Agency's Urban Greening program, this project is helping bring the community's vision to fruition and will benefit thousands of community residents. Rather than seeing empty cement streets and sidewalks outside their windows, people will be outside in a safe environment, breathing fresh air, and walking and biking to and from schools, shops, and transportation. They will be on the street under the shade of over 100 trees or sitting comfortably by a lush green bio-swale, meeting and mingling with their neighbors. This project will also produce jobs that pay a living wage for those who establish the plantings, giving them valuable work experience in an emerging green economy. The street, once dead, will come alive and transform into a symbol of activity, hope, and promise.

"We've been waiting for a project like this for a long time," says Doris Mason, President of the Iron Triangle Neighborhood Council. "It will benefit our community in so many ways. It will create a safe and green public space where neighbors can come together. It will create a designated route for residents to bike and walk in a safe environment. It will provide workforce development opportunities for local youth to get hands-on, real-life experience. But most of all, it will create a new DNA for our entire community—and for Richmond. We cannot wait for this project to happen."

Climate Ready Program

2018 OUTCOMES

No projects were implemented in 2018.

CALIFORNIA STATE COASTAL CONSERVANCY (SCC)

Cumulative Funding

How much funding has the program received?
$7.0 million appropriated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
TBD

Program Description

What type of projects are funded?
Projects safeguard coastal communities (reduce future risks from climate change), use nature-based solutions that provide co-benefits for people, wildlife, and the economy, reduce GHG emissions or enhance the ability of natural systems to sequester GHGs, and promote on-the-ground demonstration projects that implement innovative approaches or enhance understanding of effective coastal management strategies and will potentially lead to broader change to policies, regulations, or to duplicating the effort elsewhere.

How to access funds?
Competitive application process.

Who receives funds?
Nonprofit organizations, tribes and public agencies.

How do funds reach priority populations?
At least 35 percent of the total funds will support projects that are located in and provide benefits to disadvantaged or low-income communities.

Climate Adaptation and Conservation Easements

2018 OUTCOMES

No projects were implemented in 2018.

CALIFORNIA WILDLIFE CONSERVATION BOARD (WCB)

Cumulative Funding

How much funding has the program received?
$20.0 million appropriated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
TBD

Program Description

What type of projects are funded?
Perpetual conservation easements over natural and working lands and long-term conservation agreements that provide climate adaptation and resilience benefits for at least 50 years. Projects develop and implement natural and working lands adaptation and resiliency planning that prioritizes the conservation and management of natural and working lands, provides technical assistance for natural and working land managers, and supports efforts that improve rural-urban coordination on climate change adaptation.

How to access funds?
Competitive application process.

Who receives funds?
Local governments, park and open space districts, resource conservation districts, private landowners, and nonprofit organizations.

How do funds reach priority populations?
Projects benefiting priority populations receive enhanced application scoring.

Coastal Resilience Planning

2018 OUTCOMES

No projects were implemented in 2018.

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION (BCDC)

Cumulative Funding

How much funding has the program received?
$1.0 million appropriated.

How much has gone to implemented projects?
TBD

How much has been assigned for future projects?
$0.1 million selected and awarded but not yet implemented.

Program Description

What type of projects are funded?
BCDC funds staff to work with project proponents to make Bay shoreline projects more resilient and to work towards regional resilience through vulnerability assessments and adaptation planning.

How to access funds?
Legislative appropriation.

Who receives funds?
BCDC.

How do funds reach priority populations?
Benefits will reach priority populations through vulnerability assessments and adaptation planning involving at risk communities and amendment of BCDC's policies to address environmental justice and social equity.

APPENDIX A

Cumulative California Climate Investments Leveraged Funds

Agency	Program	Subprogram	($M)			Leveraged Ratio (Funds from Additional Sources / GGRF Implemented)
			Total GGRF Implemented	Total Project Cost[22]	Funds from Additional Sources	
California Air Resources Board	Community Air Protection Program	Community Air Grants	8.5	10.4	1.9	0.2
		Community Air Protection	113.4	180.0	66.6	0.6
	Low Carbon Transportation Program	Advanced Technology Freight Demonstration Projects	79.2	127.5	48.3	0.6
		Agricultural Worker Vanpools in San Joaquin Valley	6.0	6.0	--	--
		Clean Mobility Options for Disadvantaged Communities	9.6	15.9	6.4	0.7
		Clean Vehicle Rebate Project	484.0	2,964.6	2,480.5	5.1
		Enhanced Fleet Modernization Program Plus-Up	21.2	TBD[23]	TBD	TBD
		Financing Assistance Incentives Pilot	1.6	TBD[23]	TBD	TBD
		Funding Agricultural Replacement Measures for Emission Reductions	13.2	24.1	10.9	0.8
		Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project	227.4	TBD[23]	TBD	TBD
		Rural School Bus Pilot Project	9.4	9.4	0.0	0.0
		Zero-Emission Truck and Bus Pilot	82.8	143.9	61.1	0.7

Agency	Program	Subprogram	($M)			Leveraged Ratio (Funds from Additional Sources / GGRF Implemented)
			Total GGRF Implemented	Total Project Cost[22]	Funds from Additional Sources	
California Department of Transportation	Active Transportation Program		10.0	16.3	6.3	0.6
	Low Carbon Transit Operations Program		250.7	3,275.9	3,025.3	12.1
California High-Speed Rail Authority	High Speed Rail Project		626.0	64,000.0	TBD	TBD
California State Transportation Agency	Transit and Intercity Rail Capital Program		338.9	3,341.9	3,003.0	8.9
Strategic Growth Council	Affordable Housing and Sustainable Communities		314.5	1,597.5	1,283.1	4.1
	Climate Change Research Program		6.9	6.9	--	--
	Sustainable Agricultural Lands Conservation		19.4	31.6	12.3	0.6
	Technical Assistance Program		0.9	0.9	--	--
California Air Resources Board	Woodsmoke Reduction		1.3	1.6	0.3	0.2
California Department of Community Services and Development	Low-Income Weatherization Program	Multi-Family Energy Efficiency and Renewables	20.7	34.3	13.6	0.7
		Single-Family Energy Efficiency and Solar PV; Single-Family Solar PV	99.1	136.1	37.0	0.4
California Department of Food and Agriculture	Alternative and Renewable Fuels Program		3.0	3.0	--	--
	State Water Efficiency and Enhancement Program		61.5	101.5	40.0	0.6
California Department of Water Resources	Water-Energy Efficiency	State Water Project: Turbines	20.0	43.1	23.1	1.2
		Water-Energy Grant Program	32.3	37.0	4.7	0.1
California Conservation Corps	Training and Workforce Development Program		6.1	6.1	--	--
California Department of Fish and Wildlife	Wetlands and Watershed Restoration Program		21.3	36.4	15.1	0.7
California Department of Food and Agriculture	Climate Smart Agriculture	Alternative Manure Management Program	29.7	34.5	4.9	0.2
		Dairy Digester Research and Development Program	112.6	314.3	201.7	1.8
		Healthy Soils	5.7	11.3	5.6	1.0

Agency	Program	Subprogram	($M)			Leveraged Ratio (Funds from Additional Sources / GGRF Implemented)
			Total GGRF Implemented	Total Project Cost[22]	Funds from Additional Sources	
California Department of Forestry and Fire Protection	Fire Prevention Program		75.5	75.5	--	--
	Forest Health Program		110.1	167.2	57.1	0.5
	Urban and Community Forestry Program		38.3	56.4	18.1	0.5
California Governor's Office of Emergency Services	Wildfire Response and Readiness		2.5	2.5	--	--
California Department of Resources Recycling and Recovery	Waste Diversion Program	Food Waste Prevention and Rescue Grants	9.4	20.4	11.0	1.2
		Organics and Recycling Loans	2.6	14.0	11.4	4.4
		Organics Grants	60.7	323.5	262.7	4.3
		Recycled Fiber, Plastic, and Glass Grant Program	14.0	104.3	90.3	6.4
California Natural Resources Agency	Urban Greening		6.8	10.4	3.5	0.5
TOTALS[24]			**2,730.6**	**13,285.9**	**10,805.6**	**4.0**

22 Agencies may not report all funds from additional sources.
23 Total project cost may not be known at the time of implementation.
24 Totals exclude funds from the High-Speed Rail project.

APPENDIX B

2018 Statistics on Competitive Project Proposals Received

Agency	Program Category	Type of Award Recipient(s)	Response To Solicitation				Percent of Selected Funds Requested
			Proposals Received		Proposals Selected		
			#	Requested	#	Selected	
California Air Resources Board	Agricultural Worker Vanpools in San Joaquin Valley	Awarded to an Intermediary	1	$6,000,000	1	$6,000,000	100%
	Community Air Grants	Awarded Directly to Recipient	65	$18,861,318	28	$9,944,528	190%
	Off-Road Advanced Technology Demonstration Project	Awarded Directly to Recipient	15	$59,874,884	6	$19,142,080	313%
	On-Road Advanced Technology Demonstration Project	Awarded to an Intermediary	5	$29,513,758	2	$12,076,078	244%
	Zero-and Near Zero-Emission Freight Facilities Project	Awarded Directly to Recipient	13	$219,000,000	11	$205,000,000	107%
California State Transportation Agency	Transit and Intercity Rail Capital Program	Awarded Directly to Recipient	47	$6,664,698,369	28	$1,917,705,000	348%

Agency	Program Category	Type of Award Recipient(s)	Response To Solicitation				Percent of Selected Funds Requested
			Proposals Received		Proposals Selected		
			#	Requested	#	Selected	
Strategic Growth Council	Affordable Housing and Sustainable Communities	Awarded Directly to Recipient	54	$685,267,639	19	$257,497,000	266%
	Climate Change Research Program	Awarded Directly to Recipient	69	$87,200,000	10	$10,500,000	830%
		Awarded Directly to Recipient	24	$103,400,000	4	$17,100,000	605%
	Sustainable Agricultural Lands Conservation	Awarded Directly to Recipient	26	$64,602,920	17	$47,996,195	135%
	Transformative Climate Communities	Awarded Directly to Recipient	7	$280,000,000	3	$140,000,000	200%
California Department of Community Services and Development	Community Solar	Awarded Directly to Recipient	7	$16,875,768	2	$4,432,060	381%
	Farmworker Housing	Awarded Directly to Recipient	2	$400,000	1	$200,000	200%
California Department of Food and Agriculture	State Water Efficiency and Enhancement Program	Awarded Directly to Recipient	237	$20,031,343	27	$1,842,482	1087%
California Energy Commission	Food Production Investment Program	Awarded Directly to Recipient	25	$53,798,494	13	$26,859,578	200%
California Coastal Commission	Coastal Resilience Planning	Awarded Directly to Recipient	7	$1,126,000	5	$750,000	150%
California Department of Fish and Wildlife	Wetlands and Watershed Restoration	Awarded Directly to Recipient	5	$5,078,049	3	$4,226,557	120%

Agency	Program Category	Type of Award Recipient(s)	Response To Solicitation				Percent of Selected Funds Requested
			Proposals Received		Proposals Selected		
			#	Requested	#	Selected	
California Department of Food and Agriculture	Alternative Manure Management Program	Awarded Directly to Recipient	63	$34,458,849	40	$21,638,430	159%
		Awarded Directly to Recipient	53	$29,534,167	18	$9,936,935	297%
	Dairy Digester Research and Development Program	Awarded Directly to Recipient	74	$143,079,566	42	$72,409,276	198%
	Healthy Soils	Awarded Directly to Recipient	54	$2,110,064	39	$1,447,673	146%
California Department of Forestry and Fire Protection	Fire Prevention Grant Program	Awarded Directly to Recipient	217	$150,236,410	142	$79,612,063	189%
	Forest Health	Awarded Directly to Recipient	72	$333,659,903	23	$91,500,000	365%
	Urban and Community Forestry	Awarded Directly to Recipient	65	$44,524,866	23	$17,700,624	252%
California Department of Resources Recycling and Recovery	Food Waste Prevention and Rescue Grants	Awarded Directly to Recipient	31	$9,556,326	20	$5,000,000	191%
	Organics Grants	Awarded Directly to Recipient	12	$34,409,601	10	$25,109,441	137%
	Recycled Fiber, Plastic, and Glass Grant Program	Awarded Directly to Recipient	13	$30,596,169	3	$9,000,000	340%
California Natural Resources Agency	Urban Greening Program	Awarded Directly to Recipient	84	$180,425,374	20	$24,700,000	730%
		TOTAL	**1,347**	**$9,308,319,837**	**560**	**$3,039,326,000**	**306%**

APPENDIX C

Cumulative Budgetary Expenditures

Agency	Program	($M)					
		Appropriations[25]	State Ops	Local Assistance	Capital Outlay	Cumulative Budgetary Expenditures	Cumulative Program Administration Costs
California Air Resources Board	Low Carbon Transportation; Funding Agricultural Replacement Measures for Emission Reductions; Community Air Protection; Woodsmoke Reduction; Prescribed Fire Smoke Monitoring	$2,491.6	$73.4	$1,560.5	$0.0	$1,633.9	$27.2
California Department of Transportation	Low Carbon Transit Operations; Active Transportation	$388.7	$0.0	$230.3	$0.0	$230.3	$0.0
California High-Speed Rail Authority	High Speed Rail Project	$2,023.0	$0.0	$0.0	$626.0	$626.0	$0.0
California State Transportation Agency	Transit and Intercity Rail Capital	$869.1	$2.6	$649.8	$0.0	$652.4	$2.6
Strategic Growth Council*	Affordable Housing and Sustainable Communities; Transformative Climate Communities; Technical Assistance; Sustainable Agricultural Lands Conservation; Climate Change Research	$1,778.1	$35.5	$504.3	$0.0	$539.8	$35.2

Agency	Program	($M)					
		Appropriations[25]	State Ops	Local Assistance	Capital Outlay	Cumulative Budgetary Expenditures	Cumulative Program Administration Costs
California Department of Community Services and Development*	Low-Income Weatherization	$201.8	$10.0	$171.3	$0.0	$181.3	$10.0
California Department of Water Resources	State Water Project Turbines; Water-Energy Grant	$69.8	$2.1	$45.3	$20.0	$67.4	$2.1
California Energy Commission*	Food Protection Investment; Renewable Energy for Agriculture; Low-Carbon Fuel Production	$146.5	$0.1	$0.2	$0.0	$0.3	$0.1
California Coastal Commission*	Local Coastal Program	$3.0	$0.4	$0.0	$0.0	$0.4	$0.0
California Conservation Corps*	Training and Workforce Development	$24.1	$6.6	$0.0	$0.0	$6.6	$0.7
California Department of Fish and Wildlife*	Wetlands and Watershed Restoration	$47.1	$4.8	$21.3	$0.0	$26.1	$4.8
California Department of Food and Agriculture*	State Water Efficiency and Enhancement; Alternative Renewable Fuels; Dairy Methane; Healthy Soils	$341.8	$75.4	$124.1	$0.0	$199.5	$12.1
California Department of Forestry and Fire Protection	Sustainable Forests; Prescribed Fire Program; Fire Prevention	$586.9	$253.1	$24.2	$0.0	$277.3	$2.6
California Department of Resources Recycling and Recovery*	Food Waste Prevention and Rescue Grants; Organics and Recycling Manufacturing Loans; Organics Grants; Recycling Manufacturing Grants	$136.6	$12.0	$56.0	$0.0	$68.0	$2.0

Agency	Program	($M)					
		Appropriations[25]	State Ops	Local Assistance	Capital Outlay	Cumulative Budgetary Expenditures	Cumulative Program Administration Costs
California Governor's Office of Emergency Services	Wildfire Response and Readiness	$50.0	$0.0	$0.0	$0.0	$0.0	$0.0
California Natural Resources Agency*	Urban Greening; Regional Forest and Fire Capacity	$146.0	$0.5	$76.7	$0.0	$77.1	$0.5
California State Coastal Conservancy*	Climate Ready	$7.0	$0.2	$0.0	$0.0	$0.2	$0.2
California Wildlife Conservation Board*	Climate Adaptation and Conservation Easements	$20.0	$0.0	$0.0	$0.0	$0.0	$0.0
SF Bay Conservation and Development Commission*	Coastal Resilience Planning	$1.0	$0.2	$0.0	$0.0	$0.2	$0.0
	Totals for Programs	**$9,332.1**	**$477.2**	**$3,463.9**	**$646.0**	**$4,586.7**	**$100.1**
California Air Resources Board	Fund Administration and Management	$54.7	$44.3	$0.0	$0.0	$44.3	$44.3
Office of Environmental Health and Hazard Assessment*	Identification of Disadvantaged Communities	$3.7	$3.3	$0.0	$0.0	$3.3	$3.3
Sum of Control Agencies (Finance, FI$Cal, Controller)	Controller's Fees and Adjustments	$18.5	$13.9	$0.0	$0.0	$13.9	$13.9
California Workforce Development Board*	Workforce Development Board	$0.4	$0.4	$0.0	$0.0	$0.4	$0.0
	Totals for Programs Including Administration and Support	**$9,395.5**	**$538.6**	**$3,463.9**	**$646.0**	**$4,648.5**	**$161.5**

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

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

California Climate Investments

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