

2020



Cap and Trade
Dollars at Work



ANNUAL REPORT



Cap-and-Trade Auction Proceeds



Annual Report to the Legislature on
California Climate Investments
Using Cap-and-Trade
Auction Proceeds

GREENHOUSE GAS REDUCTION FUND MONIES



March 2020

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EXECUTIVE SUMMARY

In recent years, the threats posed by the impacts of climate change have become all too real for Californians. From damaging wildfires that destroy communities, ravage our forests, and degrade our air quality, to extreme heat that harms public health and threatens to render portions of our state unlivable, these impacts have already imposed a high cost both economically and in lives lost or severely disrupted. Unfortunately, low-income communities, historically underserved communities, and communities that already bear an outsized environmental burden are those most likely to be impacted by the effects of a changing climate.

Directing projects towards these communities is a principal objective of California Climate Investments. California Climate Investments continues to set an example for other national and subnational climate programs by emphasizing community engagement and equity in program design and implementation. The year 2019 saw California Climate Investments' single largest annual investment in California's priority populations to date, with more than \$1 billion of new projects implemented in California's disadvantaged communities and low-income communities and households. Cumulatively, \$5.3 billion in projects have been implemented across the state, with 57 percent of those investments benefiting California's priority populations.

CUMULATIVE OUTCOMES \$5.3 billion in implemented projects



57% of funding benefiting priority populations (\$3 billion +)



428,000+ individual projects implemented



4,700+ affordable housing units under contract



108,000 urban tree plantings



690,000+ acres of land preservation or restoration



600+ transit agency projects funded, adding or expanding transit service



150,000+ projects installing energy efficiency measures in homes



287,000+ rebates issued for zero-emission and plug-in hybrid vehicles

Collectively, these investments work to foster resilience in these communities and across the state by spurring transformative change that will be necessary in the coming decade and beyond.

The Legislature and Administration continue to advance the state's climate and equity goals through annual appropriations to California Climate Investments programs. Appropriations for the 2019–20 fiscal year include investments to support programs that reduce or sequester greenhouse gas emissions, enhance the state's resiliency to climate change, benefit disadvantaged communities most impacted by climate change, and expand the state's workforce skill base in the industries and occupations that anchor the carbon-neutral economy.

California Climate Investments is working to advance the state's climate and resiliency goals by channeling billions of dollars into projects that expand low-carbon transportation options, place affordable housing adjacent to transit and job centers, decrease the risk of catastrophic wildfires, and improve water-use efficiency, all while reducing greenhouse gas (GHG) emissions. Other California Climate Investments projects facilitate the reduction of GHGs and support other California Climate Investments programs by sponsoring research, funding planning efforts, preparing workers for a carbon-neutral economy, and providing technical assistance to project applicants.

In 2019, California Climate Investments put into place enhanced requirements for modeling expected job outcomes supported by California Climate Investments. For projects that were awarded in 2019, California Climate Investments is expected to support approximately 10,500 jobs, both directly through project implementation and indirectly by creating demand for goods and services in other industries. Alongside California Climate Investments' workforce training and development initiatives, these investments are part of a larger transition to a low-carbon economy that supports high-quality, family-supporting jobs across multiple industries and sectors

Investing Auction Proceeds

The Legislature appropriates money from the Greenhouse Gas Reduction Fund (GGRF) to agencies to administer California Climate Investments programs that facilitate GHG emission reductions and provide additional economic, environmental, and public health benefits, consistent with existing legislative guidance, such as Assembly Bill (AB) 398 (Chapter 135, Statutes of 2017) and AB 617 (Chapter 136, Statutes of 2017). Historically, four agencies have received 60 percent of each quarterly auction through continuous appropriations enacted in Chapter 36, Statutes of 2014 (Senate Bill (SB) 862). Chapter 120, Statutes of 2019 (SB 200), established the Safe and Affordable Funding for Equity and Resilience (SAFER) Drinking Water program, which received \$100 million for Fiscal Year (FY) 2019–20, and will receive a continuous appropriation of five percent of auction proceeds up to \$130 million beginning in FY 2020–21.¹ The Legislature appropriates remaining available funds through the annual budget process. SB 901 (Chapter 626, Statutes of 2018) states that these annual budget appropriations shall include \$200 million through FY 2023-24 for forest health, fire prevention, and fuel reduction programs. Additional legislation identifies other transfers and obligations from the GGRF, such as a transfer to offset a suspended manufacturing tax and use fee and replacement of a fire prevention fee in State Responsibility Areas.²

To date, auctions have raised \$12.5 billion for the GGRF. The Legislature has appropriated almost \$12.7 billion in funding for California Climate Investments programs.³ As of the end of 2019, there are

1 The Safe and Affordable Funding for Equity and Resilience Drinking Water Program was previously known as the Safe and Affordable Drinking Water Program.

2 Assembly Bill 398 (E. Garcia, Chapter 135, Statutes of 2017), amending Revenue and Taxation Code section 6377.1 and adding Public Resources Code section 4213.05.

3 The Legislature appropriates funds for each fiscal year in the budget act, which is typically passed prior to the start of the fiscal year. Auctions however, occur quarterly and proceeds are accrued throughout the fiscal year. Due to this timing difference, there may be points in time where appropriations exceed available auction proceeds.

more than 20 state agencies and departments involved in program development, project selection, and implementation of 68 California Climate Investments programs. Table ES-1 shows the FY 2019-20 and cumulative appropriations for investments as of November 30, 2019. Note, program names may change over time.

Table ES-1: FY 19-20 & Cumulative Appropriations

Administering Agency	Program	Appropriations (\$M) ^{4,5}		
		Cumulative Appropriations, Prior to FY 19-20	FY 19-20	Cumulative Total
California Air Resources Board	Community Air Protection	\$556	\$291	\$847
	Fluorinated Gases Emission Reduction Incentives	–	\$1	\$1
	Funding Agricultural Replacement Measures for Emission Reductions	\$197	\$65	\$262
	Low Carbon Transportation	\$1,724	\$492	\$2,216
	Prescribed Fire Smoke Monitoring	\$6	\$2	\$8
	Woodsmoke Reduction	\$8	–	\$8
California Coastal Commission	Coastal Resilience Planning	\$3	\$2	\$5
California Conservation Corps	Training and Workforce Development	\$27	\$14	\$41
California Department of Community Services and Development	Low-income Weatherization	\$202	\$10	\$212
California Department of Fish and Wildlife	Wetlands and Watershed Restoration	\$46	<\$1	\$47
California Department of Food and Agriculture	Dairy Methane	\$260	\$34	\$294
	Healthy Soils	\$13	\$28	\$41
	Renewable Alternative Fuels	\$3	–	\$3
	State Water Efficiency and Enhancement	\$66	–	\$66
California Department of Forestry and Fire Protection	Community Fire Planning and Preparedness	–	\$10	\$10
	Fire Prevention	\$107	\$85	\$192
	Forest Carbon Plan Implementation	\$25	\$35	\$60
	Sustainable Forests	\$454	\$170	\$624
California Department of Resources Recycling and Recovery	Waste Diversion	\$134	\$25	\$159

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

5 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.

Administering Agency	Program	Appropriations (\$M) ^{4,5}		
		Cumulative Appropriations, Prior to FY 19-20	FY 19-20	Cumulative Total
California Department of Transportation	Active Transportation	\$10	–	\$10
	Low Carbon Transit Operations	\$459	\$66	\$525
California Department of Water Resources	State Water Project Turbines	\$20	–	\$20
	Water-Energy Grant	\$50	–	\$50
California Energy Commission	Food Production Investment	\$124	–	\$124
	Low-Carbon Fuel Production	\$13	–	\$13
	Renewable Energy for Agriculture	\$10	–	\$10
California Environmental Protection Agency	Transition to a Carbon-Neutral Economy	–	\$3	\$3
California Governor’s Office of Emergency Services	Wildfire Response and Readiness	\$50	\$1	\$51
California High-Speed Rail Authority	High-Speed Rail Project ⁶	\$2,523	\$330	\$2,853
California Natural Resources Agency	Regional Forest and Fire Capacity	\$20	–	\$20
	Urban Greening	\$127	\$30	\$157
California State Coastal Conservancy	Climate Ready	\$7	–	\$7
California State Transportation Agency	Transit and Intercity Rail Capital	\$1,029	\$132	\$1,161
California State Water Resources Control Board	Safe and Affordable Funding for Equity and Resilience Drinking Water	–	\$100	\$100
California Strategic Growth Council	Affordable Housing and Sustainable Communities	\$1,877	\$263	\$2,140
	Sustainable Agricultural Lands Conservation			
	Climate Change Research	\$29	\$5	\$34
	Technical Assistance	\$4	\$2	\$6
	Transformative Climate Communities	\$190	\$60	\$250
California Wildlife Conservation Board	Climate Adaptation and Resiliency	\$20	–	\$20
California Workforce Development Board	Low Carbon Economy Workforce	–	\$35	\$35
San Francisco Bay Conservation and Development Commission	Climate Resilience Planning	\$1	\$2	\$3
Total		\$10,395	\$2,292	\$12,687

6 SB 862 (Health & Safety Code section 39719.1) makes \$400 million 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 is to be repaid as necessary, based on the financial needs of the High-Speed Rail Project. \$100 million of this loan amount is included in the reported \$2.9 billion cumulative appropriations; the remaining \$300 million in authority will be drawn down in early 2020.

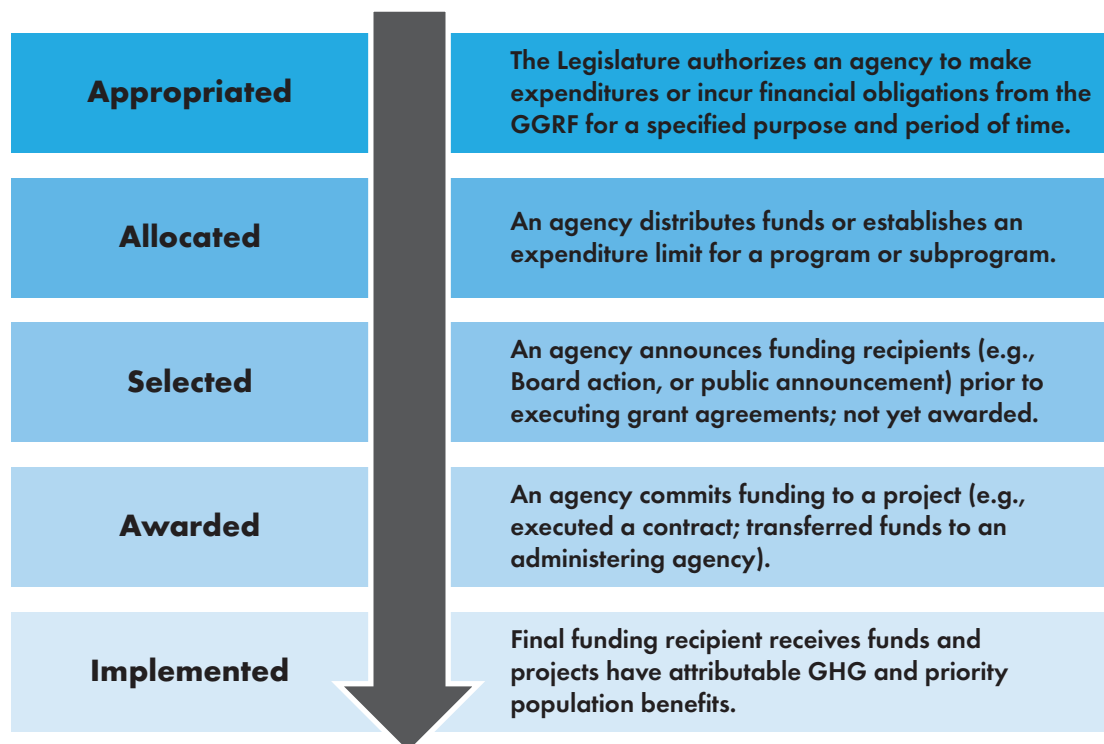
Reporting Outcomes

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

- **2019:** Data reported for December 1, 2018 through November 30, 2019.
- **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 2020.

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 Funding Status



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

Figure ES-2 shows the amount of California Climate Investments funding by status, progressing from when funds are initially appropriated by the Legislature through the implementation stage. Agencies and award recipients must complete many tasks between an appropriation and project implementation, which is the primary cause of the gap between appropriated and awarded funds. Completing all these tasks can take more than a year and may 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 applications and quantification methodologies, carefully selecting recipients to help ensure quality projects, or executing legal contracts to transfer funds to a recipient. These steps help provide a fair and transparent process.

Figure ES-2: Summary of Funding by Status

	2019	Cumulative
Appropriated	\$2.3B	\$12.7B
Allocated	\$3.1B	\$12.0B
Selected & Awarded	\$0.5B	\$7.9B
Implemented	\$2.0B	\$5.3B

Achieving New Priorities

The Legislature passed several new bills related to California Climate Investments in 2019. In addition to the annual budget bill (Chapter 23, Statutes of 2019, AB 74), which funded several new programs, the Legislature passed SB 200, establishing the Safe and Affordable Funding for Equity and Resilience (SAFER) Drinking Water Program. The SAFER Drinking Water Program will receive an ongoing appropriation of the lesser of five percent of auction proceeds or \$130 million annually, and will help foster resiliency by ensuring that all Californians have an adequate and safe drinking water supply. AB 74 also created programs to support workforce development, study the transition to a low-carbon economy, and reduce high global warming potential fluorinated gas emissions from refrigeration systems. The Legislature also signaled its continuing support for alternative transportation options through Chapter 271, Statutes of 2019 (SB 400), which will allow funding for bicycle and electric bicycle sharing projects through the Clean Mobility Options program, as well as Chapter 684, Statutes of 2019 (AB 784), which exempts public agencies from paying certain taxes on the purchase of zero-emission technology transit buses.

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

The projects implemented through 2019 are expected to reduce GHG emissions by 44.7 million metric tons of carbon dioxide equivalent (MTCO₂e) over time—the GHG equivalent to taking over 10 million gasoline-powered passenger vehicles off the road for a year. Projects implemented in 2019 alone are expected to reduce GHG emissions by 5.7 million MTCO₂e over time. Additional GHG emission reductions are expected from projects in progress, such as the High-Speed Rail project, which is expected to reduce GHG emissions by 64.3 to 75.9 million MTCO₂e over the first 50 years of operating life.

In addition to GHG emission reductions, investments improve community health because they promote active transportation, protect against dangerous heat, and reduce exposure to air pollutants that impair heart and lung health. Implemented projects with quantified air pollutant emission reductions are cumulatively expected to reduce nitrogen oxide (NO_x) emissions by more than 20,000 tons and particulate matter (PM) emissions by 2,300 tons.

Additionally, Californians are saving water and energy, and in turn, money, by participating in California Climate Investments. Efficiency projects implemented in 2019 alone will save 433 gigawatt-hours (GWh) of electricity. Similarly, new low-carbon vehicle owners and lessees are expected to save 169 million gallons of fuel from investments made in 2019. Projects are also greening our communities and contributing to forest health. Cumulatively, implemented projects will plant 13.2 million new trees.

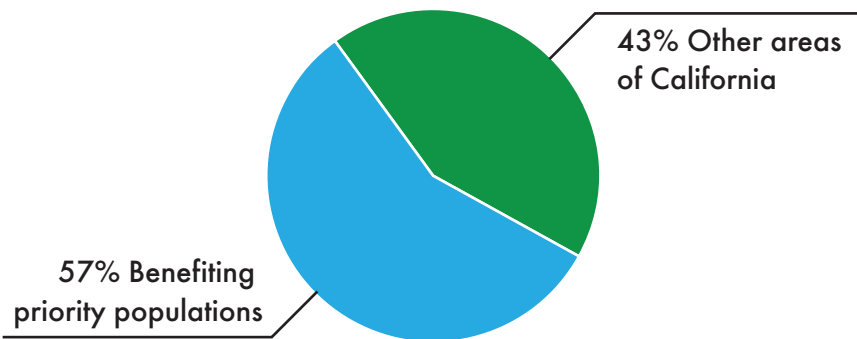
Benefiting Priority Populations

Cumulatively, 57 percent of investments are benefiting disadvantaged and low-income communities, substantially 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 through Chapter 830, Statutes of 2012 (SB 535). Later, Chapter 369, Statutes of 2016 (AB 1550) amended SB 535 to change the requirements for investment in disadvantaged communities, and to add minimum investment requirements for low-income communities and low-income households.⁷ 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 and addressing community-identified needs. Figure ES-3 shows how cumulative investments made through 2019 have contributed to the investment minimums for priority populations.

⁷ SB 535 requires that a minimum of 25 percent of investments fund projects that benefit disadvantaged communities, including a minimum of 10 percent of investments that fund projects that both 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 five percent fund projects that benefit and are located in low-income communities or households located anywhere in the State; and an additional five percent fund projects that benefit and are located in low-income communities or households that are outside of, but within one-half-mile of, disadvantaged communities.

Figure ES-3: Cumulative Benefits to Priority Populations

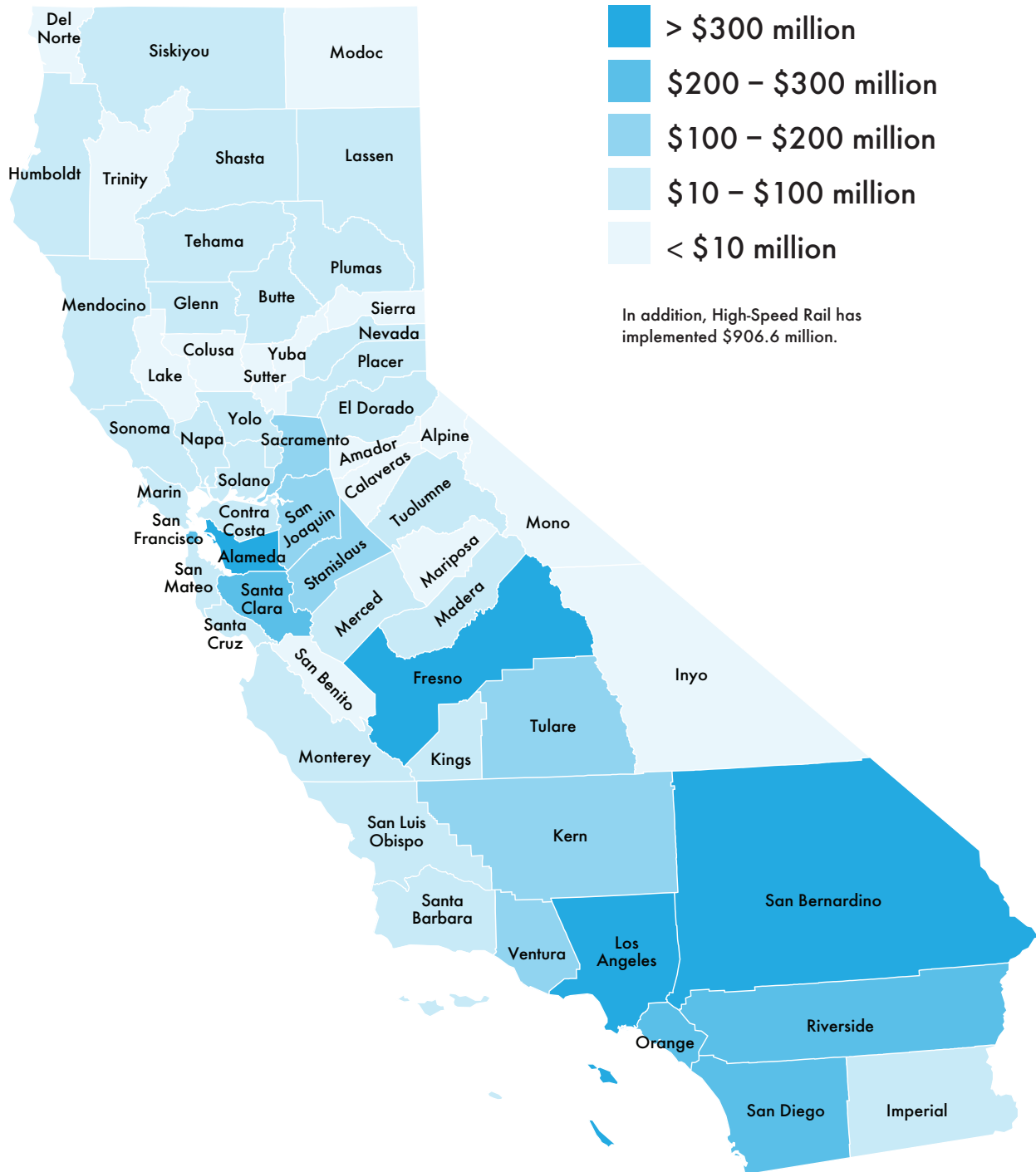


Reaching Across California

California Climate Investments span all areas of the State. Each agency designs programs and selects projects in accordance with the Funding Guidelines adopted by the California Air Resources Board and program objectives, which can include targeting certain populations or geographies. For example, programs such as the Strategic Growth Council's Transformative Climate Communities focus investments in specific geographic areas. Other programs, such as the California Air Resources Board's Rural School Bus program, specifically target all funds in small air districts that contain predominantly rural areas. In contrast, some programs, such as vehicle rebate programs, do not necessarily target a specific geography.

Figure ES-4 shows cumulative investments in each county. California Climate Investments' map provides an interactive display of the location of each project implemented. For more detail, visit the map at caclimateinvestments.ca.gov.

Figure ES-4: Cumulative Investments by County



Measuring Program Effectiveness

In addition to reducing GHG emissions, California Climate Investments programs achieve multiple benefits, including advancing technology, improving public health, and laying the groundwork for community resilience and long-term transformative change.

Table ES-2 details the GHG cost-effectiveness of each program's GGRF expenditures, and does not include the amount of non-GGRF (or "leveraged") funds that may also support these programs. Overall, California Climate Investments are reducing GHGs at an average rate of \$119 per metric ton of carbon dioxide equivalent (MTCO₂e). Individual programs also achieve important co-benefits that are specific to the project type funded, including benefits to priority populations. Demonstration programs that promote early-stage technology can help the longer-term transition to a low-carbon economy, as such technologies need time to reach large-scale deployment. While sometimes less cost-effective on a per ton MTCO₂e basis, these investments can signal opportunities for new businesses that will support a low carbon economy.

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, \$5.3 billion in implemented GGRF funds have leveraged an additional \$21.7 billion from other sources, not including other funds leveraged for the High-Speed Rail project. 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.

Appendix A provides more detail about leveraged funds by program.

Growing Demand for Funding

As awareness of and access to California Climate Investments improves, demand for funding continues. On average, California Climate Investments' competitive solicitations in 2019 received applications requesting more than 200 percent of available funding. Appendix B includes statistics on the applications received compared to the applications selected for funding in 2019 for each competitive program. Agencies are required to post information on their program websites on all project applications or proposals received, including those not selected for funding. 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.

Understanding Cumulative Program Outcomes

Table ES-2 includes cumulative summary statistics for each California Climate Investments program. The "Outcomes from 2019" section of this report provides individual program pages that include more information on the program design, projects funded, and project-specific co-benefits.

Detailed data is available at caclimateinvestments.ca.gov, including information on project location, GHG emission reductions, and benefits to priority populations.

Table ES-2: Summary of Investments and Outcomes through 2019

Administering Agency	Subprogram	Cumulative Funding Status (\$M)			Implemented Projects			Benefiting Priority Populations ⁸	
		Allocated	Selected & Awarded ⁹	Implemented	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects	(\$M)	%
California Air Resources Board	Community Air Grants	\$25.0	\$9.7	\$9.7	- ¹⁰	-	27	\$9.4	97%
	Community Air Protection Funds	\$780.0	\$508.8	\$253.4	89	\$2,834	1,640	\$180.8	90%
	Fluorinated Gases Emission Reduction Incentives	\$1.0							
	Funding Agricultural Replacement Measures for Emission Reductions	\$260.2	\$195.9	\$71.9	58	\$1,245	2,266	\$40.6	61%
	Advanced Technology Freight Demonstration Projects	\$81.2	\$79.2	\$79.2	16	\$4,939	11	\$79.2	100%
	Agricultural Worker Vanpools	\$6.0	\$6.0	\$6.0	5	\$1,307	1	\$6.0	100%
	Clean Cars 4 All	\$102.0	\$61.0	\$50.5	31	\$1,610	6,107	\$34.0	82%
	Clean Mobility in Schools Project	\$24.6	\$0.0	\$0.0			TBD		
	Clean Mobility Options	\$56.6	\$31.6	\$9.6	3	\$2,952	7	\$9.6	100%
	Clean Off-Road Equipment	\$44.2	\$44.2	\$0.0			TBD		
	Clean Truck & Bus Voucher	\$510.5	\$369.9	\$348.3	1,380	\$252	5,244	\$236.4	68%
	Clean Vehicle Rebate Project	\$943.7	\$708.0	\$681.5	5,831	\$117	287,854	\$204.8	30%
	Financing Assistance for Lower-Income Consumers	\$36.8	\$15.9	\$7.8	4	\$1,977	707	\$3.4	91%
	Rural School Bus Pilot Projects	\$63.0	\$55.0	\$21.6	17	\$1,295	61	\$11.6	62%
	Sustainable Transportation Equity Project	\$22.0							
							NEW PROGRAM FOR FY 19-20		

⁸ For programs that contract with intermediaries to administer projects, costs incurred for administration are not included when calculating benefits to priority populations. These costs are reported and included in the total implemented funds.

⁹ Per statute, some administering agencies may plan for future projects by selecting projects for funding in advance of receiving appropriations to fulfill those commitments. For this reason, in some instances "Selected and 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" funds.

¹⁰ These programs do not have a quantified GHG emission benefit.

Administering Agency	Subprogram	Cumulative Funding Status (\$M)			Implemented Projects			Benefiting Priority Populations ⁸	
		Allocated	Selected & Awarded ⁹	Implemented	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects	(\$M)	%
California Air Resources Board (cont.)	Zero- and Near Zero-Emission Freight Facilities	\$148.7	\$148.7	\$148.7	50	\$2,997	10	\$148.7	100%
	Zero-Emission Truck and Bus Pilot Projects	\$85.0	\$82.8	\$82.8	107	\$778	9	\$64.5	78%
	Prescribed Fire Smoke Monitoring	\$7.5	\$2.3	\$2.3	- ¹⁰	-	31	\$0.0	0%
	Woodsmoke Reduction	\$8.0	\$5.0	\$4.8	74	\$65	1,411	\$3.7	84%
California Coastal Commission	Coastal Resilience Planning	\$4.5	\$2.5	\$0.8	- ¹⁰	-	5	\$0.3	37%
California Conservation Corps	Training and Workforce Development	\$41.4	\$13.3	\$13.3	165	\$80	203	\$9.6	72%
	Community Solar	\$4.4	\$4.4	\$4.4	18	\$241	2	\$4.4	100%
California Department of Community Services and Development	Farmworker Housing Component: Single-Family Energy Efficiency and Solar Photovoltaics	\$10.8	\$10.9	\$1.0	1	\$1,929	19	\$1.0	100%
	Multi-Family Energy Efficiency and Renewables	\$63.9	\$63.9	\$33.8	132	\$256	6,950	\$29.3	100%
	Single-Family Energy Efficiency and Solar Photovoltaics	\$70.0	\$70.0	\$70.0	216	\$280	15,958	\$57.0	100%
	Single-Family Solar Photovoltaics	\$51.0	\$51.0	\$51.0	134	\$332	3,160	\$44.2	100%
California Department of Fish and Wildlife	Wetlands & Watershed Restoration	\$46.8	\$25.5	\$25.5	796	\$32	15	\$16.0	63%

Administering Agency	Subprogram	Cumulative Funding Status (\$M)			Implemented Projects				Benefiting Priority Populations ⁸		
		Allocated	Selected & Awarded ⁹	Implemented	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects	(\$M)	%		
California Department of Food and Agriculture	Alternative Manure Management	\$293.8	\$63.9	\$31.2	641	\$49	56	\$0.0	0%		
	Dairy Digester Research and Development		\$184.4	\$115.3	12,808	\$9	65	\$73.1	64%		
	Healthy Soils	\$40.5	\$9.5	\$9.2	53	\$173	132	\$1.5	17%		
	Renewable and Alternative Fuels	\$3.0	\$3.0	\$3.0	- ¹⁰	-	1	\$0.0	0%		
	State Water Efficiency and Enhancement	\$66.2	\$61.9	\$61.9	744	\$83	599	\$22.7	37%		
	Community Fire Planning and Preparedness	\$10.0			NEW PROGRAM FOR FY 19-20						
California Department of Forestry and Fire Protection	Fire Prevention	\$186.8	\$100.1	\$100.1	- ¹⁰	-	63	\$66.3	66%		
	Forest Carbon Plan Implementation	\$54.5	\$12.2	\$12.2	- ¹⁰	-	10	\$5.3	44%		
	Fire Prevention Grants	\$546.2	\$113.2	\$113.2	- ¹⁰	-	168	\$37.6	33%		
	Forest Health		\$246.9	\$237.9	5,490	\$43	126	\$83.0	35%		
	Forest Health Research	\$5.0	\$2.4	\$2.4	- ¹⁰	-	10	\$0.4	17%		
	Urban and Community Forestry	\$77.8	\$56.2	\$52.8	373	\$142	89	\$51.8	98%		
California Department of Resources Recycling and Recovery	Community Composting for Green Spaces Grant	TBD			NEW PROGRAM FOR FY 19-20						
	Food Waste Prevention and Rescue Grants	\$20.7	\$20.2	\$20.2	434	\$47	64	\$19.4	96%		
	Organics and Recycling Manufacturing Loans	\$9.2	\$5.7	\$5.7	685	\$8	4	\$0.8	15%		
	Organics Grants	\$75.7	\$56.7	\$56.7	1,285	\$44	23	\$47.2	83%		
	Recycled Fiber, Plastic, and Glass Grants	\$25.7	\$25.7	\$25.7	671	\$38	11	\$14.7	57%		
	Active Transportation	\$10.0	\$10.0	\$10.0	<1	\$16,393	3	\$10.0	100%		
California Department of Transportation	Low Carbon Transit Operations	\$524.8	\$412.7	\$333.2	3,795	\$89	577	\$319.3	96%		
	State Water Project Turbines	\$20.0	\$20.0	\$20.0	37	\$542	2	\$0.0	0%		
California Department of Water Resources	Water-Energy Grant	\$50.0	\$45.5	\$36.2	375	\$97	94,449	\$36.2	100%		

Administering Agency	Subprogram	Cumulative Funding Status (\$M)			Implemented Projects			Benefiting Priority Populations ⁸	
		Allocated	Selected & Awarded ^p	Implemented	GHG Reduction (1,000 MTCO ₂ e)	Cost per GHG (\$/MTCO ₂ e)	Number of Projects	(\$M)	%
California Energy Commission	Food Production Investment	\$124.0	\$38.1	\$28.4	1,257	\$23	16	\$25.7	91%
	Low-Carbon Fuel Production	\$12.5	\$0.0	\$0.0			TBD		
	Renewable Energy for Agriculture	\$10.0	\$9.5	\$9.2	125	\$75	44	\$1.1	12%
California Environmental Protection Agency	Transition to a Carbon-Neutral Economy	\$3.0			NEW PROGRAM FOR FY 19-20				
California Governor's Office of Emergency Services	Fire Engines and Equipment	\$26.2	\$0.0	\$0.0			TBD		
	Wildfire Response and Readiness	\$25.0	\$3.4	\$3.4	- ¹⁰	-	60	\$0.0	0%
California High-Speed Rail Authority	High-Speed Rail Project	\$2,853.3	\$906.6	\$906.6	- ¹¹	- ¹²	1	\$0.0	0%
California Natural Resources Agency	Regional Forest and Fire Capacity	\$20.0	\$17.1	\$0.0			TBD		
California State Coastal Conservancy	Urban Greening	\$156.0	\$119.7	\$98.0	36	\$2,737	57	\$91.5	93%
	Climate Ready	\$7.0	\$6.4	\$3.8	2	\$2,275	12	\$3.1	81%
California State Transportation Agency	Transit and Intercity Rail Capital	\$1,104.2	\$2,376.1	\$362.0	2,418	\$150	24	\$342.0	94%
California State Water Resources Control Board	Safe and Affordable Funding for Equity and Resilience Drinking Water	\$100.0			NEW PROGRAM FOR FY 19-20				
California Strategic Growth Council	Affordable Housing and Sustainable Communities	\$1,669.1	\$998.0	\$511.3	1,253	\$408	59	\$429.5	84%
	Sustainable Agricultural Lands Conservation	\$118.5	\$171.8	\$32.5	2,848	\$11	28	\$4.3	13%
	Climate Change Research	\$34.0	\$27.6	\$27.6	- ¹⁰	-	14	\$0.0	0%
	Technical Assistance	\$11.0	\$6.3	\$6.6	- ¹⁰	-	21	\$4.0	60%
	Transformative Climate Communities	\$250.0	\$173.5	\$117.0	288	\$407	41	\$117.0	100%

11 Estimated GHG emission reductions from the California High-Speed Rail project range from 64.3 to 75.9 million MTCO₂e over its first 50 years of operating life, as detailed in the 2019 California High-Speed Rail Sustainability Report available at [hsr.ca.gov/docs/programs/green_practices/sustainability/Sustainability_Report_2019.pdf](https://www.hsr.ca.gov/docs/programs/green_practices/sustainability/Sustainability_Report_2019.pdf).

12 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.

Administering Agency	Subprogram	Cumulative Funding Status (\$M)		Implemented Projects			Benefiting Priority Populations ⁸		
		Allocated	Selected & Awarded ^p	Implemented	GHG Reduction (1,000 MTCO _{2e})	Cost per GHG (\$/MTCO _{2e})	Number of Projects	(\$M)	%
California Wildlife Conservation Board	Climate Adaptation and Resiliency	\$20.0	\$16.3	\$4.5	- ¹⁰	-	12	\$0.0	0%
California Workforce Development Board	Low Carbon Economy Workforce	\$35.4							
San Francisco Bay Conservation and Development Commission	Climate Resilience Planning	\$2.8	\$2.8	\$2.8	- ¹⁰	-	3	\$0.0	0%
	Total	\$12,100.7	\$8,888.9	\$5,338.7	44,746	-	428,542	\$3,001.8	57%

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



BACKGROUND

Cap-and-Trade Auction Proceeds

California's efforts to reduce carbon emissions began in 2006 with the passage of the California Global Warming Solutions Act of 2006, otherwise known as AB 32 (Chapter 488, Statutes of 2006). AB 32 set a target of returning to 1990 greenhouse gas emission levels by 2020 and achieved the emission reduction target four years early while the state's economy grew at a faster rate than the national average. Executive Order B-30-15 (2015), which was codified in 2016 by SB 32 (Chapter 249, Statutes of 2016), established a 2030 greenhouse gas emission reduction target of 40 percent below 1990 levels. The 2030 target has put California on the path to the state's goal of achieving an 80 percent reduction of greenhouse gas emissions compared to 1990 levels by 2050.¹³

California's 2017 Climate Change Scoping Plan describes the state's strategy for achieving its 2030 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.¹⁴ The Scoping Plan, which is updated every five years, identifies a suite of cost-effective and technologically feasible measures for reducing GHG emissions, including California's Cap-and-Trade program, which is an integral part of the state's strategy to meet its climate goals.

The Cap-and-Trade program is a market-based system that establishes an annual declining limit – or cap – on about 80 percent of statewide GHG emissions from the largest polluters ("covered entities") in the state. The Cap-and-Trade 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 for compliance is reduced. Covered entities may also use a limited amount of offsets, in addition to allowances, for compliance. Offset credits are issued for real, permanent, verified, and enforceable GHG emissions reductions or carbon sequestration in sectors not covered by the Cap-and-Trade program.

A portion of allowances are freely allocated to covered entities. For electric and natural gas utilities, the value of freely allocated allowances must be used to benefit ratepayers to protect against energy cost

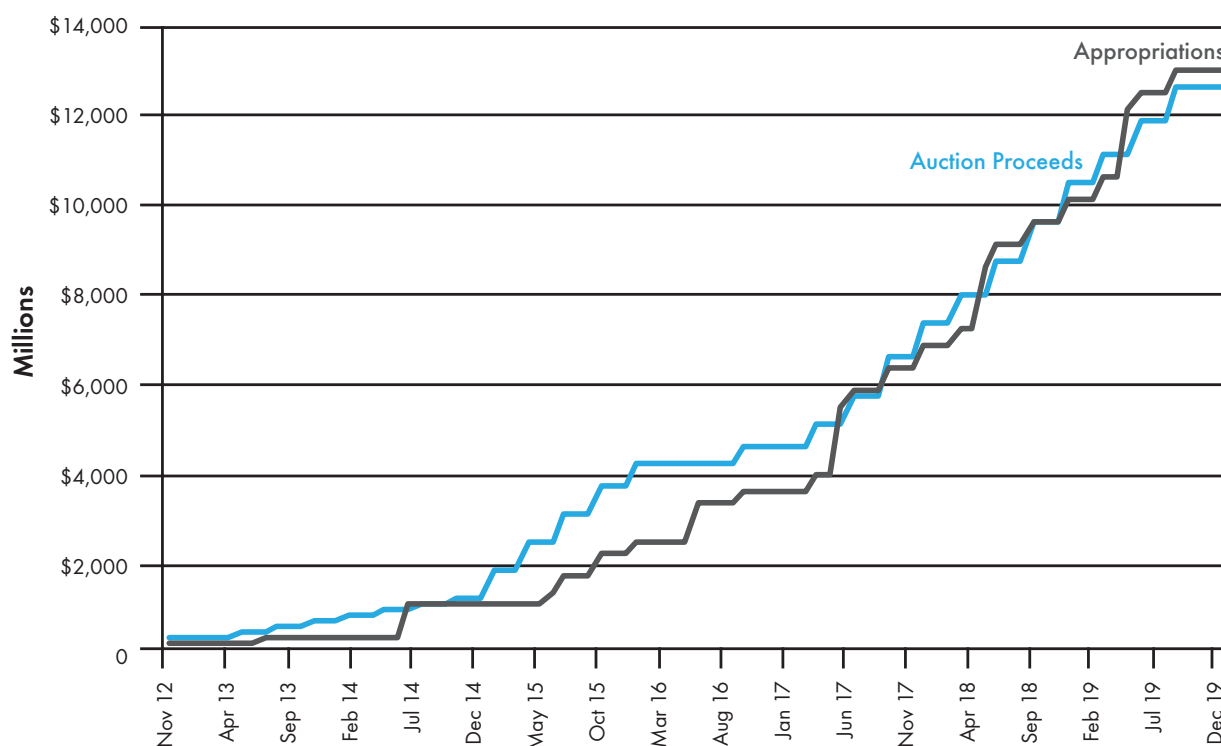
¹³ Executive Order S-3-05, 2005

¹⁴ arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

spikes and to invest in projects to procure more renewable energy or support energy efficiency efforts. For more information on utilities' use of allowance value, see the Electric Utility and Natural Gas section below. Large industrial facilities also receive a portion of allowances at no cost to minimize leakage per AB 32.¹⁵ The remaining allowances are made available for sale at quarterly auctions.

Proceeds from the sale of State-owned allowances are deposited into the Greenhouse Gas Reduction Fund, or GGRF, to be used for California Climate Investments. Allowance auctions have generated \$12.5 billion in revenues to date (Figure 1). Upon the creation of the GGRF, the Legislature established a set of requirements for the use of the funds, including that the funds must be used to facilitate GHG emission reductions, benefit priority populations, and maximize other environmental, public health, and economic benefits where applicable and to the extent feasible. For more information on the legislative requirements for the use of GGRF funds and other legislation related to California Climate Investments, visit arb.ca.gov/resources/documents/cci-legislative-guidance.

Figure 1: Cumulative State Auction Proceeds and Appropriations



Electric Utility and Natural Gas Supplier Investments

Electrical distribution utilities and natural gas suppliers are participants in the Cap-and-Trade program. The investor owned utilities and natural gas utilities must consign all, or some, allowances to be sold at quarterly auctions. These entities must use their auction proceeds for the benefit of ratepayers and annually report to the California Air Resources Board (CARB) on how the funds were spent.

¹⁵ "Leakage" refers to a reduction in emissions of greenhouse gases within the State that is offset by an increase in emissions of greenhouse gases outside the State attributable to a transfer of production to a jurisdiction not covered by the cap.

The primary use of auction proceeds by electric utilities is to fund distributions to ratepayers, such as the California Climate Credit, which has provided direct bill credits to customers since 2014 to protect households and eligible small businesses from costs associated with complying with the Cap-and-Trade regulation. Electric utilities have also used a portion of those proceeds to fund clean energy and energy efficiency projects. In 2018, natural gas suppliers began providing households with an annual natural gas Climate Credit. CARB posted the first summary of natural gas supplier use of allowance value in 2020, covering the period between 2015 and 2018.

Summaries of how utilities utilized their auction proceeds can be found at arb.ca.gov/cc/capandtrade/allowanceallocation/edu-ng-allowance-value.htm.

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 to the Legislature in February 2019, and provided three main recommendations to the Legislature:

- Continue to invest in existing programs and prioritizing new programs that:
 - Emphasize meaningful community input in program modifications and project solicitation and design, and fund community-led projects, both community-wide and small-scale, and
 - Achieve near-term climate and health benefits and contribute to long-term transformation to low-carbon communities and ecosystems that are adaptable and resilient.
- Provide funding certainty over multiple years for more California Climate Investments programs to better support legislative priorities.
- 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 Fourth Investment Plan, which will cover Fiscal Years 2022–2025, will be submitted to the Legislature in 2022.

Funding Guidelines

State law requires CARB to develop guidance for all state agencies that receive appropriations from the GGRF for California Climate Investments programs, including guidance on reporting, quantification methods, and maximizing benefits to disadvantaged communities. Administering agencies use these 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 facilitate GHG emission reductions, benefit disadvantaged communities and low-income communities and households, and provide transparency and accountability regarding the use of funds. CARB last updated the Funding Guidelines in 2018. The updated Funding Guidelines provide additional flexibility for new programs that facilitate GHG emission reductions and added requirements for reporting co-benefits and jobs benefits to CARB.

Project Reporting

CARB requires administering agencies to report project status and expected benefits semi-annually. CARB supports agencies' project tracking reporting efforts by supplying program-specific reporting templates and aggregating the data reported. Project reporting provides transparency on the use of Cap-and-Trade auction proceeds and project outcomes, including benefits to priority populations and expected environmental, economic, and public health benefits.

GHG and Co-benefit Quantification Methodologies

As part of providing guidance to administering agencies, CARB develops quantification methodologies supported by empirical research to estimate project-level GHG benefits along with other project benefits. CARB currently maintains 42 quantification methodologies along with accompanying calculator tools. Administering agencies may use expected benefits when selecting projects to fund and to demonstrate that investments facilitate GHG emission reductions.

Administering agencies must use a CARB quantification methodology and report expected project benefits to CARB if a quantification methodology exists for that project type. In some cases, certain project types may not have quantifiable GHG emission reductions. For those project types, administering agencies are required to provide a qualitative assessment to demonstrate how expenditures facilitate GHG emission reductions and support state goals.

Quantification of Co-benefits

CARB and administering agencies document a wide array of environmental, economic, and public health co-benefits through reporting. The co-benefits resulting from GGRF investments provide significant value to the state beyond GHG emission reductions, including air pollutant emission reductions, the construction of affordable housing units near transit, and improved resiliency of California's natural and working lands. Some co-benefits are derived from project details or outputs from CARB calculator tools, while others are assessed using CARB's stand-alone co-benefit assessment methodologies.

Project Outcomes

Administering agencies are required to report project outcomes on a subset of operational projects funded by each program. Reporting on project outcomes provides information that can be used to evaluate project and program effectiveness, and help improve programs and projects going forward. As more projects near completion, additional information for a subset of operational projects will become available.¹⁶

In 2019, CARB contracted with the University of California, Davis Policy Institute for Energy, Environment, and the Economy to evaluate existing project outcome reporting guidance and requirements. The Policy Institute for Energy, Environment, and the Economy will provide recommendations to CARB on how to refine existing data collection methods to utilize best practices for data collection and to expand the types of data being collected to include additional benefits to the public. Work under this contract is expected to conclude in March 2021.

¹⁶ The milestone triggering the operational stage varies by project type, but "operational stage" generally denotes the period in which benefits from the project are accruing, typically after the project or improvement is in place and/or operating. More information can be found at arb.ca.gov/resources/documents/cci-funding-guidelines-administering-agencies.



RECENT DEVELOPMENTS

Several key pieces of legislation related to California Climate Investments passed in 2019. This includes bills that made annual appropriations and new ongoing appropriations, established new programs, and changed aspects of existing programs.

New Programs in 2019

The 2019 Budget Act (AB 74) appropriated FY 2019–2020 funds to existing programs and several new programs within the California Climate Investments portfolio. Additionally, SB 200 established a new five percent continuous appropriation for the SAFER Drinking Water Program. Administering agencies also launched new project types under existing programs. Together, these new programs contribute to advancing California’s commitment to building resiliency, workforce development, and reducing GHG emissions.

Community Composting for Green Spaces Grant Program (Waste Diversion)

The Community Composting for Green Spaces Grant program was established in 2019 under CalRecycle’s Waste Diversion program. The purpose of this program is to increase the number of community groups operating small-scale composting programs in green spaces within disadvantaged and low-income communities, and to increase the capacity of those composting programs. The program will also fund employment and training opportunities for priority populations.

Community Fire Planning and Preparedness (\$10M)

The California Department of Forestry and Fire Protection (CAL FIRE) will partner with the Governor’s Office of Planning and Research, University of California, Cooperative Extension, and county governments in the wildland-urban interface to create a new fire outreach and extension program, provide funds and training for local planning, and support community fire prevention and preparedness, including the maintenance of evacuation routes.

Fluorinated Gases Emission Reduction Incentives (\$1M)

CARB will provide incentives to increase the adoption of low global warming potential alternatives to conventional refrigerant technologies; identify opportunities to increase the recovery, reclamation, or

destruction of existing high global warming potential refrigerants; and improve workforce development and training in alternative refrigerant technologies.

Low Carbon Economy Workforce (\$35M)

The California Workforce Development Board will develop industry-based, worker-focused training partnerships that connect California’s “high road” employers with existing established workforce development programs to build skills and capacity for training and employment within various employment sectors.

Outreach, Education, and Awareness for Low Carbon Transportation Investments (\$7M Low Carbon Transportation)

CARB continues to prioritize and expand outreach and capacity-building efforts related to Low Carbon Transportation Equity Investments in low-income and disadvantaged communities. In 2019, CARB allocated \$7 million to support outreach, community transportation needs assessments, technical assistance, and the “One-Stop-Shop,” all of which support the recommendations identified in CARB’s Clean Energy and Pollution Reduction Act of 2015 (Chapter 547, Statutes of 547–SB 350), Low-Income Barriers Study.

Research on the Transition to a Low-Carbon Economy (\$3M)

The California Environmental Protection Agency (CalEPA) will support research on strategies to reduce vehicle emissions significantly to achieve carbon neutrality. CalEPA will also provide funds to research strategies to decrease the demand and supply of fossil fuels in an economically responsible and sustainable manner.

SAFER Drinking Water Program (\$100M, five percent continuous appropriation)¹⁷

The State Water Resources Control Board will provide grants, loans, contracts, or services in disadvantaged communities for the immediate provision of safe and affordable drinking water and investments in the operation of drinking water treatment systems that focus on long-term solutions.

Sustainable Transportation Equity Project (\$22M, Low Carbon Transportation)

The Sustainable Transportation Equity Project (STEP) is a pilot project under CARB’s Low Carbon Transportation program. STEP will provide implementation grants to fund clean transportation and supporting projects in disadvantaged communities. STEP will also provide planning and capacity building grants to support disadvantaged and low-income communities to identify residents’ transportation needs and to prepare those communities to implement clean transportation and supporting projects.

¹⁷ Up to \$130 million annually.

New Legislation

In addition to developments under AB 74 and SB 200 described above, there were several other pieces of legislation related to California Climate Investments passed in 2019.

Programmatic Changes: Several bills changed aspects of California Climate Investments programs.

- **Clean Cars 4 All Program:** SB 400 (Chapter 271, Statutes of 2019) added bike sharing and electric bicycles to the list of mobility options that can be funded by the Clean Cars 4 All Program.
- **Heavy-Duty Clean Truck & Bus Voucher Program (HVIP):** AB 784 (Chapter 684, Statutes of 2019) complements HVIP by providing an exemption, until January 1, 2024, from certain State sales and use taxes for specified zero-emission technology transit buses that are eligible for HVIP and are sold to public agencies.
- **Low-Income Weatherization Program:** AB 1232 (Chapter 754, Statutes of 2019) allows the Department of Community Services and Development to make multi-year funding commitments.
- **Transformative Climate Communities, Affordable Housing and Sustainable Communities:** AB 101 (Chapter 159, Statutes of 2019) requires the Strategic Growth Council to award additional points to program applications with projects located in jurisdictions that the Department of Housing and Community Development designates as “prohousing,” beginning in July 2021.
- **Transformative Climate Communities:** SB 351 (Chapter 368, Statutes of 2019) makes unincorporated areas of a county that are also located in a disadvantaged community eligible to apply for the Strategic Growth Council’s Transformative Climate Communities program.

Additional Legislation: AB 1237 (Chapter 357, Statutes of 2019) required agencies to post the guidelines for the California Climate Investments programs they administer on their website by 2021.

Supporting a Resilient Workforce

As we transition our economy to support clean energy, improved mobility, and sustainable land use and management, workforce needs will also transition. Not only will the types of available jobs change, the skills needed to obtain and progress in those careers will also change. California Climate Investments is facilitating this transition through dedicated workforce and training programs, establishing partnerships with training programs and academic institutions, and investing in projects that support clean economy jobs.

A University of California, Los Angeles Luskin Center for Innovation report estimates that more than 100,000 construction workers and up to 4,900 manufacturing workers are needed to electrify all buildings in the state by 2045 – a target set by Governor Jerry Brown in a 2018 executive order. If California achieves full electrification, the report says, another 12,400 electricity generation and distribution jobs would be needed to oversee the new network of all-electric buildings. However, this shift would also result in up to 6,800 fewer gas distribution jobs. The report notes that California agencies need to work with unions to attract skilled labor, plan an orderly conversion to electric, and create a fund to retain gas workers and help transition them to a new sector.¹⁸

18 https://innovation.luskin.ucla.edu/wp-content/uploads/2019/03/Employment_Benefits_from_CA_Climate_Investments_and_Co-investments.pdf

Promoting Workforce within Project Design

Updates to the Funding Guidelines in 2018 spurred increased efforts to incorporate workforce provisions into program design and guidelines. Several agencies have begun to use scoring criteria and solicitation materials to encourage project applicants to include workforce components.

The Strategic Growth Council's Transformative Climate Communities program requires all applicants to include a Workforce Development and Economic Opportunities Plan that creates workforce development and training programs with career pathways for residents and provides economic opportunities through the creation of high-quality jobs.

The most recent update to the California State Transportation Agency's program guidelines for the Transit Intercity Rail Capital Program includes special consideration for projects that include community workforce agreements or labor agreements with unions, community-based organizations, or other partners. These tools can be used as strategies for targeting jobs or job training benefits from large transit infrastructure projects to priority populations.

Local Employment

To date, implemented California Climate Investments projects have provided direct support for 3,000 full-time equivalent jobs and more than 1,300 job-training opportunities. Administering agencies have documented that more than 1,800 of those jobs and job training positions were provided to priority populations. In 2019 alone, CAL FIRE has provided more than 1,000 full-time equivalent employees, with a reported average wage of more than \$50 an hour. These measured employment outcomes are in addition to the hundreds of jobs provided by the High-Speed Rail project, as discussed on page 94.

The supported jobs reported by agencies include all funds associated with a given California Climate Investments project. Many projects receive additional funding from other sources, in part leveraged by California Climate Investments funds. Only those jobs that are directly connected to the investments are tracked and reported, as indirect and induced jobs are not trackable.

Directly supported jobs refer to labor to complete California Climate Investments projects, through direct employment or contracted work paid with GGRF dollars (e.g., housing construction, ecosystem restoration, or technical assistance) and labor to produce equipment or materials purchased with GGRF dollars (e.g., manufacturing zero-emission vehicles or anaerobic digesters).

Indirectly supported jobs exist in the supply chains supporting California Climate Investments projects. Funding a project generates demand for intermediate inputs of materials and equipment needed to complete the project, leading to expanded production and employment in the relevant upstream industries (e.g., manufacturing construction equipment, zero-emission vehicle parts, or solar panel components).

Induced jobs are linked to the spending of income from directly and indirectly supported jobs. The personal consumption expenditures of workers in jobs directly and indirectly supported by California Climate Investments projects (i.e., increased household spending) stimulate demand for goods and services in the wider California economy.

Economy-wide Benefits

In addition to the directly supported jobs reported by state agencies, CARB began collecting information on the potential economy-wide impacts from awarded projects in 2019. This was done using a regional input output model to estimate the number of jobs supported by California Climate Investments.

The input-output model characterizes the relationships between economic sectors, and extrapolates how increased investment in one industry generates demand from supporting industries. Greater employment and earnings in the affected industries lead to higher household spending, furthering the demand for goods and services throughout the state. The number of jobs supported is estimated in full-time equivalent employee positions over one year, equal to approximately 2,000 hours of work. Jobs supported by California Climate Investments include direct, indirect, and induced employment.

In 2019, California Climate Investments awarded funds to projects that are estimated to support 10,500 direct, indirect, and induced jobs.

These estimates are of jobs supported by GGRF dollars, not created by these investments. Since GGRF investments are transfers of existing funds within California, it would be necessary to assess an alternative scenario without GGRF investments in order to establish a causal link between California Climate Investments and job creation. In addition, the model is unable to estimate when these jobs will occur or how long the jobs will last (i.e., the difference between temporary construction jobs and permanent maintenance positions).

Expanding the Impact

In 2019, the Legislature, consistent with the Administration's goal of transitioning the state's workforce to a low-carbon economy, appropriated \$35 million to the California Workforce Development Board to support apprenticeship and job training programs. As the California Workforce Development Board begins to design and implement its program, CARB will continue to evaluate how California Climate Investments can help address the state's workforce needs.

PROJECTS PROMOTING WORKFORCE DEVELOPMENT

As part of a CAL FIRE Forest Health project, Fall River Resource Conservation District is partnering with Shasta Community College in Redding to implement a three-year program to train heavy equipment operators and truck drivers to build capacity within California's forest industry. This program has begun increasing workforce capacity in forest management and fuels reduction projects. In addition to mechanized logging equipment training, Shasta College has put a curriculum into place to provide this next generation of forest and logging operators a foundational understanding of how the operations they conduct on the forest impact the entire landscape. This knowledge results in operators demonstrating a fuller understanding of how sustainable forest management provides long-term global, societal and community benefits. The innovation and technology integrated in today's modern logging equipment means safer and more ergonomic work environments.

Transform Fresno, a project under the Transformative Climate Communities program, is implementing dedicated workforce projects that will provide training, soft skills development, mentorship, and job placement for 200 local residents in low-emissions truck driving jobs and 120 local residents in welding jobs. Through certification programs and targeted recruitment, this program will support local participants, and ensure that those who complete the program will have the skills and industry-recognized credentials to further their careers. Another component of Transform Fresno, implemented by GRID Alternatives, will train 67 local individuals for jobs in solar panel installation as part of a project to install solar panels on five Fresno Housing Authority multi-family buildings for low-income families. To learn more about how GRID Alternatives is providing career skill development to individuals as part of the Transform Fresno program, see the Transformative Climate Communities project profile on page 114.

The California Conservation Corps' Energy Corps program provides work-trade opportunities to corpsmembers who live within disadvantaged and low-income communities. Corpsmembers receive training to safely wire buildings and do energy audits, as well as earn certificates in Occupational Safety and Health Administration and college credits. The knowledge and training they obtain from projects like this will help corpsmembers obtain careers in a wide variety of job opportunities, including but not limited to electrical work and solar installation. To see a specific example of how this program provides work experience to corpsmembers, see the Energy Corps' project profile on page 55.

Early in program development, the California High-Speed Rail Authority created a framework to support economic opportunities for small businesses and disadvantaged populations. Ongoing implementation of the High-Speed Rail project has demonstrated success in exceeding the goals it set for providing jobs to disadvantaged workers and achieving small business participation. In the past year, the High-Speed Rail Authority has gone beyond numerical goals and focused on making targeted improvements to the small business program to increase outreach and clarify processes for small businesses executing contracts on the project. This focus on improving the quality of the experiences small businesses have both improves project outcomes and builds the experience and capacity for small businesses to participate in other large infrastructure projects. For more information, see the High-Speed Rail's project profile on page 96.



BENEFITS TO PRIORITY POPULATIONS

The effects of climate change and the continued use of fossil fuels present an ongoing challenge for the state, particularly for California’s disadvantaged and low-income residents. While the impacts of climate change and air pollution have an effect on all Californians those who live in disadvantaged areas and low-income areas are especially vulnerable and often face the most severe impacts.

Legislation in 2012 (SB 535, Chapter 830, Statutes of 2012) set minimum investments for projects that benefit disadvantaged communities and projects that are located within disadvantaged communities. In 2016, AB 1550 amended the investment minimums for disadvantaged communities introduced by SB 535 to require a minimum percentage of projects to be located within and provide a benefit to disadvantaged communities, and established new investment minimums for low-income communities and low-income households. Under AB 1550, California Climate Investments must 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

SB 535 gives California Environmental Protection Agency (CalEPA) responsibility for identifying disadvantaged communities “based on geographic, socioeconomic, public health, and environmental hazard criteria.” CalEPA designates individual census tracts as disadvantaged communities using the CalEnviroScreen screening tool, located at oehha.ca.gov/calenviroscreen. AB 1550 defines “low income” as census tracts and households with incomes below: 1) 80 percent of the statewide median income, or 2) the threshold designated as low income by the California Department of Housing and Community Development’s list of State income limits. For more information, visit calepa.ca.gov/envjustice/ghginvest/.

To date, California Climate Investments have greatly exceeded these minimums, making a significant contribution to building more resilient and equitable systems that benefit priority populations.

These requirements apply to California Climate Investments as a whole, and not to individual programs within the California Climate Investments portfolio. CARB, in consultation with administering agencies, develops individual program targets for each fiscal year of funding.¹⁹ These targets help drive investments that achieve meaningful and direct benefits to priority populations, as well as help California Climate Investments satisfy the investment levels prescribed in AB 1550.

To count a project toward the investment minimums, administering agencies must demonstrate 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 how projects can provide 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 toward benefiting a single priority population category; however, these projects may actually provide benefits to more than one priority population category (e.g., to both residents of disadvantaged communities and low-income households).

ENGAGING TRIBAL COMMUNITIES

California Climate Investments are required to direct investments toward disadvantaged communities and households in the state, while also providing opportunities for community institutions to participate in and benefit from statewide efforts on climate. As part of this mission, many California Climate Investment projects serve as a pathway to connect with tribal communities. Tribal partnerships not only help improve the effectiveness of projects, they also build capacity for tribal entities to participate more fully in the state's climate action and improve collaboration between state and tribal governments.

For example, as part of the Community Air Grants program, CARB awarded funding to the Twenty-Nine Palms Band of Mission Indians to establish a new air quality monitoring station. The Tribe shares air emissions data online, through air quality updates, and at community outreach events. This project established a Tribal Air Technician position, and trains tribal staff on air quality monitoring station operations and maintenance, as well as data quality assurance and control. To learn more about this project, see the project profile for the Community Air Grants program on page 32.

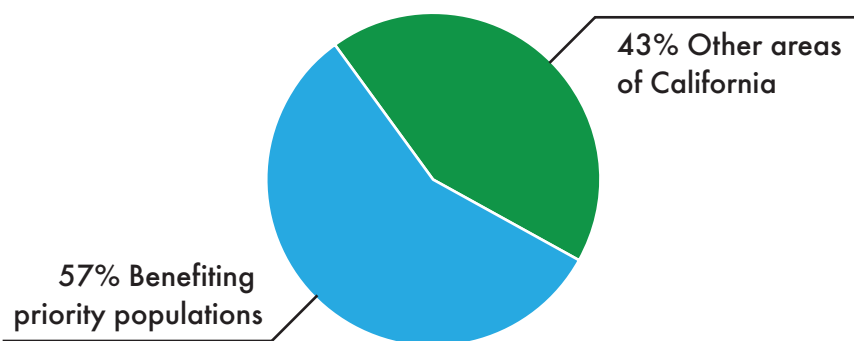
Additionally, the Coastal Conservancy's Climate Ready program is implementing a Carbon Sink Demonstration Farm with the Pauma Band of Luiseno Indians in partnership with the California Wildlife Foundation. The collaboration between the state and the Pauma Band of Luiseno Indians is an example of an essential communication line in the climate adaptation conversation, and the focus on outreach and education in this project ensures a knowledge exchange about climate resiliency. To learn more about this project, see the project profile for the Climate Ready Program on page 102.

¹⁹ Investment targets are available at arb.ca.gov/cci-fundingguidelines.

Cumulative Benefits to Priority Populations

Equity is a foundational value of California Climate Investments. To date, 57 percent, or \$3.0 billion of the total \$5.3 billion in implemented California Climate Investments has benefited priority populations, as shown by Figure 2. Projects awarded prior to August 2017 were subject to the legacy investment requirements established by SB 535; projects awarded since then are subject to AB 1550.²⁰

Figure 2: Cumulative Investments Benefiting Priority Populations



Meeting Statutory Investment Minimums

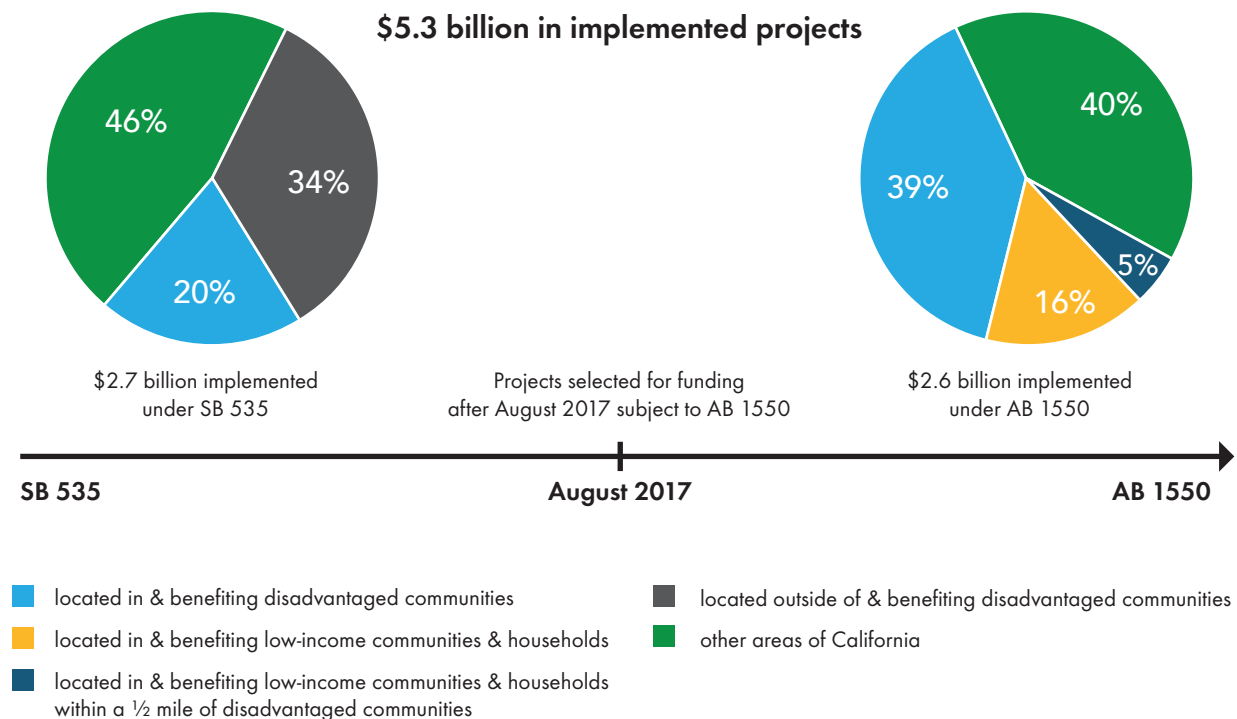
SB 535 required 25 percent of funds to benefit disadvantaged communities, including 10 percent required to be located within disadvantaged communities. Projects subject to this requirement continue to report on progress, and of the \$2.7 billion in projects awarded under SB 535 requirements and reported to CARB as implemented, 49 percent are benefiting disadvantaged communities (Figure 3). The SB 535 “benefiting but outside of a disadvantaged community” statistics presented elsewhere in this report may be phased out of future reports as implementation of projects under SB 535 concludes.

Since August 2017, agencies have been implementing programs to benefit priority populations as required by AB 1550.²¹ Out of the cumulative \$5.3 billion in projects to date, \$2.6 billion have been subject to the requirements of AB 1550. Of the funds subject to AB 1550, 66 percent benefit priority populations (Figure 3).

²⁰ While current legislation (AB 1550) expands the percentage of funds that must be located in and benefiting disadvantaged communities from prior legislation (SB 535), it does not include targets for funds located outside of and benefiting disadvantaged communities (as SB 535 did). Projects funded prior to 2017 count towards statutory targets if they are located outside that community but meet criteria for providing a direct, meaningful, and assured benefit to a disadvantaged community. Projects selected for funding after 2017 no longer count as “benefiting disadvantaged communities” if located outside of disadvantaged communities because all projects must both benefit and be located in disadvantaged communities in order to count towards the statutory investment minimums.

²¹ Prior to August 2017, agencies implemented programs to benefit priority populations as required by SB 535.

Figure 3: Cumulative Investments Contributing to Statutory Investment Minimums



Building Community Resilience

Over 60 different programs mitigate climate change through hundreds of unique project types under the umbrella of California Climate Investments through exemplary coordination amongst state agencies to work towards common climate and equity goals. While each program is designed to achieve unique objectives, all programs contribute to a unified vision of building a resilient and sustainable California that will strengthen communities and promote health and equity in a changing climate.

California Climate Investments projects build resilience in all sectors. Transportation investments improve mobility options and building a reliable electrified transportation system. Land use projects provide affordable housing close to jobs and transit while conserving our threatened agricultural areas. Weatherization increases home livability and affordability in the face of extreme weather. Water savings measures help residents conserve water in the face of drought. Forestry investments provide tree planting in urban areas to reduce heat islands and

Mitigation is an action to reduce the overall impact from climate change by reducing emissions of greenhouse gases.

Adaptation is adjustment in natural or human systems in response to actual or expected impacts of climate change, which moderates harm or creates beneficial opportunities.

Resilience is the capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for and respond to hazardous events, trends, or disturbances related to climate change.

protect infrastructure in rural areas to keep residents safe from wildfires. Agricultural investments rebuild our soil, conserve our water, and replace old polluting equipment. Coastal planning helps communities develop strategies to protect the state's coastal resources with rising sea levels. Wetland and watershed restoration efforts will protect water quality and act as a natural buffer to storm surges. Across the state, California Climate Investments help low-income residents become more economically resilient through direct cost-savings on transportation, housing, energy, and water, and provide opportunities for employment and training with career pathways.



OUTREACH & TECHNICAL ASSISTANCE

Awareness and Outreach

Reaching priority populations is critical to the success of California Climate Investments. 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 after year, agencies continue to expand the number of events held (Table 1), and in 2019 alone had more than 62,000 participants.

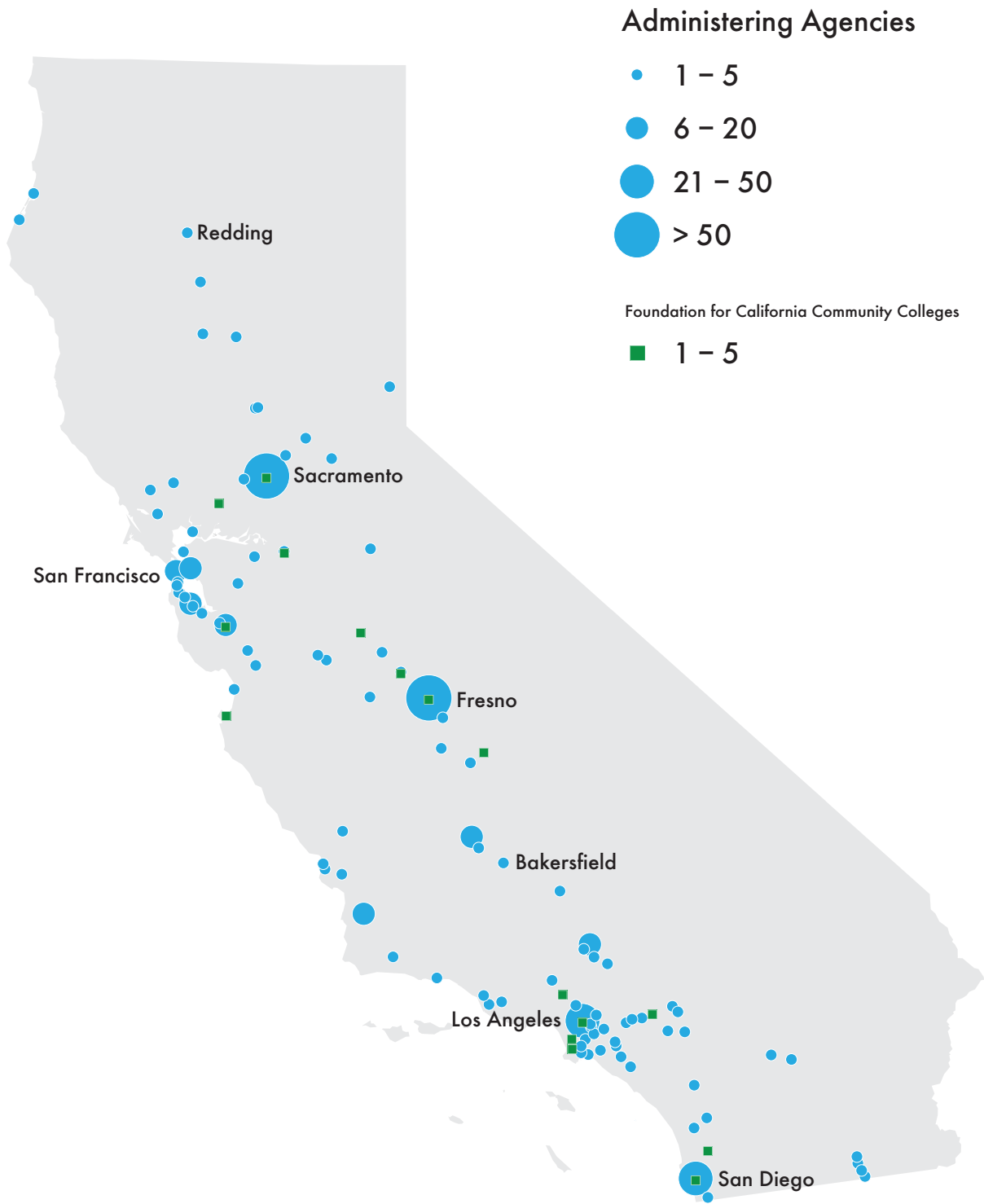
Table 1: Outreach Statistics

Year	Cities	Events
2016	65	176
2017	83	324
2018	138	547
2019	138	649

Outreach and engagement activities included traditional program workshops, bus tours across impacted neighborhoods, webinars and workshops, conferences convened by community and advocacy organizations, truck shows, festivals, presentations at tribal roundtables, and tours to hear lessons learned. Diverse types of outreach activities allow agencies to engage with more Californians (Figure 5). More than 130 events included remote participation, so that people anywhere in California could participate. A complete list of each agency and program's outreach events in 2019 is available at caclimateinvestments.ca.gov/annual-report.

Administering agencies have assigned outreach liaisons responsible for outreach and engagement for their individual programs. These individuals support other agency staff by discussing and brainstorming outreach plans and tactics to improve the accessibility and awareness of California Climate Investments programs.

Figure 5: Public Outreach Events in 2019



In addition to the efforts from individual administering agencies, CARB facilitates outreach for all California 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. As part of its work, the Foundation operates a telephone hotline, social media accounts, and email for general questions about California Climate Investments. Additionally, the Foundation produces and distributes educational materials and a quarterly electronic newsletter. The Foundation also operates the Student Ambassadors program, which provides an opportunity for community college students to share information about California Climate Investments with their communities. To date, eight Student Ambassadors have gone through the program since its launch in the spring of 2018.

Recently, the Foundation began providing additional support for outreach efforts of individual administering agencies, including developing and producing outreach materials, conducting surveys, and identifying potential applicants and stakeholders. For example, in 2019, the Foundation assisted the Department of Conservation with a survey to assess barriers to participation in the Sustainable Agricultural Lands Conservation program in Southern California. This survey included reaching out to potential new applicants and organizations in the region, as well as collecting information from new and existing stakeholders to improve the program. The Department of Conservation then received applications and awarded two grants for the Sustainable Agricultural Lands Conservation program to its first projects located in the Southern California region. The Foundation also helped the Low-Income Weatherization Program create targeted outreach materials for its farmworker housing component, including lawn signs for homes that had received retrofits and a brochure for agricultural employers and other community leaders and institutions to provide to prospective applicants.

The Foundation continues to work with communities in person by attending community events. The Foundation attended 24 community events across the state, including Earth Day celebrations, family health fairs, agricultural festivals, and business expositions. The Foundation's events had a combined attendance of more than 125,300 attendees, and Foundation staff spoke directly with more than 3,310 people. For the last two years, Foundation staff have used their relationship with community colleges to train operators of the state's 34 "Smog Check Referee" stations and at the Air Quality Call Center (which receives 60,000 calls per year) to inform people struggling to pass a smog check about funding available to buy a newer, cleaner vehicle. In addition, individuals who complete the Replace Your Ride program within the South Coast Air Basin receive an email highlighting opportunities with other California Climate Investments programs.

STUDENT AMBASSADOR: MARCY, SPRING 2019

Marcy, who recently received her Associate of Science in Liberal Arts from Cosumnes River College, originally went back to school to study a subject that she had always had a knack for plants. Known for having a green thumb, Marcy decided to pursue an associate's degree in horticulture after years of owning a small business and raising a family. Marcy's passion for the earth grew into a love for environmental justice and helping others understand the steps they can take to positively impact the planet, "I hope to make a difference for my kids, grandkids, as well as for the earth."



Professor Debra Sharkey, who teaches environmental studies and geography at Cosumnes River College, informed Marcy about the California Climate Investments Student Ambassador program. Marcy was interested in the program because to her, "it sounded like something where I could make a difference in my community."

Through the semester-long volunteer experience, Marcy had the opportunity to learn about California Climate Investment's various environmental efforts and share knowledge of programs with her fellow Cosumnes River College students, faculty, and community members in her neighborhood of Galt. At her college's Earth Day celebration, Marcy tabled on campus and engaged with students and staff on California Climate Investments and their environmental impact. On a separate occasion, she had the chance to visit with a previous horticulture professor and give a class presentation about California Climate Investments. These outreach activities cemented Marcy's passion for environmental outreach and allowed her to become more comfortable with public speaking.

The Student Ambassador program gave Marcy the opportunity to inform others about a subject that she is very passionate about and allowed her to connect with her school's community. Consequently, she feels that the Student Ambassador program would be beneficial for students looking for volunteer experience and not just those studying environmental issues.

Marcy's passion for environmental justice is evident and she plans to continue informing her community about California Climate Investments well after her time as an ambassador concludes. Marcy began attending California State University, Sacramento in the fall of 2019 and is pursuing a bachelor's degree in Environmental Justice.

Technical Assistance and Capacity Building

Applicants, particularly those in disadvantaged communities, low-income communities, and low-income households, often face challenges in accessing funding opportunities. The Legislature has appropriated funds to provide technical assistance to improve these communities' capacity to identify and apply for California Climate Investments. To date, the Legislature has appropriated \$6.5 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 the Strategic Growth Council. Additionally, the Strategic Growth Council has leveraged \$5 million from the Affordable Housing and Sustainable Communities program to provide further technical assistance and capacity building support to California communities.

In addition to these initiatives, the Legislature appropriated \$1 million of the Strategic Growth Council's Technical Assistance program funds to the Institute for Local Government to support the implementation of the 2019–2020 BOOST pilot program. Through the BOOST program, the Institute for Local Government has been working to provide ten cities and two regions – all with priority populations – with the skills, tools and knowledge necessary to plan and access funding they need to develop sustainable and resilient communities.

In partnership with the California Department of Food and Agriculture, and the University of California Division of Agriculture and Natural Resources, the Strategic Growth Council's Technical Assistance program also provides outreach, education, and technical assistance to farmers and ranchers across California about the California Department of Food and Agriculture's California Climate Investments programs. In addition to helping provide assistance accessing these California Climate Investments funds, this partnership has helped agricultural communities and resource conservation districts understand and implement locally relevant climate smart agriculture practices. To learn more about this project, see the Technical Assistance program's project profile on page 112.

The Strategic Growth Council has also begun to develop the program created by SB 1072 (Chapter 377, Statutes of 2018) in a way that both complements and advances the efforts of the California Climate Investments Technical Assistance program. The two programs work in tandem under the Strategic Growth Council's newly formed Community Assistance for Climate Equity team, which aims to equip communities to successfully acquire funding and implement climate-smart solutions over the long-term. Over the next year, this team will work to advance capacity building at all levels, formalize Technical Assistance Guidelines for state agencies, and continue to develop and offer technical assistance to grant-seekers and awardees for California Climate Investments programs and other state grant programs.

Outside of the Strategic Growth Council's established Technical Assistance program, other agencies are also encouraged, through the California Climate Investments Funding Guidelines, to set aside funds to provide direct technical assistance where needed. For example, CAL FIRE's Fire Prevention Grants program has a contract with California Polytechnic State University to complete the modeling and calculations necessary for quantifying the benefits of wildfire fuels reduction projects on behalf of applicants. This helps simplify the application process and makes it more accessible to applicants.

Interagency Cooperation

Administering agencies continue to work together and share resources and strategies that improve program implementation. The interagency outreach workgroup formed in 2015 continues to meet monthly to coordinate outreach efforts where appropriate, share lessons learned through program implementation, and build collective knowledge by presenting and discussing a range of topics including language access, tribal and rural engagement, resources, different models of technical assistance, and more. As a result, staff are coordinating across programs to co-host, present, or provide information on multiple funding opportunities at workshops and outreach events.

Additionally, administering agencies come together on a quarterly basis during multi-agency meetings to share relevant administrative updates and discuss topics that are relevant to all agencies' programs. Administering agencies also update a public events calendar, available at arb.ca.gov/ccievents/, with program milestones such as workshops, technical assistance events, and application deadlines to provide a single source for relevant program information.

Accountability and Transparency

Agencies continue to use the California Climate Investments Reporting and Tracking System to submit and track project-level data. This reporting system facilitates project data collection, data consistency, and greater public access to data. Beginning in 2018, project data have been collected semi-annually and published as an update to the California Climate Investments Project List, the Historical Dataset, and Project Map.

Concurrent with the release of this report, California Climate Investments will publish the California Climate Investments Data Dashboard, which will further enhance the public's ability to access and utilize project data. The Data Dashboard, which is powered by the most recently published Historical Dataset and other datasets, allows users to explore trends in funding, GHG reductions, and other project benefits across time and programs, further enhancing transparency. Like the Project Map, Project List, and Historical Dataset, the California Climate Investments Data Dashboard will be updated semi-annually.

These materials are hosted on a website to provide a user-friendly and accessible web presence for California Climate Investments. The website provides another venue for the communication of California Climate Investments' benefits, achievements, progress, and updates to the public. The website includes program pages that feature the achievements of individual programs, project profiles that highlight successful projects, upcoming agency events, and much more. The information in this and previous Annual Reports to the Legislature, as well as the Project Map, Project List, Historical Dataset, and Data Dashboard are available at caclimateinvestments.ca.gov.



LANE

BIKE
BIKE

OUTCOMES FROM 2019

Planned Investments

In addition to the \$5.3 billion in implemented projects, administering agencies have more than \$7.9 billion committed to projects in process, including projects like the High-Speed Rail project and several major transit-oriented development and transportation projects. Investments that are selected and awarded, but not yet fully implemented, are expected to reduce GHG emissions by at least an additional 209 million MTCO₂e over project lifetimes.

Co-Benefits

California Climate Investments continues to support agencies' reporting of important co-benefits, which support legislative priorities, state goals, and community benefits. The additional data help to demonstrate the benefits of California Climate Investments beyond GHG emission reductions. While only a subset of projects currently have quantified co-benefits, their reporting demonstrates how California Climate Investments programs are achieving benefits beyond GHG emission reductions. Table 2 highlights several of the quantified outcomes expected over the life of projects implemented in 2019.

Table 2: Reported 2019 Projects Co-benefits

Co-benefits	Outcomes from 2019 Investments
Reduced NO _x emissions	12,300 tons
Reduced diesel particulate matter (PM) emissions	430 tons
Reduced PM2.5 emissions	1,100 tons
Reduced reactive organic gas emissions	1,600 tons
Affordable housing created	1,800 units
Land preserved, restored, or treated	184,000 acres
Waste diverted from landfills	489,000 tons
Energy Saved	433 GWh
Fuel Use Avoided	169 million gallons (gas & diesel)
Trees Planted	2.2 million

Reductions in criteria air pollutants and toxic air contaminants improve community health. Implemented projects are cumulatively expected to result in public health benefits such as fewer incidents of premature cardiopulmonary mortality, hospitalizations for cardiovascular and respiratory illness, and emergency room visits for respiratory illness and asthma. The number of programs and projects that report outcomes is expected to increase as more projects use the enhanced tools and reach the implemented stage.

In addition to the 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. For example, the Strategic Growth Council's Affordable Housing and Sustainable Communities program has cumulatively made investments to create more than 5,000 housing units near transit, with over 4,700 affordable units. The Strategic Growth Council structured the program to encourage local agencies and developers to work together to plan and build projects that address the state's housing, mobility, and climate goals.

Multiple programs, including the Affordable Housing and Sustainable Communities program, High-Speed Rail project, Transit and Intercity Rail Capital Program, Low Carbon Transportation and Operations Program, Active Transportation program, and Urban Greening program 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.

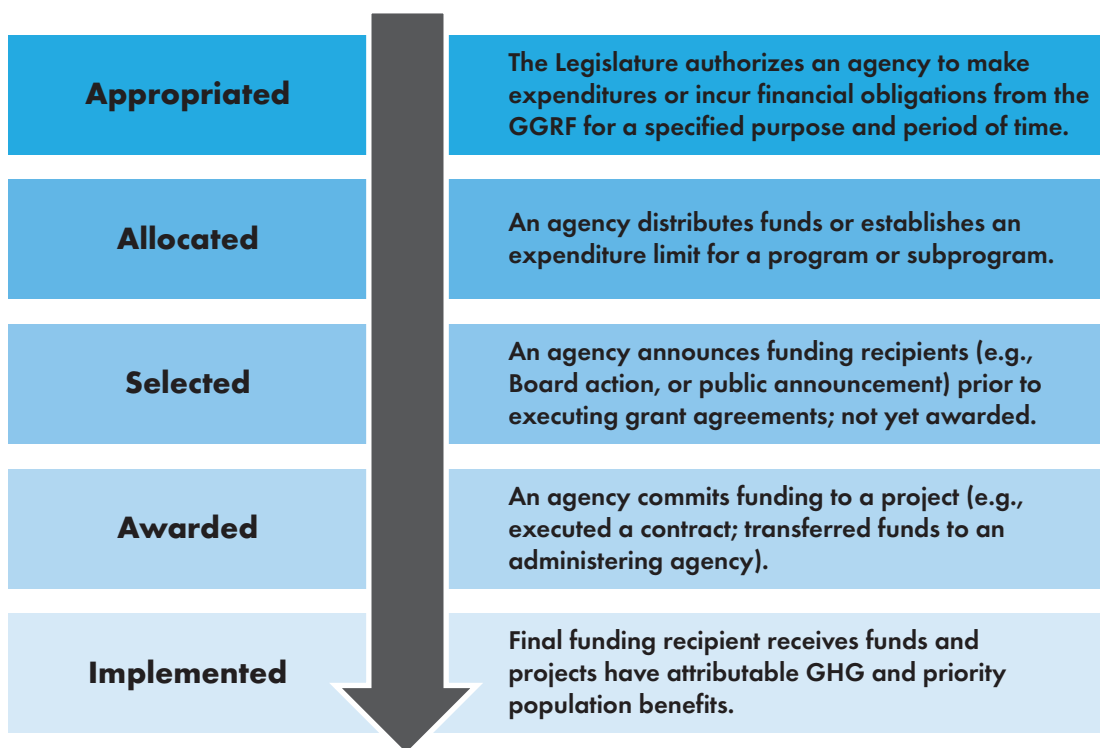
A suite of California Climate Investments programs also tackle the challenge of adapting communities and ecosystems to the effects of climate change. A number of projects result in, and qualitatively assess, changes in resiliency and vulnerability to the effects of climate change, including extreme heat, drought, sea level rise and inland flooding, agricultural productivity, species habitat, and wildfire.

PROGRAMS

Individual Program Statistics

The remainder of this report provides summary pages of the status of each California Climate Investments program that implemented projects in 2019 or has expended less than 90 percent of its overall funds. Summary statistics on every California Climate Investments program are available at caclimateinvestments.ca.gov. Additional information on individual implemented projects is also available on the website, both on the California Climate Investments Project Map and in a spreadsheet for download. Figure 6 defines the terms used in this report.

Figure 6: 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 (competitive or first-come, first-served); who is eligible to receive funds; and how the funds reach priority populations;
- Estimated project lifetime GHG emission reductions from projects reported in 2019;
- Co-benefits that are expected from projects reported as implemented in 2019; and
- Benefits to priority populations from projects reported as implemented in 2019.²²

22 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 these additional benefits are not shown to avoid double-counting.

Community Air Protection

Community Air Grants

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$25.0 million allocated.

How much has gone to implemented projects?

\$9.7 million implemented.

How much has been assigned for future projects?

Funding recipients for remaining funds have yet to be identified.²³

Program Description

What types of projects are funded?

Support for California community-based organizations and California tribes. Grants help awardees participate in the AB 617 community selection process and 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?

Apply to CARB's competitive statewide solicitation.

Who receives funds?

California community-based and non-profit organizations and California tribal governments.

How do funds reach priority populations?

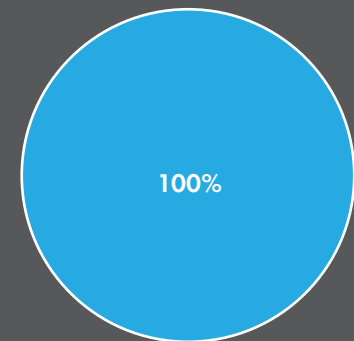
Funds help disadvantaged communities build capacity to improve their air quality. All projects are located in disadvantaged or tribal communities.




2019 OUTCOMES

\$1.1 M IMPLEMENTED

FUNDING DISTRIBUTION

\$1.1 M TO BENEFIT
PRIORITY POPULATIONS



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

²³ A list of 2019 awardees is available at arb.ca.gov/AB617_2019CommunityAirGrantsAwardees.



CALIFORNIA AIR RESOURCES BOARD (CARB)

Community Air Grants

With the help of Cap-and-Trade dollars awarded by the Community Air Grants Program, the Twenty-Nine Palms Band of Mission Indians have built an air quality monitoring station as a first step towards developing an air monitoring program. The Tribal air monitoring project, initiated in 2018, aims to measure PM pollutants continuously and share that data on the Tribal Government website (29palmstribes.org). With real-time air quality data available to Tribal members and the community, the Tribe hopes to raise awareness about the potential issues caused by the Salton Sea and other sources of emissions in the area.

A Tribal Air Technician, Jose Aaron Rojas, was hired to manage the air monitoring station and interpret data. “The information we are collecting at this station can be analyzed to show changes in particulate levels over time to, not only determine whether the Salton Sea is affecting regional air quality, but to show whether the air quality is at a safe level.”

The Twenty-Nine Palms Band of Mission Indians is a federally recognized tribe of Chemehuevi descendants located in southern California, near the City of Coachella, about 17 miles northwest of the Salton Sea. The Quantification Settlement Agreement, established in 2003, has reduced water levels in the Salton Sea by transferring water away from agricultural producers in the Imperial Valley, and diverting it to San Diego County for municipal use. The agricultural runoff had sustained the Sea’s water level, but the reduced inflows have begun to expose the dry lakebed, or playa. The eastern Coachella Valley communities, including the Tribe, are concerned that the exposed playa will increase air pollution from windblown dust.

“The Tribe has had a long-term goal of developing an air monitoring program, and this funding has helped build that capacity. We are excited to have our air station up and running and to share information that can be used to improve the health of the community” says Tribal Chairman, Darrell Mike.



Community Air Protection

Community Air Protection Funds

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?²⁴
\$780.0 million allocated.

How much has gone to implemented projects?
\$253.4 million implemented.

How much has been assigned for future projects?
\$255.4 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Community Air Protection Program (AB 617, Chapter 136, Statutes of 2017) incentive grants help vehicle owners replace older, high-polluting vehicles and equipment with newer models that have low or zero-emissions. In addition to funding mobile sources, grant funds may also be used for reduced toxic and smog-forming pollutants at stationary sources and zero-emission charging stations. Incentive funds also support local strategies that air districts and communities identify through AB 617 Community Emissions Reduction Programs.

How to access funds?

Apply to local air district competitive solicitations. Projects are selected in consultation with community groups.

Who receives funds?

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

How do funds reach priority populations?

Funds reduce smog-forming pollutants and toxics in disadvantaged and low-income communities. CARB ensures that at least 80% of the funds are benefiting priority populations.

²⁴ Includes \$20 million in FY 2018–19 and \$20 million in FY 2019–20 funds to support local air districts implementation of AB 617.

2019 OUTCOMES

\$136.1 M IMPLEMENTED

EXPECTED BENEFITS

26,981
MTCO₂E GHG REDUCTIONS

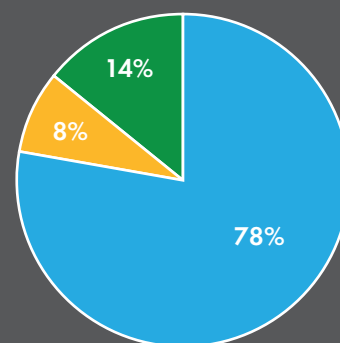
2,803,902
GALLONS FUEL REDUCTIONS

12,352,440
POUNDS NO_x REDUCTIONS

525,069
POUNDS DIESEL PM REDUCTIONS

FUNDING DISTRIBUTION

\$121.9 M
TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA AIR RESOURCES BOARD (CARB)

Community Air Protection Funds

The Alameda-Contra Costa Transit District (AC Transit) has introduced five battery electric buses and ten fuel cell electric buses into its Bay Area fleet of zero-emission buses. Together with existing vehicles, AC Transit now has a fleet of 27 battery electric buses and fuel cell electric buses servicing the communities of West Oakland and Richmond, which were selected by CARB as Community Air Protection Program (AB 617) communities.

“AC Transit is a pioneer in the adoption of zero-emission bus technology dating back nearly 20 years,” says General Manager Michael Hursh. “Our fleet will soon generate unprecedented data: the first Bay Area transit agency to conduct a true side-by-side comparison of zero-emission propulsion technologies.”

This zero-emission bus fleet was made possible by two grants awarded to AC Transit from two California Climate Investments programs: the Community Air Protection program, which provided a \$2.7 million award, and the Low Carbon Transportation Investments program, which provided \$8.5 million as part of the Fuel Cell Electric Bus Commercialization Consortium Project.

Chief Operating Officer Salvador Llamas knows just how impressive these vehicles are, “Our zero-emission buses have driven over 2.8 million miles. One of the original fuel cell power plants logged more than 30,000 hours of operation.”

AC Transit’s investment in zero-emission technology led its Board of Directors to approve a Clean Corridors Plan, which has a primary goal of cleaning the air while eradicating the GHG emissions giving rise to climate change.



Funding Agricultural Replacement Measures for Emission Reductions (FARMER)

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$262.0 million appropriated.

How much has gone to implemented projects?

\$71.9 million implemented.

How much has been assigned for future projects?

\$124 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply to local air district competitive solicitations. Projects are selected by local air districts.

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?

CARB ensures at least 50 percent of funds go to projects benefiting disadvantaged communities and five percent of funds go to projects benefiting low-income communities.

2019 OUTCOMES

\$53.4 M IMPLEMENTED

EXPECTED BENEFITS

47,838

MTCO_{2E} GHG REDUCTIONS

4,900,470

POUNDS NO_x REDUCTIONS

313,910

POUNDS DIESEL PM REDUCTIONS

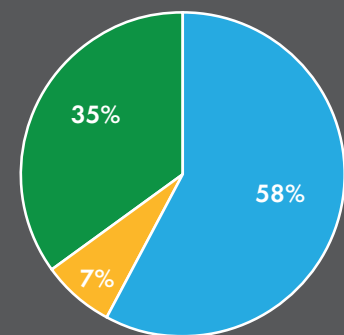
294,749

POUNDS PM_{2.5} REDUCTIONS

FUNDING DISTRIBUTION

\$30.9 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA AIR RESOURCES BOARD (CARB)

Funding Agricultural Replacement Measures for Emission Reductions (FARMER)

FARMER is a statewide program that provides incentive funding through local air districts for agricultural harvesting equipment, heavy-duty trucks, agricultural pump engines, tractors, and other equipment used in agricultural operations. Through the program, the San Joaquin Valley Air Pollution Control District (SJVAPCD) has funded the replacement of approximately 900 old, high-emitting agricultural tractors with new low emission agricultural tractors since November 2018. SJVAPCD has also provided vouchers for over 1,500 zero-emission utility terrain vehicles (UTV), totaling more than \$17 million since November 2018.

The SJVAPCD has successfully used the FARMER program to complement its own regulatory control measures by achieving additional emission reductions, especially from emission sources in disadvantaged and low-income communities and areas disproportionately impacted by air pollution. Growers in the San Joaquin Valley are able to buy new equipment – such as Flory’s harvester (pictured) manufactured in the San Joaquin Valley – for up to 60 percent less than they would be able to without the program. The new equipment is not only more efficient, but is some of the cleanest available and will reduce its impact on air quality.

“Feels like Christmas came early on the farm,” said Paul Stanfield of Summerfield Farms LLC, who used the program to replace three tractors. These tractors will reduce more than 24 tons of criteria pollutant and toxic air contaminant emissions over 10 years. “We’re doing our part to replace old equipment with clean air technology. This tractor is already at work in our walnut orchards, prepping ground for leveling,” said Stanford.

San Joaquin Valley farmers can also receive up to 75 percent of the cost to replace their existing combustion-powered UTVs with a new, 100 percent electric UTV.

Don Cameron, vice president of Terranova Ranch, Inc., replaced 14 of his combustion UTV’s with zero-emission UTVs. Cameron says he “appreciates the partnership the SJV APCD has with agriculture to move to more environmentally friendly on farm equipment.”

In five years, these new UTVs will eliminate more than three tons of criteria pollutant and toxic air contaminant emissions.

Low Carbon Transportation

Clean Cars 4 All

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?

\$50.5 million implemented.

How much has been assigned for future projects?

\$10.5 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Financial incentives to retire older, more polluting vehicles and replace them with newer, cleaner advanced technology hybrid or zero-emission vehicles, or alternative mobility options.

How to access funds?

Apply to select local air districts on a first-come, first-served basis.

Who receives funds?

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

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.

2019 OUTCOMES

\$29.3 M IMPLEMENTED

EXPECTED BENEFITS

12,700

MTCO_{2E} GHG REDUCTIONS

46,104

POUNDS NO_x REDUCTIONS

6,219

POUNDS ROG REDUCTIONS

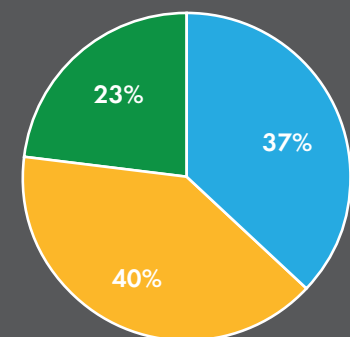
1,050

POUNDS PM_{2.5} REDUCTIONS

FUNDING DISTRIBUTION

\$27.5 M

TO BENEFIT PRIORITY POPULATIONS



■ disadvantaged communities

■ low-income communities & households

■ other areas of California



CALIFORNIA AIR RESOURCES BOARD (CARB)

Clean Cars 4 All

Ignacio Hernandez says he would have never thought about buying a hybrid vehicle, but getting a Clean Cars 4 All voucher from the Bay Area Air Quality Management District (District) enabled him to afford a cleaner, newer car. With its electric battery, Hernandez’s new vehicle achieves the equivalent of 88 miles per gallon, and he can commute from his home in East Oakland to his job in Dublin without using any gas. Even when he has to run his car on gas, it gets nearly double the gas mileage of his old car, a 1996 Toyota Camry.

For many Bay Area families, a car is the only realistic transportation option. For BAAQMD’s low-income families, this often means driving a 20 year-old vehicle that is unreliable, expensive to maintain, and costly at the pump.

The District is helping low-income families afford newer, cleaner, and vastly more fuel-efficient cars. Low-income drivers can trade in their older car to the District and receive a voucher of up to \$9,500 toward a new or used zero- or near zero-emission replacement vehicle. Not only does this help the District improve air quality and reduce GHG emissions, it also helps financially constrained families reduce the overall cost of vehicle ownership.

The District is working closely with community groups throughout the Bay Area to ensure the program is accessible to the families and communities most in need of this assistance. To date, the District has issued vouchers to 103 low-income families totaling over \$850,000. Plug-in hybrid electric vehicles and battery electric vehicles account for 78 percent of the vehicles purchased with these vouchers, while the remaining recipients have selected hybrid-electric vehicles.



Low Carbon Transportation

Clean Mobility in Schools Project

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$24.6 million allocated.

How much has gone to implemented projects?

TBD

How much has been assigned for future projects?

TBD

Program Description

What types of projects are funded?

Scalable clean transportation and mobility strategies, including zero-emission buses, vehicles and equipment; charging infrastructure; car sharing and van pooling for staff at schools; active transportation projects; workforce training; and outreach to students, parents, and the community.

How to access funds?

Apply through a competitive statewide solicitation.

Who receives funds?

California public school districts and County Offices of Education that operate at least one school serving K-12 grades.

How do funds reach priority populations?

All projects must provide clean mobility options for schools in disadvantaged communities.

2019 OUTCOMES

AS OF NOVEMBER 30, 2019, NO PROJECTS HAVE BEEN REPORTED TO CARB AS IMPLEMENTED. THIS PROGRAM IS EXPECTED TO BEGIN IMPLEMENTING PROJECTS IN 2020.

Low Carbon Transportation

Clean Mobility Options

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$56.6 million allocated.

How much has gone to implemented projects?

\$9.6 million implemented.

How much has been assigned for future projects?

\$22.0 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

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

How to access funds?

Apply through CALSTART on a first-come, first-served basis.

Who receives funds?

Pilot project administrators serving disadvantaged communities, affordable housing facilities, or tribal lands in low-income communities throughout California.

How do funds reach priority populations?

Funds clean mobility options that are in or serve priority populations.

2019 OUTCOMES

NO PROJECTS WERE IMPLEMENTED IN 2019. ADDITIONAL IMPLEMENTED PROJECTS ARE FORTHCOMING.



CALIFORNIA AIR RESOURCES BOARD (CARB)

Clean Mobility Options

The San Joaquin Valley Air Pollution Control District was awarded \$2.25 million to launch a pilot project, Ecosystem of Shared Mobility, which will provide San Joaquin Valley residents with new modes of travel, while also reducing air pollution and GHGs emissions. The pilot project consists of multiple components: an electric vehicle car sharing program called Míocar, a volunteer ride program, and a smartphone application called Vamos that brings together planning, reservation, and payment for travel across cars and buses.

The San Joaquin Valley covers most of Central California. Many residents living in rural parts of the San Joaquin Valley need reliable transportation but have limited access to clean transportation.

The Míocar car-sharing program enables residents of Arvin, Lamont, Wasco, Cutler, Oroshi, and Visalia to reserve one of 24 electric vehicles for \$4 per hour or \$35 per day. These cars have access to 34 parking spaces for charging that are distributed across eight affordable housing complexes.

Laura Aguilera, a Dinuba Sierra Village resident, appreciates the convenience Míocar provides. “It was fun to drive and very easy to get in and out of, even with car seats for my kids, making emergency trips to the store easy and enjoyable,” said Aguilera.

The San Joaquin Valley volunteer ride program provides free rides to residents in disadvantaged rural communities in San Joaquin and Stanislaus counties. Volunteers provide free rides to help residents access essential services, such as medical appointments, when transit is not an option. To book a ride through the program, residents simply book reservations through the Vamos smartphone application.

The Vamos application can also be used to easily plan and pay for multiple travel options throughout San Joaquin and Stanislaus counties through a single digital service. This includes fixed route transit service (e.g. buses) and on-demand transit services (i.e., dial-a-ride, deviated shuttles, microtransit), with real-time arrival information, when available. The application can also provide estimated travel times for bike routes.

“The Vamos app came at the perfect time when the San Joaquin County was developing an integrated ticketing app,” says Diane Nguyen, San Joaquin Council of Governments Deputy Director of Planning, Programming, and Project Delivery. “This innovative technology will transform the transportation experience for transit users, and we expect it will spur more people to ride buses and trains.”

Low Carbon Transportation

Clean Off-Road Equipment Voucher Program

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$44.2 million allocated.

How much has gone to implemented projects?

TBD

How much has been assigned for future projects?

\$44.2 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

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

How to access funds?

Apply through CALSTART on a first-come, first-served basis.

Who receives funds?

Public and private off-road freight fleet operators.

How do funds reach priority populations?

Voucher values are higher for vehicles located within disadvantaged and low-income communities.

2019 OUTCOMES

AS OF NOVEMBER 30, 2019, NO PROJECTS HAVE BEEN REPORTED TO CARB AS IMPLEMENTED. THIS PROGRAM IS EXPECTED TO BEGIN IMPLEMENTING PROJECTS IN 2020.

Low Carbon Transportation

Clean Truck & Bus Voucher Program (HVIP)

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$510.5 million allocated.

How much has gone to implemented projects?

\$348.3 million implemented.

How much has been assigned for future projects?

\$21.6 million selected and awarded but not yet implemented.²⁵

Program Description

What types of projects are funded?

Provides vouchers to buy down the incremental purchase price of clean trucks and buses.

How to access funds?

Apply for first-come, first-served vouchers at participating dealerships, manufacturers, and at californiahvip.org. Incentives applied at point-of-sale for the purchase of eligible vehicles

Who receives funds?

Public and private operators of medium-and heavy-duty truck and bus owners or fleets.

How do funds reach priority populations?

Funds reduce smog-forming pollutants and toxics by accelerating the deployment of clean, heavy-duty vehicles in disadvantaged and low-income communities. CARB also provides increased rebate amounts for vehicles located in disadvantaged communities.

²⁵ This does not include vouchers on the HVIP waitlist.

2019 OUTCOMES

\$120.9 M IMPLEMENTED

EXPECTED BENEFITS

501,243

MTCO_{2E} GHG REDUCTIONS

30,030,999

GALLONS FUEL REDUCTIONS

1,581,303

POUNDS NO_x REDUCTIONS

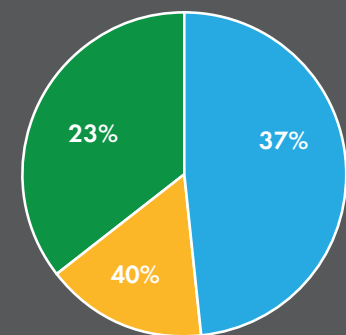
51,047

POUNDS PM_{2.5} REDUCTIONS

FUNDING DISTRIBUTION

\$78.4 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA AIR RESOURCES BOARD (CARB)

Clean Truck & Bus Voucher Program (HVIP)

The San Joaquin Regional Transit District (RTD) is reducing air pollution in Stockton by converting the city's entire rapid-transit bus fleet to battery electric by 2025, making it one of the first transit districts in California to set such a goal.

To accomplish this, the San Joaquin RTD used vouchers from HVIP to purchase five battery electric Proterra buses. These buses will help make San Joaquin RTD's Route 44, which passes through some of Stockton's low-income neighborhoods, the nation's first all-electric bus route.

"I appreciate RTD for placing [the electric bus fleet] in an area that deserves it," Stockton Mayor Michael Tubbs said. "I think oftentimes under-served parts of the community get the best things last. RTD is changing that by putting this historic route in South Stockton."

The American Lung Association's State of the Air 2019 report evaluated the number of high smog days, year-round pollution levels and the number of days with 24-hour spikes in pollution in various cities across the nation.³³ The report found that Stockton exceeded pollution standards in all three categories.

Sometimes the air pollution severely impacts Stockton resident Sharon Gamble's allergies. "Sometimes it knocks me down to a point where I can't breathe," she said. "It happens about every three or four months."

Administered by the non-profit CALSTART, HVIP also creates a financial incentive for industries to invest in clean technologies and develop innovative ways to reduce pollution.

"HVIP is driving early market success in California for clean vehicle technologies that are highly transferable to other applications," said Tom Brotherton, Director of Market Acceleration for CALSTART. "This early market success translates into accelerating commercialization of clean vehicle technologies as well as lowered costs. California transit agencies, small businesses, and fleet owners and managers are benefiting from an economic perspective and our citizens are benefiting from an air quality and climate perspective,"

The switch to electric buses is also driving the creation of high quality jobs in new California industries. Currently, there are more than 50 companies in California involved in manufacturing electric commercial vehicles. Efforts to provide clean transportation options for Stockton residents not only help strengthen economic opportunities, but will also help residents breathe easier.

33 Available at lung.org/our-initiatives/healthy-air/sota/

Low Carbon Transportation

Clean Vehicle Rebate Project

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$1,184.4 million allocated.

How much has gone to implemented projects?

\$681.5 million implemented.

How much has been assigned for future projects?

\$26.5 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply for first-come, first-served vouchers through the Center of Sustainable Energy at cleanvehiclerebate.org

Who receives funds?

Vehicle owners including individuals, businesses, and government entities.

How do funds reach priority populations?

Outreach events targeting priority populations; increased rebates for lower-income applicants and for public fleets located in disadvantaged communities.

2019 OUTCOMES

\$197.5 M IMPLEMENTED

EXPECTED BENEFITS

352,753

MTCO_{2E} GHG REDUCTIONS

104,441

POUNDS NO_x REDUCTIONS

66,912

POUNDS PM_{2.5} REDUCTIONS

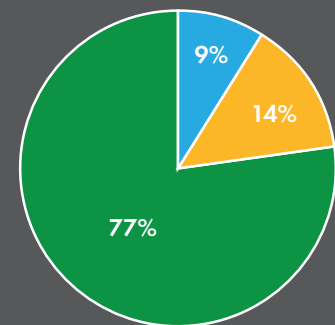
58,227,313

GALLONS FUEL REDUCTIONS

FUNDING DISTRIBUTION

\$48.5 M

TO BENEFIT PRIORITY POPULATIONS



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

Low Carbon Transportation

Financing Assistance for Lower-income Consumers

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$36.8 million allocated.

How much has gone to implemented projects?

\$7.8 million implemented.

How much has been assigned for future projects?

\$8.2 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply for first-come, first-served low-interest loans and buy-downs available at cleanvehiclegrants.org. Bay Area residents apply at communityhdc.org/transportation-department/.

Who receives funds?

Lower-income vehicle owners statewide.

How do funds reach priority populations?

Outreach to disadvantaged communities to engage low-income residents in the program. Funds target income-eligible California residents statewide.

2019 OUTCOMES

\$6.1 M IMPLEMENTED

EXPECTED BENEFITS

2,256

MTCO_{2E} GHG REDUCTIONS

873

POUNDS NO_x REDUCTIONS

411

POUNDS PM_{2.5} REDUCTIONS

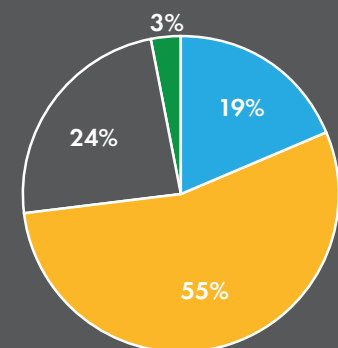
133

POUNDS ROG REDUCTIONS

FUNDING DISTRIBUTION

\$6.0 M

TO BENEFIT PRIORITY POPULATIONS



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

Low Carbon Transportation

Rural School Bus Pilot Projects

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$63.0 million allocated.

How much has gone to implemented projects?

\$21.6 million implemented.

How much has been assigned for future projects?

\$33.4 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply through the North Coast Unified Air Quality Management District via 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.

2019 OUTCOMES

\$10.3 M IMPLEMENTED

EXPECTED BENEFITS

9,100

MTCO₂E GHG REDUCTIONS

890,835

GALLONS FUEL REDUCTIONS

208,200

POUNDS NO_x REDUCTIONS

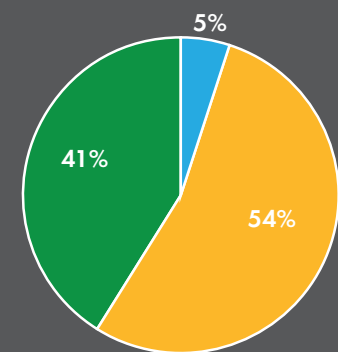
2,980

POUNDS ROG REDUCTIONS

FUNDING DISTRIBUTION

\$5.6 M

TO BENEFIT PRIORITY POPULATIONS



■ disadvantaged communities

■ low-income communities & households

■ other areas of California

Low Carbon Transportation

Zero- and Near Zero-Emission Freight Facilities

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$148.7 million allocated.

How much has gone to implemented projects?

\$148.7 million implemented.

How much has been assigned for future projects?

No additional funds have been selected or awarded.

Program Description

What types 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?

Apply through a statewide competitive solicitation.

Who receives funds?

Local air districts, other California public entities, and non-profits, 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.

2019 OUTCOMES

\$148.7 M IMPLEMENTED

EXPECTED BENEFITS

49,622

MTCO_{2E} GHG REDUCTIONS

2,940,040

GALLONS FUEL REDUCTIONS

607,123

POUNDS NO_x REDUCTIONS

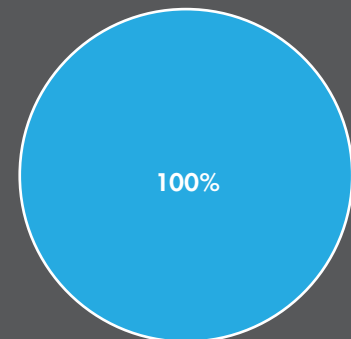
38,052




POUNDS ROG REDUCTIONS

FUNDING DISTRIBUTION

\$148.7 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA AIR RESOURCES BOARD (CARB)

Zero- and Near Zero-Emission Freight Facilities

The Volvo Low Impact Green Heavy Transport Solutions (Volvo LIGHTS) project aims to get cleaner trucks on the road to transport goods from ports to the Inland Empire. This project includes 23 zero-emission battery electric trucks, 29 off-road battery electric tractors, and 58 Level 2 and direct current fast chargers. Volvo LIGHTS also includes 1.9 million kilowatt-hour solar panels to create a zero-emission goods movement system connecting the Ports of Long Beach and Los Angeles to four freight-handling facilities in the Inland Empire. The zero-emission trucks will have a range of about 300 miles, which is sufficient to run from the ports and deliver goods to warehouses in the Inland Empire.

Given that many warehouses are located in disadvantaged communities, this project will decrease local air pollution and improve health impacts for Inland Empire residents like Mary Valdepeña. When Mary and her husband built their Fontana home in 1965, it was surrounded by fields, citrus groves, and grapevines. Today, it is surrounded by warehouses, with a concrete wall and truck trailers parked side-by-side next to her property line. From her house, she is exposed to the air pollution produced by the warehouse's operations and constantly hears sounds of trucks.

Over the last decade, large companies have built more than 150 million square feet of industrial space in the Inland Empire—mostly warehouses served by diesel trucks. To better address the Inland Empire's poor air quality, pilot and demonstration projects are underway to advance technologies that can reduce pollution from vehicles that transport goods to and from warehouses and ports.

"The Volvo LIGHTS project can change the way we transport goods across Southern California," said Wayne Nastri, Executive Director of the South Coast Air Quality Management District. "Accelerating the use of battery electric heavy-duty trucks, in combination with expanded infrastructure and use of renewable energy, will improve air quality for the communities severely impacted by diesel pollution and is essential in obtaining the NO_x reductions we need to meet the federal clean air standards."

Prescribed Fire Smoke Monitoring Program

CALIFORNIA AIR RESOURCES BOARD (CARB)

Cumulative Funding

How much funding has the program received?

\$7.5 million allocated.

How much has gone to implemented projects?

\$2.3 million implemented.

How much has been assigned for future projects?

Funding recipients for remaining funds have yet to be identified.

Program Description

What types of projects are funded?

Prescribed fire smoke reduction planning, monitoring, and research to help optimize existing prescribed burn programs in support of the California Forest Carbon Plan. Enhancements to the state's smoke management planning data platform and data collection by local public and private land managers. Increased public awareness, including development of a mobile app to alert citizens to nearby burn treatments and potential health impacts of smoke, and how to minimize them.

How to access funds?

Public grants are based on documented opportunity and capability to demonstrate increased prescribed burning at the local and regional level in a manner that protects public health. Assistance grants may be available through local air districts. Research and private contracts are based on a competitive application process through CARB.

Who receives funds?

State agencies, local fire and air districts, other local public agencies, non-profit conservation groups, research institutions, and private consultants.

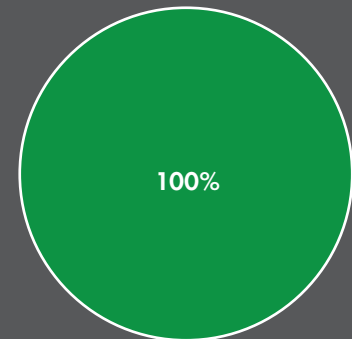
2019 OUTCOMES




\$2.3 M IMPLEMENTED

FUNDING DISTRIBUTION

\$0 M

TO BENEFIT PRIORITY POPULATIONS



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

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?

\$4.8 million implemented.

How much has been assigned for future projects?

\$0.2 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply through local air districts on a first-come, first-served basis, 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.

2019 OUTCOMES

\$3.1 M IMPLEMENTED

EXPECTED BENEFITS

61,982

MTCO₂E GHG REDUCTIONS

1,023,246

POUNDS PM_{2.5} REDUCTIONS

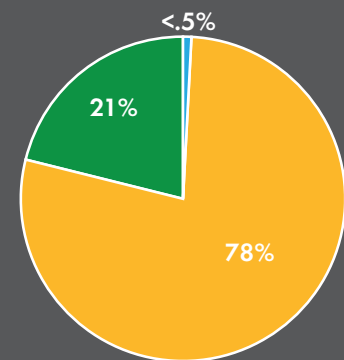
127,985




POUNDS BLACK CARBON REDUCTIONS

FUNDING DISTRIBUTION

\$2.4 M

TO BENEFIT PRIORITY POPULATIONS



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

CALIFORNIA AIR RESOURCES BOARD (CARB)

Woodsmoke Reduction Program

Jolene lives in the foothills below the Sierra Nevada in Tuolumne County and has multiple sclerosis. Due to her medical condition, she has limited mobility, which combined with the chilling weather in the Sierra Nevada, makes the winter months difficult. Although Jolene has central heating, it is costly to operate, and as a low-income resident, she is eligible for free firewood in her community. As a result, Jolene used her inefficient open-hearth fireplace to heat her 40-year-old home.

In 2018, Jolene learned of the Woodsmoke Reduction Program from her social work case manager. Excited about the prospect of a new source of efficient and cost-effective heating, she contacted the Tuolumne County Air Pollution Control District to apply for funding. Jolene was approved for a voucher covering the entire cost of a new wood stove and its installation.

Members of Jolene's community were there every step of the way to help her receive the benefits of this program. Since Jolene no longer drives, staff from the Tuolumne Air District office hand-delivered the paperwork she needed to apply. After the stove was delivered, the installer installed it the very next day.

The new wood stove has helped Jolene's medical condition and overall quality of life. With a more efficient wood stove, she does not need to bring in as much wood to heat her home. There are also fewer emissions being released into the neighborhood, which benefits both Jolene and her community.



Coastal Resilience Planning

COASTAL COMMISSION (CCC)

Cumulative Funding

How much funding has the program received?

\$4.5 million appropriated.

How much has gone to implemented projects?

\$0.8 million implemented.

How much has been assigned for future projects?

\$1.7 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply through the Coastal Commission on a first-come, first-served basis.

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.

2019 OUTCOMES

\$0.8 M IMPLEMENTED

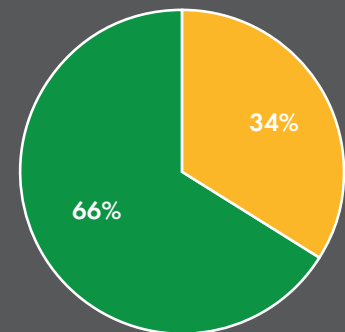
EXPECTED BENEFITS

FIVE LOCAL COASTAL PROGRAMS

FUNDING DISTRIBUTION

\$0.3 M

TO BENEFIT PRIORITY POPULATIONS



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

Training and Workforce Development Program

CONSERVATION CORPS (CCC)

Cumulative Funding

How much funding has the program received?

\$41.4 million allocated.

How much has gone to implemented projects?

\$13.3 million implemented.

How much has been assigned for future projects?

Funding recipients for remaining funds have yet to be identified.

Program Description

What types of projects are funded?

Fire prevention and forest health management, energy conservation, and riparian restoration 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. CCC actively recruits from priority populations.

2019 OUTCOMES

\$7.2 M IMPLEMENTED

EXPECTED BENEFITS

35,365

MTCO₂E GHG REDUCTIONS

43,367,749

KWH ENERGY SAVINGS

808

ACRE RESTORATION

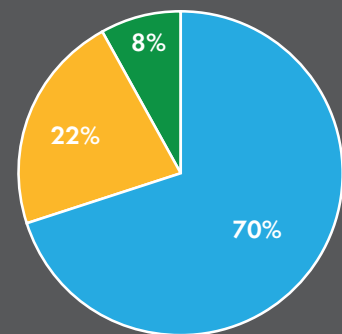
1,546

TREE PLANTINGS

FUNDING DISTRIBUTION

\$6.6 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA CONSERVATION CORPS (CCC)

Training and Workforce Development Program, Energy Corps

A year ago, Eugene Kalinovsky could not tell you the difference between a ballast, a tombstone, or a baffle. Now, he is looking forward to a career in the energy industry. Eugene is one of several dozen members of CCC making a difference in their community, improving the environment, and developing marketable job skills.

“When I first joined the CCC, I went to people who were here the longest and learned from them,” Eugene said. “I took all the knowledge I could get from them, from our trainings and supervisors, and I think I’m pretty good at doing these lights.”

Eugene works at the CCC Sacramento Energy Center where he and his fellow Corps members replaced thousands of lights this year as part of a retrofitting project with the Sacramento City Unified School District. To date, the crews have completed work at nine schools.

“We’ve mainly done middle schools and elementary schools, always in disadvantaged communities,” he said. “We know that we’re impacting the community and saving schools a lot of money, and reducing carbon emissions into the atmosphere.”

Four days a week, Corps members line up outside the office of Sacramento’s River District, ready to go to work in or near the same communities where they live. By the end of their shifts, dozens of lights have been converted from energy-demanding fluorescent tubes to efficient lightbulbs.

“My favorite part is definitely when we’re done with the classrooms and they’re extremely brighter than what they were when we came in,” said Corpsmember Akayla Jones. “It really feels great just making a difference. This isn’t just doing something for the community, it’s going to be for the whole world.”

Most of the Energy Corps’ projects take place in disadvantaged communities at schools, courthouses, and government and non-profit buildings. The Energy Corps is not just a chance for corpsmembers to make a difference in their community, but to improve their own futures.

“I needed my high school diploma,” Eugene said. “I did it in about four months. That’s the main reason why I joined, plus I wanted to get into energy work. I recently did solar training with the CCC and I’m probably going to get into that, or an apprenticeship for electrical work.”

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?
\$4.4 million implemented.

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

Program Description

What types of projects are funded?

Community-level solar arrays that generate energy and savings for low-income households.

How to access funds?

Apply to CSD's competitive solicitation process.

Who receives funds?

A team composed of any of the following: non-profits, 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?

CSD requires projects to benefit low-income households.

2019 OUTCOMES

\$4.4 M IMPLEMENTED

EXPECTED BENEFITS

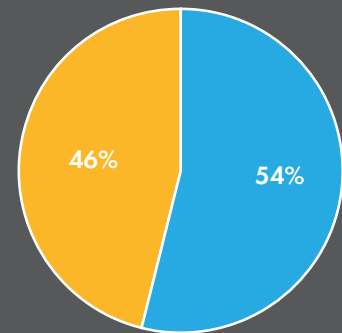
18,377
MTCO₂E GHG REDUCTIONS

77,502,656
KWH ENERGY GENERATION

10,174
POUNDS NO_x REDUCTIONS

FUNDING DISTRIBUTION

\$4.4 M
TO BENEFIT PRIORITY POPULATIONS



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

Low-Income Weatherization

Farmworker Housing Component: Single-Family Energy Efficiency and Solar Photovoltaics

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?

\$1.0 million implemented.

How much has been assigned for future projects?

\$9.8 million selected and awarded but not yet implemented.

Program Description

What types 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?

Farmworker households apply through a first-come, first-served process. For more information call (833) FOR-LIWP. Assistance is available in English, Spanish, and other languages.

Who receives funds?

Income-qualified farmworkers within 12 eligible counties.

How do funds reach priority populations?

All households receiving program services must qualify as low-income farmworker housing.

2019 OUTCOMES

\$1 M IMPLEMENTED

EXPECTED BENEFITS

538

MTCO₂E GHG REDUCTIONS

1,722

MWH ENERGY GENERATION

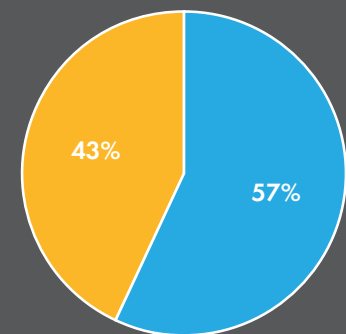
375

POUNDS NO_x REDUCTIONS

FUNDING DISTRIBUTION

\$1 M

TO BENEFIT PRIORITY POPULATIONS



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

DEPARTMENT OF COMMUNITY SERVICES
AND DEVELOPMENT (CSD)

**Farmworker Housing Component:
Single-Family Energy Efficiency
and Solar Photovoltaics**

When Maria Rojas of Fresno learned from a family member about the energy efficiency benefits they had received through the Farmworker Housing program, she looked into whether her household might qualify. Since her husband picks fruit and works as a pruner for agricultural operations in Reedley and Huron, Mrs. Rojas learned her family was able to qualify for services.



Today, Mrs. Rojas and her family have a solar photovoltaic system and energy efficiency upgrades in their home. These upgrades include a high efficient air conditioning system, new windows that minimize heat transfer, a smart thermostat, and other measures that reduce energy costs while improving the comfort and livability of their home and its resiliency to climate change.

The Farmworker Housing program provides no-cost rooftop solar photovoltaic systems and energy efficiency upgrades for low-income farmworker households to reduce GHG emissions and lower energy costs. By specifically targeting farmworkers, the program helps this population realize the benefits from the investments California is making to reduce GHG emissions.

La Cooperativa Campesina de California, a non-profit with 25 years of experience serving farmworkers, is a partner administering the Farmworker Housing program. Together with a team of organizations, La Cooperativa provides services to single-family farmworker dwellings and buildings of two-to-four units across 12 counties with the highest farmworker populations.

“Our experience as participants in the program has been beyond wonderful,” said Mrs. Rojas. “Our home had unreliable air-conditioning and heating that did not support our household needs in both the hot summers and cold winters. Our appliances were not energy efficient, which also meant that our energy costs were high. On top of that, our windows were terrible. Now, my home looks beautiful and like new.”

By spending less on their energy bills, Mrs. Rojas and her family will be able to invest their income on other needs.

Low-Income Weatherization

Multi-Family Energy Efficiency and Renewables

CALIFORNIA DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT (CSD)

Cumulative Funding

How much funding has the program received?
\$63.9 million allocated.

How much has gone to implemented projects?
\$33.1 million implemented.

How much has been assigned for future projects?
\$30.8 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Technical assistance and incentives for the installation of energy-efficiency measures and solar photovoltaics in low-income multifamily dwellings in disadvantaged and other communities.

How to access funds?

Apply for first-come, first-served incentives through the Association for Energy Affordability at camultifamilyenergyefficiency.org.

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 and other communities. Administrator conducts outreach to promote program awareness in disadvantaged and other communities.

2019 OUTCOMES

\$9.6 M IMPLEMENTED

EXPECTED BENEFITS

34,780
MTCO₂E GHG REDUCTIONS

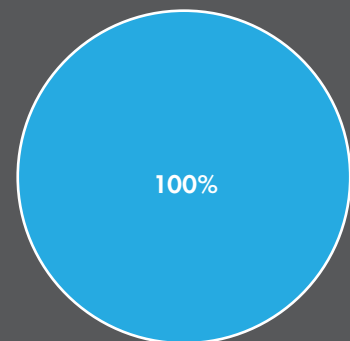
36,971,938
KWH ENERGY SAVINGS

23,963,825
KWH ENERGY GENERATION

85,490,250
GALLONS WATER SAVINGS

FUNDING DISTRIBUTION

\$9.6 M
TO BENEFIT PRIORITY POPULATIONS



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

Low-Income Weatherization

Single-Family Energy Efficiency and Solar Photovoltaics

CALIFORNIA DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT (CSD)

Cumulative Funding

How much funding has the program received?
\$70.0 million allocated.

How much has gone to implemented projects?
\$70.0 million implemented.

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

Program Description

What types 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?

Apply through Regional Administrators through a first-come, first-served process.

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.

2019 OUTCOMES

\$4.6 M IMPLEMENTED

EXPECTED BENEFITS

15,583
MTCO₂E GHG REDUCTIONS

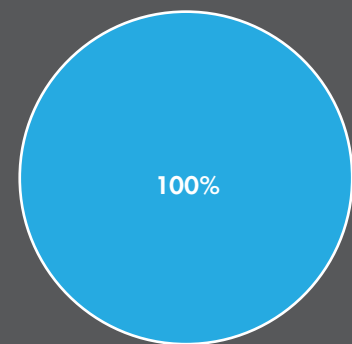
7,481,383
KWH ENERGY SAVINGS




24,123,289
KWH ENERGY GENERATION

1,553,850
GALLONS WATER SAVINGS

FUNDING DISTRIBUTION

\$4.6 M
TO BENEFIT PRIORITY POPULATIONS



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

Wetlands & Watershed Restoration Program

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (DFW)

Cumulative Funding

How much funding has the program received?
\$46.8 million appropriated.

How much has gone to implemented projects?
\$25.5 million implemented.

How much has been assigned for future projects?
Funding recipients for remaining funds have yet to be identified.

Program Description

What types of projects are funded?

The restoration or enhancement of coastal wetlands, Sacramento–San Joaquin Delta wetlands, mountain meadows, and seasonal inland wetlands including vernal pools. These projects preserve and increase soil organic carbon and provide important co-benefits like enhanced fish and wildlife habitat, water quality protection and improvement, flood protection, groundwater recharge, as well as provide resiliency to ocean level rise.

How to access funds?

Apply through a statewide competitive process.

Who receives funds?

Public agencies, non-profit organizations, and recognized tribes.

How do funds reach priority populations?

Projects benefiting disadvantaged communities receive higher application scores.

2019 OUTCOMES

\$4.2 M IMPLEMENTED

EXPECTED BENEFITS

225,545

MTCO₂E GHG REDUCTIONS

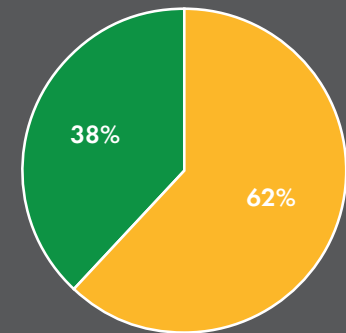
3,175

ACRE RESTORATION

FUNDING DISTRIBUTION

\$2.6 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW)

Wetlands and Watershed Restoration Program

The North Campus Open Space (NCOS) project is restoring 54 acres of diverse coastal wetlands and upland habitat of native plants and grassland in Santa Barbara County. This restoration will increase Santa Barbara County's coastal wetlands by 11 percent, which in turn will help adapt the coastal community to sea level rise by protecting inland infrastructure.

California's coastal wetlands play a critically important role in protecting the coast from sea level rise, but the majority of wetlands along the coast of central and southern California have been filled and developed as residential or industrial areas. As a result, the coastlines are vulnerable to the impacts of a changing climate.

The NCOS project will provide a suite of benefits to the restored land and its native species, the community, and California at large. The project will sequester carbon in saltmarsh and native perennial grasslands; provide adaptation to six feet of sea level rise; and enhance resiliency by lowering flood elevations by two feet. It will also provide transgression space for saltmarsh habitat and expand the coastal wetland's capacity to filter and process environmental pollutants. These habitats will provide sanctuary for threatened and endangered species, including species such as the tidewater goby, western snowy plover, and Ventura marsh milk vetch.

Residents of nearby communities will also have public access to the NCOS project site. Two and a half miles of trails, interpretive signage, educational videos, guided tours and talks, and wildlife viewing will provide recreational opportunities, and the area will help support ecological restoration as well as education programs of nearby university and K-12 programs.

Climate Smart Agriculture

Alternative Manure Management Program

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)

Cumulative Funding

How much funding has the program received?
\$53.1–92.7 million allocated.

How much has gone to implemented projects?
\$31.2 million implemented.

How much has been assigned for future projects?
\$32.7 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply through a statewide competitive 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.

2019 OUTCOMES

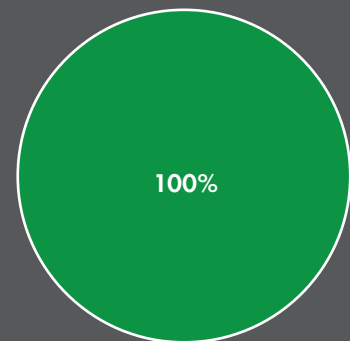
\$1.9 M IMPLEMENTED

EXPECTED BENEFITS

20,982
MTCO₂E GHG REDUCTIONS

FUNDING DISTRIBUTION

\$0 M
TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)

Alternative Manure Management Program

Where the redwoods meet the sea in Northern California's Humboldt and Del Norte counties, Blake and Stephanie Alexandre, fourth-generation dairy farmers, received a \$750,000 grant from CDFA to implement an Alternative Manure Management project.

Stephanie Alexandre's interest in the Alternative Manure Management Program was in part because of her family's desire to minimize their environmental impact.

"The depth of our commitment – to family tradition, to our EcoDairy farming practice, and to providing consistent quality from our single-origin farms – is matched only by our commitment to the environment," Said Alexandre.

Alexandre Dairy constructed a compost-bedded pack barn as transitional housing for 800 young dairy animals, in which approximately 1,400 young stock will be rotated annually. The project will reduce GHG emissions by 9,572 metric tons of carbon dioxide equivalent and divert approximately 4 million gallons of manure water from the current flush system. The compost-bedded pack barn has also resulted in a more efficient method of solid collection and storage of manure.

The ability for Alexandre Dairy to produce its own compost while minimizing the creation of GHG emissions adds value to the farm. The Alexandre family believes that the success of this project will encourage other pasture-based dairy farmers in the region and throughout California to consider similar upgrades to their facilities.

The Alexandres also received funding from the California Department of Food and Agriculture's Healthy Soils Program to apply pack-barn compost across its pastures, which allows for increased organic matter and carbon sequestration. The compost from the barn is applied to pastures during the summer to reduce the potential for water quality contamination through overland flows later in the year.

Climate Smart Agriculture

Dairy Digester Research and Development Program

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)

Cumulative Funding

How much funding has the program received?
\$180–223.6 million allocated.

How much has gone to implemented projects?
\$115.3 million implemented.

How much has been assigned for future projects?
\$69.1 million selected and awarded but not yet implemented.

Program Description

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

How to access funds?
Apply through a statewide competitive process.

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

How do funds reach priority populations?
Applicants are required to conduct outreach actions and describe how the community was involved in the local planning and environmental review processes for this project. Applicants summarize the results of this outreach; identify how concerns will be addressed and provide up to 3 letters of support. Scoring benefits are possible for projects benefiting priority populations.

2019 OUTCOMES

\$1.9 M IMPLEMENTED

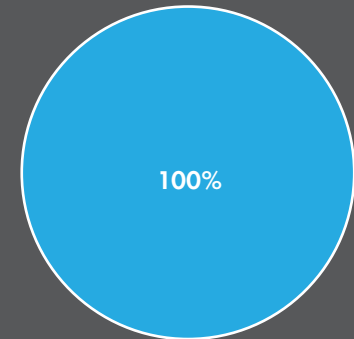
EXPECTED BENEFITS




220,360
MTCO₂E GHG REDUCTIONS

3,723,504
GALLONS FUEL GENERATION

FUNDING DISTRIBUTION

\$1.9 M
TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)

Dairy Digester Research and Development Program

Calgren Dairy Fuels (CDF) is the first California dairy digester pipeline cluster that upgrades dairy biogas to biomethane for utility pipeline injection. It is currently the only one of its kind in California, and with 20 digesters serving 22 dairies, it is the largest collective dairy biogas operation in the country.

Joey Airoso is a Central Valley dairy farmer whose operation feeds into the CDF cluster. Says Airoso of the project, it “gives us a way to tell our story and also add to the story. We can continue to protect the environment, but keep heading down this path of energy independence.”

Working with multiple state agencies, CDF has successfully demonstrated the ability to deliver dairy compressed natural gas clusters to market, achieve near-term GHG emission reductions, and reduce criteria pollutant emissions both on dairies and on California roadways. The conditioning facility and Southern California Gas injection point that the CDF supplies is located at the Calgren Ethanol Refinery in Pixley, a disadvantaged community, and is expected to create and support approximately 575 full-time jobs.

According to CDF, ten digesters are currently operational and sending biogas to the CDF centralized conditioning facility. Another two digesters are under construction and will come online in 2020. With the completion of the first twelve digesters in the coming months, over 150,000 tons of carbon dioxide equivalent will be captured from over 70,000 cows. This project will deliver over 3 million gallons of transportation fuel a year into the California compressed natural gas market, which will be preferentially available for conversion of existing fossil fuel freight transport to near zero-emission compressed natural gas engines.

Healthy Soils Program

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)

Cumulative Funding

How much funding has the program received?
\$40.5 million appropriated.

How much has gone to implemented projects?
\$9.2 million implemented.

How much has been assigned for future projects?
\$0.3 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply through a statewide competitive process.

Who receives funds?

Farmers, ranchers, and recognized tribes; demonstration project funding to educational institutions, conservation districts, and non-profit organizations collaborating with farmers, ranchers and recognized tribes.

How do funds reach priority populations?

Projects benefiting disadvantaged communities are prioritized for funding.

2019 OUTCOMES

\$3.5 M IMPLEMENTED

EXPECTED BENEFITS

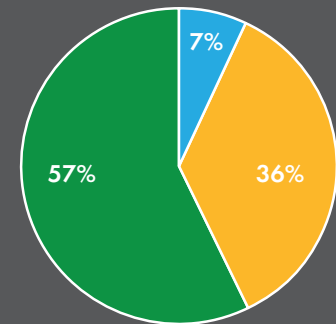
7,142
MTCO₂E GHG REDUCTIONS

2,184
ACRE RESTORATION

360
TREE PLANTINGS

FUNDING DISTRIBUTION

\$1.5 M
TO BENEFIT PRIORITY POPULATIONS



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

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (CDFA)

Healthy Soils Program

Sandy Fisher, chief executive officer of Chico Flax LLC, has been growing fiber flax in Northern California for over nine years. Three years ago, local flax growers acquired a 3.75-acre farm that was once an almond orchard.

“We were faced with the challenge of converting an orchard into row crop farming,” Sandy says, explaining the poor soil condition that stunted the growth of the flax when it was first planted. “When we heard about the CDFA Healthy Soils Program grant, we felt this would give us the opportunity to make the necessary changes to the land.”



Chico Flax LLC then developed its healthy soils project in collaboration with California State University and the Chico Department of Agriculture to use the 3.75-acre parcel as a regional prototype of sustainable flax production. They coupled the \$10,700 grant funds from CDFA with a \$5,000 cost-share to implement the three-year healthy soils project.

In the past year and a half, the farmers have planted 1,600 feet of hedgerow, applied woodchip mulch around the more than 1,000 plants, and grown both winter and summer cover crops.

“Using earthworms as an indicator for soil health, a year later to our delight, the soil showed great improvement where before we seldom saw earthworms,” Fisher said. The project not only improves soil health, but also provides habitat for wildlife, sequesters soil carbon, and reduces GHG emissions.

Chico Flax LLC farmers expect to see a steady increase in soil organic carbon over the coming years because of high carbon input from the mulch and cover crops. To enhance outcomes further, they are planning to introduce goats, which will reduce the use of herbicides for weed control and further increase carbon sequestration. Fisher says they expect additional benefits from this project that will improve the farm’s resilience in the face of climate change, such as crop resistance to drought stress and pest pressure.

Fire Prevention Program

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Cumulative Funding

How much funding has the program received?
\$186.8 million allocated.

How much has gone to implemented projects?
\$100.1 million implemented.

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

Program Description

What types 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?
Legislative appropriation.

Who receives funds?
CAL FIRE.

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

2019 OUTCOMES

\$24.6 M IMPLEMENTED

EXPECTED BENEFITS

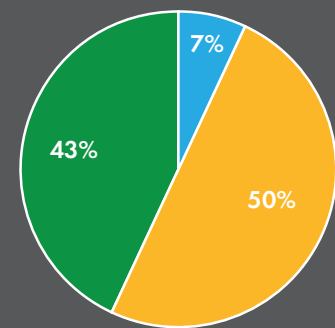
93,044

DEFENSIBLE SPACE INSPECTIONS

FUNDING DISTRIBUTION

\$13.9 M

TO BENEFIT PRIORITY POPULATIONS



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

Forest Carbon Plan Implementation

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Cumulative Funding

How much funding has the program received?

\$54.5 million allocated.

How much has gone to implemented projects?

\$12.2 million implemented.

How much has been assigned for future projects?

Funding recipients for remaining funds have yet to be identified.

Program Description

What types of projects are funded?

CAL FIRE will create ten 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.

How to access funds?

Legislative appropriation.

Who receives funds?

CAL FIRE. This appropriation directly funds state operations.

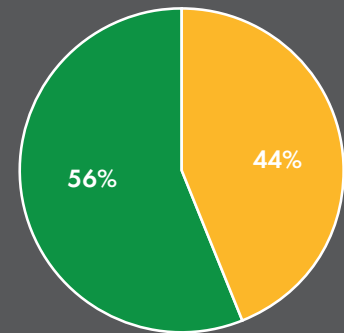
2019 OUTCOMES

\$12.2 M IMPLEMENTED

FUNDING DISTRIBUTION

\$5.3 M

TO BENEFIT PRIORITY POPULATIONS



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

Sustainable Forests

Fire Prevention Grants Program

CALIFORNIA DEPARTMENT OF FORESTRY
AND FIRE PROTECTION (CAL FIRE)

Cumulative Funding

How much funding has the program received?
\$216.0 million allocated.

How much has gone to implemented projects?
\$113.2 million implemented.

How much has been assigned for future projects?
Funding recipients for remaining funds have yet to be identified.

Program Description

What types 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?
Apply through a statewide competitive process.

Who receives funds?
Non-profit 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.

2019 OUTCOMES

\$113.2 M IMPLEMENTED

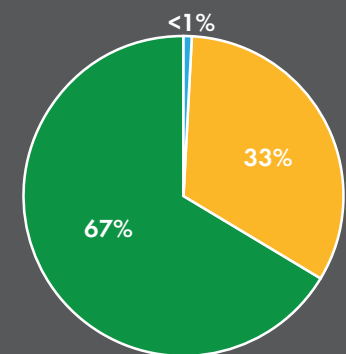
EXPECTED BENEFITS

15
EDUCATION EVENTS

13
FIRE PREVENTION PLANS

FUNDING DISTRIBUTION

\$37.6 M
TO BENEFIT PRIORITY POPULATIONS



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

Sustainable Forests

Forest Health Program

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Cumulative Funding

How much funding has the program received?
\$330.2 million allocated.

How much has gone to implemented projects?
\$237.9 million implemented.

How much has been assigned for future projects?
\$9.0 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Reforestation, fuels reduction, pest management, conservation easements, and forest biomass utilization.

How to access funds?

Apply through a statewide competitive process.

Who receives funds?

Non-profit 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.

2019 OUTCOMES

\$127.9 M IMPLEMENTED

EXPECTED BENEFITS

182,961
MTCO₂E GHG REDUCTIONS

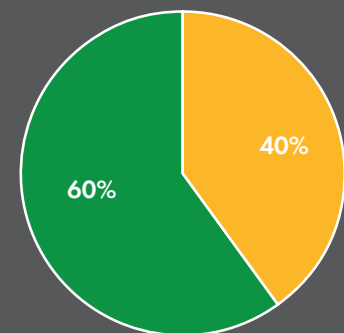
90,419
ACRE RESTORATION

2,150,900
TREE PLANTINGS

161,662,970
KWH ENERGY GENERATION

FUNDING DISTRIBUTION

\$51 M
TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Forest Health, Governor’s Priority Project

The Ukiah Emergency Fuels Reduction Project is performing vegetation management activities along ridgetops in strategic locations for firefighting and protecting critical infrastructure. The project – led by CAL FIRE with the support of the Mendocino Fire Safe Council, the County of Mendocino, the City of Ukiah, and other key stakeholder groups – involved the construction of 14 miles of shaded fuel breaks at the edges of densely populated housing in Ukiah and the forested mountains that surround the Ukiah Valley. These activities will reduce the intensity of potential future wildfires and control its rate of spread. In addition, brush and small trees were removed along roadsides to improve evacuation routes for communities. As of December 2019, these efforts employed more than 8,000 personnel hours from state government, local governments, and private industry.

The Ukiah Fuels Reduction Project is one of 35 priority projects outlined in the Community Wildfire Prevention and Mitigation Report, which was prepared by CAL FIRE in response to Governor Newsom’s Executive Order N-05-19. These 35 projects were identified as fuel reduction efforts that could be initiated almost immediately to protect lives, health, property, and natural resources.

Continuing into the spring of 2020, CAL FIRE will conduct controlled burning around the Ukiah Valley to strategically reduce accumulated fuels. Recognizing that residents have a critical role in creating defensible space around their own homes and property, project partners have engaged neighborhood groups and property owners to inform them of necessary steps that should be taken on and around private property to improve fire safety.

Sustainable Forests

Forest Health Research

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Cumulative Funding

How much funding has the program received?
\$5.0 million allocated.

How much has gone to implemented projects?
\$2.4 million implemented.

How much has been assigned for future projects?
Funding recipients for remaining funds have yet to be identified.

Program Description

What types of projects are funded?
Research projects investigating priority topics in support of California Forest Carbon Plan implementation.

How to access funds?
Apply through a statewide competitive process.

Who receives funds?
Local agencies, state agencies, universities and academic institutions, federal agencies, tribes, private forest landowners, and non-profit organizations including fire safe councils and land trusts.

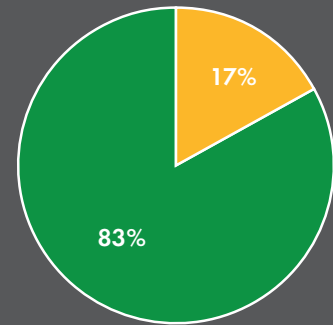
2019 OUTCOMES

\$2.4 M IMPLEMENTED

FUNDING DISTRIBUTION

\$0.4 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Forest Health Research

Led by Dr. Matthew Hurteau from the University of New Mexico, the “Teakettle Experiment” continues important work that began over 20 years ago to quantify the effects of prescribed fire and thinning on the ecosystem in the Teakettle Experimental Forest in the southern Sierra Nevada Mountains. This long-term research project is examining six different treatment options, including different intensities of thinning and prescribed fire. After initial treatments and measurements in 2001, a second prescribed burn was performed in 2017. This provided an opportunity for Dr. Hurteau to study the long-term effects of these treatments, including their maintenance through repeated application of fire.

In the wake of recent wildfires and severe drought-induced tree mortality, understanding the effects and effectiveness of these treatments on forest carbon is essential to California’s climate goals.

“Matthew Hurteau’s work with collaborators at Teakettle and across California on carbon dynamics as related to forest restoration and disturbance has been indispensable,” said Amarina Wuenschel, Southern Sierra Associate Province Ecologist for the U.S. Forest Service. “Their progressive body of work has helped us usher in a new era of forest management wherein we have gained focus on the stability of long-term carbon stores on our forested landscapes in a changing climate.”



Forests are an integral component of the global carbon cycle, capturing carbon dioxide from the atmosphere through photosynthesis, and storing it as carbon in trees and other organisms. Forests’ continued contribution to regulating the climate depends in part on their resilience to wildfire, drought, and other disturbances that can cause the release of GHGs.

Sustainable Forests

Urban and Community Forestry

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Cumulative Funding

How much funding has the program received?
\$77.8 million allocated.

How much has gone to implemented projects?
\$52.8 million implemented.

How much has been assigned for future projects?
\$3.4 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply through a statewide competitive process.

Who receives funds?

Local government agencies or districts and non-profit organizations.

How do funds reach priority populations?

Projects benefiting disadvantaged communities are eligible for a cost-share waiver and receive enhanced application scoring.

2019 OUTCOMES

\$14.5 M IMPLEMENTED

EXPECTED BENEFITS

112,446
MTCO₂E GHG REDUCTIONS

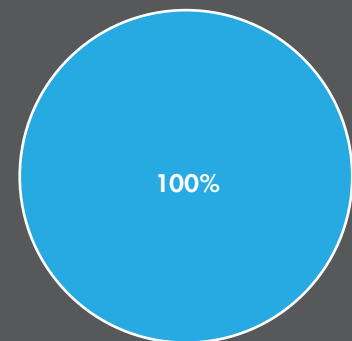
31,535,665
KWH ENERGY SAVINGS




108,267
THERMS ENERGY SAVINGS

23,821
TREE PLANTINGS

FUNDING DISTRIBUTION

\$14.5 M
TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Urban and Community Forestry

Urban Wood Rescue, a program administered by the Sacramento Tree Foundation, is transforming dead trees from around the Sacramento region into useful lumber. By repurposing the wood, rather than sending it to a landfill, Urban Wood Rescue prevents these trees from decomposing, which prevents the release of carbon they have captured into the atmosphere.

“By using urban material, we are keeping perfectly good material out of the landfill or shredder,” says Steven Tiller, a Sacramento area woodworker. “Urban lumber is always far more unique than commercial saw mill material. It has character and history.”

Urban Wood Rescue demonstrates a sustainable business model that can transform a waste stream into usable products and works of art. The project supports individuals from disadvantaged communities by offering job training and internship opportunities in partnership with Green Tech Education & Employment, an organization that focuses on preparing youth for careers that contribute to developing sustainable communities. Together, these organizations are helping to support the emergence of a statewide green economy and workforce.

“There is something powerful in working with people to develop skills around urban forestry, turning logs into lumber, and woodworking,” says Bethany Hannah, program manager for Urban Wood Rescue. “It creates a sense of self-reliance, empowerment, accomplishment, and a connection to the community and nature in a unique and long-lasting way.”

The Urban Wood Rescue program aims to process at least 500 logs per year. Every tree that is removed is replaced with a new planted tree. This year, the organization will plant an additional 333 trees.



Waste Diversion

Food Waste Prevention and Rescue Grants

CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE)

Cumulative Funding

How much funding has the program received?

\$20.7 million allocated.

How much has gone to implemented projects?

\$20.2 million implemented.

How much has been assigned for future projects?

Funding recipients for remaining funds have yet to be identified.

Program Description

What types of projects are funded?

Projects that prevent the generation of food waste that would otherwise be disposed in California landfills through source reduction activities and distribution of food to communities. All projects are also required to have food waste residuals be composted or digested, when available.

How to access funds?

Apply through a statewide competitive process.

Who receives funds?

Local governments, non-profit organizations, for-profit entities, state public universities and colleges, solid waste facilities, public school districts, and qualifying tribes.

How do funds reach priority populations?

Rescued food is used to feed members of low-income communities and households. Projects benefiting disadvantaged and low-income communities through education and outreach, job creation, and job training receive additional points during application scoring.

2019 OUTCOMES

\$11.3 M IMPLEMENTED

EXPECTED BENEFITS

78,053

MTCO₂E GHG REDUCTIONS

46,271

TONS FOOD DIVERSION

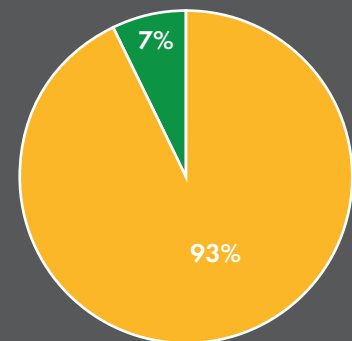
28,663

TONS FOOD RECLAIMED

FUNDING DISTRIBUTION

\$10.5 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE)

Food Waste Prevention and Rescue Grants

Replate, Inc., a nonprofit food rescue organization that matches surplus food from businesses with communities in need, has received two grants from CalRecycle totaling \$800,000 to recover edible food that would have otherwise been sent to a landfill.

By leveraging technology and the principles of the shared economy, Replate, Inc. has created a self-sustaining food rescue logistics application utilized in San Francisco and the greater Bay Area, Los Angeles, and other major metropolitan areas. Replate Inc.'s platform matches recurring and on-demand food donations to community organizations through optimized routes. Its fleet of professionally trained 'food rescuers' uses the application to locate, recover, and deliver donations to partner community organizations, based on the organization's needs and capacity.

Since receiving its first grant in March 2018, Replate, Inc. has rescued and distributed over 900,000 pounds of edible food to more than 80 recipient organizations.

The food rescued by Replate, Inc. is providing high-quality nutritious food to shelters, kitchens, and other non-profits in disadvantaged communities. One of Replate, Inc.'s recipients, Youth Spirit Artworks, reports, "We have been able to serve dinner to the homeless and low-income young people in our program every day since we started working with Replate Inc., which helps them stay focused and engaged in our program. For many, it is their only meal of the day."

St. Vincent de Paul Society of San Francisco, another Food Waste grant recipient, also appreciates the donations provided by Replate, Inc., "Beautiful food is such a gift to anyone, and we are so very grateful to work in partnership with such a generous organization committed to offering so much to so many."

Waste Diversion

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?
\$5.7 million implemented.

How much has been assigned for future projects?
Funding recipients for remaining funds have yet to be identified.

Program Description

What types 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?

Applications are considered on a first-come, first-served basis.

Who receives funds?

Local governments, non-profit organizations, and for-profit entities.

How do funds reach priority populations?

Projects benefiting disadvantaged and low-income communities receive preferential points during application scoring.

2019 OUTCOMES

\$4 M IMPLEMENTED

EXPECTED BENEFITS

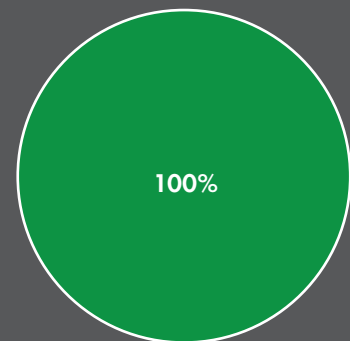
EXPECTED BENEFITS

303,075
MTCO₂E GHG REDUCTIONS

179,250
TONS WASTE DIVERSIONS

FUNDING DISTRIBUTION

\$0 M
TO BENEFIT PRIORITY POPULATIONS



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

Waste Diversion

Organics Grants

CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE)

Cumulative Funding

How much funding has the program received?

\$75.7 million allocated.

How much has gone to implemented projects?

\$56.7 million implemented.

How much has been assigned for future projects?

Funding recipients for remaining funds have yet to be identified.

Program Description

What types 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?

Apply through a statewide competitive process.

Who receives funds?

Local governments, non-profit organizations, for-profit entities, State, public universities and colleges, solid waste facilities, public school districts, and qualifying tribes

How do funds reach priority populations?

Projects benefiting disadvantaged and low-income communities, including those that have a food waste prevention or reduction component, receive additional points during application scoring.

2019 OUTCOMES

NO PROJECTS WERE IMPLEMENTED IN 2019. ADDITIONAL IMPLEMENTED PROJECTS ARE FORTHCOMING.



CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE)

Organics Grants

Rialto Bioenergy Facility, LLC (Rialto) received a \$4 million grant to fund the installation of an anaerobic digester and a freezer to salvage food that would otherwise go to the landfill. These will both be important to the operational success of Rialto's new Southern California facility, which is expected to recycle 300,000 tons of organic waste from the region annually.

Rialto's three million gallon anaerobic digester will be located in its new facility and will be able to convert 300 tons of food waste into 4.2 megawatts of renewable biopower every day. About one-fourth of this energy will be used on site, and the rest will be exported to the power grid. The project will also produce 30,660 tons per year of marketable, dry fertilizer pellets from the solid residuals produced from the anaerobic digestion process. Overall, this project will prevent the emission of 22,630 metric tons of carbon dioxide equivalent per year by offsetting the use of fossil fuels.

Additionally, a new 90 ton capacity freezer in Redlands will assist Helping Hands Pantry, a food rescue partner of Rialto, with its efforts to feed food-insecure residents. This project will support the rescue of up to 3,276 tons per year of frozen food that would otherwise be sent to the landfill and will help support 14 new fulltime, permanent jobs that will be available to the area's disadvantaged and low-income communities.

Waste Diversion

Recycled Fiber, Plastic, and Glass Grants

CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE)

Cumulative Funding

\$How much funding has the program received?
\$25.7 million allocated.

How much has gone to implemented projects?
\$25.7 million implemented.

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

Program Description

What types 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?

Apply through a statewide competitive process.

Who receives funds?

Local governments, non-profit 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?

Projects benefiting disadvantaged and low-income communities through direct community engagement, job training, or job creation receive additional points during application scoring.

2019 OUTCOMES

11.7 M IMPLEMENTED

EXPECTED BENEFITS

176,375

MTCO₂E GHG REDUCTIONS

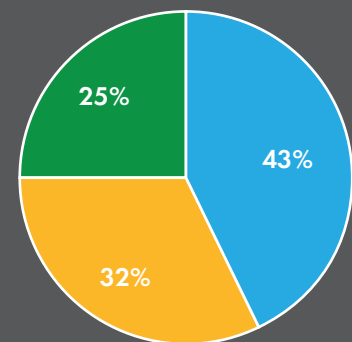
251,831

TONS WASTE DIVERSIONS

FUNDING DISTRIBUTION

\$8.7 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY (CALRECYCLE)

Recycled Fiber, Plastic, and Glass Grants

A \$1.3 million CalRecycle grant will help establish a new glass recycling facility in Victorville that will produce recycled glass in a way that reduces GHG emissions.

Shark Solutions utilizes patented Shark Glass Separation technology, which processes flat laminated glass such as windshields, building glass, and safety glass. This material is then recycled and made into a crushed glass cullet. This recycled glass cullet melts at a lower temperature compared to brand new material, thereby reducing GHG emissions from making new glass.

The new facility will use windshields from recycled vehicles and building glass from California landfills to produce crushed glass cullet that will be used to produce recycled-content fiberglass building insulation. This grant has provided immediate and long-term job opportunities to the surrounding area's disadvantaged and low-income communities, creating three full-time, entry-level jobs.

Dr. Jens Holmegaard, President and Chief Executive Officer of Shark Solutions is proud of the work the grant is funding. "It is estimated that every five tons of our recycled glass helps reduce GHG emissions in California by one ton, which helps create new products in a more environmentally friendly manner," says Holmegaard.

Low Carbon Transit Operations Program

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)

Cumulative Funding²⁶

How much funding has the program received?
\$524.8 million appropriated.

How much has gone to implemented projects?
\$333.2 million implemented.

How much has been assigned for future projects?
\$79.5 million selected and awarded but not yet implemented.

Program Description

What types 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?

Transit agencies are awarded funds based on a noncompetitive, formula-based list prepared by the State Controller's Office.

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.²⁷

²⁶ Per SB 862, 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.

²⁷ Existing law requires, for recipient transit agencies whose service areas include disadvantaged communities as identified pursuant to Section 39711 of the Health and Safety Code, that those recipient transit agencies expend at least 50% of the total moneys received as part of the Low Carbon Transit Operations Program on projects or services that meet specified requirements and benefit the disadvantaged communities. SB 1119 waives the above requirement if the recipient transit agencies expend the funding provided on certain transit activities.

2019 OUTCOMES

\$131.6 M IMPLEMENTED

EXPECTED BENEFITS

597,472
MTCO₂E GHG REDUCTIONS

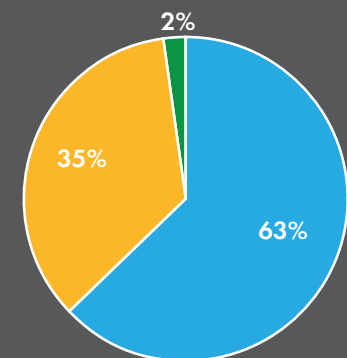
1,268,952,742
VMT REDUCTIONS

1,255,875
POUNDS NO_x REDUCTIONS

41,895,777
GALLONS FUEL REDUCTIONS

FUNDING DISTRIBUTION

\$129 M
TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)

Low Carbon Transit Operations Program

The City of Los Angeles Department of Transportation (LADOT) is providing free, safe, and reliable transportation to students across Los Angeles. The “DASH to Class” program allows all K–12, college, and vocational students with a Student Reduced Fare pass to ride free on LADOT Transit’s DASH buses—even for non-school related trips.

“A lack of reliable transportation should never be a roadblock between students and their dreams,” said Mayor Eric Garcetti. “Free DASH passes will help students get to class on time, save money for families who are struggling to make ends meet, boost school attendance, and empower young people to get involved with clubs or take a job that previously felt out of reach.”

Transit fares can often be a barrier to education: approximately 30 percent of LA Community College District -College Promise students report struggling to pay for transportation. Over 20 percent of these students report having to miss or stop attending classes due to the cost or lack of access to reliable transportation. DASH to Class program provides a free transportation option to these students, as well as the students of nearly 300 LA Unified School District K–12 schools that are within a quarter-mile of LADOT DASH bus stops.

Based on current ridership trends and projections, LADOT estimates that providing free DASH passes to students across the city will increase annual student ridership from 3.9 million rides to 4.3 million rides. In other U.S. cities that have implemented similar initiatives, more than 90 percent of students have reported benefits from free bus passes, including better class attendance and improved grades.

“Free transportation on LADOT’s DASH buses connects students to learning in and outside the classroom,” said LADOT General Manager Seleta Reynolds. “When we reduce barriers to education, we bridge students to opportunities, which are the brick and mortar of a more resilient Los Angeles.”

Water-Energy Grant

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?
\$36.2 million implemented.

How much has been assigned for future projects?
\$9.3 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply through a statewide competitive process.

Who receives funds?

Local agencies, joint power authorities, and nonprofit organizations. For some projects, residents are then distributed water saving devices.

How do funds reach priority populations?

Projects benefiting disadvantaged communities received higher funding priority rankings.

2019 OUTCOMES

\$3.9 M IMPLEMENTED

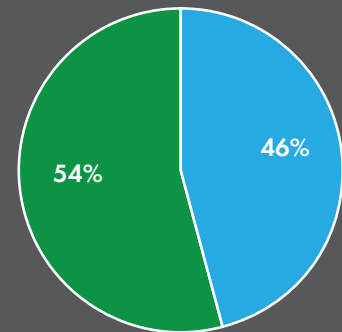
EXPECTED BENEFITS

37,945
MTCO₂E GHG REDUCTIONS

1,179,210,251
GALLONS WATER SAVINGS

FUNDING DISTRIBUTION

\$1.8 M
TO BENEFIT PRIORITY POPULATIONS



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

Food Production Investment Program

CALIFORNIA ENERGY COMMISSION (CEC)

Cumulative Funding

How much funding has the program received?

\$124.0 million appropriated.

How much has gone to implemented projects?

\$28.4 million implemented.

How much has been assigned for future projects?

\$9.7 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Grants to California food processors to implement projects that reduce GHG emissions and on-site energy consumption.

How to access funds?

Apply through a statewide competitive process.

Who receives funds?

California food processors.

How do funds reach priority populations?

Higher application scores for projects benefiting disadvantaged and low-income communities.

2019 OUTCOMES

\$28.4 M IMPLEMENTED

EXPECTED BENEFITS

1,257,266

MTCO₂E GHG REDUCTIONS

234,734,340

GALLONS WATER SAVINGS

304,274,076

KWH ENERGY SAVINGS

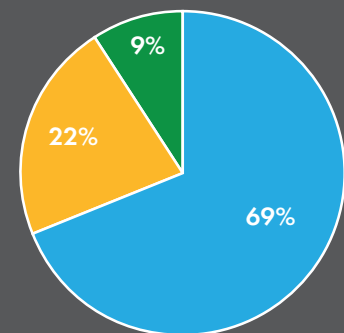
197,910,525

THERMS ENERGY SAVINGS

FUNDING DISTRIBUTION

\$25.7 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA ENERGY COMMISSION (CEC)

Food Production Investment Program

Sun-Maid Growers of California are demonstrating how food-processing facilities can save energy and money while helping to advance the state’s climate and clean energy goals.

In 2019, Sun-Maid was awarded and matched an \$806,000 grant to implement an optimized compressed air energy system at its dried fruit packing and processing facility in the city of Kingsburg. Processing and packaging raisins is an energy-intensive process that uses a large amount of compressed air. The new system at Sun-Maid uses an energy-efficient centrifugal compressor and heat recovery technology that will reduce GHG emissions, energy consumption, and operating costs.

Sun-Maid Engineering Manager Josh O’Bannon is pleased with the benefits of the project so far, including efficiency gains and reduced maintenance costs.

“Our highly skilled stationary engineers can now focus on more important duties related to putting raisins in the red box instead of babysitting the compressors, dryers, and cooling system,” O’Bannon said. “Because our compressed air encounters the raisins during the washing and cleaning process, it is an ingredient. Clean, dry, oil-free air is a must, and that is what this new compressed air system delivers.”

The Sun-Maid project helps demonstrate to manufacturing facilities and vendors of compressed air systems that energy efficiency upgrades are worth the investment. Reducing electricity and natural gas consumption at the Sun-Maid Kingsburg facility will also reduce emissions of criteria pollutants, helping to improve the overall health of the community.



Low-Carbon Fuel Production

CALIFORNIA ENERGY COMMISSION (CEC)

Cumulative Funding

How much funding has the program received?

\$12.5 million appropriated.

How much has gone to implemented projects?

TBD

How much has been assigned for future projects?

TBD

Program Description

What types of projects are funded?

New and expanded renewable ultra-low-carbon transportation fuel production at commercial scale.

How to access funds?

Apply through a statewide competitive process.

Who receives funds?

Public and private California fuel producers.

How do funds reach priority populations?

All projects located within and benefiting priority populations will receive enhanced application scoring.

2019 OUTCOMES

AS OF NOVEMBER 30, 2019, NO PROJECTS HAVE BEEN REPORTED TO CARB AS IMPLEMENTED. THIS PROGRAM IS EXPECTED TO BEGIN IMPLEMENTING PROJECTS IN 2020.

Renewable Energy for Agriculture Program

CALIFORNIA ENERGY COMMISSION (CEC)

Cumulative Funding

How much funding has the program received?

\$10.0 million appropriated.

How much has gone to implemented projects?

\$9.2 million implemented.

How much has been assigned for future projects?

\$0.3 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Adoption of on-site renewable energy technologies (such as wind and solar) at agricultural operations.

How to access funds?

Apply through a statewide competitive process.

Who receives funds?

Private entities, local governments, academic, educational, and non-profit organizations, joint powers authorities, and tribal governments.

How do funds reach priority populations?

Higher application scores for projects benefiting disadvantaged communities.

2019 OUTCOMES

\$9.2 M IMPLEMENTED

EXPECTED BENEFITS

124,742

MTCO₂E GHG REDUCTIONS

10,839

POUNDS PM_{2.5} REDUCTIONS

6,917

MWH ENERGY SAVINGS

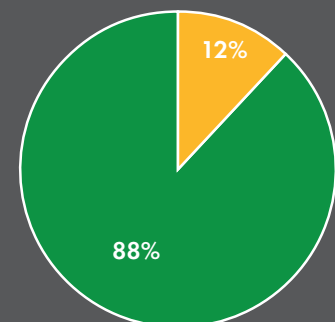
45,109

POUNDS NO_x REDUCTIONS

FUNDING DISTRIBUTION

\$1.1 M

TO BENEFIT PRIORITY POPULATIONS



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

Fire Engines and Equipment

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

Cumulative Funding

How much funding has the program received?

\$26.2 million appropriated.

How much has gone to implemented projects?

TBD

How much has been assigned for future projects?

TBD

Program Description

What types of projects are funded?

Fire engine procurement and training for local fire agencies to keep fires small; training on new hazards correlated with climate change impacts; enhancement of resources in preparation for emergency operations and disaster relief supporting California Mutual Aid System.

How to access funds?

Requests from fire departments will be evaluated for which areas/regions can best serve California's Mutual Aid System.

Who receives funds?

Local fire agencies, Cal OES State Fire and Rescue, Regional Fire and Rescue, and Operational Area Fire and Rescue Coordinators.

How do funds reach priority populations?

20 percent of funds will be spent on projects in low-income and/or disadvantaged communities to reduce local fire risk.

2019 OUTCOMES

AS OF NOVEMBER 30, 2019, NO PROJECTS HAVE BEEN REPORTED TO CARB AS IMPLEMENTED. THIS PROGRAM IS EXPECTED TO BEGIN IMPLEMENTING PROJECTS IN 2020.

Wildfire Response and Readiness

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

Cumulative Funding

How much funding has the program received?
\$25.0 million appropriated.

How much has gone to implemented projects?
\$3.4 million implemented.

How much has been assigned for future projects?
Funding recipients for remaining funds have yet to be identified.

Program Description

What types 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.

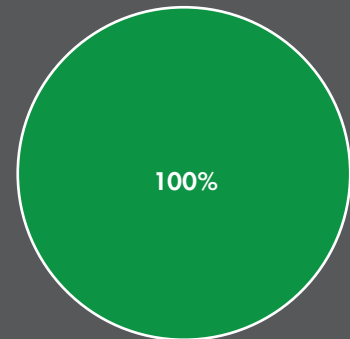
2019 OUTCOMES




\$0.9 M IMPLEMENTED

FUNDING DISTRIBUTION

\$0 M

TO BENEFIT PRIORITY POPULATIONS



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

High-Speed Rail Project

CALIFORNIA HIGH-SPEED RAIL AUTHORITY (AUTHORITY)

Cumulative Funding²⁸

How much funding has the program received?
\$2,853.4 million appropriated.

How much has gone to implemented projects?
The Authority has implemented \$906.6 million through November 30, 2019 on the high-speed rail project, with the remaining \$1,946 million supporting ongoing construction and project development.

Program Description

California high-speed rail will fundamentally transform how people move around the state, spur economic growth, create a cleaner environment, and preserve agricultural lands and natural habitat—and has already created thousands of good-paying jobs. The Phase 1 system will run from San Francisco to the Los Angeles basin in under three hours at speeds 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 project will shift air travelers and drivers to an electrified high-speed rail system running entirely on renewable energy. The 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 transportation needs. This investment includes the electrification of the Caltrain corridor and the LINK Union Station Project, among others.

²⁸ Per SB 862, the High-Speed Rail project is appropriated 25% of the proceeds of each quarterly auction. The Authority does not select or award funds, as all appropriated funds are used for the HSR project. SB 862 states that \$400 million shall be available to the 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. \$100 million of this loan amount is included in the reported \$2,853 million cumulative appropriations; the remaining \$300 million in authority will be drawn down in early 2020.

2019 OUTCOMES

THE AUTHORITY BENEFITS DISADVANTAGED POPULATIONS THROUGH ITS COMMUNITY BENEFITS AGREEMENT (CBA).²⁹

THE AUTHORITY REPORTS THAT AS OF OCTOBER 2019, 539 SMALL BUSINESSES WERE WORKING ON THE PROJECT—INCLUDING 523 SMALL BUSINESSES LOCATED IN CALIFORNIA. OF THESE, 176 ARE DISADVANTAGED BUSINESS ENTERPRISES AND 56 ARE DISABLED VETERAN BUSINESS ENTERPRISES.

CUMULATIVELY, THE HIGH-SPEED RAIL PROJECT HAS PROVIDED A LIVING WAGE FOR MORE THAN 3,580 WORKERS THAT HAVE WORKED MORE THAN 2.3 MILLION WORK HOURS. MORE THAN 70 PERCENT OF WORK HOURS WERE PERFORMED BY TARGETED WORKERS AND ALMOST 20 PERCENT OF THOSE WORK HOURS WERE PERFORMED BY DISADVANTAGED WORKERS, VASTLY EXCEEDING THE TARGETS SET IN THE CBA.

²⁹ The CBA encourages a 30% small business participation goal and ensures that 30% of all project work hours are performed by National Targeted Workers, with at least 10% 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 Project (continued)

Every two years, the Authority releases a business plan to inform the Legislature, the public, and stakeholders of the project's implementation, including proposed timelines for construction, ridership forecasts, and capital cost estimates. In the final 2020 Business Plan,³⁰ which will be released later this year, the Authority will discuss the recommendation of the Merced to Bakersfield line in more detail.

Currently, reductions in GHGs and air pollutant emissions from high-speed rail construction in the Central Valley are being achieved by recycling construction waste and using clean construction equipment. The Authority offsets 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.

30 In February 2020, The High-Speed Rail Authority released the draft 2020 Business Plan with revised estimates on costs and emission reductions—a cost range of \$63.2 billion to \$98.1 billion (year of expenditure) for the Phase 1 System; a reduction of GHG emissions by 80 to 96 million metrics tons of CO₂e over the first 50 years of operation; and a reduction of air pollutants (NO_x, ROG, CO, PM, and toxics) by more than 100,000 tons over the same timeframe. The Authority will finalize this Business Plan in 2020.



HIGH-SPEED RAIL AUTHORITY (AUTHORITY)

High-Speed Rail Project

The High-Speed Rail Authority continues to use the cleanest equipment available to reduce its emissions, plant trees near the rail line to sequester carbon, and create jobs to provide opportunities and job skills to disadvantaged workers.

Reducing and offsetting GHG emissions is a priority for high-speed rail construction. The project is one of the top ranked sustainable rail infrastructure projects in North America by the Global Real Estate Sustainability Benchmark Infrastructure Assessment, thanks to prioritizing transit-oriented development, job creation, clean construction practices, and sustainable future operations.

In addition, the Authority is working with the California Department of Forestry and Fire Protection's Urban Forestry program to offset some of the GHG emissions associated with construction. To date, more than 4,000 trees have been planted in disadvantaged communities near the rail line.

The Authority also prioritizes minimizing the effects of its construction on the environment. Currently, the Authority is working with stakeholders such as the Santa Clara Valley Open Space Authority to prepare wildlife crossings and other mitigation methods, so that local wildlife can freely move throughout the area without being impacted by rail operations.

Creating jobs and economic opportunities is a major priority for the Authority. As of October 2019, the Authority has commissioned work from 523 California small business firms, including 176 Certified Disadvantaged Business Enterprises, helping small businesses play a significant role in the program.

The Authority also promotes jobs that benefit disadvantaged areas through the execution of Community Benefits Agreements. As of December 2019, more than 3,549 workers had been deployed across the 119 miles of construction in the Central Valley," said Journeyman Carpenter Indalecio Osegueda. "I've got an 11-year old, 7year old, and a newborn. I don't know where I would be if I wasn't here doing this."

Regional Forest and Fire Capacity

CALIFORNIA NATURAL RESOURCES AGENCY (CNRA)

Cumulative Funding

How much funding has the program received?

\$20 million appropriated.

How much has gone to implemented projects?

TBD

How much has been assigned for future projects?

\$17.1 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Regional Priority Plan development for forestry, fire protection, and watershed improvements; project development and permitting; forest management demonstration projects; outreach, education, and training.

How to access funds?

Non-competitive block grants are awarded by region.

Who receives funds?

Local and tribal governments, state conservancies, joint powers authorities, public agencies, resource conservation districts, special districts, and 501(c)(3) non-profit organizations.

2019 OUTCOMES

AS OF NOVEMBER 30, 2019, NO PROJECTS HAVE BEEN REPORTED TO CARB AS IMPLEMENTED. THIS PROGRAM IS EXPECTED TO BEGIN IMPLEMENTING PROJECTS IN 2020.



CALIFORNIA NATURAL RESOURCES AGENCY (CNRA)

Regional Forest and Fire Capacity

In 2019, the Regional Forest and Fire Capacity program awarded block grants to six regional grantees and two statewide grantees. The Watershed Research and Training Center is coordinating forestry and fire protection efforts across California by providing technical support across the state. By working with both recipients of regional block grants and entities in priority regions outside areas covered by those regional block grants, the Watershed Center strengthens forestry and fire protection work at the local, regional, and state levels.

As part of their work, the Watershed Center provides valuable networking opportunities for regional block grantees around the state to share resources, contacts, and information to develop new partnerships. Their monthly webinars allow block grantees to learn from guest speakers and discuss topics including local capacity building, developing Regional Priority Plans, designing forest management demonstration projects, and developing outreach materials.

Additionally, the Watershed Center conducted a statewide needs assessment in 2019 to identify current capabilities and needs among local forest health and fire practitioners. The Watershed Center will publish an analysis of the survey's results in 2020 and will generate an internal report for block grantees specific to their region.

Urban Greening Program

CALIFORNIA NATURAL RESOURCES AGENCY (CNRA)

Cumulative Funding

How much funding has the program received?

\$156.0 million appropriated.

How much has gone to implemented projects?

\$98.0 million implemented.

How much has been assigned for future projects?

\$21.7 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply through a statewide competitive process.

Who receives funds?

Local governments, special districts, non-profit organizations, and joint powers authorities.

How do funds reach priority populations?

Projects benefiting disadvantaged communities receive additional points in application scores.

2019 OUTCOMES

\$91.1 M IMPLEMENTED

EXPECTED BENEFITS

33,689

MTCO₂E GHG REDUCTIONS

1,777

MWH ENERGY SAVED

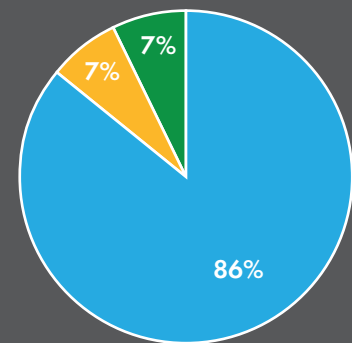
7,213

TREE PLANTINGS

FUNDING DISTRIBUTION

\$84.6 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA NATURAL RESOURCES AGENCY (CRNA)

Urban Greening Program

The Grapefruit Boulevard Urban Greening and Connectivity Project is helping to revitalize the Pueblo Viejo Downtown District in the City of Coachella. This project will address key community-identified barriers, issues, and opportunities by providing greenspaces that help revitalize the community and provide environmental benefits while creating social connectivity.

In addition to providing pedestrian facilities and bicycle lanes, this project will plant 288 trees along Grapefruit Boulevard that will soften the city streetscape and help moderate temperatures. Beyond their aesthetic value, the trees will sequester carbon, clean the air, and shelter businesses. The project is planned to take place along with other efforts to rehabilitate buildings and properties, address code enforcement issues, and provide personal security improvements. Altogether, this will help create safe and walkable spaces in the Pueblo Viejo Downtown District that connect key assets and activity centers in the community.

“This project will not only beautify this important corridor, it will also make it safer for pedestrians, add value to our businesses and create the city’s first urban forest,” says Brenda Flores, owner of El Tepeyac birthday party supply store.

City of Coachella Mayor Steven Hernandez can hardly wait for the project to be completed, “This investment supports the city’s commitment to creating a healthier, more equitable community where residents have access to public resources like recreational facilities and infrastructure that promote activity and mobility – because the places where we live, learn, work, and play all contribute to our overall well-being and sense of connectedness. We are just so excited for this project!”



Climate Ready Program

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?

\$3.8 million implemented.

How much has been assigned for future projects?

\$2.6 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Projects include multi-benefit climate adaptation projects such as urban greening, natural infrastructure, wetland enhancement, and sea level rise adaptation projects. Projects include planning to reduce future risks from climate change and promoting nature-based climate adaptation strategies. Projects use natural systems to sequester GHGs and promote on-the-ground demonstration projects that implement innovative approaches to climate adaptation.

How to access funds?

Apply through a statewide competitive process.

Who receives funds?

Non-profit 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.

2019 OUTCOMES

\$3.8 M IMPLEMENTED

EXPECTED BENEFITS

1,670

MTCO₂E GHG REDUCTIONS

1,232

ACRE RESTORATION

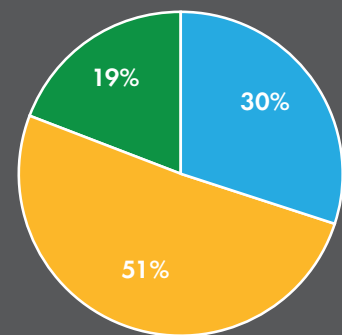
369

TREE PLANTINGS

FUNDING DISTRIBUTION

\$3.1 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA STATE COASTAL CONSERVANCY (SCC)

Climate Ready Program

To support the region's efforts to address the effects of climate change, the Pauma Band of Luiseño Indians are scaling up their carbon farming operations on Pauma Tribal Farms. This project includes funding for on-farm practices such as cropping, compost application, hedgerow installation, no-till, and a transition from row crops to trees for 35 acres of farmland.

Climate change is not a future threat or predicted stressor for San Diego County farmers—this global shift is already felt from the effects of rising temperatures, erratic weather, and dwindling groundwater supplies. Local groups including the San Diego County Farm Bureau and the San Diego Food System Alliance have already called for a progressive set of climate change policies for the region. One clear solution is carbon farming, which can build resilience, conserve water, and sequester GHGs in support of both climate adaptation and mitigation.

These funds will also help strengthen existing collaborations between tribal, state, and federal conservation programs in San Diego County. One priority of this project is the development of a regional knowledge network that demonstrates the benefits of carbon sink agriculture. In November 2019, the Pauma Tribe held a Carbon Sink Farming Convergence, which brought together over 100 farmers, scientists, policy makers, and others to demonstrate the benefits of carbon farming practices.

"The Pauma Tribe and its partners are bringing together a fabulous group of collaborators to build resiliency to climate change. It's the kind of diverse community we need everywhere, and we are delighted to support this effort," said Sam Schuchat, Executive Director of SCC.

As Californians face the unprecedented threats of climate change, projects that increase resiliency of communities and collaboration across traditionally siloed sectors are necessary to overcome these challenges. This collaboration between tribal, state, and federal programs is a successful example of knowledge sharing to promote solutions and strategies that offer adaptation and mitigation benefits.

Transit and Intercity Rail Capital Program

CALIFORNIA STATE TRANSPORTATION AGENCY (CALSTA)

Cumulative Funding³¹

How much funding has the program received?
\$1,104.2 million appropriated.

How much has gone to implemented projects?
\$362.0 million implemented.

How much has been assigned for future projects?
\$2,014.0 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Transformative capital improvements that will modernize 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?

Apply through a statewide competitive 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.

³¹ By statute, the TIRCP program is appropriated 10% of the proceeds of each quarterly auction. SB 9 (Beall, Chapter 710, Statutes 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.

2019 OUTCOMES

\$10.4 M IMPLEMENTED

EXPECTED BENEFITS

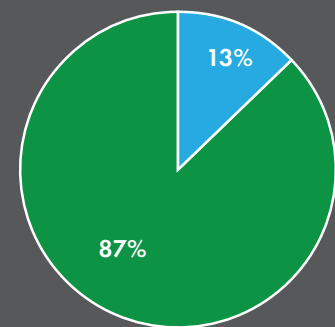
17,000

MTCO₂E GHG REDUCTIONS

FUNDING DISTRIBUTION

\$1.4 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA STATE TRANSPORTATION AGENCY (CALSTA)

Transit and Intercity Rail Capital Program

Sonoma and Marin Counties received an \$11 million grant to help pay for four newly manufactured rail passenger vehicles to complete the SMART Rail Car Capacity Project. Together with a newly launched 43-mile SMART passenger rail service across Marin and Sonoma Counties, these rail cars will connect communities, provide a transit link between job markets and worker populations and provide people with a sustainable transportation option.

The impact of these cars will be far larger than simply growing SMART's rail vehicle fleet from 14 to 18 cars; the acquisition enabled SMART to launch two new extensions, add two new infill stations, and roll out a new and expanded service schedule on weekdays, including peak period demands, weekend service, and special events, creating more capacity for riders.

Shaun Ralston, Regional Manager at Sutter Health and SMART commuter, appreciates the convenience and overall experience of riding the SMART rail system, "As a commuter from Sonoma County, SMART is the best way to get to my work destinations in Marin and San Francisco. Not only do I avoid the bumper-to-bumper Highway 101 traffic in Novato, but the commute is also fast, friendly, relaxing and productive. With the comfortable seats, table spaces, electric outlets at each seat and free Wi-Fi, I use the travel time to listen to music and catch-up on work. Plus, when commuting to San Francisco, I save on expensive city parking, bridge tolls, and enjoy a beautiful sunrise Bay cruise – all before starting my day."

Looking to the future, and the need to train more vehicle maintenance staff across the rail sector, SMART is working to establish an apprenticeship program in conjunction with Santa Rosa Junior College's Industrial and Trade Technology program to work on the vehicles purchased by this grant.

Affordable Housing and Sustainable Communities

Affordable Housing and Sustainable Communities

CALIFORNIA STRATEGIC GROWTH COUNCIL (SGC)

Cumulative Funding

How much funding has the program received?

\$1669.1 million allocated.

How much has gone to implemented projects?

\$511.3 million implemented.

How much has been assigned for future projects?

\$486.7 million selected and awarded but not yet implemented.³²

Program Description

What types 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?

Apply through a statewide competitive process.

Who receives funds?

Local government agencies or districts (e.g., housing, transit, redevelopment, 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 located in and benefiting disadvantaged communities; projects should fulfill an identified community need and the community should be involved in project development.

³² The remaining \$ 552.3 million for local assistance is expected to be awarded in June 2020.

2019 OUTCOMES

\$188.4 M IMPLEMENTED

EXPECTED BENEFITS

379,704

MTCO₂E GHG REDUCTIONS

1,588

HOUSING UNITS

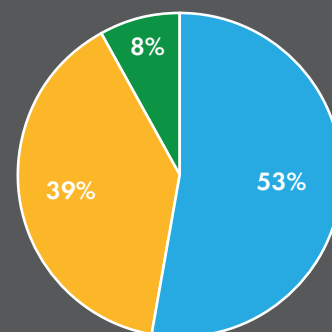
1,536

AFFORDABLE HOUSING UNITS

FUNDING DISTRIBUTION

\$173.9 M

TO BENEFIT PRIORITY POPULATIONS



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

CALIFORNIA STRATEGIC GROWTH COUNCIL (SGC)

Affordable Housing and Sustainable Communities

The Mission Heritage Plaza project is using \$16.8 million to help local partners build 71 new energy-efficient, affordable homes in downtown Riverside. The project will also plant over 200 new trees, provide two miles of new bike lanes, and create a multi-modal transit hub that links local and regional transit systems in one convenient location.

The Mission Heritage Plaza project is a partnership between the City of Riverside, the Riverside Transit Agency, Wakeland Housing and Development Corporation, and the Fair Housing Council of Riverside County (FHRC). In addition to providing affordable homes for low-income families and disabled homeless veterans, Mission Heritage Plaza will provide office space for the FHRC. It will also house the region's first Civil Rights Institute, ensuring that while the project looks toward the future, it also recognizes and celebrates the region's past.

Riverside, one of California's most populous cities, sits inside one of the fastest-growing counties in the United States. Its rapid growth contributes to the city's vibrancy, but also to a shortage of affordable housing. Additionally, downtown Riverside has some of the worst air quality in California – residents face an overall pollution burden ranking in the top five percent statewide.

This project's urban greening, transportation, and transit improvements help address community priorities and represent progress toward realizing a transit-oriented downtown, all while providing affordable housing, improving air quality, and leading to fewer GHG Emissions.

Riverside Transit Agency Chair Bridgette Moore remarked, "This is an exciting, innovative project that combines smart development, affordable homes, and an attractive transportation option that will last for generations to come."

These improvements will enable Mission Heritage Plaza residents – and those who live, work, and play in downtown Riverside – to drive less, helping to reducing GHG emissions and air pollution.



Affordable Housing and Sustainable Communities

Sustainable Agricultural Lands Conservation

CALIFORNIA STRATEGIC GROWTH COUNCIL (SGC)

Cumulative Funding

How much funding has the program received?

\$118.5 million allocated.

How much has gone to implemented projects?

\$32.5 million implemented.

How much has been assigned for future projects?

\$139.3 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Protection of critical agricultural lands at risk of conversion to more GHG-intensive residential uses by facilitating conservation easements and Agricultural Conservation Plans.

How to access funds?

Apply through a statewide competitive process.

Who receives funds?

Easement funding available to local and regional government entities and non-profit organizations. Agricultural Conservation Planning are 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.

2019 OUTCOMES

\$13.1 M IMPLEMENTED

EXPECTED BENEFITS

514,288

MTCO₂E GHG REDUCTIONS

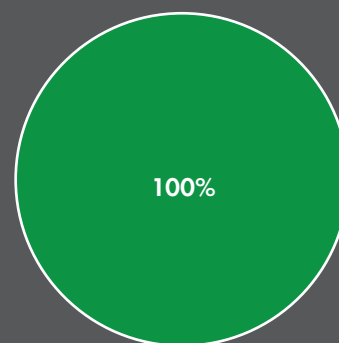
12,325

ACRES CONSERVED

FUNDING DISTRIBUTION

\$0 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA STRATEGIC GROWTH COUNCIL (SGC), DEPARTMENT OF CONSERVATION

Sustainable Agricultural Land Conservation

The Brazelton family, in partnership with the Solano Land Trust, will ensure the Brazelton ranch in Vacaville remains intact in perpetuity by placing their property under a conservation easement. Conservation of farmlands that surround urban areas helps promote infill development, avoid GHG emissions, and maintain a viable agricultural economy in the region. For Brazelton Ranch, it also ensures that current and future generations will continue to farm the property.

California grows more than two-thirds of the country's fruits, nuts, and vegetables, which generate over \$45 billion annually in revenue. However, the expansion of nonagricultural lands uses, including urban development, can lead to less land available for agricultural production. This is the case in Vacaville, a Northern California city historically known for farming. From 1960 to 2019, the population has grown from nearly 11,000 to over 100,000, and as a result, prime farmland has been lost to development.

Brazelton Ranch is a 2,204-acre plot of irrigated land and rangeland that provides sweeping views to the west of Vacaville. The Brazelton property produces fruit and grazes cattle, and sits in the Blue Ridge Berryessa Natural Area, which was identified by local partners as a conservation priority. The Brazelton family sells its fruit six days a week at a busy on-site farm stand that continues to gain popularity with the rise of the "buy local" movement.

"Solano Land Trust is excited to support the Brazeltons' choice to protect the family ranch and keep it available for productive agriculture for generations to come. The family and the ranch are mainstays in Solano County, offering fresh local produce, a friendly farm atmosphere, and an expansive view of the Vaca Mountains to visitors to enjoy. We commend them for their hard work as farmers and stewards and protectors of the land," said Tracy Ellison, Conservation Program Manager of Solano Land Trust.

Climate Change Research Program

CALIFORNIA STRATEGIC GROWTH COUNCIL (SGC)

Cumulative Funding

How much funding has the program received?

\$34.0 million appropriated.

How much has gone to implemented projects?

\$27.6 million implemented.

How much has been assigned for future projects?

Funding recipients for remaining funds have yet to be identified.

Program Description

What types of projects are funded?

Research on reducing carbon emissions, including clean energy, adaptation, and resiliency, with an emphasis on California.

How to access funds?

Apply through a statewide competitive 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.

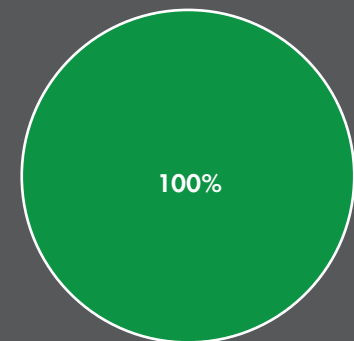
2019 OUTCOMES




\$20.7 M IMPLEMENTED

FUNDING DISTRIBUTION

\$0 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA STRATEGIC GROWTH COUNCIL (SGC)

Climate Change Research Program

The Toxic Tides research project, led by the University of California (UC), Berkeley Sustainability and Healthy Equity Laboratory is working to better understand how vulnerable communities living near hazardous sites may be affected under different sea levels rise scenarios. UC Berkeley is working with a team of partners composed of academic, non-profit, and community-based organizations in the San Francisco Bay Area, Central Coast, and Southern California.

This team is looking to answer two questions: what hazardous sites are likely to experience flooding under various projections of sea level rise in California, and how is proximity to at-risk sites distributed with respect to community demographics and indicators of social vulnerability?

Climate projections estimate that over three feet of sea level rise will hit the California coast by the end of the century if greenhouse gas emissions continue to increase. The coastal areas threatened by sea level rise contain around 500 hazardous materials sites, which are disproportionately located near low-income Californians and people of color.

Drawing on principles of community-based participatory research, organizations funded as part of the team with deep ties to these communities are gathering community feedback and sharing the findings with communities and policymakers. Partner organizations also serve on an advisory committee to guide all stages of the research and ensure outcomes are actionable, policy-relevant, and culturally and linguistically appropriate. The team will ultimately incorporate these community-informed findings into the Climate Central's Surging Seas RiskFinder and Risk Zone Map bilingual tools.

According to Ameer Raval, Senior Policy Researcher at the Asian Pacific Environmental Network and project partner, this research approach provides information that both policymakers and communities can use, "Our partnership with UC Berkeley is allowing community-based organizations to be actively involved for the duration of the project, leading to research results that our communities will be able to act on quickly."

To support such action, the project team will host community workshops to deliver and explain research findings to local stakeholders. The project team will also communicate with policymakers to help them understand and incorporate into adaptation plans, local land use policies, regulatory practices, and other policies.

Technical Assistance

CALIFORNIA STRATEGIC GROWTH COUNCIL (SGC)

Cumulative Funding

How much funding has the program received?

\$11.0 million allocated.

How much has gone to implemented projects?

\$6.6 million implemented.

How much has been assigned for future projects?

\$5.8 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Application and implementation assistance, as well as partnership development and capacity building activities for eligible California Climate Investments applicants.

How to access funds?

Apply through a statewide competitive process.

Who receives funds?

Technical assistance providers.

How do funds reach priority populations?

A majority of funds assist applicants from disadvantaged and low-income communities.

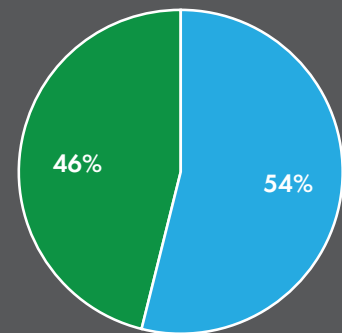
2019 OUTCOMES




\$4.4 M IMPLEMENTED

FUNDING DISTRIBUTION

\$3.1 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA STRATEGIC GROWTH COUNCIL (SGC)

Technical Assistance

In a partnership with the Strategic Growth Council and the California Department of Food and Agriculture (CDFA), the UC Division of Agriculture and Natural Resources (UC ANR) is providing outreach, education, and technical assistance to farmers and ranchers across California.

Many under-resourced communities across California lack awareness of California Climate Investments funding opportunities or the knowledge, tools, or capacity to access them. The Technical Assistance program helps level the playing field for applicants lacking the capacity to access funds successfully, particularly those living in the most disadvantaged communities.

To provide this assistance, UC ANR hired a team of 10 Community Education Specialists assigned to different counties across the State to work with agricultural communities and Resource Conservation Districts to understand and implement locally relevant climate smart agriculture practices. In addition to hosting field days and workshops, the team provides one-on-one technical assistance of the CDFA Climate Smart Agriculture grant programs, including the Alternative Manure Management Program, the State Water Efficiency and Enhancement Program, and the Healthy Soils Program.

Alli Fish, a Community Education Specialist for Ventura County, hosted a large-scale demonstration at the Hansen Research and Education Center in Santa Paula highlighting regionally suitable cover crops. The first field day drew over 100 growers from throughout the county along with 40 master gardeners and community educators. Participants rotated through stations that showcased different categories of cover crops and healthy soils. They also learned how to take advantage of technical assistance resources in time for the upcoming Healthy Soils Program solicitation period.

Alana King, co-owner of King & King Ranch in Fillmore, CA, was grateful for the help, "Alli was absolutely instrumental as a mentor and guide through the bewildering Healthy Soils grant application processes. As small family farmers, we find it hard to find time to sit at a computer and research details and write comprehensive applications. We couldn't have gotten through them without Alli's knowledge, positivity, and research help."

Transformative Climate Communities

CALIFORNIA STRATEGIC GROWTH COUNCIL (SGC)

Cumulative Funding

How much funding has the program received?

\$250.0 million appropriated.

How much has gone to implemented projects?

\$117.0 million implemented.

How much has been assigned for future projects?

\$56.6 million selected and awarded but not yet implemented.

Program Description

What types 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?

Apply through a statewide competitive process.

Who receives funds?

Community-based organizations, local governments, non-profit organizations, philanthropic organizations and foundations, faith-based organizations, coalitions or associations of non-profit 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 comprise 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.

2019 OUTCOMES

\$117.0 M IMPLEMENTED

EXPECTED BENEFITS

287,501

MTCO₂E GHG REDUCTIONS

111,037,210

VMT REDUCTIONS

236

AFFORDABLE HOUSING UNITS

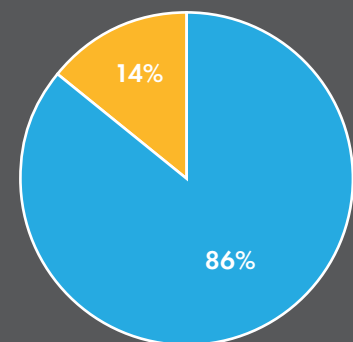
4,573

TREE PLANTINGS

FUNDING DISTRIBUTION

\$117.0 M

TO BENEFIT PRIORITY POPULATIONS



■ disadvantaged communities

■ low-income communities & households

■ other areas of California

CALIFORNIA STRATEGIC GROWTH COUNCIL (SGC)

Transformative Climate Communities

Fresno has long struggled with environmental, health, and economic issues and several of its historic neighborhoods have some of the highest concentrations of poverty and air pollution in the nation. The Transform Fresno initiative, with \$66.5 million in Transformative Climate Communities (TCC) investments, allowed a broad group of stakeholders to collaborate on an integrated suite of projects meant to reduce disparities in these neighborhoods.



Energy efficiency and solar energy programs reducing air pollution and GHGs are integral to the project, and enable residents to save money on their energy bills and benefit from on-the-job training leading to local employment opportunities in clean energy. GRID Alternatives Central Valley and the Fresno Economic Alternatives Commission (Fresno EOC) operate these programs in collaboration.

GRID Alternatives offers two programs benefiting low-income families as part of Transform Fresno – one for single-family homes, and the other on multi-family buildings. GRID’s multi-family initiative will install solar panels on five Fresno Housing Authority Buildings while their single-family initiative will install solar panels on 60 homes in southwest Fresno. GRID also partners with Fresno Center for New Americans and Stone Soup Fresno to provide monthly energy efficiency workshops and classes, and conduct outreach to help others qualify for these incentives.

Fresno EOC is installing energy efficiency and solar water heating on 170 single-family homes in Southwest Fresno, and will assess, design, and install solar panels on 135 single-family homes. Both EOC and GRID are providing technical support throughout the warranty period.

Solar job training for residents is a transformative component of these programs. Through its multi-family and single-family initiatives, GRID and EOC will train over 200 people opening doors for those facing barriers to employment.

“There’s a lot of people that don’t want to give us a second chance and that’s [one] thing I like about GRID Alternatives” says Luther Mays, a GRID Alternatives Central Valley Solar Trainee. “I’m gaining specific skills. Now I know how to lay out an array, how to drill down for the rafters. We learned about skip sheeting. It’s fun work.”

These projects by GRID and EOC account for more than half of the estimated GHG emissions reductions from the Transform Fresno project.

Climate Adaptation and Resiliency Program

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?

\$4.5 million implemented.

How much has been assigned for future projects?

\$11.8 million selected and awarded but not yet implemented.

Program Description

What types of projects are funded?

Conservation of natural and working lands to benefit climate adaptation and resilience for wildlife. Development and implementation of climate adaptation and resiliency projects that prioritize conservation and management of natural and working lands, provide technical assistance for natural and working land managers, and support efforts that improve rural-urban coordination on climate change adaptation.

How to access funds?

Apply through a statewide competitive process.

Who receives funds?

Local governments, park and open space districts, resource conservation districts, private landowners, and non-profit organizations.

How do funds reach priority populations?

Projects benefiting priority populations receive enhanced application scoring.

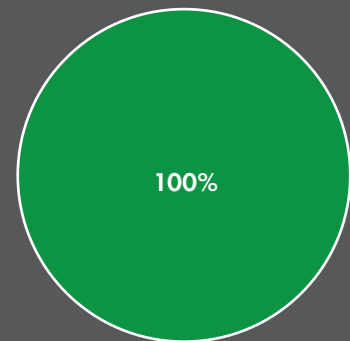
2019 OUTCOMES

\$4.5 M IMPLEMENTED

FUNDING DISTRIBUTION

\$0 M

TO BENEFIT PRIORITY POPULATIONS



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



CALIFORNIA WILDLIFE CONSERVATION BOARD (WCB)

Climate Adaptation and Resiliency Program

The Contra Costa County Flood Control and Water Conservation District (CCFCWCD) received a grant of \$1,250,000 to restore 400 acres of coastal wetlands and adjacent habitat at the mouth of Walnut Creek and its tributary, Pacheco Creek.

The 150 square mile area of Lower Walnut Creek is the largest watershed in Contra Costa County and one of the largest in the Bay Area. The mouth of this creek system once supported expansive tidal marsh habitat, but over time grazing, farming, industrialization, and urbanization had degraded this habitat.

In the 1960s, the U.S. Army Corps of Engineers constructed levees along the creek banks and deepened the channel to control periodic flooding. However, sediment built up in the creek at higher rates than expected. By the early 1990s, an operation was planned to remove this sediment, as conditions existed to create a management dilemma that exists to this day, either the sediment is removed and habitat destroyed, or the sediment remains at the expense of flood capacity.

In response, the CCFCWCD, local communities, and partner organizations developed a vision to restore Lower Walnut Creek into a sustainable system with multiple and complementary objectives. It also accommodates for a range of future sea level rise scenarios. Since 2014, the CCFCWCD and partner organizations have been working to complete the planning, design, and permitting needed to implement this vision.

This project funds the excavation and grading needed to remove or relocate about two miles of dikes and levees to re-establish tidal connectivity and adjacent terrestrial habitats. The design allows wetland habitat to adapt to a rising sea level and will provide public access and recreation by connecting into two regional trails (Iron Horse and SF Bay Trail) that currently do not have access to the Suisun Bay.

Project Manager Paul Detjens of the CCFCWCD believes the effort it takes to create a resilient habitat is worth it. "It would be easier to design for maximum wetland benefits now, but instead we're considering the longer view, and incorporating climate resiliency into the project. This provides great benefits now, but also ensures those benefits persist in the long term."

Climate Resilience Planning

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION (BCDC)

Cumulative Funding

How much funding has the program received?
\$2.8 million appropriated.

How much has gone to implemented projects?
\$2.8 million implemented

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

Program Description

What types 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.

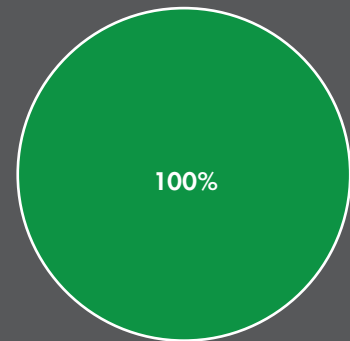
2019 OUTCOMES




\$2.3 M IMPLEMENTED

FUNDING DISTRIBUTION

\$0 M

TO BENEFIT PRIORITY POPULATIONS



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

APPENDICES



Appendix A: Cumulative Leveraged Funds

Agency	Program	Subprogram	Total GGRF Implemented (\$M)	Total Project Cost (\$M)	Funds From Additional Sources (\$M)	Leveraged Ratio (Funds from Additional Sources/GGRF Implemented)	
California Air Resources Board	Community Air Protection	Community Air Grants	9.7	11.6	1.9	0.2	
		Community Air Protection Funds	253.4	397.8	144.3	0.6	
	Funding Agricultural Replacement Measures for Emission Reductions	Advanced Technology Freight Demonstration Projects		79.2	127.5	48.3	0.6
		Clean Cars 4 All		50.5	51.2	0.7	0.0
		Clean Mobility Options		9.6	15.9	6.4	0.7
	Low Carbon Transportation	Clean Vehicle Rebate Project		1,360.6	6,323.0	2,481.9	1.8
		Rural School Bus Pilot Projects		21.6	22.1	0.5	0.0
		Zero- and Near Zero-Emission Freight Facilities		148.7	403.4	254.7	1.7
		Zero-Emission Truck and Bus Pilot Projects		82.8	143.9	61.1	0.7
	California Coastal Commission	Woodsmoke Reduction		4.8	7.1	2.3	0.5
		Coastal Resilience Planning		0.8	1.8	1.1	1.4
	California Department of Community Services and Development	Multi-Family Energy Efficiency and Renewables		33.7	55.6	26.4	0.8
		Low-income Weatherization		70.0	80.1	18.7	0.3
California Department of Fish and Wildlife	Single-Family Solar Photovoltaics		51.0	64.9	20.7	0.4	
	Wetlands and Watershed Restoration		25.5	45.9	20.4	0.8	

Agency	Program	Subprogram	Total GGRF Implemented (\$M)	Total Project Cost (\$M)	Funds From Additional Sources (\$M)	Leveraged Ratio (Funds from Additional Sources/GGRF Implemented)
California Department of Food and Agriculture	Climate Smart Agriculture	Alternative Manure Management	31.2	36.2	5.0	0.2
		Dairy Digester Research and Development	115.3	320.6	205.3	1.8
		Healthy Soils	9.2	15.9	6.7	0.7
		State Water Efficiency and Enhancement	61.9	100.1	38.2	0.6
California Department of Forestry and Fire Protection	Fire Prevention		100.1	113.3	13.2	0.1
		Forest Health	237.9	340.0	102.1	0.4
		Forest Health Research	2.4	2.6	0.2	0.1
		Urban and Community Forestry	52.8	78.4	25.6	0.5
California Department of Resources Recycling and Recovery	Waste Diversion	Food Waste Prevention and Rescue Grants	20.2	35.6	15.4	0.8
		Organics and Recycling Manufacturing Loans	5.7	136.5	130.8	22.9
		Organics Grants	56.7	308.1	251.4	4.4
		Recycled Fiber, Plastic, and Glass Grants	25.7	118.0	92.4	3.6
California Department of Transportation	Active Transportation		10.0	16.3	6.3	0.6
		Low Carbon Transit Operations	333.2	5,211.9	4,878.6	14.6
		State Water Project: Turbines	20.0	43.1	23.1	1.2
California Department of Water Resources	Water-Energy Grant		36.2	41.0	4.7	0.1
		Food Production Investment	28.4	41.6	13.2	0.5
California Energy Commission	Renewable Energy for Agriculture		9.2	14.5	5.3	0.6
		High-Speed Rail Project	906.6	77,300.0	76,393.4	595.8
California Natural Resources Agency	Urban Greening		98.0	166.7	68.7	0.7
California State Coastal Conservancy	Climate Ready		3.8	6.0	2.2	0.6
California State Transportation Agency	Transit and Intercity Rail Capital		362.0	3,431.3	3,069.2	8.5

Agency	Program	Subprogram	Total GGRF Implemented (\$M)	Total Project Cost (\$M)	Funds From Additional Sources (\$M)	Leveraged Ratio (Funds from Additional Sources/GGRF Implemented)
California Strategic Growth Council	Affordable Housing and Sustainable Communities	Affordable Housing and Sustainable Communities	511.3	2,551.3	2,040.0	4.0
	Climate Change Research	Sustainable Agricultural Lands Conservation	32.5	59.1	26.6	0.8
				27.6	28.9	1.3
California Wildlife Conservation Board	Transformative Climate Communities		117.0	285.0	168.0	1.4
	Climate Adaptation and Resiliency		4.5	7.2	2.6	0.6
Total			4,586.8	21,382.6	16,795.9	3.7

Appendix B: 2019 Statistics on Competitive Project Proposals Received

Agency	Program	Type of Award Recipient(s)	Response To Solicitation				Percent of Selected Funds Requested
			Proposals Received		Proposals Selected		
			Number	Amount	Number	Amount	
California Air Resources Board	Advanced Technology Freight Demonstration Projects	Awarded Directly to Recipient	10	\$140,054,103	3	\$47,269,700	296%
	Clean Mobility in Schools Project	Awarded Directly to Recipient	7	\$55,000,000	3	\$24,567,500	224%
	Clean Mobility Options	Awarded to an Intermediary	3	\$51,000,000	1	\$17,000,000	300%
	Clean Off-Road Equipment	Awarded to an Intermediary	3	\$120,000,000	1	\$40,000,000	300%
	Zero- and Near Zero-emission Freight Facilities	Awarded to an Intermediary	13	\$218,000,000	11	\$203,000,000	107%
	Prescribed Fire Smoke Monitoring	Awarded Directly to Recipient	31	\$2,350,000	31	\$2,350,000	100%
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	14	\$2,347,830	12	\$1,500,000	157%
			5	\$5,078,048	3	\$4,226,557	120%
California Department of Food and Agriculture	Alternative Manure Management	Awarded Directly to Recipient	96	\$57,538,447	52	\$32,699,175	176%
	Dairy Digester Research and Development	Awarded Directly to Recipient	70	\$108,707,045	44	\$69,143,550	157%
	Healthy Soils	Awarded Directly to Recipient	252	\$14,793,320	34	\$3,792,915	390%
California Department of Forestry and Fire Protection	Forest Carbon Plan Implementation	Awarded Directly to Recipient	22	\$7,392,054	10	\$2,807,320	263%
	Forest Health	Awarded Directly to Recipient	61	\$186,825,777	26	\$66,215,459	282%
	Urban and Community Forestry	Awarded Directly to Recipient	18	\$12,562,683	4	\$3,423,975	367%
California Department of Resources Recycling and Recovery	Food Waste Prevention and Rescue Grants	Awarded Directly to Recipient	61	\$18,925,433	36	\$11,263,671	168%
	Organics and Recycling Manufacturing Loans	Awarded Directly to Recipient	2	\$4,000,000	2	\$4,000,000	100%
	Recycled Fiber, Plastic, and Glass Grants	Awarded Directly to Recipient	14	\$32,943,964	5	\$11,675,626	282%

Agency	Program	Type of Award Recipient(s)	Response To Solicitation				Percent of Selected Funds Requested
			Proposals Received		Proposals Selected		
			Number	Amount	Number	Amount	
California Energy Commission	Food Production Investment	Awarded Directly to Recipient	13	\$27,475,723	8	\$16,412,632	167%
	Renewable Energy for Agriculture	Awarded Directly to Recipient	98	\$19,742,570	45	\$9,500,000	208%
California Natural Resources Agency	Regional Forest and Fire Capacity	Awarded Directly to Recipient	8	\$18,000,000	8	\$18,000,000	100%
	Urban Greening	Awarded Directly to Recipient	59	\$109,798,267	11	\$19,000,000	578%
California State Coastal Conservancy	Climate Ready	Awarded Directly to Recipient	11	\$6,200,000	5	\$2,595,470	239%
	Affordable Housing and Sustainable Communities	Awarded Directly to Recipient	23	\$9,827,241	11	\$3,800,000	259%
California Strategic Growth Council	Transformative Climate Communities	Awarded Directly to Recipient	47	\$673,741,832	25	\$402,398,806	167%
	Climate Adaptation and Resiliency	Awarded Directly to Recipient	4	\$92,000,000	2	\$46,000,000	200%
California Wildlife Conservation Board	Climate Adaptation and Resiliency	Awarded Directly to Recipient	49	\$32,275,798	22	\$16,877,055	191%
		Total	984	\$1,832,652,032	414	\$1,008,432,211	182%

Appendix C: Cumulative Budgetary Expenditures

Agency	Program	Appropriations (\$M) ³⁴	State Ops (\$M)	Local Assistance (\$M)	Capital Outlay (\$M)	Cumulative Budgetary Expenditures (\$M)	Cumulative Administration Costs (\$M) ³⁵
California Air Resources Board*	Community Air Protection; Fluorinated Gases Emission Reduction Incentives; Funding Agricultural Replacement Measures for Emission Reductions; Low Carbon Transportation; Prescribed Fire Smoke Monitoring; Woodsmoke Reduction	\$3,340.8	\$93.8	\$2,248.8	\$0.0	\$2,342.7	\$65.8
California Coastal Commission*	Coastal Resilience Planning	\$4.5	\$0.7	\$1.4	\$0.0	\$2.2	\$0.1
California Conservation Corps*	Training and Workforce Development	\$38.4	\$15.9	\$0.0	\$0.0	\$15.9	\$0.8
California Department of Community Services and Development*	Low-income Weatherization	\$211.7	\$11.3	\$190.5	\$0.0	\$201.8	\$11.3
California Department of Fish and Wildlife*	Wetlands and Watershed Restoration	\$46.8	\$5.2	\$25.5	\$0.0	\$30.7	\$5.2
California Department of Food and Agriculture*	Climate Smart Agriculture	\$403.6	\$86.4	\$248.5	\$0.0	\$334.9	\$22.6
California Department of Forestry and Fire Protection*	Community Fire Planning and Preparedness; Fire Prevention; Forest Carbon Plan Implementation; Sustainable Forests	\$888.4	\$519.4	\$23.6	\$0.0	\$543.0	\$4.6
California Department of Resources Recycling and Recovery*	Waste Diversion	\$158.8	\$12.5	\$99.9	\$0.0	\$112.4	\$2.5
California Department of Transportation	Active Transportation; Low Carbon Transit Operations	\$534.8	\$0.0	\$380.8	\$0.0	\$380.8	\$0.0
California Department of Water Resources	State Water Project Turbines; Water-Energy Grant	\$69.8	\$2.4	\$46.1	\$20.0	\$68.6	\$2.4
California Energy Commission*	Food Protection Investment; Low-Carbon Fuel Production; Renewable Energy for Agriculture	\$146.5	\$0.9	\$48.7	\$0.0	\$49.5	\$0.8

³⁴ Certain administering agencies have provisional language allowing for transfer of appropriated funds to other State agencies to implement California Climate Investment programs.

³⁵ Administrative expenditures include cost incurred directly by administering agencies for program implementation. Some programs use an intermediary (e.g. third-party contractor, regional administrator) to implement programs. Costs incurred by intermediaries are reported as implemented projects and included in the reported implemented funds.

Agency	Program	Appropriations (\$M) ³⁴	State Ops (\$M)	Local Assistance (\$M)	Capital Outlay (\$M)	Cumulative Budgetary Expenditures (\$M)	Cumulative Administration Costs (\$M) ³⁵
California Environmental Protection Agency*	Transition to a Carbon-Neutral Economy	\$3.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
California Governor's Office of Emergency Services*	Wildfire Response and Readiness	\$51.2	\$25.3	\$4.9	\$0.0	\$30.2	\$25.3
California High-Speed Rail Authority	High-Speed Rail Project	\$2,853.4	\$0.0	\$0.0	\$906.6	\$906.6	\$0.0
California Natural Resources Agency*	Regional Forest and Fire Capacity; Urban Greening	\$176.6	\$0.5	\$119.7	\$0.0	\$120.2	\$1.7
California State Coastal Conservancy*	Climate Ready	\$7.0	\$0.3	\$3.8	\$0.0	\$4.1	\$0.3
California State Transportation Agency*	Transit and Intercity Rail Capital	\$1,161.2	\$3.4	\$1,037.3	\$0.0	\$1,040.7	\$3.4
California State Water Resources Control Board	Safe and Affordable Funding for Equity and Resilience Drinking Water	\$100.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
California Strategic Growth Council*	Affordable Housing and Sustainable Communities; Climate Change Research; Technical Assistance; Transformative Climate Communities	\$2,430.1	\$64.9	\$937.8	\$0.0	\$1,002.7	\$35.1
California Wildlife Conservation Board*	Climate Adaptation and Resiliency	\$20.0	\$0.0	\$4.3	\$0.0	\$4.3	\$0.0
California Workforce Development Board	Low Carbon Economy Workforce	\$35.4	\$0.5	\$0.0	\$0.0	\$0.5	\$0.1
SF Bay Conservation and Development Commission*	Climate Resilience Planning	\$2.8	\$1.0	\$0.3	\$0.0	\$1.4	\$0.1
Totals for Program		\$12,684.8	\$844.7	\$5,422.0	\$926.6	\$7,193.2	\$182.2
Office of Environmental Health and Hazard Assessment*	Identification of Disadvantaged Communities	\$5.4	\$4.0	\$0.0	\$0.0	\$4.0	\$4.0
California Department of Finance	Administration	<\$0.1	<\$0.1	\$0.0	\$0.0	<\$0.1	<\$0.1
Financial Information System for California	Administration	\$0.2	\$0.2	\$0.0	\$0.0	\$0.2	\$0.2

Agency	Program	Appropriations (\$M) ³⁴	State Ops (\$M)	Local Assistance (\$M)	Capital Outlay (\$M)	Cumulative Budgetary Expenditures (\$M)	Cumulative Administration Costs (\$M) ³⁵
California State Controller's Office	Controller's Fees	<\$0.1	<\$0.1	\$0.0	\$0.0	<\$0.1	<\$0.1
California Air Resources Board*	Statewide Administration	\$68.8	\$55.0	\$0.0	\$0.0	\$55.0	\$55.0
Other	Pension Payments	\$0.0	\$1.1	\$0.0	\$0.0	\$1.1	\$1.1
	Administration	\$50.9	\$41.8	\$0.0	\$0.0	\$41.8	\$41.8
Totals for Programs Including Administration & Support		\$12,810.0	\$946.8	\$5,422.0	\$926.6	\$7,295.4	\$284.4

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

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