

# 2018



## ANNUAL REPORT

Cap-and-Trade Auction Proceeds

## **Program Webpage**

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Annual Report to the Legislature on

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

GREENHOUSE GAS REDUCTION FUND MONIES



March 2018

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# TERMS AND ABBREVIATIONS

## General / Common Terms

<b>AB</b>	Assembly Bill
<b>BAU</b>	Business as Usual
<b>CCIRTS</b>	California Climate Investments Reporting and Tracking System
<b>FY</b>	Fiscal Year
<b>GGRF (or Fund)</b>	Greenhouse Gas Reduction Fund
<b>SB</b>	Senate Bill
<b>Secretary</b>	Secretary for Environmental Protection at CalEPA
<b>\$B</b>	Billion Dollars
<b>\$M</b>	Million Dollars

## Documents

<b>Report (or Annual Report)</b>	2018 Annual Report to the Legislature
<b>Funding Guidelines</b>	Funding Guidelines for Agencies that Administer California Climate Investments
<b>Scoping Plan</b>	2017 Scoping Plan for Achieving California's 2030 Greenhouse Gas Target

## Agencies

<b>CAL FIRE</b>	California Department of Forestry and Fire Protection
<b>CalEnviroScreen</b>	California Communities Environmental Health Screening Tool
<b>CalEPA</b>	California Environmental Protection Agency
<b>CalRecycle</b>	California Department of Resources Recycling and Recovery
<b>CalSTA</b>	California State Transportation Agency
<b>Caltrans</b>	California Department of Transportation
<b>CARB or Board</b>	California Air Resources Board
<b>CCC</b>	California Conservation Corps
<b>CDFA</b>	California Department of Food and Agriculture
<b>CHSRA or Authority</b>	California High-Speed Rail Authority
<b>CNRA</b>	California Natural Resources Agency
<b>CSD</b>	California Department of Community Services and Development



<b>DFW</b>	California Department of Fish and Wildlife
<b>DOC</b>	California Department of Conservation
<b>DWR</b>	California Department of Water Resources
<b>Finance</b>	California Department of Finance
<b>HCD</b>	California Department of Housing and Community Development
<b>OEHHA</b>	Office of Environmental Health Hazard Assessment
<b>OES</b>	Governor's Office of Emergency Services
<b>OPR</b>	Office of Planning and Research
<b>SGC</b>	Strategic Growth Council
<b>WCB</b>	California Wildlife Conservation Board

## Other Organizations

<b>UC</b>	University of California
<b>Foundation</b>	Foundation for California Community Colleges

## Programs / Subprograms

<b>AHSC</b>	Affordable Housing and Sustainable Communities
<b>AMMP</b>	Alternative Manure Management Program
<b>ATP</b>	Active Transportation Program
<b>CVRP</b>	Clean Vehicle Rebate Project
<b>DDRDP</b>	Dairy Digester Research and Development Program
<b>EFMP Plus-Up</b>	Enhanced Fleet Modernization Program Plus-Up
<b>FARMER</b>	Funding Agricultural Replacement Measures for Emission Reductions
<b>LCTOP</b>	Low Carbon Transit Operations Program
<b>LIWP</b>	Low-Income Weatherization Program
<b>SALC</b>	Sustainable Agricultural Lands Conservation
<b>SWEEP</b>	State Water Efficiency and Enhancement Program
<b>TCC</b>	Transformative Climate Communities
<b>TIRCP</b>	Transit and Intercity Rail Capital Program

## Technical Terms

<b>CNG</b>	Compressed Natural Gas
<b>CO</b>	Carbon Monoxide
<b>CO<sub>2</sub></b>	Carbon Dioxide
<b>Diesel PM</b>	Diesel Particulate Matter
<b>GHG</b>	Greenhouse Gas
<b>GWP</b>	Global Warming Potential
<b>MTCO<sub>2</sub>e</b>	Metric Tons of Carbon Dioxide Equivalents
<b>N<sub>2</sub>O</b>	Nitrous Oxide
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>PM</b>	Particulate Matter
<b>ROG</b>	Reactive Organic Gases
<b>SLCP</b>	Short-Lived Climate Pollutant
<b>Solar PV</b>	Solar Photovoltaics

# EXECUTIVE SUMMARY

Proceeds from the Cap-and-Trade Program facilitate comprehensive and coordinated investments throughout California that further the State's climate goals. These investments support programs and projects that facilitate in-State greenhouse gas (GHG) emission reductions and deliver major economic, environmental, and public health benefits for Californians, including meaningful benefits to the most disadvantaged communities, low-income communities, and low-income households. Communities where investments occur are realizing a wide range of benefits, including more transit options; increased affordable housing opportunities near jobs and services; improved mobility options through transit, walking, and biking; cleaner air through zero-emission vehicles; expanded job opportunities; energy and water savings; expanded tree cover; and greener, more vibrant communities. These funds also support the State's ability to drive innovation, advance emerging technologies, and enhance natural and working lands.

In 2017, the Legislature passed and the Governor signed Assembly Bill (AB) 398 (E. Garcia, Chapter 135, Statutes of 2017), which clarifies the role of the Cap-and-Trade Program post 2020. AB 398 also allows for a continuation of Cap-and-Trade auction proceeds investments to advance the State's climate priorities.

The State's portion of the Cap-and-Trade auction proceeds are deposited in the Greenhouse Gas Reduction Fund (GGRF or Fund), and used to further the objectives of the California Global Warming Solutions Act of 2006 (AB 32; Núñez, Chapter 488, Statutes of 2006). To date, the Legislature has appropriated nearly

## CUMULATIVE OUTCOMES



60,000 projects installing efficiency measures in homes



150,000+ rebates issued for zero-emission and plug-in hybrid vehicles



250,000+ acres of land preserved or restored



14,000+ trees planted in urban areas



330+ transit agency projects funded, adding or expanding transit options



1,600+ affordable housing units under contract



50% of funding for projects benefiting disadvantaged communities (\$1 billion +)



215,000+ individual projects implemented



\$6.1 billion to State agencies administering GHG emission reduction programs and projects. These agencies, referred to as “administering agencies,” design and implement a suite of programs in transportation and sustainable communities, clean energy and energy efficiency, and natural resources and waste diversion. Funded programs and projects are collectively referred to as California Climate Investments. With recent appropriations expanding the number of administering agencies from 12 to 17, numerous programs are under development or implementing funds to deliver near and long-term benefits to individuals, households, businesses, and communities throughout California.

## Purpose of Report

AB 1532 (Pérez, Chapter 807, Statutes of 2012) requires the Department of Finance (Finance) to submit an Annual Report to the Legislature (Annual Report) on the status and outcomes of projects funded from the GGRF. This 2018 Annual Report (Report) summarizes programmatic investments from the Fund, and provides estimates of GHG emission reductions expected from project investments. It also provides key statistics on benefits to disadvantaged communities, low-income communities, and low-income households; demand for funding; and leveraged funds. This Report provides data for 2017 as well as cumulative data, described as follows:

- “2017” data – reported for December 1, 2016 - November 30, 2017.
- “Cumulative” data – reported since a program’s inception.











Detailed data are available at [caclimateinvestments.ca.gov](http://caclimateinvestments.ca.gov), including information on project location, GHG emission reductions, and benefits to disadvantaged communities, low-income communities, or low-income households. The information is also available on an interactive map and can be downloaded to support further analyses.

## Appropriations

The Legislature appropriates money from the Fund for agencies to administer programs that facilitate GHG emission reductions and further the purpose of AB 32 through continuous appropriations enacted in Senate Bill (SB) 862 (Committee on Budget and Fiscal Review, Chapter 36, Statutes of 2014), and through the Budget Act.

Through Fiscal Year (FY) 2016-17, the Legislature appropriated nearly \$3.7 billion for an expanding set of programs. More recently, in September 2017, the Legislature appropriated over \$1.5 billion for new and existing programs. Table ES-1 shows the FY 2017-18 and cumulative appropriations for investments in projects as of December 15, 2017, which also includes approximately \$850 million in continuous appropriations since FY 2016-17.

**Table ES-1: Cumulative Appropriations for Project and Administrative Expenses  
for California Climate Investments**

Administering Agency	Program	Appropriations <sup>1</sup> (\$M)		
		Cumulative Appropriations, Prior to FY 2017-18 Appropriations	FY 2017-18 Appropriations	Cumulative Total
	Community Air Protection Program	--	\$267	\$267
	Funding Agricultural Replacement Measures for Emission Reductions Program	--	\$85	\$85
	Low Carbon Transportation Program	\$695	\$571	\$1,266
	Active Transportation Program	\$10	--	\$10
	Low Carbon Transit Operations Program*	\$160	\$71	\$231
	High-Speed Rail Project*	\$930	\$356	\$1,287
	Transit and Intercity Rail Capital Program*	\$433	\$142	\$575
	Affordable Housing and Sustainable Communities Program; Sustainable Agricultural Lands Conservation Program*	\$674	\$285	\$959
	California Climate Investments Technical Assistance Program	\$2	--	\$2
	Climate Change Research Program	--	\$11	\$11
	Transformative Climate Communities Program	\$140	\$10	\$150
	Woodsmoke Reduction Program	\$5	--	\$5
	Low-Income Weatherization Program	\$174	\$18	\$192
	Alternative Renewable Fuels Program	\$3	--	\$3
	State Water Efficiency and Enhancement Program	\$66	--	\$66
	State Water Project Turbines	\$20	--	\$20
	Water-Energy Grant Program	\$50	--	\$50
	Food Production Investment Program	--	\$60	\$60
	Renewable Energy for Agricultural Program	--	\$6	\$6

Administering Agency	Program	Appropriations <sup>1</sup> (\$M)		
		Cumulative Appropriations, Prior to FY 2017-18 Appropriations	FY 2017-18 Appropriations	Cumulative Total
	Training and Workforce Development Program	--	\$5	\$5
	Wetlands and Watershed Restoration Program	\$27	\$15	\$42
	Alternative Manure Management Program; Dairy Digester Research and Development Program	\$62	\$99	\$161
	Healthy Soils Program	\$ 8	--	\$8
	Forest Health Program, Fire Prevention Program, and Urban and Community Forestry Program	\$82	\$ 220	\$302
	Wildfire Prevention Program	--	\$75	\$75
	Waste Diversion Program	\$71	\$41	\$112
	Urban Greening Program	\$80	\$26	\$106
	Climate Ready Program and Coastal Resilience Planning	--	\$6	\$6
	Climate Adaptation and Conservation Easements	--	\$20	\$20
	Wildfire Response and Readiness	--	\$25	\$25
<b>Total<sup>3</sup></b>		<b>\$3.7 Billion</b>	<b>\$2.4 Billion</b>	<b>\$6.1 Billion</b>

<sup>1</sup> 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.

<sup>2</sup> SB 862 states that \$400 million shall be available to the California High-Speed Rail Authority (CHSRA) beginning in FY 2015-16, as repayment of a loan from the GGRF to the General Fund. This money shall be repaid as necessary, based on the financial needs of the High-Speed Rail Project. This loan amount is not included in the reported \$1.29 billion cumulative appropriation.

<sup>3</sup> Totals may not sum due to rounding.

\* Programs denoted with an asterisk received continuously appropriated funds.



The Governor's proposed Budget for FY 2018-19, released at the end of January 2018, includes an additional \$1.25 billion in funding for California Climate Investments to continue advancing California's low-carbon future, while providing meaningful benefits to the State's disadvantaged and low-income communities and households. This budget proposal includes funding for many of the existing climate and community priorities included in previous budget packages, while also proposing a long-term funding commitment to support the Governor's zero-emission vehicle targets. To review the Governor's proposed Budget for FY 2018-19, visit: [ebudget.ca.gov/2018-19/pdf/BudgetSummary/ClimateChange.pdf](http://ebudget.ca.gov/2018-19/pdf/BudgetSummary/ClimateChange.pdf).

## Accomplishments and Outcomes

Over the past year, administering agencies and other funding recipients made significant progress delivering GHG emission reductions, benefits to disadvantaged communities, low-income communities and households, and other valuable co-benefits to communities and individuals throughout the State. Of the funds appropriated prior to September 2017, administering agencies have utilized over 80 percent — meaning they have selected or awarded projects for nearly all of those funds. In the past year, agencies implemented over \$720 million in funding for new projects, with over 8 million metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) in expected GHG emission reductions over the quantification period. Table ES-2 and the "Funding Outcomes" section of this Report provide more information on funding outcomes.

Additionally, agencies administering programs newly established in the FY 2016-17 Budget made considerable progress in program design and implementation, including project selection. For example, the California Natural Resources Agency's (CNRA) Urban Greening Program selected 39 projects to receive \$76 million for green infrastructure projects. These projects convert built environments into green spaces that reduce GHG emissions, improve air and water quality, and provide recreation opportunities. With project types that range from a new greenway and trail segment in Oakland, to a new park with walking paths, trees, and water capture systems in El Centro, this program is helping to create urban greenspaces throughout the State. The "Implementing California Climate Investments" section of this Report provides a more detailed overview of how agencies develop their respective programs.

Administering agencies are working together to expand and improve outreach, engage communities, and establish community-based partnerships to build a foundation for the continued success of California Climate Investments. Since the 2017 Annual Report, administering agencies implemented a collaborative engagement strategy to increase participation among, and deliver meaningful benefits to, disadvantaged communities and low-income communities and households throughout the State through coordinated outreach and technical assistance. The "Community Engagement" section of this Report describes how agencies continue to expand and deepen community engagement efforts to help all communities share in the benefits of California Climate Investments.

California Climate Investments are also evolving and responding to new legislative priorities. For example, in 2017, the Legislature passed AB 398, which established new priorities for Cap-and-Trade auction proceeds. Additionally, in 2016, the Legislature passed AB 1550 (Gomez, Chapter 369, Statutes of 2016), which amended existing statutory direction and established new investment minimums for disadvantaged communities, and low-income communities and households. In 2017, the California Air Resources Board (CARB or Board) released draft guidance to help agencies incorporate AB 1550 into program design and project selection. CARB's draft guidance provides a clear and consistent standard to evaluate investments counting toward AB 1550 investment minimums. The "Community Benefits from California Climate Investments" section of this Report describes the community benefits from California Climate Investments, and the guidance created by CARB to ensure that benefits are direct, meaningful, and assured.

California Climate Investments programs not only support the State's climate change goals, but also provide many additional social, economic, and environmental benefits, or "co-benefits." For example, programs stimulate job opportunities and training, especially for individuals and households in disadvantaged communities. The Strategic Growth Council's (SGC) Affordable Housing and Sustainable Communities (AHSC) Program, the California Department of Community Services and Development's (CSD) Low-income Weatherization Program (LIWP), the California Department of Water Resources' (DWR) Water-Energy Grant Program, and the California Department of Food and Agriculture's (CDFA) Dairy Digester Research and Development Program (DDRDP) all reported that projects provide job opportunities and training that result in credentials and promote career development. These agencies reported that in 2017, California Climate Investments provided access to over 400 job opportunities. Additionally, to date, the High-Speed Rail Project has put more than 1,600 construction workers on the job at 17 sites, with hundreds of California businesses providing services. Jobs are just one example of the wide variety of benefits that California Climate Investments deliver. The "Additional Benefits from California Climate Investments" section of this Report describes ongoing efforts to develop standardized methods to assess additional outcomes, and highlights a few of those benefits to individuals and communities.

Administering agencies also continue to coordinate design and implementation of California Climate Investments to provide transparency, accountability, and consistency in reporting benefits over time. Since the 2017 Annual Report, the Administration launched a new website to provide a more user-friendly and accessible web presence for California Climate Investments, and to communicate the program's benefits, achievements, progress, and updates to the public. To learn more, visit [caclimateinvestments.ca.gov](http://caclimateinvestments.ca.gov).

## Legislative Guidance

In 2017, the Legislature and Governor enacted legislation that established expenditure priorities and new programs. This recent legislation includes AB 398, AB 617 (C. Garcia, Chapter 136, Statutes of 2017), and the FY 2017-18 budget appropriations. The legislation shows the increasingly important role of California Climate Investments in addressing the State's broad suite of climate goals and strategies. AB 398 established new priorities for Cap-and-Trade auction proceeds, including reducing criteria and toxic air pollutants from stationary and mobile sources, among several others. The Legislature also passed AB 617 to increase air quality monitoring and reduce harmful emissions in communities most impacted by pollution. In September 2017, the Legislature passed FY 2017-18 budget appropriations to provide funds for an expanded set of California Climate Investments programs that reflect the priorities for these funds.

## Evaluating Outcomes of California Climate Investments

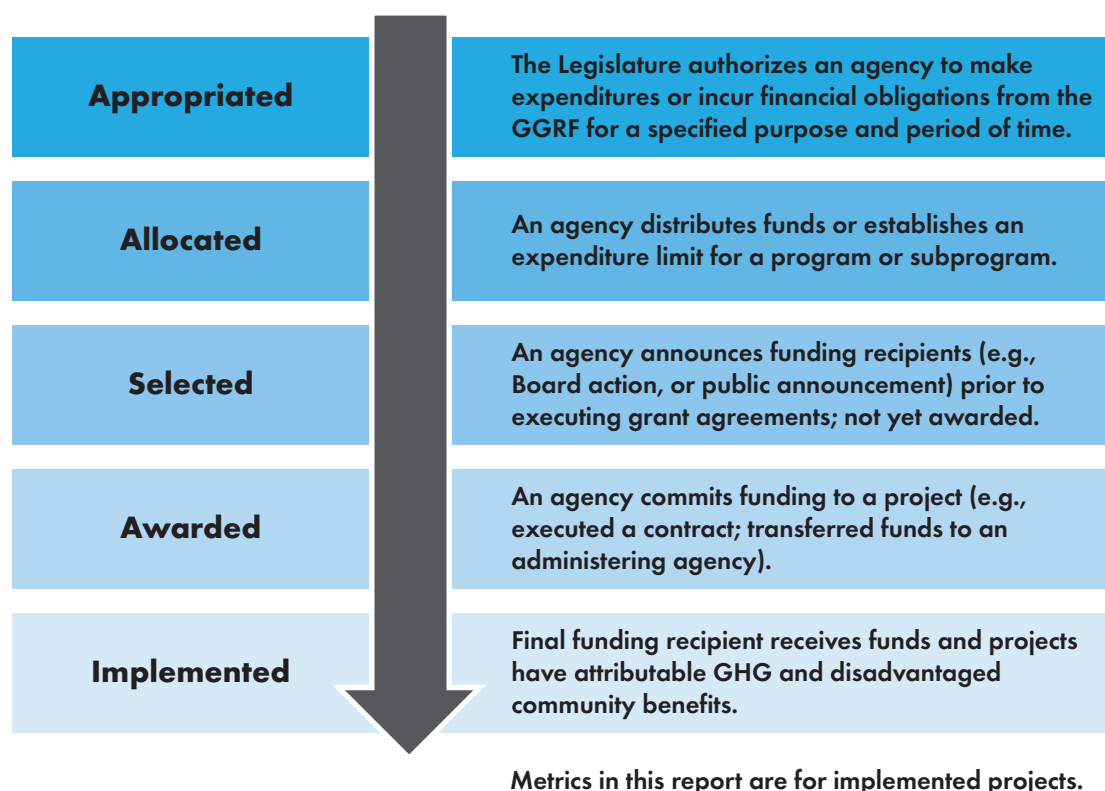
Seventeen agencies are administering a broad portfolio of California Climate Investments programs in the transportation and sustainable communities sector shown in grey throughout this report; the clean energy and energy efficiency sector (shown in blue); and the natural resources and waste diversion sector (shown in green). CARB has a dual role as account administrator and administering agency. In its capacity as account administrator, CARB acts as the fund accountant, and provides guidance on meeting statutory requirements, and tracking and reporting outcomes. In its capacity as administering agency, CARB administers programs including the Funding Agricultural Replacement Measures for Emissions Reductions (FARMER) Program; the Community Air Protection Program; the Low Carbon Transportation Program; and the Woodsmoke Reduction Program.

Cap-and-Trade auction proceeds flow through the Fund to projects in several steps, which vary by agency. To provide a clear and consistent approach for tracking and reporting funds and project benefits, this Report uses the following terms to describe these steps: appropriated, allocated, selected, awarded, and implemented. Figure ES-1 shows the movement of funds and provides a working definition specific to California Climate Investments for terms used to report outcomes from investments.

The Legislature appropriates, or authorizes specific expenditures, to administering agencies. Some agencies use appropriations to fund programs directly, such as the High-Speed Rail Project. Other appropriations may be “allocated” by the recipient agency to fund one or more subprograms. For example, the California Department of Resources Recycling and Recovery (CalRecycle) allocates its Waste Diversion appropriation to the Organics and Recycling Manufacturing Loans Program; the Organics Grants Program; the Recycled Fiber, Plastic, and Glass Grants Program; and the Food Waste Prevention and Rescue Grant Program. Allocations to programs may not sum to total appropriated amounts due to administrative costs.

Once the Legislature appropriates, or agencies allocate funds, agencies may “select” or “award” funds consistent with their Expenditure Record and other programmatic requirements.

**Figure ES-1: Terms for California Climate Investments**



Funds are “selected” when an administering agency has announced intent to fund a project (e.g., Board action or public announcement), but where the agency has not yet executed a grant agreement or “awarded” funds to the project. The “selected” category provides greater transparency for the movement of funds from allocation to implementation, and shows the progress agencies make toward project implementation, between program solicitation and project contracts. Because of variation in the contracting process, not all programs have a “selected” stage.

Funds are “awarded” when an agency commits funding to a project (e.g., through contract execution or funds transfer to a third-party administrator). Therefore, once a project with “selected” funds has an executed contract, those funds are no longer “selected,” but are accounted for as “awarded.”



Funds are “implemented” once projects have attributable GHG benefits, disadvantaged community benefits, and other benefits, and the final funding recipient receives the funds. In some programs, funds are concurrently “awarded” and “implemented.” For other programs, funds may be “awarded” to a third-party administrator, but not “implemented” until the recipient is known. **Benefits (GHG, disadvantaged community, and co-benefits) described in this Report are based on implemented funds only.** This structure provides consistency and transparency across all programs and ensures that reported metrics are for projects on the ground that are providing benefits to individuals and communities.

## Cumulative Accomplishments and Outcomes

Figure ES-2 shows that administering agencies have cumulatively implemented nearly \$2 billion in projects since the first implemented projects occurred in 2014. The dollar figures shown will continue to grow—along with the number of projects on the ground—as administering agencies select, award, and implement projects with the recent FY 2017-18 appropriations.

**Figure ES-2: Cumulative Summary of California Climate Investments**

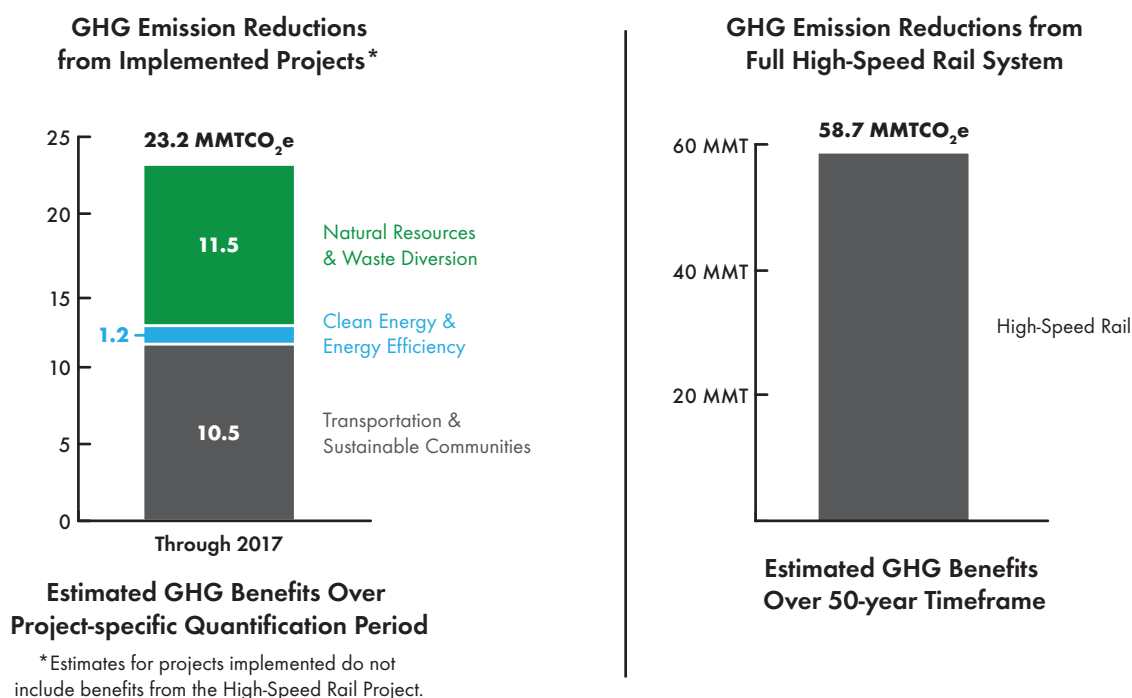


## Greenhouse Gas Reductions

Cumulatively, implemented projects are expected to reduce GHG emissions by over 23 million MTCO<sub>2</sub>e over their respective GHG emission reduction timeframe, which shows the period over which reductions will occur based on when projects are implemented and the quantification period. Of those, projects implemented in 2017 are expected to reduce GHG emissions by approximately 8 million MTCO<sub>2</sub>e over their respective GHG emission reduction timeframe. In addition, the full High-Speed Rail Project is expected to reduce GHG emissions by nearly 59 million MTCO<sub>2</sub>e over its first 50 years of operating life, as detailed in the 2016 California High-Speed Rail Sustainability Report.<sup>4</sup> Figure ES-3 shows estimated GHG emission reductions from cumulative implemented projects and the High-Speed Rail Project.

<sup>4</sup> CHSRA’s GHG emission reduction estimate is based on the [2016 Business Plan](#) and the [2016 Sustainability Report](#). In March 2018, CHSRA released the draft 2018 Business Plan with a revised estimate on the GHG emission reduction range (64.9 million to 84.1 million MTCO<sub>2</sub>e). CHSRA will finalize this Business Plan in 2018.

**Figure ES-3: Estimated GHG Benefits from Cumulative Implemented Projects**



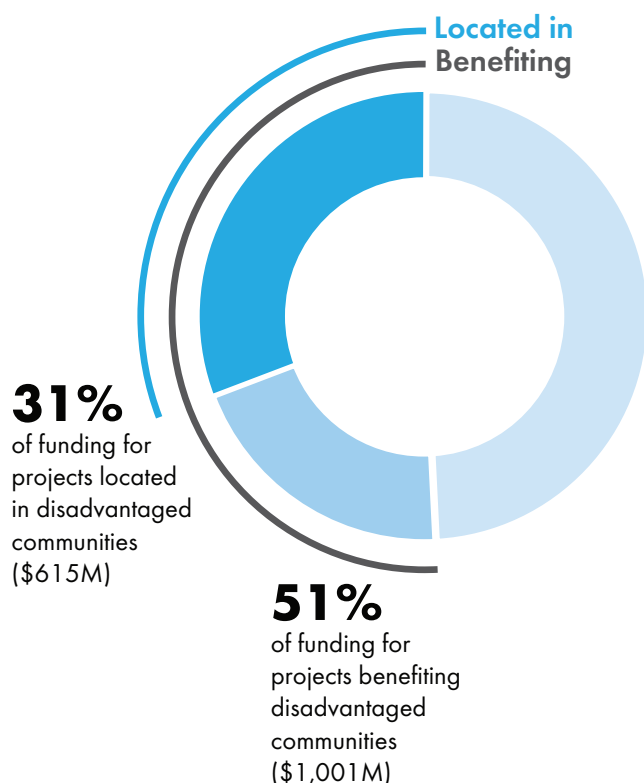
## Disadvantaged Community Benefits

Cumulatively, agencies have implemented projects in 98 percent of disadvantaged community census tracts, which are providing a variety of benefits to those communities.

For example, the California Department of Forestry and Fire Protection's (CAL FIRE) San Joaquin County Urban Tree Canopy Revival project is planting over 1,200 trees in the City of Stockton to provide shade and reduce energy use for residents on hot summer days. The California Department of Transportation's (Caltrans) Low Carbon Transit Operations Program (LCTOP) is establishing a monthly transit pass program for students in a San Diego County school district located within and serving a disadvantaged community.

**Figure ES-4: Cumulative Investments Benefiting Disadvantaged Communities (SB 535)**

**\$2.0B in Cumulative Implemented Funds\***



\* Total amounts do not include benefits attributable to the High-Speed Rail Project

The Legislature established investment minimums for California Climate Investments to benefit disadvantaged communities, and subsequently expanded those minimums and included additional minimums for low-income communities and low-income households.

In 2012, the Legislature established the initial investment minimums for California Climate Investments to benefit disadvantaged communities. This legislation specified that a minimum of 25 percent of the total investments fund projects that provide a benefit to disadvantaged communities; and of that, a minimum of 10 percent fund projects that are located within and provide a benefit to those communities (SB 535, De León, Chapter 830, Statutes of 2012). Figure ES-4 shows that for projects implemented to date, 51 percent of investments provide a benefit to disadvantaged communities, and of that, 31 percent are located within and provide a benefit to disadvantaged communities.<sup>5</sup>

In 2016, the Legislature enacted AB 1550, which increased the disadvantaged community investment minimum to 25 percent within disadvantaged communities and established additional investment minimums for low-income communities and low-income households.

In describing benefits or evaluating outcomes, this Report frequently references benefits to disadvantaged communities, low-income communities, and low-income households.

<sup>5</sup> These percentages do not include benefits from the High-Speed Rail Project. The High-Speed Rail Project is already benefiting disadvantaged communities throughout the State by creating thousands of direct construction-related jobs as well as indirect jobs, and promoting economic development in communities of the Central Valley, which has some of the highest unemployment rates in the country.



This Report uses the term “priority populations” to collectively refer to the combination of disadvantaged communities, low-income communities, and low-income households. It may also use any of those terms to refer to those populations specifically.

## **Demand for California Climate Investments**

Interest in California Climate Investments consistently exceeds the funds available. This remained true for competitive solicitations in 2017, where available funds were oversubscribed, on average, by nearly 3 to 1. Appendix A illustrates this demand for competitive projects in 2017; it does not include non-competitive projects (e.g., administered directly by agencies, such as the High-Speed Rail Project, or awarded on a first-come, first-served basis).

In addition, nearly \$2 billion in cumulative implemented funds (not including the High-Speed Rail Project) have attracted over \$8.2 billion from other sources. This results in nearly \$6 leveraged, on average, for every dollar invested. Appendix B shows leveraged funds for implemented dollars for applicable agencies and project types.

## **Looking to the Future**

California Climate Investments puts billions of Cap-and-Trade dollars to work reducing GHG emissions, strengthening the economy, and improving public health and the environment. In 2018, administering agencies will continue to expand the portfolio of programs and project types that facilitate GHG emission reductions and provide direct, meaningful, and assured benefits to priority populations. Existing and new administering agencies will continue to build strong partnerships at the community level to implement projects that reduce air pollution in the State’s most impacted communities; drive technological innovation; and improve the health and resilience of our communities and the ecosystems on which we depend.



## **For More Information**

California Climate Investments:  
[caclimateinvestments.ca.gov](http://caclimateinvestments.ca.gov)

GGRF Project Map and Data:  
[www.arb.ca.gov/ccimap.htm](http://www.arb.ca.gov/ccimap.htm)

Guidance for Administering Agencies:  
[www.arb.ca.gov/ccifundingguidelines](http://www.arb.ca.gov/ccifundingguidelines)

[GGRFProgram@arb.ca.gov](mailto:GGRFProgram@arb.ca.gov)

Table ES-2: Summary of California Climate Investments and Outcomes through 2017

Administering Agency	Program	Funding Status (\$M)			Implemented Projects								
		Allocated	Selected & Awarded	Implemented	GHG Reduction <sup>6</sup> (1,000 MTCO <sub>2</sub> e)	Cost per GHG (\$/MTCO <sub>2</sub> e)	#	Funds Benefiting Disadvantaged Communities					
								Total Benefiting		Located In and Benefiting			
								#	(\$M)	%	(\$M)	#	(\$M)
California Air Resources Board	Community Air Protection Program	\$255.0			NEW PROGRAM, first appropriated funding in September 2017								
	Funding Agricultural Replacement Measures for Emission Reductions Program	\$85.0			NEW PROGRAM, first appropriated funding in September 2017								
	Advanced Technology Freight Demonstration Projects	\$84.0	\$47.3	\$47.3	13	\$3,616	3	3	\$47.3	100%	2	\$23.6	50%
	Agricultural Worker Vanpools	\$6.0	\$0.0	\$0.0	TBD								
	Clean Mobility Options for Disadvantaged Communities (Car Sharing and Mobility Options Pilot Project)	\$33.1	\$4.0	\$4.0	<1	\$4,384	3	3	\$4.0	100%	3	\$4.0	100%
	Clean Truck and Bus Vouchers (Hybrid and Zero-emission Truck and Bus Voucher Incentive Project)	\$237.9	\$95.9	\$31.0	120	\$259	939	518	\$21.0	68%	457	\$14.6	47%
	Clean Vehicle Rebate Project <sup>7</sup>	\$508.4	\$404.3	\$340.8	5,104	\$67	147,911	41,998	\$138.4	41%	11,040	\$27.2	8%
	Enhanced Fleet Modernization Program Plus-Up	\$82.0	\$42.0	\$10.9	12	\$901	2,158	2,158	\$10.9	100%	1,930	\$10.3	94%
	Financing Assistance for Lower-Income Consumers	\$16.9	\$0.9	\$0.25	<1	\$2,149	22	22	\$0.25	100%	10	\$0.12	46%
	Rural School Bus Pilot Projects	\$25.0	\$10.0	\$8.5	7	\$1,211	26	8	\$2.7	32%	5	\$1.8	21%
	Zero- and Near Zero-Emission Freight Facilities	\$100.0			NEW PROGRAM, first appropriated funding in September 2017								
	Zero-Emission Off-Road Freight Voucher Incentive Project	\$40.0			NEW PROGRAM, first appropriated funding in September 2017								
	Zero-Emission Truck and Bus Pilot Projects	\$85.0	\$82.8	\$82.8	107	\$777	9	7	\$77.1	93%	6	\$63.7	77%

\$63.7 77%



Administering Agency	Program	Funding Status (\$M)			Implemented Projects								
		Allocated	Selected & Awarded	Implemented	GHG Reduction <sup>6</sup> (1,000 MTCO <sub>2</sub> e)	Cost per GHG (\$/MTCO <sub>2</sub> e)	#	Funds Benefiting Disadvantaged Communities					
								Total Benefiting			Located In and Benefiting		
								#	(\$M)	%	#	(\$M)	%
California Department of Transportation	Active Transportation Program	\$10.0	\$10.0	\$10.0	<1	\$163,934	3	2	\$7.1	71%	0	\$0.0	0%
	Low Carbon Transit Operations Program	\$231	\$121.0	\$114.8	1,652	\$69	315	207	\$106.7	93%	158	\$62.9	55%
California High-Speed Rail Authority	High-Speed Rail Project	\$1,286.5 <sup>8</sup>	\$546.5 <sup>9</sup>	\$546.5	-- <sup>10</sup>	-- <sup>11</sup>	1	--	--	--	--	--	--
California State Transportation Agency	Transit and Intercity Rail Capital Program	\$574.6	\$511.0	\$298.3	1,828	\$163	17	16	\$287.3	96%	11	\$211.4	71%
Strategic Growth Council	Affordable Housing and Sustainable Communities Program	\$915.0	\$443.7	\$148.4	622	\$239	26	20	\$124.7	84%	11	\$36.2	24%
	Climate Change Research Program	\$11.0											
	Sustainable Agricultural Lands Conservation Program	\$44.3	\$37.8	\$7.7	1,030	\$7	10	1	\$4.3	56%	0	\$0.0	0%
	Transformative Climate Communities Program	\$140.0	\$105.0	\$0.0									
California Air Resources Board	Woodsmoke Reduction Program	\$5.0	\$0.0	\$0.0									
California Department of Community Services and Development	Community Solar	\$5.0	\$0.0	\$0.0									
	Multi-Family Energy Efficiency and Renewables	\$38.0	\$38.0	\$15.4	79	\$195	4,549	4,549	\$15.4	100%	4,549	\$15.4	100%
	Single-Family Energy Efficiency and Solar Photovoltaics	\$70.3	\$70.3	\$10.7	65	\$163	9,131	9,131	\$10.7	100%	9,131	\$10.7	100%
	Single-Family Solar Photovoltaics	\$50.6	\$50.6	\$38.4	112	\$344	2,741	2,741	\$38.4	100%	2,741	\$38.4	100%
California Department of Food and Agriculture	Alternative Renewable Fuels Program	\$3.0	\$3.0	\$3.0	0	0	0	0	\$0.0	0%	0	\$0.0	0%
	State Water Efficiency and Enhancement Program	\$66.0	\$61.6	\$59.8	736	\$81	573	194	\$21.6	36%	194	\$21.6	36%

NEW PROGRAM, first appropriated funding in September 2017

Administering Agency	Program	Funding Status (\$M)			Implemented Projects								
		Allocated	Selected & Awarded	Implemented	GHG Reduction <sup>6</sup> (1,000 MTCO <sub>2</sub> e)	Cost per GHG (\$/MTCO <sub>2</sub> e)	#	Funds Benefiting Disadvantaged Communities					
								Total Benefiting		Located In and Benefiting			
								#	(\$M)	%	#	(\$M)	%
California Department of Water Resources	State Water Project Turbines Program	\$20.0	\$20.0	\$20.0	37	\$542	2	0	\$0.0	0%	0	\$0.0	0%
	Water-Energy Grant Program	\$50.0	\$45.5	\$19.2	173	\$111	49,305	31,470	\$11.6	60%	31,470	\$11.6	60%
California Energy Commission	Food Production Investment Program	\$60.0			NEW PROGRAM, first appropriated funding in September 2017								
	Renewable Energy for Agriculture Program	\$6.0			NEW PROGRAM, first appropriated funding in September 2017								
California Conservation Corps	Training and Workforce Development Program	\$5.2			NEW PROGRAM, first appropriated funding in September 2017								
California Department of Fish and Wildlife	Wetlands and Watershed Restoration Program	\$41.8	\$21.3	\$21.3	571	\$37	12	2	\$13.4	63%	2	\$13.4	63%
	Alternative Manure Management Program	\$161.0	\$0.0	\$0.0	TBD								
California Department of Food and Agriculture	Dairy Digester Research and Development Program		\$46.6	\$46.6	5,680	\$8	25	5	\$11.1	24%	5	\$11.1	24%
	Healthy Soils Program <sup>12</sup>	\$7.5	\$5.1	\$0.0			TBD						
California Department of Forestry and Fire Protection	Forest Health Program, Fire Prevention Program	\$249.2	\$35.7	\$29.7	2,535	\$12	41	0	\$0.0	0%	0	\$0.0	0%
	Urban and Community Forestry Program	\$52.8	\$35.1	\$15.6	134	\$117	29	29	\$15.6	100%	29 <sup>13</sup>	\$15.6	100%
	Wildfire Prevention Program	\$74.8			NEW PROGRAM, first appropriated funding in September 2017								
California Department of Resources Recycling and Recovery	Food Waste Prevention and Rescue Grants	\$5.0	\$0.0	\$0.0	TBD								
	Organics and Recycling Manufacturing Loans	\$11.1	\$2.6	\$2.6	484	\$5	3	1	\$0.8	32%	1	\$0.8	32%
	Organics Grants	\$38.5	\$38.5	\$30.5	1,775	\$17	12	12	\$30.5	100%	7	\$20.5	67%
	Recycled Fiber, Plastic, and Glass Grants (Recycling Manufacturing Grants)	\$14.0	\$14.0	\$5.0	323	\$15	3	0	\$0.0	0%	0	\$0.0	0%









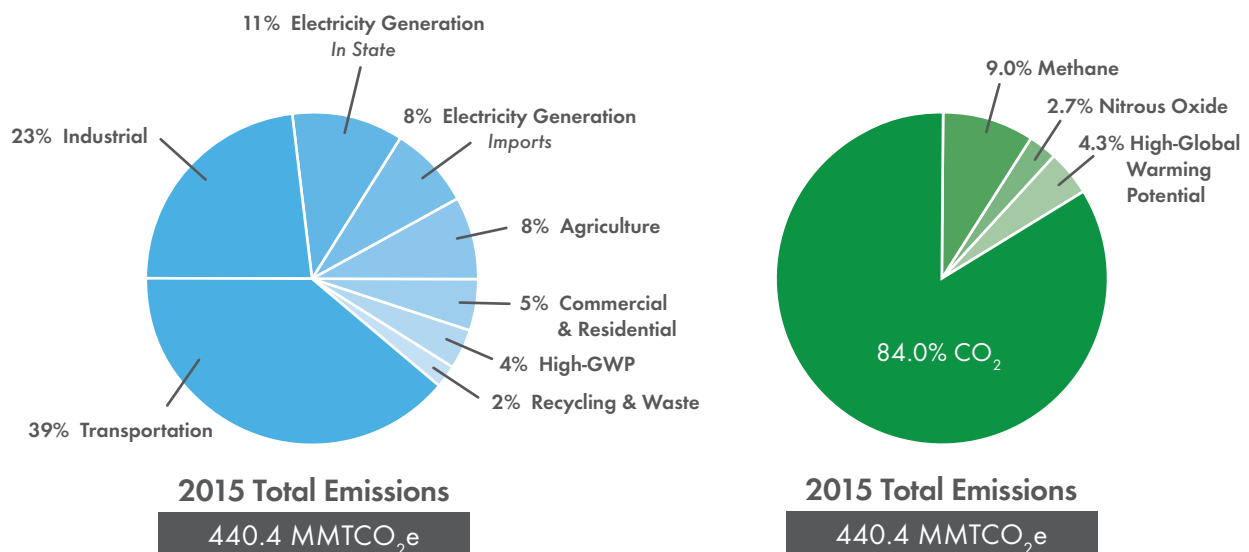
## BACKGROUND

California's approach to climate change builds on decades of leadership and success in environmental protection. In recent years, the Governor signed legislation to establish ambitious and enforceable GHG emission reduction targets and directed Cap-and-Trade auction proceeds to programs that facilitate GHG emission reductions and provide benefits to disadvantaged communities, low-income communities, and low-income households. The State's broad suite of climate programs spans all sectors—industrial, electricity, transportation, and natural and working lands—and serves as a model for partners throughout the United States and the world. Through implementation of these programs, the State's population and economy have continued to grow, while GHG emissions have decreased.

### Climate Goals and Targets

In 2006, the Legislature passed and the Governor signed the California Global Warming Solutions Act of 2006 (AB 32, Núñez, Chapter 488, Statutes of 2006). AB 32 created a comprehensive, multi-year strategy to reduce GHG emissions in California. AB 32 requires California to reduce GHG emissions to 1990 levels by 2020, and to maintain and continue reductions beyond 2020. Figure 1 shows California's GHG emission contributions by sector and GHG.

**Figure 1: 2015 California GHG Emissions by Sector and GHG**



In his 2015 inaugural address, Governor Brown identified key climate strategies, or “pillars,” necessary to meet the State’s climate goals. The pillars include:

- Reducing today’s petroleum use in cars and trucks by up to 50 percent;
- Increasing our electricity derived from renewable sources from one-third to 50 percent;
- Doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner;
- Reducing the release of methane, black carbon, and other short-lived climate pollutants (SLCPs);
- Managing farm and rangelands, forests, and wetlands so they can store carbon; and
- Periodically updating the State’s climate adaptation strategy, Safeguarding California, to prepare for climate-related risks and minimize economic losses.

Consistent with these strategies, in April 2015 the Governor issued Executive Order B-30-15 to establish a California GHG emission reduction target of 40 percent below 1990 levels by 2030.

The Legislature enacted legislation to codify many of these strategies into statute. For example:

- SB 350 (De León, Chapter 547, Statutes of 2015) requires an increase in the annual amount of electricity generated and sold to retail customers from renewable energy sources to 50 percent by 2030.
- SB 1383 (Lara, Chapter 395, Statutes of 2016) requires CARB to approve and implement a strategy to reduce short-lived climate pollutants.<sup>15</sup>
- SB 1386 (Wolk, Chapter 545, Statutes of 2016) declares it the policy of the State that protection and management of natural and working lands is an important strategy in meeting the State’s GHG emission reduction goals.
- SB 32 (Pavley, Chapter 249, Statutes of 2016) codified into statute the GHG emission reductions target of at least 40 percent below 1990 levels by 2030 established by Governor Brown’s Executive Order B-30-15.

AB 32 requires CARB to adopt regulations to achieve the maximum technologically-feasible and cost-effective GHG emission reductions. AB 32 also requires CARB to develop a Scoping Plan to describe the approach California will take to reduce GHG emissions to meet the State’s GHG emission reduction goals and to update the Scoping Plan at least every five years.

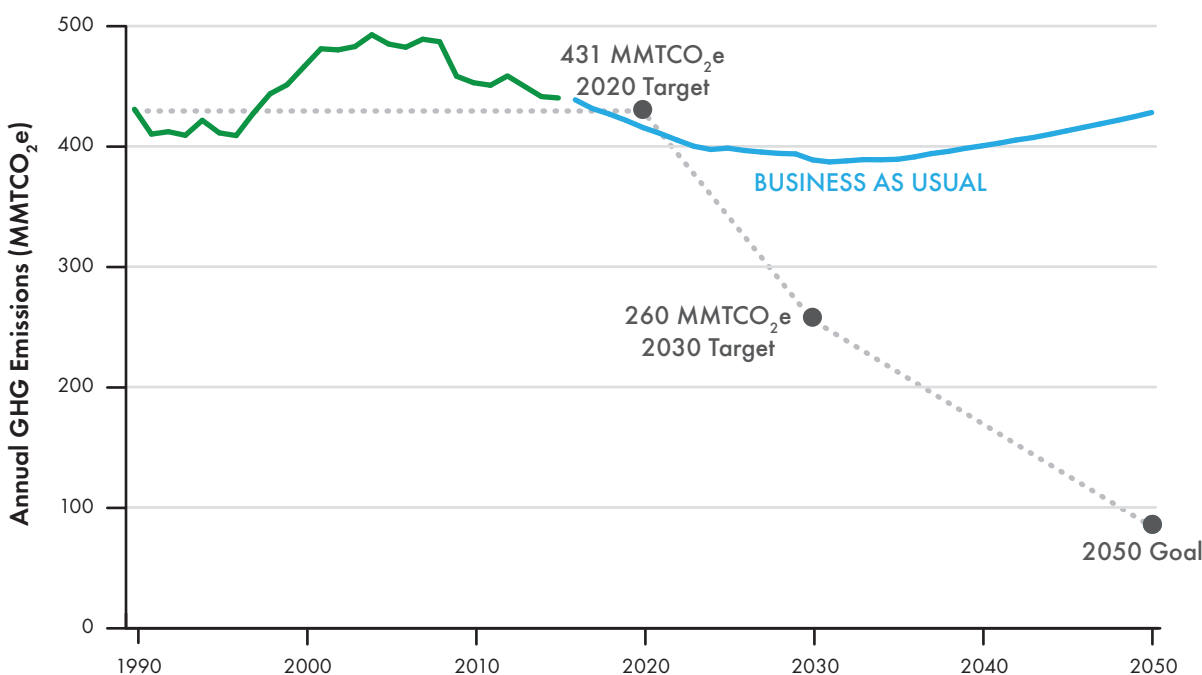
In December 2017, the Board adopted the Scoping Plan for Achieving California’s 2030 Greenhouse Gas Target (Scoping Plan) — a multi-agency effort to identify how the State can reach the 2030 climate target while substantially advancing the State’s additional GHG emission reduction target of 80 percent below 1990 levels by 2050. It builds on and integrates strategies underway to reduce the State’s GHG, criteria pollutant, and toxic air contaminant emissions throughout key sectors of the economy.

The Scoping Plan also identifies the path to a sustainable and clean economy that demonstrates the coupling of economic growth and environmental progress. As documented in the Scoping Plan, California is on track to meet its 2020 climate target while the economy has continued to grow. Figure 2 shows that under a business-as-usual scenario, the State is expected to reduce emissions below the 2020 target, but that additional efforts and deeper reductions are necessary to meet the 2030 and 2050 targets.

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15 SLCPs (e.g., methane, fluorinated gases, and black carbon) have relatively short atmospheric lives, but are much more potent than CO<sub>2</sub> in terms of their ability to heat the atmosphere. SLCP reduction strategies can lead to short-term decreases of pollutants with high global warming potential.

**Figure 2: California's Path to Achieving Climate Targets**



In his 2018 State of the State address, Governor Brown described the State's overarching goal of making neighborhoods and farms healthier, vehicles cleaner. To meet the State's climate goals and targets, he established a target of 5 million zero-emission vehicles on the road by 2030.

## Cap-and-Trade: Source of Auction Proceeds

California's Cap-and-Trade Program is one key component of its GHG emission reduction strategy. The Cap-and-Trade regulation creates a statewide limit for major sources of California's GHG emissions, establishes the price signal needed to drive long-term investment in cleaner fuels and more efficient energy use, and provides covered entities the flexibility to implement the lowest-cost options to reduce emissions.

Under the Cap-and-Trade regulation, CARB places a statewide limit, or cap, on GHG emissions by issuing a limited number of tradable permits, or allowances, equal to the cap. The statewide limit declines each year to achieve the intended GHG emission reductions. The Cap-and-Trade regulation covers GHG emissions from transportation, electricity, industrial, agricultural, waste, residential, and commercial sources. Altogether, the emissions covered by the Cap-and-Trade program total 80 percent of all GHG emissions in California.

Only large sources of GHG emissions are subject to the Cap-and-Trade regulation. These sources, or covered entities, need an allowance or offset credit<sup>16</sup> for every MTCO<sub>2</sub>e emissions that it produces every year. Entities that aggressively reduce their emissions can trade or sell their surplus allowances to those that find it more expensive to reduce their GHG emissions. Initially, in 2013, the cap included GHG emissions from large sources in the electricity generation and industrial sectors. In 2015, the Cap-and-Trade Program expanded to address GHG emissions from transportation fuels and combustion of other fossil fuels not covered in the Cap-and-Trade Program's initial phase.

<sup>16</sup> CARB offset credits represent verified GHG emission reductions or removal enhancements achieved under CARB's Compliance Offset Protocols, or approved early action quantification methodologies, and may be used for compliance in the Cap-and-Trade Program.



The firm, declining cap provides the highest certainty to achieve the 2030 GHG target. In addition to reducing GHG emissions, the Cap-and-Trade Program complements the State's climate goals and delivers economic, environmental, and social benefits for communities throughout the State.

Covered entities can obtain allowances several ways. A portion of the Cap-and-Trade allowances are held in a reserve as a mechanism for limiting large fluctuations in market driven allowance costs; a portion are distributed to covered entities for free; and the remaining allowances can be purchased by buyers via quarterly auctions.

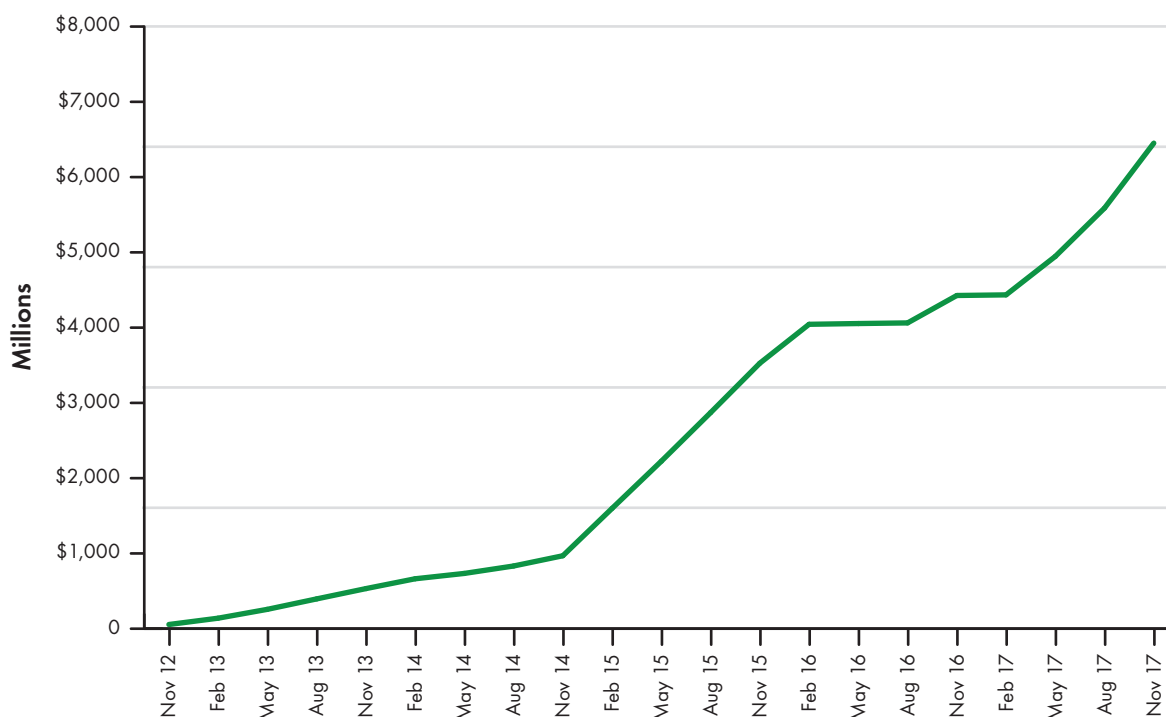
Freely distributed allowances help avoid short-term economic impacts, promote the transition to a low-carbon economy, and help California maintain competitive industries relative to out-of-State competitors.

Auctions include allowances sold by California, other linked Cap-and-Trade systems, and electrical distribution utilities. Proceeds from the sale of utility allowances must benefit retail ratepayers (e.g., investor-owned utilities provide this benefit through a twice a year credit on their customers utility bill identified as the "California Climate Credit").

Proceeds from the sale of State-owned allowances are deposited into the GGRF and available for the Legislature to appropriate to administering agencies for California Climate Investments.

The first Cap-and-Trade auction took place on November 14, 2012, with subsequent auctions conducted quarterly. Figure 3 shows cumulative proceeds from the sale of State-owned allowances deposited in the GGRF (as of December 31, 2017). The most recent auction took place on February 21, 2018. CARB posts auction results at: [arb.ca.gov/auction](http://arb.ca.gov/auction).

**Figure 3: Cumulative Proceeds from the Sale of State-Owned Allowances Deposited in the GGRF**

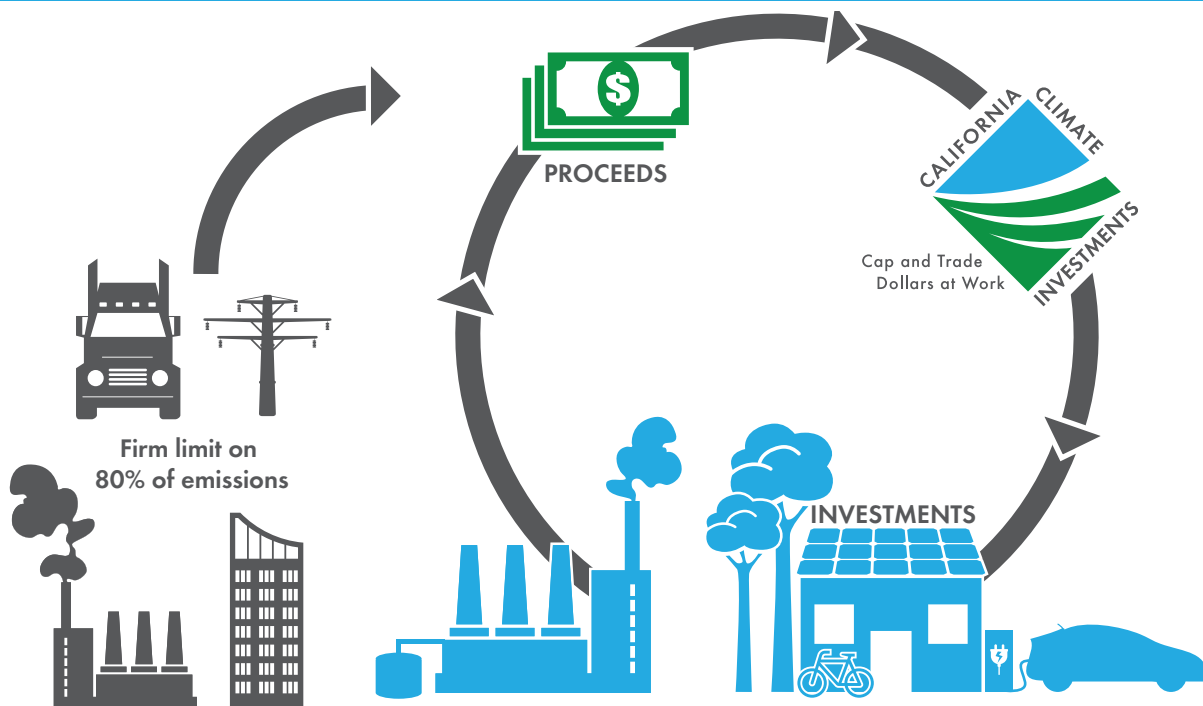


# IMPLEMENTING CALIFORNIA CLIMATE INVESTMENTS

Once deposited into the GGRF, the Legislature can appropriate Cap-and-Trade auction proceeds for State agencies to administer programs or to make specific expenditures, which are subject to certain requirements. Administering agencies design and implement their programs, establish eligibility requirements, develop guidelines and solicitations, and select, award, and implement projects. Administering agencies are responsible for designing and implementing their programs according to CARB's guidance designed to meet expenditure requirements and meet the State's statutory and policy objectives for appropriations from the Fund.

In addition to GHG emissions, funded projects reduce emissions of criteria and toxic air pollutants, advance new technologies, and strengthen the economy and improve public health—especially in communities most impacted by air pollution. Figure 4 provides an overview of California Climate Investments using Cap-and-Trade auction proceeds.

**Figure 4: Overview of California Climate Investments using Cap-and-Trade Auction Proceeds**



## Legislative Requirements for Cap-and-Trade Auction Proceeds

In 2012, the Legislature passed and Governor Brown signed three bills into law—AB 1532 (Pérez, Chapter 807, Statutes of 2012), SB 535 (De León, Chapter 830, Statutes of 2012), and SB 1018 (Budget and Fiscal Review Committee, Chapter 39, Statutes of 2012)—that provide the framework for how Cap-and-Trade auction proceeds are appropriated and expended. These bills are collectively referred to as “implementing legislation” for California Climate Investments. Appendix C summarizes key provisions of implementing legislation and other Legislative guidance, including Budget and trailer bills.

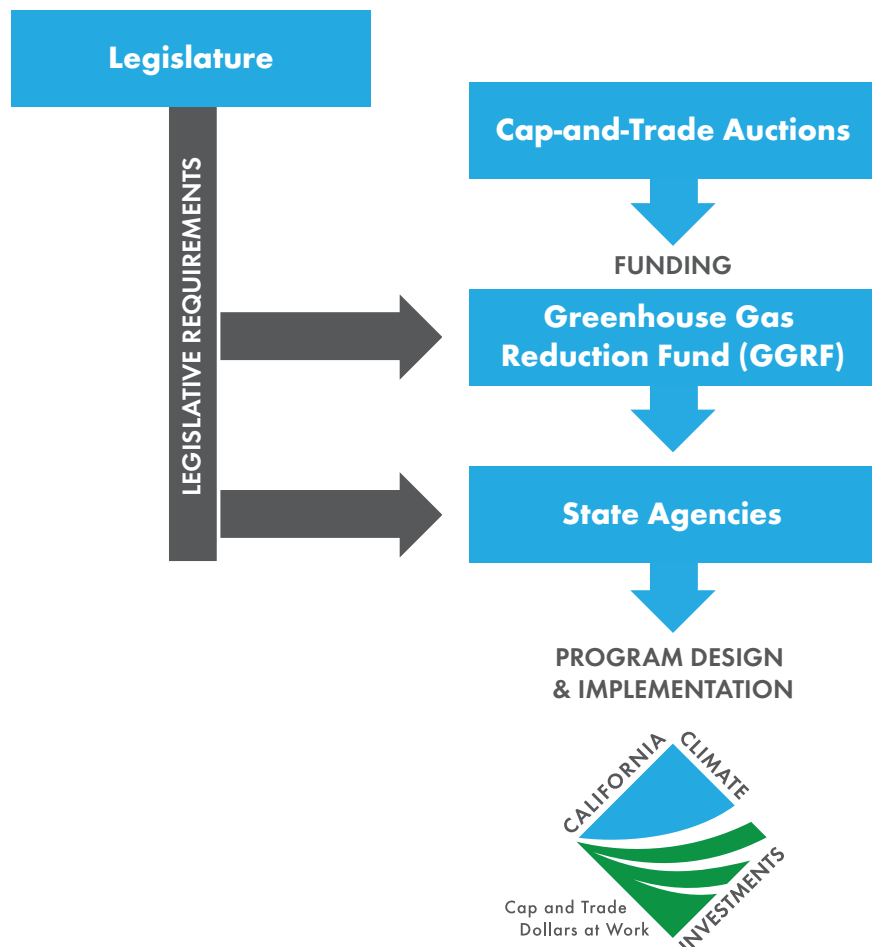
In addition, the 2014 Budget Act trailer bill, SB 862 (Senate Budget and Fiscal Review Committee, Chapter 36, Statutes of 2014), establishes continuous appropriations for 60 percent of the GGRF monies beginning in FY 2015-16 to the following agencies and programs:

- 25 percent to the High-Speed Rail Project administered by CHSRA;
- 20 percent to the Affordable Housing and Sustainable Communities (AHSC) Program administered by the Office of Planning and Research (OPR), SGC, and its member agencies;
- 10 percent to the Transit and Intercity Rail Capital Program (TIRCP) administered by the California State Transportation Agency (CalSTA); and
- 5 percent to LCTOP administered by Caltrans.

Since then, the Legislature has updated statutory requirements to reflect new priorities and address stakeholder concerns. For example, in 2016, the Legislature passed AB 1550 (Gomez, Chapter 369, Statutes of 2016), which modifies the SB 535 disadvantaged community investment minimums; and in 2017 the Legislature passed AB 398 (E. Garcia, Chapter 135, Statutes of 2017), which established additional legislative priorities for Cap-and-Trade auction proceeds.

Figure 5 shows how agencies implement Cap-and-Trade auction proceeds in accordance with legislative direction and other policy guidance.

**Figure 5: Making California Climate Investments**



The “New Legislative and Program Developments in 2017” section of this Report describes legislative priorities established in 2017 legislation, and new programs established in the FY 2017-18 appropriations.

## **Policy Framework for Cap-and-Trade Auction Proceeds**

Finance, the California Environmental Protection Agency (CalEPA), and CARB provide an overarching administrative framework for agencies administering California Climate Investments. Together, Finance, CalEPA, and CARB are responsible for developing tools, plans, guidelines, methodologies, reports, and other resources. Guidance documents and tools are updated periodically to reflect new legislation, updated information, or stakeholder feedback.

### **Cap-and-Trade Auction Proceeds Investment Plan**

AB 1532 requires Finance, in consultation with CARB and other State agencies, to develop and submit to the Legislature a three-year Investment Plan for Cap-and-Trade auction proceeds. The purpose of the Investment Plan is to identify opportunities for GHG emission reductions, and to identify potential investment priorities to help the State achieve its climate targets, benefit priority populations, and yield valuable co-benefits.

Finance submitted the First Investment Plan to the Legislature in May 2013, which addresses investments in FY 2013-14 through FY 2015-16. The Second Investment Plan, released in 2016, addresses investments for FY 2016-17 through FY 2018-19. The Investment Plans are available at: [arb.ca.gov/investmentplan](http://arb.ca.gov/investmentplan).



## Identification of Disadvantaged Communities

SB 535 directs the Secretary for Environmental Protection at CalEPA (Secretary) to identify “disadvantaged communities.” Identification is based on geographic, socioeconomic, public health, and environmental hazard criteria which may include:

- Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation.
- Areas with concentrations of people that are of low-income, high-unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

To identify disadvantaged communities, the Secretary uses the California Communities Environmental Health Screening Tool (CalEnviroScreen)<sup>17</sup> to assess areas disproportionately affected by multiple types of pollution and areas with vulnerable populations.

In January 2017, OEHHA released CalEnviroScreen version 3.0, which reflects updated data, indicators, and other changes to better account for community vulnerability and environmental conditions. In April 2017, the Secretary used CalEnviroScreen 3.0 to identify disadvantaged community census tracts for the purpose of AB 1550 investments. The identified disadvantaged communities represent the most impacted 25 percent of census tracts (1,984 census tracts) in the State, plus an additional 22 census tracts that scored in the highest 5 percent of CalEnviroScreen’s Pollution Burden, but do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data. For more information, visit [calepa.ca.gov/EnvJustice/GHGInvest/](http://calepa.ca.gov/EnvJustice/GHGInvest/).

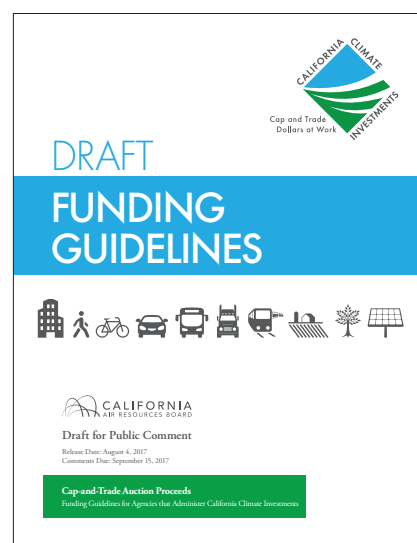
## Funding Guidelines for Agencies that Administer California Climate Investments

SB 862 (Senate Budget and Fiscal Review Committee, Chapter 36, Statutes of 2014) requires CARB to develop guidance for agencies administering California Climate Investments to ensure statutory requirements are met. CARB’s guidance must include a component for how administering agencies maximize benefits for disadvantaged communities.

In response, CARB developed the Funding Guidelines for Agencies that Administer California Climate Investments (Funding Guidelines). The purpose of the Funding Guidelines is to provide guidance for administering agencies to design and implement their programs in a way that facilitates GHG emission reductions, and furthers the purpose of AB 32 and related statutes; meets statutory requirements; maximizes benefits to disadvantaged communities; targets investments to priority populations; provides transparency and accountability; and supports consistency among administering agencies.

CARB released the initial version of the Funding Guidelines in December 2015 and released a draft update in August 2017 to help agencies incorporate AB 1550 into program design and project selections. The “Community Benefits” section of this Report of this Report describes the 2017 Funding Guidelines update process in more detail.

In response to new legislation enacted in September 2017, and to incorporate feedback from stakeholders and administering agencies on program implementation, CARB released a 2018 Funding Guidelines discussion document to describe changes to the Funding Guidelines. For more information, visit: [arb.ca.gov/ccf-fundingguidelines](http://arb.ca.gov/ccf-fundingguidelines).



<sup>17</sup> CalEnviroScreen is a screening tool developed by the Office of Environmental Health Hazard Assessment (OEHHA) under CalEPA’s guidance,

## Quantification Methodologies

SB 862 requires CARB to develop quantification methods and guidance on reporting for all State agencies that receive appropriations from the Fund. CARB's GHG quantification methodologies rely on available science, coordination with administering agencies, academics, and other experts as needed. To date, the quantification methodologies focus on estimating project-level GHG emission reductions. CARB staff are updating quantification methodologies to include estimates of environmental, economic, and public health benefits in addition to GHG emission reductions. Drafts are subject to public review and comment, and final methodologies are available at: [arb.ca.gov/cci-quantification](http://arb.ca.gov/cci-quantification).

CARB may periodically update quantification methodologies to be more robust, user-friendly, and appropriate to the project types being quantified. CARB also evaluates the methodologies to account for new scientific developments or tools, or modifications in the analytical tools or approaches that support the methods.

### QUANTIFYING BENEFITS

#### TO DATE

- GHG quantification methodologies for over 100 project types

#### IN 2017

- CARB developed or updated GHG quantification methodologies for over 22 project types
- CARB provided draft assessment methods for 12 co-benefits

## Transparency and Public Access to Information

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

In 2017, the Administration launched a new website to provide a user-friendly and more accessible web presence for California Climate Investments, and to communicate the program's benefits, achievements, progress, and updates to the public. The website includes descriptions of agency programs, current funding opportunities, upcoming agency events, and more. The website also includes links to the Annual Reports to the Legislature, and links to the California Climate Investments Project Map—an interactive map displaying project locations in a downloadable and searchable format to support independent analysis of investments data. The website is available at: [caclimateinvestments.ca.gov](http://caclimateinvestments.ca.gov).

CARB also hosts a central website to provide direct public access to information that includes updates on budget and programs; guidance documents; Expenditure Records that document the proposed use of Fund appropriations; and links to additional agency webpages. The website is available at: [arb.ca.gov/auctionproceeds](http://arb.ca.gov/auctionproceeds).

In 2017, CARB launched the California Climate Investments Reporting and Tracking System (CCIRTS)—an online system for tracking and reporting on projects to improve consistency across programs, allow for more frequent reporting, and facilitate greater public access to data. CCIRTS integrates with the California Climate Investments Project Map to display project locations and information about outcomes from funded projects. Administering agencies used CCIRTS to report data provided in this Report.

# NEW LEGISLATIVE AND PROGRAM DEVELOPMENTS

California Climate Investments continued to evolve and expand over the course of 2017. The Legislature and Governor enacted legislation, including the FY 2017-18 budget appropriations, that established priorities and programs, and reflect the increasingly important role of California Climate Investments in addressing the State's broad suite of climate goals and strategies. In addition to climate benefits, these programs provide meaningful benefits to priority populations; reduce criteria and toxic air pollutants; advance new technologies and markets; and promote healthier communities that are more resilient to the impacts of climate change.

## **Cap-and-Trade Post 2020 and New Legislative Priorities (AB 398)**

In July 2017, the Legislature passed and the Governor signed AB 398 (E. Garcia, Chapter 135, Statutes of 2017), which clarified the role of the Cap-and-Trade Program post 2020. AB 398 also identified additional legislative priorities for Cap-and-Trade auction proceeds, including:

- Air toxic and criteria air pollutants from stationary and mobile sources;
- Low- and zero-carbon transportation alternatives;
- Sustainable agricultural practices that promote the transitions to clean technology, water efficiency, and improved air quality;
- Healthy forests and urban greening;
- Short-lived climate pollutants;
- Climate adaptation and resiliency; and
- Climate and clean energy research.

## **Community Air Protection Program (AB 617)**

As companion legislation to AB 398, the Legislature also enacted AB 617 (C. Garcia, Chapter 136, Statutes of 2017) to strengthen air quality monitoring and reduce community-level air pollution in the communities with high cumulative exposure to pollution.

AB 617 provides a new community-focused action framework to improve air quality and reduce exposure to criteria air pollutants and toxic air contaminants in communities most impacted by air pollution. The bill recognizes that while California has seen tremendous improvement in air quality, some communities still suffer greater impacts than others. It is these communities that require special attention and accelerated action. AB 617 builds on the foundation of existing air quality legislation and programs, providing additional tools to target actions in communities that bear the greatest burdens.

This first-of-its-kind statewide effort established by AB 617 includes community air monitoring and local emissions reduction programs. In addition, the Legislature has appropriated immediate incentive funding to clean up mobile sources such as trucks and buses in impacted communities, as well as grants to support community participation in the AB 617 process. AB 617 also includes new requirements for accelerated retrofit of pollution controls on industrial sources, increased penalty fees, and greater transparency and availability of air quality and emissions data that will help advance air pollution control efforts throughout the State. This new authority enhances and strengthens existing clean air programs, and improves the State's ability to achieve equity in the delivery of clean air benefits to all Californians.

## Pathway to Community Air Protection

The Community Air Protection Program consists of multiple elements designed to work together to address specific community pollution concerns.



- Provide grants to local community groups for technical assistance to support participation
- Identify most heavily impacted communities
- Deploy community-level air monitoring
- Adopt community-specific emission reduction plans



REGIONAL

- Distribute incentive funding to air districts to accelerate the deployment of cleaner technologies
- Accelerate retrofit of pollution control technologies at industrial facilities
- Enhance emissions data reporting from pollution sources



STATEWIDE

- Adopt statewide monitoring plan
- Adopt statewide strategy to reduce emissions in heavily impacted communities
- Increase penalties for polluters

To implement AB 617, CARB established the Community Air Protection Program to reduce exposure in communities with high pollution exposure burdens. In 2017, the Legislature appropriated \$267 million to support early action to reduce emissions through the deployment of cleaner mobile source technologies, and provide technical assistance grants to facilitate participation in the AB 617 process. The next section provides an update on implementation for programs established in 2017.

The Community Air Protection Program allows maximum flexibility for community-based organizations to participate in the AB 617 process and to build their own capacities to become active partners with government to identify, evaluate, and ultimately reduce exposure to harmful air emissions in their neighborhoods. These outcomes rely on strong collaborative relationships with community groups and other stakeholders, and partnership with community members in all aspects of program development. It is also important to ensure a robust and transparent public process with accountability and clear metrics for tracking progress and measuring success.

In February 2018, CARB released a Community Air Protection Program Framework Concept Paper to facilitate ongoing discussion and seek additional public input to help inform development of a draft Framework document later this spring. For more information about the Community Air Protection Program, visit [ww2.arb.ca.gov/our-work/programs/community-air-protection-program-ab617](http://ww2.arb.ca.gov/our-work/programs/community-air-protection-program-ab617).

## Programs Created in 2017 Appropriations

In September 2017, the Legislature appropriated over \$1.5 billion from the Fund for investments in new and existing programs that reflect the investment priorities established in AB 398. New programs established in the FY 2017-18 appropriations include:

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### Community Air Protection Program • \$267M

CARB will distribute \$250 million to air districts to achieve early actions in support of AB 617, providing emission reductions through the deployment of cleaner mobile source technologies to communities most burdened by air pollution. Local air districts are currently administering funds through the Carl Moyer Memorial Air Quality Standards Attainment Program in consultation with local communities and community-based organizations. Project types may include on-road and off-road heavy-duty diesel vehicle replacements; marine vessel engine repowers; locomotive repowers and retrofits; and electric charging or alternative-fuel infrastructure. Each district may spend up to 40 percent of its funds on clean truck projects to reduce emissions in freight corridors in accordance with the Goods Movement Emission Reduction Program.

CARB created the Community Air Grants Program to disburse \$5 million to provide technical support through a competitive solicitation process. The Community Air Grants Program will provide support for community-based organizations to participate in the AB 617 process, and to build capacity to become active partners with government to identify, evaluate, and ultimately reduce air pollution and exposure to harmful emissions in their communities.

Eligible expenditures include, but are not limited:

- Community engagement and outreach-related to AB 617.
- Community training on AB 617 concepts.
- Travel and logistical support for hosting or attending meetings related to AB 617 (e.g., room rental, meeting facilitation, transportation).
- Hiring consultants or technical experts.
- Air monitoring support.

For more information, visit: [ww2.arb.ca.gov/our-work/programs/community-air-protection-program-ab617/community-air-protection-community](http://ww2.arb.ca.gov/our-work/programs/community-air-protection-program-ab617/community-air-protection-community)

### Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program • \$85M

CARB, in partnership with air districts, will administer the FARMER Program to provide grants, rebates, and other financial incentives for cleaner agricultural harvesting equipment, heavy-duty trucks, agricultural pump engines, tractors, and other equipment that reduces GHG emissions and criteria pollutant forming emissions from agricultural operations.

For more information, visit [arb.ca.gov/ag/agincentives/agincentives.htm](http://arb.ca.gov/ag/agincentives/agincentives.htm).





### Climate Change Research Program • \$11M

SGC will fund research to reduce GHG emissions while addressing clean energy and climate adaptation and resiliency. Eligible applicants must engage in research that facilitates GHG emission reductions in the State and advances research to support low-income or disadvantaged communities. SGC's Research Investment Plan designates five research priorities to complement existing State research: supporting and protecting vulnerable communities from the impacts of climate change; accelerating and supporting transitions to climate smart communities; integrating land use, conservation, and management into California climate change programs; increasing data accessibility and planning support for State, local, and regional climate change planning; and low-GHG transformative technology development and deployment.

SGC released the grant solicitation and hosted technical workshops in February 2018, and has scheduled grant awards for Spring 2018.

For more information, visit [sgc.ca.gov/programs/climate-research](http://sgc.ca.gov/programs/climate-research).

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### Food Production Investment Program • \$60M

The Energy Commission will provide incentives to encourage California's food producers to adopt advanced technologies. Eligible projects include upgrades to existing infrastructure, installation of advanced efficiency measures, and industrial process improvements that result in reductions in energy use and GHG emissions.

The Energy Commission is releasing draft guidelines in early 2018 and is engaging stakeholders in program development.

For more information, visit [energy.ca.gov/research/fpip/index.html](http://energy.ca.gov/research/fpip/index.html).

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### Renewable Energy for Agriculture Program • \$6M

The Energy Commission will provide financial assistance supporting the integration of onsite renewable energy in agricultural operations in disadvantaged communities and low-income communities. Eligible projects may include wind and solar installations. Applicants will be encouraged to include mechanisms for energy cost savings from project implementation to be reinvested in the local community to promote workforce development and community health.

The Energy Commission is seeking input from agricultural community stakeholders and will finalize a solicitation and program guidelines that reflect feedback from these community engagement efforts.

For more information, visit [energy.ca.gov/renewables/18-MISC-03/](http://energy.ca.gov/renewables/18-MISC-03/).

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### Training and Workforce Development Program • \$5M

The California Conservation Corps (CCC), through its local centers, provides training and work experience for young adult Corps Members implementing projects that reduce GHG emissions. Examples include fire prevention and forest health management, energy conservation, and urban greening.

For more information, visit [ccc.ca.gov](http://ccc.ca.gov).



### **Wildfire Prevention Program • \$75M**

CAL FIRE will use funds to administer a variety of fire prevention services and programs in the State Responsibility Area, including fuels reduction projects that reduce the risk of wildfire to communities, evacuation routes, and infrastructure. Other activities include 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, and fire-related law enforcement activities, such as arson investigation.

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**Cal OES**  
GOVERNOR'S OFFICE  
OF EMERGENCY SERVICES

### **Wildfire Response and Readiness • \$25M**

The California Governor's Office of Emergency Services (OES) will provide local assistance grants to fire departments within High Hazard Severity Zones to support activities directly related to GHG emission reductions from uncontrolled wildfires, and regional response and readiness. Projects may include pre-deployment of local resources for disaster response.

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### **Climate Ready Program and Coastal Resilience Planning • \$6M**

The California State Coastal Conservancy will provide grants to implement climate adaptation projects using natural infrastructure. The California Coastal Commission and the San Francisco Bay Conservation and Development Commission will work with local governments on adaptation plans to protect built and natural infrastructure from sea-level rise and address broad climate change adaptation issues.

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### **Climate Adaptation and Resiliency Program • \$20M**

The Wildlife Conservation Board (WCB) will fund climate adaptation projects for natural and working lands. Projects may include conservation agreements; adaptation and resiliency planning; technical assistance for land managers; and improved rural-urban coordination on climate change adaptation.

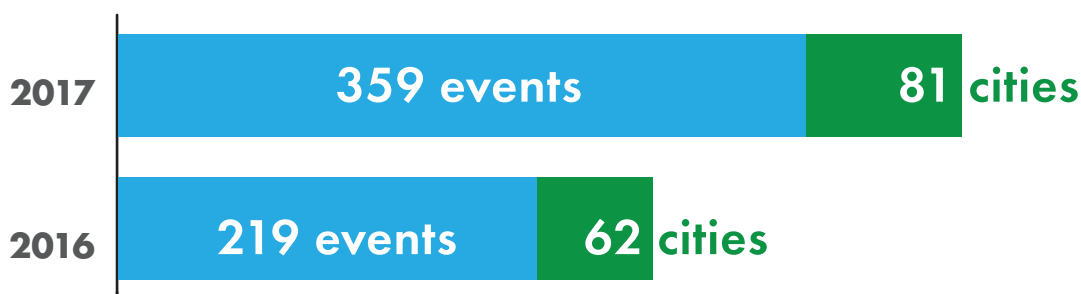
WCB expects to finalize guidelines in March 2018 and will solicit applications for adaptation projects.

# COMMUNITY ENGAGEMENT

Grassroots, community, and legislative leadership are critical to helping California Climate Investments deliver benefits to priority populations. SB 535 and AB 1550 direct investments and require that these investments benefit communities most impacted by environmental and socioeconomic burdens. Administering agencies are working to deliver benefits equitably throughout the State. However, these communities often lack the resources or capacity to compete successfully for funds, or may not even know that opportunities exist. In 2017, administering agencies continued to expand community engagement efforts to better connect communities with funding opportunities.

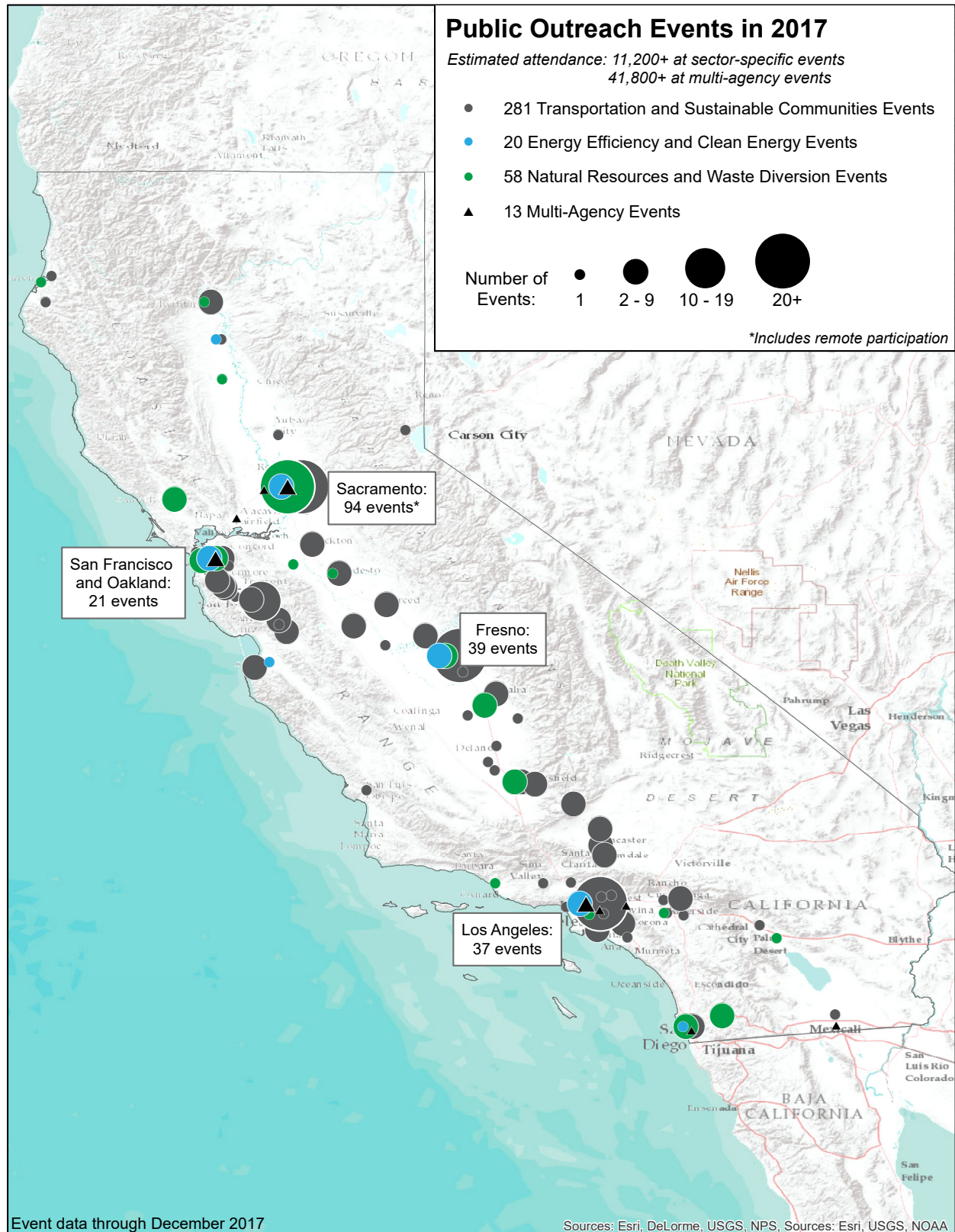
As Figure 6 shows, in 2017, administering agencies held over 350 outreach events—nearly 75 percent more than in 2016. Of these, they conducted 201 program-specific meetings, and participated in 158 community-sponsored events convened by advocacy groups, local governments, or elected officials. Dozens of these events were webcast or available as recordings to facilitate broad access. Agencies participated in events in 81 cities and towns throughout the State. In total, administering agencies reached an estimated 11,200+ event participants.<sup>18</sup> Figure 7 shows locations for 2017 outreach events by sector, and Appendix D provides a complete list.

**Figure 6: California Climate Investments Outreach Statistics**



<sup>18</sup> Participation numbers for agency events is likely much higher than 11,200. Not all agencies reported event attendance for 2017.

**Figure 7: California Climate Investments Public Outreach Events in 2017**





Administering agencies recognize the need to continue raising awareness of program opportunities and to increase the capacity of under-resourced communities to access funding and benefits. Agencies continue to expand and deepen community engagement efforts to help all communities share in the benefits of California Climate Investments. To do so, they developed a four-part collaborative engagement strategy to increase participation among and deliver meaningful benefits to priority populations.

## Program Awareness

In Fall 2016, CARB contracted with the Foundation for California Community Colleges (Foundation) to increase outreach to disadvantaged communities. Many individuals within, and communities that comprise, priority populations lack awareness of funding opportunities. They may not engage with the State in their daily lives; may not speak English as a primary language; or may primarily engage in public affairs through social media or interactions with trusted community members. To overcome this barrier, the Foundation is creating tools to provide information about California Climate Investments.

For instance, the Foundation developed a summary factsheet for each program, a summary of current funding opportunities for individuals and organizations, and a set of frequently asked questions about California Climate Investments. These materials are available in both English and Spanish on the California Climate Investments website or in hard copy at outreach events. The Foundation is also in the process of developing a comprehensive list of community organizations to help stakeholders identify potential resources or partners.

The Foundation also engages directly with the public through a bilingual hotline for program questions and at community events (e.g., festivals, fairs, conventions, and conferences) to directly reach priority populations. In Fall 2017 alone, the Foundation attended thirteen community events throughout the State with a cumulative attendance of over 42,000 people.

In 2017, the Administration partnered with the Foundation to expand stakeholder communication through an expanded social media presence and increased visits to the updated website. California Climate Investments also has social media accounts on Facebook and Twitter (@caclimateinvest) to keep followers up to date on program highlights and funding opportunities. California Climate Investments has sent over 500 tweets, making nearly 160,000 impressions with over 2,500 clicks. Since its launch, over 14,000 unique users have visited the site over 33,000 times.



## Agency Outreach

State agencies perform important functions in regulation, oversight, and administration of public resources. For the California Climate Investments program, outreach and community input are critical to achieving successful projects that provide direct, meaningful, and assured benefits.

Some low-income and disadvantaged community residents may lack means to travel to agency workshops and may not have the time or subject matter expertise to interpret program guidelines or other technical documents. It is important to reach priority populations in their own communities, and to communicate in accessible language. Agencies are broadening their approach to outreach and are using creative approaches to reach stakeholders, wherever they may be. SGC provides a few great examples that include: program staff



met with a community leader in her Fresno living room; participated in an evening meeting with community members at a local restaurant to discuss increasing regional competitiveness in the Salinas Valley; and participated in a bus tour to identify potential project sites in the Eastern Coachella Valley.

Public participation also plays a critical role in the development and improvement of California Climate Investment programs. Administering agencies hold program-specific workshops, webinars, conferences, and other public meetings across the State to engage with potential applicants and local communities. These events provide important opportunities for stakeholders to provide feedback to make programs more accessible and impactful. For example, in response to feedback on program design, staff for SGC's AHSC Program prioritized policies to avoid the displacement of residents and local businesses. Public input has helped agencies reach new communities and broaden the impact of California Climate Investments.



Staff from California Greenworks and the CNRA Urban Greening Program

## Urban Greening Outreach

### LOS ANGELES

During the Urban Greening Program solicitation process, Mike Meador, the Executive Director of the Los Angeles-based nonprofit California Greenworks, made full use of CNRA's outreach and assistance efforts. He attended local workshops to discuss details of his proposed project with agency staff, who made themselves available for questions until the submittal deadline. "We appreciate the program staff willingness to work with us to understand the process and provide a competitive application," said Meador. Because of his discussions with agency program staff, they found a way he could demonstrate control of the proposed project site without ownership to meet eligibility requirements. He took full advantage of outreach and technical assistance opportunities—including workshops, agency review of an optional concept proposal, and ongoing feedback from agency staff—and it worked. California Greenworks received \$150,000 for their South Los Angeles Urban Community Greening and Citizen Forestry Project.

## Multi-Agency Coordination

Administering agencies are working together to build a more collaborative and coordinated approach to share resources to connect priority populations to funding opportunities. Administering agencies formed a group of 19 staff from 15 agencies to provide coordinated strategic outreach to priority populations. Figure 8 shows coordinating agencies. Goals for multi-agency coordination include:

- Build interagency staff capacity to implement effective outreach through shared knowledge and experience;
- Leverage resources for coordinated and focused outreach to disadvantaged communities across programs;
- Build and maintain ongoing relationships with stakeholders for community engagement; and
- Hold regular meetings with community stakeholders to strengthen partnerships between agencies and local organizations.

**Figure 8: Agencies Coordinating Outreach for California Climate Investments**



Agencies are working together to leverage resources. For example, many agencies attended West Oakland Environmental Indicators Project's Yard Party to provide information about funding opportunities for low-income weatherization and solar projects, low carbon transportation projects, recycling and composting projects, and more. Program liaisons for administering agencies also routinely conduct joint visits to stakeholder groups at workshops hosted by cities, local elected officials, and community organizations. Program staff attended these types of workshops in Fresno, Gilroy, Merced, Elk Grove, Sacramento, Stockton, and Los Angeles.

## Technical Assistance

Administering agencies recognize that disadvantaged and low-income communities face barriers to accessing California Climate Investments or other funding opportunities, and can benefit from technical assistance to compete successfully for funds. This may include direct application assistance, project or partnership development, or capacity building activities.

In recognition of these challenges, the Legislature appropriated \$500,000 from the Fund to SGC to establish a pilot program for technical assistance for disadvantaged communities in FY 2015-16. The AHSC Pilot Technical Assistance Program provided individualized, direct application assistance for applicants located in disadvantaged communities. SGC contracted with three regional teams to assist applicants that were not successful in the first round of AHSC awards and intended to apply again. SGC also allocated a subset of the pilot funds for capacity building activities (e.g., to convene potential project partners from transportation, housing, and local government entities).

## Urban Forestry Outreach

### IMPERIAL VALLEY

The urban forest in Imperial County's desert communities has faced challenges for decades because of difficulties with city budgets and lack of resources. Knowing this, CAL FIRE's Regional Urban Forester, Lynnette Short, wanted to make sure these communities were aware of a great opportunity to expand their urban forest, so she personally reached out and invited each city to CAL FIRE's February 2016 Urban and Community Forestry Program workshop. Nearly all communities were present, and many cities followed up with her after the workshop. The City of El Centro's Parks and Recreation Department approached Short to see if their ideas aligned with the grant program and to refine their proposal to meet the requirements. In partnership with four other cities, El Centro applied for and successfully received an Urban Forest Expansion and Improvement grant for over \$665,000.

This project funds planting of 1,400 trees throughout five cities. The grant includes funds for all tree care and maintenance through 2020 to support high tree survival rates and ongoing benefits to local communities and the economy. The project will reduce over 5,600 MTCO<sub>2</sub>e and provide much-needed shade, air quality benefits, aesthetic benefits, and other co-benefits these desert communities desperately need. This is by far the largest urban forestry grant project ever implemented in the region.



Staff from California Greenworks and the CNRA Urban Greening Program



In 2016, SGC contracted with the University of California (UC) Davis to evaluate the AHSC Pilot Technical Assistance Program and to recommend improvements for future efforts.<sup>19</sup> UC Davis found that the pilot program played an important role in helping disadvantaged communities access program funding. For example, SGC awarded 25 projects for FY 2015-16, with 21 of those benefiting disadvantaged communities — of those, 20 received comprehensive technical assistance from SGC or another provider. Additionally, technical assistance had a demonstrable effect on disadvantaged community applicants. Applicants for projects that benefit disadvantaged communities were less likely to advance from the concept proposal to the full application stage without technical assistance. Only 18 percent of applicants for projects that benefit disadvantaged communities advanced between stages without technical assistance, compared to 55 percent of applicants that received assistance.

To build on the success of the pilot program, in Fall 2016 the Legislature appropriated \$2 million from the Fund to SGC technical assistance to serve disadvantaged communities.<sup>20</sup> In 2017, SGC staff established the California Climate Investments Technical Assistance Program. Several months of interagency and stakeholder discussions informed the goals of SGC's California Climate Investments Technical Assistance Program, which include:

- Direct Assistance: increase the number of successful applications from priority populations by providing direct assistance in preparing applications.
- Capacity Building: strengthen the capacity of priority populations to identify potential projects, create cross-sector partnerships, and apply to programs that meet community needs.
- Integrating California Climate Investments Programs: align technical assistance efforts to help applicants access multiple program opportunities.

SGC and other administering agencies continue to develop concepts and strategies to provide effective technical assistance and will continue to track metrics to evaluate how technical assistance metrics influence outcomes. For more information on technical assistance, visit: [sgc.ca.gov/programs/tech/docs/Facts%20Sheet-TA-Delivered-1-5-2017.pdf](http://sgc.ca.gov/programs/tech/docs/Facts%20Sheet-TA-Delivered-1-5-2017.pdf).



19 The full UC Davis report is available at [sgc.ca.gov/programs/tech/docs/20170702-AHSC\\_TA\\_Eval\\_Final\\_Report.pdf](http://sgc.ca.gov/programs/tech/docs/20170702-AHSC_TA_Eval_Final_Report.pdf).

20 AB 1613 (Committee on Budget, Chapter 370, Statutes of 2016)



Photo courtesy of Ruth M Dahlquist-Willard,  
UC Cooperative Extension

## University of California Cooperative Extension Technical Assistance to Farmers

### FRESNO COUNTY

CDFA's State Water Efficiency and Enhancement Program (SWEET) provides grants for irrigation systems that reduce GHG emissions and conserve water on California farms and ranches. SWEET grants are available to operations that may not have access to conventional commercial loans, are available for different types of water systems, and can deliver significant cost savings through improved energy and water efficiency. Because of these benefits, Michael Yang of UC Cooperative Extension in Fresno County quickly recognized SWEET as an outstanding opportunity for smaller and minority-owned farms in the Central Valley.

Yang is a trusted source of guidance to Hmong farmers in Fresno County, with 20 years of experience in translation and community outreach work through UC Cooperative Extension. With \$5,000 for technical assistance funding from the U.S. Department of Agriculture and California Climate Investments, UC Cooperative Extension held workshops to inform growers of the opportunity and help start applications. They also offered one-on-one technical assistance services to estimate GHG emission reductions using an Excel-based calculator tool, and helped look up information to complete applications and compile required supplemental documentation. Overall, they assisted nine applicants from Fresno County's Hmong farming community to prepare 2017 SWEET applications. Four applicants that Yang personally assisted received over \$300,000 combined towards new, efficient irrigation systems.

"I feel strongly that for technical assistance for socially disadvantaged farmers and immigrant populations, one-on-one assistance is essential," said Ruth Dahlquist-Willard of UC Cooperative Extension. "Michael is a big part of what makes this work. He is what connects us to the community."

The Thao Family Farm in Fresno County was one of the recipients of this technical assistance and successfully applied for over \$80,000 to replace their irrigation system. Their new drip irrigation system reduces water use, requires less maintenance, and delivers significant energy and labor costs-savings.



# COMMUNITY AND HOUSEHOLD BENEFITS

California Climate Investments are improving communities throughout the State by providing cleaner air, increased mobility options, greener communities, expanded access to clean energy, and new employment opportunities—especially to the State’s disadvantaged communities, low-income communities, and low-income households.

## **Senate Bill 535: Benefits to Disadvantaged Communities**

As part of the implementing legislation for California Climate Investments, the Legislature enacted SB 535 to ensure that Cap-and-Trade auction proceeds benefit the most environmentally and economically burdened residents of the State. SB 535 also established the following investment minimums:

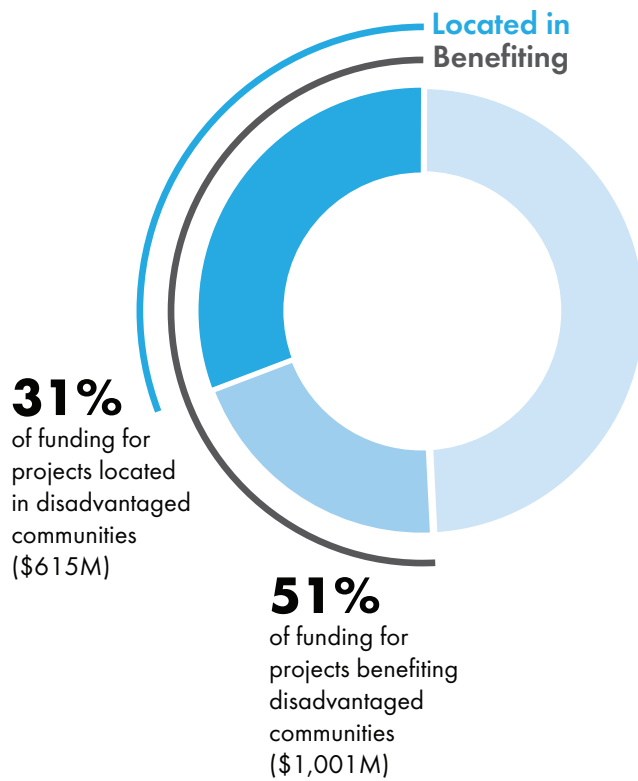
- At least 25 percent of the proceeds fund projects that benefit disadvantaged communities; and
- At least 10 percent of the proceeds fund projects located within and that benefit disadvantaged communities.

These minimums apply to overall appropriations from the Fund, rather than to each individual agency appropriation. SB 535 also directed CalEPA to identify disadvantaged communities based on disproportionate environmental, public health, and socioeconomic burdens. Separately, the Legislature directed CARB to develop guidance for administering agencies and to include a component on maximizing benefits for disadvantaged communities. CARB’s initial guidance established the standard that in order to count toward the SB 535 investment minimums, project benefits must be direct, meaningful, and assured, and meaningfully address an important community need.

Figure 9 shows that for projects implemented through November 2017, 51 percent of investments fund projects that provide a benefit to disadvantaged communities, and of these, 31 percent fund projects that are located within and provide a benefit to disadvantaged communities. Figure 10 shows that 98 percent of disadvantaged community census tracts have projects located within them.

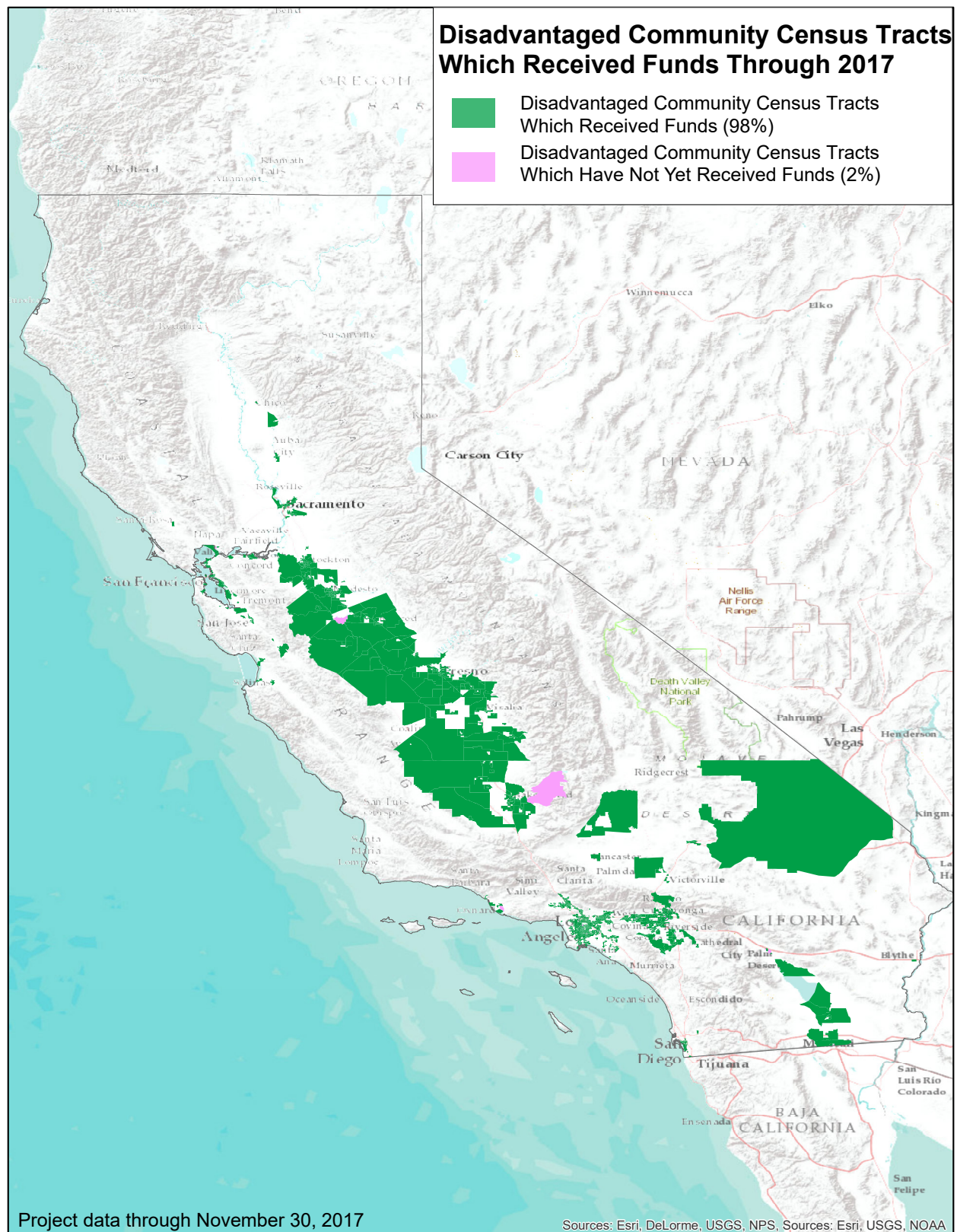
**Figure 9: Cumulative Investments that Benefit Disadvantaged Communities**

**\$2.0B in Cumulative Implemented Funds \***



\* Total amounts do not include benefits attributable to the High-Speed Rail Project

**Figure 10: Disadvantaged Community Census Tracts with California Climate Investments**



## Assembly Bill 1550: Benefits to Disadvantaged Communities, Low-income Communities, and Low-income Households

In 2016, the Legislature passed AB 1550 (Gomez, Chapter 369, Statutes of 2016), which modified the SB 535 criteria by increasing disadvantaged community investment minimums and establishing new investment minimums for low-income communities and households. AB 1550 requires that:

- At least 25 percent of the proceeds fund projects that are located within and benefit individuals living in disadvantaged communities;
- An additional minimum of 5 percent fund projects that are located within and benefit individuals living in low-income communities or benefit low-income households statewide; and
- An additional minimum of 5 percent fund projects that are located within and benefit individuals living in low-income communities or benefit low-income households within a ½ mile of a disadvantaged community.

Like SB 535, these minimums apply to the overall appropriations from the Fund, rather than to each individual agency appropriation. CalEPA identified census tracts that satisfy the statutory definitions of low-income required by AB 1550.

AB 1550 significantly expanded the scope of targeted California Climate Investments. Figure 11 shows census tracts prioritized for investment under SB 535 and AB 1550, respectively.

### Funding Guidelines Update

The Legislature directed the 2019 Investment Plan to allocate funding in accordance with AB 1550. However, in an effort to implement that direction sooner than would otherwise occur, the Administration asked for voluntary implementation. To support this request, agencies held community meetings statewide throughout 2017 to get stakeholder input on how to implement AB 1550 to provide benefits to priority populations, and to implement lessons learned from previous years of the California Climate Investments program.

To maximize transparency, accountability, and consistency among reported outcomes, it is critical to evaluate California Climate Investments against a clear and consistent standard. The Funding Guidelines provide the standard against which projects may be evaluated going forward because they were designed to help agencies incorporate AB 1550 into program design and project selection.

In August 2017, CARB released updated Draft Funding Guidelines to help administering agencies maximize benefits to disadvantaged communities and target benefits to priority populations.<sup>21</sup> The Draft Funding Guidelines also include a more streamlined process for agencies to use as they evaluate whether a project benefits priority populations.

#### AB 1550

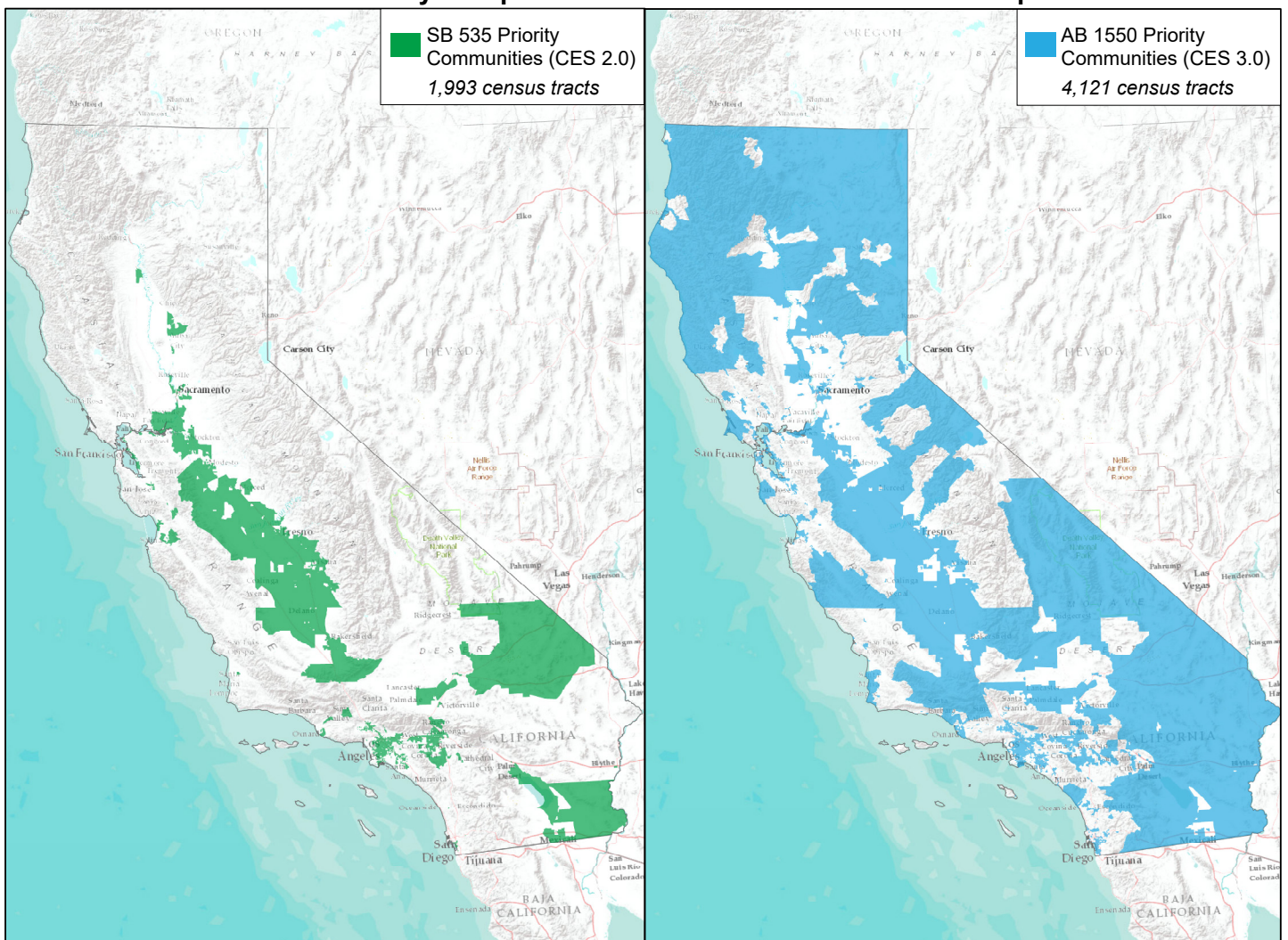
- Passed by the Legislature in 2016
- Directed the Investment Plan to allocate funds to disadvantaged communities, low-income communities, and low-income households by 2019
- Voluntary implementation in 2017

<sup>21</sup> In 2018, CARB released a 2018 Funding Guidelines discussion document to describe changes to the Funding Guidelines. For more information, visit: [www.arb.ca.gov/ci-fundingguidelines](http://www.arb.ca.gov/ci-fundingguidelines).



**Figure 11: Senate Bill 535 and Assembly Bill 1550 Priority Census Tracts**

**Statewide Community Comparison Between SB 535 and AB 1550 Populations**





At the release of the Draft Funding Guidelines, agencies were in various stages of program development and implementation. Some were developing program guidelines, while others were evaluating solicitations or implementing projects. It will take administering agencies different amounts of time to fully incorporate that guidance into program design and project selection. As a result, there are no comprehensive 2017 data for AB 1550, though future reports to the Legislature will include AB 1550 outcomes as agencies implement more funding.

Table 1 accounts for the funds cumulatively implemented within priority communities. This analysis shows that California Climate Investments are occurring in the communities prioritized by AB 1550, and that those communities will continue to realize direct, meaningful, and assured benefits as agencies continue to implement funds. It also shows that for cumulative investments, over 33 percent fund projects located within disadvantaged communities; over 8 percent fund projects in low-income communities; and an additional 8 percent fund projects in low-income communities that are within one-half mile of a disadvantaged community.

The analysis does not include an evaluation of project benefits, so the cumulative investments shown may be greater than the cumulative investments providing benefits. For example, while Table 1 shows that 33 percent of cumulative investments are located within disadvantaged communities, for the purposes of reporting on statutory targets, 31 percent of cumulative investments are located within and provide direct, assured, and meaningful benefits to those communities. Implemented funds and associated project benefits for priority populations are sure to increase as agencies implement FY 2017-18 appropriations in accordance with the updated guidance.

### WHEN DOES A PROJECT PROVIDE A BENEFIT?

A project must satisfy three requirements to count toward AB 1550 investment minimums:

1. Does the project directly benefit a priority population (disadvantaged community, low-income community, or low-income household)?
2. Does the project meaningfully address an important community or household need?
3. Does the project demonstrate a benefit specific to the project type?

**Table 1: Geographic Analysis of Implemented Projects in AB 1550 Communities (without applying benefits analysis)**

Agency	Program	Total Implemented Funds (\$)	Disadvantaged Communities		Low-income Communities		Low-income Communities within a Half-mile of a Disadvantaged Community	
			(\$M)	(%)	(\$M)	(%)	(\$M)	(%)
California Air Resources Board	Advanced Technology Freight Demonstration Projects	\$47.3	\$47.3	100%	\$0.0	0%	\$0.0	0%
	Clean Mobility Options for Disadvantaged Communities (Car Sharing and Mobility Options Pilot Project)	\$4.0	\$4.0	100%	\$0.0	0%	\$0.0	0%
	Clean Truck and Bus Vouchers (Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project)	\$31.0	\$15.8	51%	\$2.7	9%	\$1.1	4%
	Clean Vehicle Rebate Project	\$338.4	\$26.3	8%	\$40.4	12%	\$0.0	0%
	Enhanced Fleet Modernization Program Plus-Up	\$10.9	\$6.3	58%	\$1.9	18%	\$0.0	0%
	Financing Assistance for Lower-Income Consumers	\$0.2	\$0.1	39%	\$0.1	37%	\$0.0	0%
	Public Fleets Pilot Project	\$2.4	\$1.2	47%	\$0.3	14%	\$0.4	16%
	Rural School Bus Pilot Projects	\$8.5	\$1.8	21%	\$3.3	38%	\$0.2	2%
	Zero-Emission Truck and Bus Pilot Projects	\$82.8	\$60.7	73%	\$12.6	15%	\$9.5	11%
California Department of Transportation	Active Transportation Program	\$10.0	\$4.6	46%	\$2.9	29%	\$2.5	25%
	Low Carbon Transit Operations Program	\$114.8	\$73.0	64%	\$14.9	13%	\$7.5	7%
California High-Speed Rail Authority	High-Speed Rail Project	\$546.5	\$0.0	0%	\$0.0	0%	\$0.0	0%
California State Transportation Agency	Transit and Intercity Rail Capital Program	\$298.3	\$166.6	56%	\$21.0	7%	\$86.3	29%
Strategic Growth Council	Affordable Housing and Sustainable Communities Program	\$148.4	\$97.9	66%	\$7.1	5%	\$34.2	23%
	Sustainable Agricultural Lands Conservation Program	\$7.7	\$0.0	0%	\$1.6	19%	\$0.1	1%
California Department of Community Service and Development	Multi-Family Energy Efficiency and Renewables	\$15.4	\$13.8	89%	\$1.7	11%	\$0.0	0%
	Single-Family Energy Efficiency and Solar Photovoltaics	\$10.7	\$9.0	84%	\$1.3	12%	\$0.0	0%
	Single-Family Solar Photovoltaics	\$38.4	\$30.8	80%	\$4.8	12%	\$0.0	0%

Agency	Program	Total Implemented Funds (\$)	Disadvantaged Communities		Low-income Communities		Low-income Communities within a Half-mile of a Disadvantaged Community	
			(\$M)	(%)	(\$M)	(%)	(\$M)	(%)
California Department of Food and Agriculture	Alternative Renewable Fuels Program	\$3.0	\$0.0	0%	\$0.0	0%	\$0.0	0%
	Statewide Water Efficiency Enhancement Program	\$59.8	\$26.0	43%	\$9.4	16%	\$0.8	1%
California Department of Water Resources	State Water Project Turbines Program	\$20.0	\$0.0	0%	\$10.0	50%	\$10.0	50%
	Water-Energy Grant Program	\$19.2	\$10.3	54%	\$3.7	19%	\$0.0	0%
California Department of Fish and Wildlife	Wetlands and Watershed Restoration Program	\$21.3	\$0.0	0%	\$14.3	67%	\$0.0	0%
California Department of Food and Agriculture	Dairy Digester Research and Development Program	\$46.6	\$25.4	51%	\$0.2	0%	\$0.0	0%
California Department of Forestry and Fire Protection	Forest Health Program and Fire Prevention Program	\$29.7	\$0.0	0%	\$14.6	49%	\$0.0	0%
	Urban and Community Forestry Program	\$15.6	\$14.4	92%	\$0.2	1%	\$1.0	6%
California Department of Resources Recycling and Recovery	Organics and Recycling Manufacturing Loans	\$2.6	\$0.8	32%	\$0.0	0%	\$0.0	0%
	Organics Grants	\$30.5	\$20.7	68%	\$0.0	0%	\$5.9	19%
	Recycled Fiber, Plastic, and Glass Grants (Recycling Manufacturing Grants)	\$5.0	\$5.0	100%	\$0.0	0%	\$0.0	0%
Total Dollars By Category		\$1,969	\$658.7		\$168.9		\$159.6	
Percent by Category			33.4%		8.6%		8.1%	

Totals may not sum due to rounding.

This analysis of cumulative California Climate Investments attributes projects to AB 1550 categories (disadvantaged communities, low-income communities, and low-income communities within a half-mile of a disadvantaged community) based on location alone. For this analysis, no projects that report location at the census tract scale (e.g., vouchers) are attributable to low-income communities within a half-mile of a disadvantaged community. This analysis attributed project locations in the following order:

1. Projects located within a disadvantaged community were attributed to the disadvantaged community category.
2. Projects located within a low-income community that is within half-mile of a disadvantaged community were attributed to that category.
3. Projects attributable to a single category.

## ADDITIONAL BENEFITS

California Climate Investments also deliver a broad range of economic, environmental, and public health co-benefits throughout the State. These co-benefits complement GHG emission reductions and achieve other tangible benefits to individuals, households, businesses, communities, and the environment. For example, funded projects support job opportunities, reduce public exposure to criteria and toxic air pollutants, and provide cost-savings through reduced fuel, water, and electricity use.

At the time of this Report, CARB is preparing to release draft assessment methodologies for public comment. Administering agencies will be able to use final methodologies to report co-benefit outcomes consistently in future reports. For more information about co-benefit assessment, visit [arb.ca.gov/cci-co-benefits](http://arb.ca.gov/cci-co-benefits).

This section describes ongoing work to evaluate a number of co-benefits and highlights a few examples of benefits that implemented projects are achieving. Highlighted projects rely on data derived from existing quantification methodologies to show how California Climate Investments are reducing GHG emissions while also addressing some of the State's most significant climate and public health risks.

To help agencies maximize co-benefits, CARB staff is developing standardized approaches for assessing the co-benefit outcomes of investments. In 2016, CARB contracted with UC Berkeley to assist in the research and development of project level methods for a set of co-benefits including:

**Jobs:** Total number of jobs—direct, indirect, and induced—and training opportunities expected to result from California Climate Investments. The evaluation also considers job quality (e.g., living wages, job duration, and health insurance).

**Asthma/respiratory disease incidence:** Change in the respiratory exacerbations and health care visits linked to criteria and toxic air pollutants. Projects that reduce exposure to these pollutants can reduce health issues (e.g., the onset and exacerbation of asthma, decreased lung function, and increased asthma-related hospital visits).

**Air pollutant emissions:** Change in the emissions of select criteria and toxic emissions, that include particulate matter (PM), nitrogen oxides (NO<sub>x</sub>), reactive organic gases (ROG), and diesel particulate matter (diesel PM). Despite significant success in reducing overall pollution levels, air pollution continues to be an important public health and environmental problem that California Climate Investments can help mitigate.

**Travel cost savings:** Change in the cost to users of the transportation system from mode shift (e.g., taking public transportation instead of driving or flying) or discounted fares.



**Vehicle miles traveled:** Change in the total miles that vehicles travel due to mode shift from personal vehicles to biking, walking, transit, or vanpool or projects that restrict urban sprawl and promote infill development. In addition to reduced vehicle emissions, reduced vehicle miles traveled can also reduce road congestion, exposure to pollutants, and increase bike and pedestrian safety.

**Energy and fuel cost savings:** Change in the cost of energy or fuel from switching to a cleaner or renewable fuel, or changes in amount of fuel consumed from increased efficiency or mode shift (e.g., walking or biking instead of driving).

**Water supply and availability:** Maintenance of freshwater supply to sustain life, property, and critical ecosystems. Climate change, species endangerment, groundwater depletion, and population growth are stressors on California's water supplies. California Climate Investments reduce water consumption through increased efficiency measures in residences, businesses, and agricultural fields or enhance water holding in soils.

**Soil health and conservation:** Avoided soil loss and degradation from water and wind erosion, deforestation, overgrazing, and intensive agriculture, as well as restoration of soil function, productivity, and health. Projects support soil health through application of compost or mulch, increased use of cover crops or managed grazing, and conservation of natural and working lands.

**Climate adaptation:** Activities that help communities adapt to and address the impacts of climate change. Examples of impacts include extreme heat, drought effects, sea level rise and inland flooding, habitat loss, and wildfire.

**Community engagement:** Community participation in local affairs (e.g., policy and planning decisions or the design of a major infrastructure project). This can range from input and public comment to extensive collaboration or decision-making on project design or implementation.

**Anti-displacement:** Measures that minimize neighborhood displacement attributable to a variety of factors, including transportation investment, urban greening, and urban renewal and redevelopment.

**Accelerated implementation of technology:** The faster development or early adoption of a given technology. California Climate Investments can advance technology through direct investment or facilitate more rapid adoption of existing technologies.

UC Berkeley developed draft project-level assessment methods for eight co-benefits. They determined that anti-displacement and accelerated implementation of technology are not appropriate for assessment with research available at this time. For instance, it is challenging to determine if, or to what degree, the expansion of a transit line may contribute to increased housing costs in a neighborhood, or if housing costs would increase in that neighborhood without the investment.



## Combating Catastrophic Wildfire

In 2017, California experienced the largest and deadliest wildfires in its history.<sup>22</sup> This follows several years during which wildfires in the State were among the most destructive and expensive on record. Wildfires expose millions of residents in both urban and rural areas to unhealthy levels of smoke and release uncontrolled GHG emissions that contribute to climate change. Throughout the State, more than 100 million trees are dead or dying and an estimated 15 million acres of forest are unhealthy and in need of restoration,<sup>23</sup> which degrades overall forest health and makes forests less resilient. California's extended drought and other climate change impacts increase wildfire risk and make fire events more frequent, more catastrophic, and more costly.

California Climate Investments fund projects that reduce wildfire risk and intensity by removing available fuels. Activities such as brush removal, forest thinning, and prescribed burns reduce flame length and fire severity to make forests more resilient to wildfire.

To date, California Climate Investments in CAL FIRE's fuel reduction projects have protected over 1.4 million acres of California's forestland. These investments not only protect the landscape, but also limit loss of life and property damage, achieve cost savings in combating wildfires, and minimize adverse impacts to human health and livelihoods. Fuels reduction activities also provide additional benefits that support overall forest health and resilience, including enhanced wildlife habitat, increased biodiversity, and greater resistance to drought and pests.



22 California's 2017 Climate Change Scoping Plan (2017 Scoping Plan). Available at [arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](http://arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf)

23 2017 Scoping Plan





## Improving Air Quality and Protecting Public Health

Air pollutants and toxic air contaminants are an important community and public health concern. Many major sources of pollution provide power, enable transportation, and support other essential services. However, these sources often disproportionately impact certain communities—such as those adjacent to industrial facilities, ports, railyards, freight distribution centers, and freeways—which are often made up of low-income communities or vulnerable populations. The greatest health risk is to vulnerable members of society, including children and the elderly.

Nearly all agencies administering California Climate Investments fund a variety of projects that reduce GHG emissions as well as air pollutants and toxics. For example, CARB's Enhanced Fleet Modernization Program Plus-Up (EFMP Plus-Up) provides incentives for lower-income residents of disadvantaged communities to replace older vehicles with zero-emission or hybrid vehicles. CARB's



Advanced Technology Freight Demonstration Projects and Zero-Emission Freight Equipment Pilot Commercial Deployment Project fund zero-emission or near zero-emission technologies to reduce harmful diesel pollution around freight facilities and corridors.

In total, CARB's implemented projects are expected to achieve over 5,000 tons of criteria and toxic air pollutant reductions. Many other agencies have also implemented projects that will increase this preliminary value. Investments that reduce air pollution can also reduce vehicle travel on congested roadways, reduce fossil fuel-based energy use, or plant trees in urban neighborhoods that improve air quality. Many of these investments target benefits to priority populations to address the State's public health inequities.





## Water Savings

California's recent historic drought continues to impact communities and economies throughout the State. The Scoping Plan describes studies showing that a changing climate increases the likelihood of extreme drought that can devastate rural and other vulnerable communities with limited drinking water supply. It can also endanger crops and harvests on California's farms and ranches that produce 50 percent of the nation's fruits, nuts and vegetables; 20 percent of the milk; and more than 400 different agricultural commodities. The Scoping Plan also referenced a University of California study which showed that in 2015 in the Central Valley alone, the drought cost the State economy \$2.7 billion and more than 20,000 full time jobs. Communities will feel the impacts of these losses for years to come. Water management strategies that build drought resilience are important to ensure the continued supply of the State's most vital resources.

California Climate Investments in CDFA's SWEEP and DWR's Water-Energy Grant Program fund projects that save water and reduce GHG emissions from agricultural, residential, and commercial and institutional sources. These investments support installation of more efficient irrigation on California farms and ranches, and installation of more efficient appliances in homes, businesses, and institutions throughout the State.

Together, these investments will save over 370 billion gallons of water. That is enough to cover over one million acres in a foot of water, or to fill over 560,000 Olympic swimming pools. Water-saving measures can also reduce energy costs to households, businesses, and institutions, and reduce air pollution from groundwater pumping.





# OUTCOMES

Over a dozen State agencies are administering a broad portfolio of California Climate Investments programs. These programs share a broad focus on advancing the State's climate goals, providing benefits to priority populations, and providing a broad range of environmental, economic, and public health benefits, but vary in program design and approach to achieving outcomes.

This Report uses several terms to clearly and consistently describe the process administering agencies use to implement projects across broad program types.

- **Implemented:** Final funding recipient receives funds and projects have attributable GHG and disadvantaged community benefits.
- **Awarded:** An agency commits funding to a project (e.g., executed a contract; transferred funds to an administering agency).
- **Selected:** An agency announces funding recipients (e.g., Board action, or public announcement) prior to executing grant agreements; not yet awarded.
- **Allocated:** An agency distributes funds or establishes an expenditure limit for a program or subprogram.
- **Appropriated:** The Legislature authorizes an agency to make expenditures or incur financial obligations from the Fund for a specified purpose and period of time.

## Financial Status of Programs

Administering agencies are in various stages of program development or implementation. Some agencies are in the process of awarding funds from prior fiscal years and some agencies with FY 2017-18 funds have finalized program guidelines, solicited project proposals, or are evaluating those proposals.

Administering agencies have selected or awarded projects for over 80 percent of funds appropriated prior to September 2017. Table 2 shows the progress agencies have made toward implementation of projects on the ground. This number will continue to increase as agencies implement funding, including FY 2017-18 appropriations.

Implemented funds are used for accounting of benefits from California Climate Investments while budgetary expenditures are used for fiscal accounting. Both metrics account for projects with executed contracts. Appendix E provides fiscal budgetary expenditures for each agency. For this Report, "budgetary expenditures" represent the amount of GGRF monies expended by administering agencies, including any remaining encumbrances. Any monies included in signed agreements/contracts or spent by an agency (e.g., monies committed by grant agreements, issued to an end-user for a voucher, or spent by the agency for administrative costs), are listed as budgetary expenditures.

**Table 2: Utilization of Funds Appropriated Prior to September 2017**

Administering Agency	Program	(\$M)	(\$M)	(%)
		Cumulative Appropriations, Prior to FY 2017-18 Appropriations <sup>24</sup>	Total Selected Funds + Awarded Funds as of Nov 2017	Total Selected Funds + Awarded Funds as of Nov 2017
California Air Resources Board	Community Air Protection Program	NEW PROGRAM EST. IN SEPT 2017		
	Funding Agricultural Replacement Measures for Emission Reductions Program	NEW PROGRAM EST. IN SEPT 2017		
	Low Carbon Transportation Program	\$695	\$687	99% <sup>25</sup>
California Department of Transportation	Active Transportation Program	\$10	\$10	100%
	Low Carbon Transit Operations Program	\$161	\$121	75%
California High-Speed Rail Authority	High-Speed Rail Project	\$930	\$547 <sup>26</sup>	59%
California State Transportation Agency	Transit and Intercity Rail Capital Program	\$432	\$511	118% <sup>27</sup>
Strategic Growth Council	Affordable Housing and Sustainable Communities Program; Sustainable Agricultural Lands Conservation Program	\$674	\$481	71%
	California Climate Investments Technical Assistance Program	NEW PROGRAM EST. IN SEPT 2017		
	Transformative Climate Communities Program	\$140	\$105	75%
California Air Resources Board	Woodsmoke Reduction Program	\$5	\$0	0%
California Department of Community Services and Development	Low-Income Weatherization Program	\$174	\$159	91%
California Department of Food and Agriculture	Alternative Renewable Fuels Program	\$3	\$3	100%
	State Water Efficiency and Enhancement Program	\$66	\$66	100%
California Department of Water Resources	State Water Project Turbines Program	\$20	\$20	100%
	Water-Energy Grant Program	\$50	\$46	91%
California Energy Commission	Food Production Investment Program	NEW PROGRAM EST. IN SEPT 2017		
	Renewable Energy for Agriculture Program	NEW PROGRAM EST. IN SEPT 2017		
California Conservation Corps	Training and Workforce Development Program	NEW PROGRAM EST. IN SEPT 2017		
California Department of Fish and Wildlife	Wetlands and Watershed Restoration Program	\$27	\$21	79%
California Department of Food and Agriculture	Alternative Manure Management Program; Dairy Digester Research and Development Program	\$62	\$52	83%
	Healthy Soils Program <sup>28</sup>	\$8	\$5	64%

Administering Agency	Program	(\$M)	(\$M)	(%)
		Cumulative Appropriations, Prior to FY 2017-18 Appropriations <sup>24</sup>	Total Selected Funds + Awarded Funds as of Nov 2017	Total Selected Funds + Awarded Funds as of Nov 2017
California Department of Forestry and Fire Protection	Wildfire Prevention Program	NEW PROGRAM EST. IN SEPT 2017		
	Forest Health Program, <sup>29</sup> Fire Prevention Program, and Urban and Community Forestry Program	\$82	\$74	90%
California Department of Resources Recycling and Recovery	Waste Diversion Program	\$71	\$55	78%
California Natural Resources Agency	Urban Greening Program	\$80	\$76	95%
California State Coastal Conservancy	Climate Ready Program and Coastal Resilience Planning	NEW PROGRAM EST. IN SEPT 2017		
California Wildlife Conservation Board	Climate Adaptation and Resiliency Program	NEW PROGRAM EST. IN SEPT 2017		
Governor's Office of Emergency Services	Wildfire Response and Readiness	NEW PROGRAM EST. IN SEPT 2017		
<b>Total (\$B)</b>		<b>\$3.7</b>	<b>\$3.0</b>	<b>82%</b>

**Benefits (GHG, disadvantaged community, and co-benefits) described in this Report are based on implemented funds only.** This structure provides consistency and transparency across all programs, and ensures that reported metrics are for projects on the ground that are providing benefits to individuals and communities. The remainder of this Report provides program-level outcomes for California Climate Investments, and a description of annual and cumulative outcomes for each program.

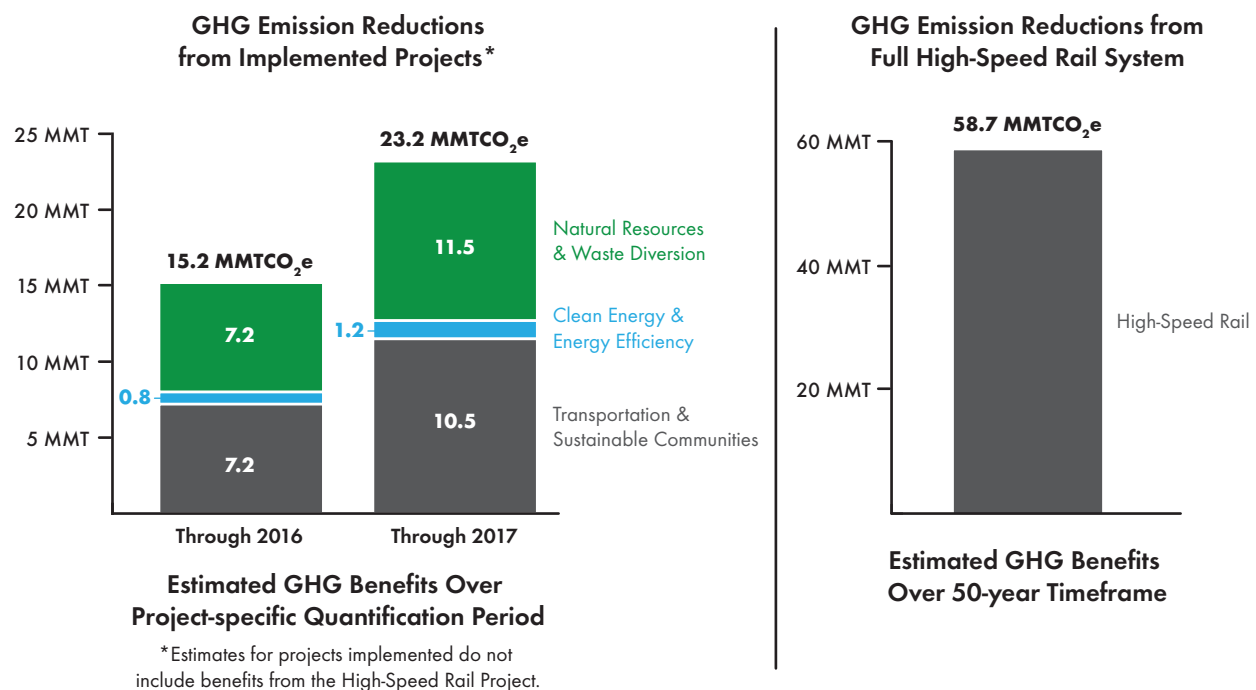
## Greenhouse Gas Benefits

GHG emission reductions for California Climate Investments are presented as net reductions of the GHG emissions identified in AB 32, including net carbon sequestration achieved through long-term management practices on natural and working lands.

- <sup>24</sup> These reflect cumulative appropriations provided through FY 2016-17, but do not include the additional \$1.5 billion that was appropriated in September 2017 or the \$855 million in continuous appropriations from the August 2017 and November 2017 allowance auctions.
- <sup>25</sup> CARB and the Low Carbon Transportation Program responded quickly to the FY 2017-18 Appropriations and awarded \$95 million of these funds in November 2017.
- <sup>26</sup> CHSRA does not Select or Award Funds, so this value represents Implemented funds.
- <sup>27</sup> 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 through continuous appropriation established in SB 862.
- <sup>28</sup> CDFA's grant solicitation and project selection occurred within reporting year 2017. CDFA announced selected funding recipients on December 5, 2017 to coincide with World Soil Day.
- <sup>29</sup> Selected Funds + Awarded Funds for CAL FIRE's Forest Health Program includes \$3M awarded to California Conservation Corps for forest health projects per FY 2016-17 appropriations.

The \$2 billion in funds implemented through 2017 are expected to reduce GHG emissions by over 23 million MTCO<sub>2</sub>e over their respective GHG emission reduction timeframes, which show when projects are implemented based on the quantification period. Of those, projects implemented in 2017 are expected to reduce GHG emissions by approximately 8 million MTCO<sub>2</sub>e over their respective GHG emission reduction quantification period. In addition, the full High-Speed Rail Project is expected to reduce GHG emissions by nearly 59 million MTCO<sub>2</sub>e over its first 50-years of operating life, as detailed in the 2016 California High-Speed Rail Sustainability Report.<sup>30</sup> Figure 12 shows cumulative estimated GHG emission reductions from implemented projects through 2016 and 2017 and for the High-Speed Rail Project.

**Figure 12: Estimated GHG Benefits from Cumulative Implemented Projects**



## Understanding Program Outcomes from California Climate Investments

The remainder of this Report provides a summary of the status of California Climate Investments and the outcomes of those investments for each program and administering agency by sector under the Investment Plan.

Each program or subprogram page includes the following, where applicable:

- A high-level overview of the program including: administering agency; purpose (types of funded activities); structure (whether competitive, first-come, first-served, etc.); eligible recipients; and how the program reaches priority populations;
- For each program or subprogram, the total amount appropriated or allocated through 2017;
- A description of how projects achieve GHG emission reductions, benefits to priority populations, and other benefits;

<sup>30</sup> CHSRA's GHG emission reduction estimate is based on the [2016 Business Plan](#) and the [2016 Sustainability Report](#). In March 2018, CHSRA released the draft 2018 Business Plan with a revised estimate on the GHG emission reduction range (64.9 million to 84.1 million MTCO<sub>2</sub>e). CHSRA will finalize this Business Plan in 2018.



- Cumulative anticipated GHG emission reductions from implemented projects;
- Benefits to priority populations from implemented projects;
- The schedule or timeframe over which GHG emission reductions are expected to occur as a result of implemented projects.
- This shows the duration of GHG emission reductions as defined in the quantification methodology based on when projects are implemented. The initial year is the first year of implemented projects for that program and the final year accounts for the last year of expected GHG emission reductions from currently-implemented projects. The final year may be extended if additional projects continue to be implemented. The duration of expected reductions is specific to the program or project type. For example, energy efficiency retrofit projects will yield GHG emission reductions soon after implementation and will continue to provide GHG emission reductions for the “life” of the retrofit (lighting, HVAC system), generally five to 20 years. Other currently-implemented projects, such as Forest Health projects, may provide benefits for decades. Demonstration and pilot projects may be quantified over a short-term (three or fewer years), but result in advanced or accelerated widespread implementation of new technologies that will reduce GHG emissions for many years; and
- Maps of implemented projects. Maps printed in this Report may attribute multiple projects to a single point, or project location. For more detailed project spatial resolution, visit [caclimateinvestments.ca.gov](https://caclimateinvestments.ca.gov).

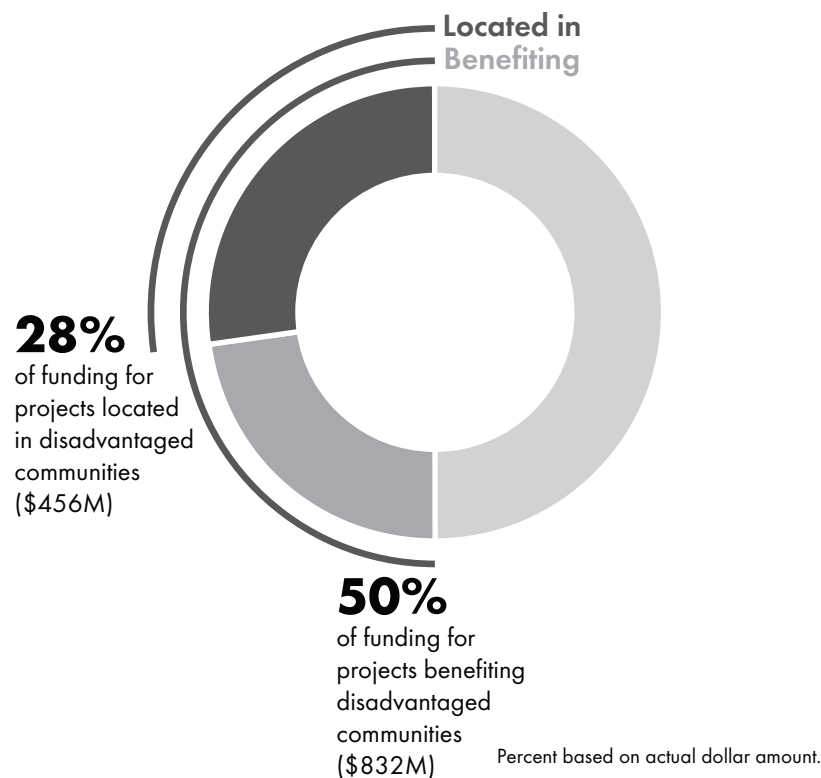
# INVESTMENTS IN TRANSPORTATION AND SUSTAINABLE COMMUNITIES

California's transportation sector accounts for approximately half of statewide GHG emissions. SB 862, enacted by the Legislature and the Governor in 2014, established continuous appropriations of 60 percent of the available GGRF proceeds for certain transportation and sustainable communities programs, including the High-Speed Rail Project, local and regional public transit, and affordable housing projects. In addition, annual appropriations are supporting the Low Carbon Transportation Program.

These investments provide a variety of benefits for communities, households, and individuals statewide. CARB's Low Carbon Transportation program is implementing several subprograms that deliver a wide range of benefits. For example, heavy-duty demonstration projects are accelerating commercialization of

## Transportation and Sustainable Communities

**\$1.7B Implemented**



advanced technologies, and light-duty pilot projects in disadvantaged communities are lowering costs and reducing barriers to access clean technologies while reducing exposure to toxic air contaminants. Caltrans' LCTOP is delivering cost-savings to riders by reducing the fare to ride transit. CalSTA's TIRCP is increasing availability and use of transit to reduce vehicle miles traveled and pollution from single-occupancy vehicles. SGC's AHSC Program is bringing jobs and housing closer together to increase housing affordability while reducing commute times and passenger trips taken.

The following pages describe California Climate Investments in transportation and sustainable communities. For more information, visit: [caclimateinvestments.ca.gov/sustainable-communities-clean-transportation](https://caclimateinvestments.ca.gov/sustainable-communities-clean-transportation).

## Advanced Technology Freight Demonstration Projects

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** Accelerates the introduction of advanced GHG emission reduction technologies for heavy-duty vehicles and equipment in the freight transport and other sectors by expanding the type and number of zero-emission and near zero-emission equipment, and facilitating technology transfer.

**Structure:** Competitive

**Eligible Recipients:** Local air districts, other California public entities, and nonprofits, which may partner with private sector parties (e.g., end-users, manufacturers) as providers or demonstrators.

**Reaching Priority Populations:** All projects must benefit disadvantaged communities and projects within disadvantaged communities receive enhanced application scoring.

#### Program Benefits

Advanced Technology Freight Demonstration Projects provide funding for pre-commercial demonstrations of advanced vehicles, engines, equipment, and transportation systems. These advanced technology projects demonstrate zero-emission or near zero-emission vehicles and equipment that use less petroleum and emit less GHG and air pollutant (NO<sub>x</sub>, PM, carbon monoxide (CO), and ROG) emissions than conventional, diesel-fueled equipment. Lower emissions of air pollutants means that disadvantaged communities benefit from these projects through improved air quality and public health. More broadly, these demonstration projects are intended to lead to the commercialization of larger numbers of cleaner vehicles and equipment by accelerating the adoption of advanced technology.

#### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.0M

#### CUMULATIVE

ALLOCATED: \$84.0M

IMPLEMENTED \$47.3M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

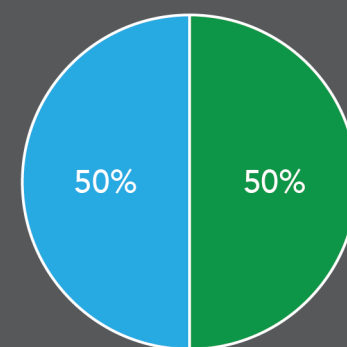
#### GHG BENEFITS

13,100 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

2016-2019

#### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California





# California Collaborative Advanced Technology Freight Demonstration Project

## STATEWIDE

Neighborhoods and highways near the State's busiest ports will soon benefit from an influx of 44 heavy-duty Class 8 zero-emission trucks thanks to CARB's California Collaborative Advanced Technology Freight Demonstration Project.

"This is the largest deployment of zero-emission Class 8 trucks in North America," said Air Pollution Specialist Earl Landberg, who manages the project for CARB. He stressed the importance of truck "original engine manufacturers" (OEMs) who are playing a critical role.

"What they learn from this project can move directly into the assembly line. The potential for scalability and commercial deployment of this technology is immense. Most OEMs by 2020 will sell Class ZEVs commercially."



Drayage trucks load, unload, and transport cargo at California's ports and intermodal rail facilities, playing a key role in the State's economy. The main goal of the project is to accelerate adoption and commercialization of battery-electric and plug-in hybrid drayage trucks, and to provide vital feedback to the manufacturers who will monitor their use and performance and make changes in production as needed. Local communities will also be able to experience first-hand the advantages of these clean vehicles, which will help reduce key criteria pollutants, GHGs, petroleum usage, and toxic pollution where reductions are needed most.

Intrastate freight transport is a major economic engine for California, but also accounts for about half of toxic diesel PM, 45 percent of NO<sub>x</sub> that form ozone and fine PM in the atmosphere, and 6 percent of all GHG emissions in the State.

To help fund the more than \$40 million project, CARB awarded \$23.7 million Cap-and-Trade dollars to the South Coast Air Quality Management District, which in turn partnered up for the remaining \$17 million with air districts in the Bay Area, Sacramento, San Diego, and San Joaquin Valley. Together they expect to demonstrate the efficacy of these state-of-the-art trucks, which they soon hope will be commonplace.

Industry partners include BAE Systems, BYD, Kenworth Trucks/Peterbilt, TransPower, Volvo Trucks North America, LA County Metro, and San Diego Gas and Electric.

The lucky entities that will be using the new trucks are the California Cartage Company, California Multimodal Inc., Central Valley Ag/Pinnacle, Devine Intermodal, GSC Logistics, Knight Transportation, Pasha, Terminalift, Three Rivers Trucking, Total Transportation Systems Inc., and the United States Navy.

Two trucks are now in service, a Volvo in Oakland with GSC Logistics, and a BYD vehicle working for Total Transportation Systems Inc. in the Port of LA/LB. New vehicles will be phased in through March 2020, when the project will be complete.



## Agricultural Worker Vanpools

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** Expands access to cleaner, lower GHG-emitting transportation options for agricultural workers in disadvantaged communities with a focus on the San Joaquin Valley.

**Structure:** Competitive

**Eligible Recipients:** TBD

**Reaching Priority Populations:** Program will be limited to projects that serve disadvantaged communities.

#### Program Benefits

By expanding access to cleaner vehicle vanpools for agricultural workers in disadvantaged communities in the San Joaquin Valley, residents benefit from increased access to transportation, lower transportation costs, improved air quality, and enhanced public health. These benefits will stem from a decrease in the number of passenger vehicle miles traveled and through the use of cleaner, multi-passenger vehicles that use less petroleum and emit fewer GHGs and air pollutants per mile than their conventional counterparts. In addition to decreasing transportation costs by shifting passenger vehicle miles traveled to vanpools, the enhanced efficiency of the cleaner vehicles will also decrease fuel costs. Increasing the number of cleaner vehicles accelerates the broader implementation of advanced clean vehicle technology by enhancing public acceptance of clean vehicle technology and spurring demand for clean vehicle infrastructure, such as electric vehicle charging stations.

#### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.0M

#### CUMULATIVE

ALLOCATED: \$6.0M

IMPLEMENTED \$0.0M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

#### GHG BENEFITS

TBD

#### FUNDING DISTRIBUTION

TBD

## Clean Mobility Options for Disadvantaged Communities<sup>31</sup>

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** Provides funding for car share projects in disadvantaged communities using advanced clean vehicles (zero-emission or plug-in hybrid electric vehicles) and associated infrastructure.

**Structure:** Competitive

**Eligible Recipients:** Pilot programs awarded to Los Angeles and Sacramento.

**Reaching Priority Populations:** Projects are placed in locations that serve disadvantaged communities.

#### Program Benefits

Residents of disadvantaged communities are given access to car sharing services, thereby increasing their access to clean transportation options. The zero-emission vehicles and plug-in hybrid electric vehicles used for the car share program emit fewer GHG emissions per mile than comparable conventional vehicles. These cleaner vehicles also use less petroleum, therefore reducing air pollutant (NO<sub>x</sub>, ROG, CO, PM, and toxics) emissions and improving air quality and public health within the disadvantaged communities where these car share programs are located. Benefits of car sharing also include increased access to healthcare, schools, jobs, and shopping. Fuel costs for clean vehicles are lower, which add to the economic benefit of enhanced mobility. Increasing the number of clean vehicles on the road accelerates the broader implementation of advanced clean vehicle technology by enhancing public acceptance of clean vehicle technology and spurring demand for clean vehicle infrastructure, such as electric vehicle charging stations.

### FUNDING OUTCOMES

2017

AWARDED: \$1.0M

IMPLEMENTED: \$1.0M

### CUMULATIVE

ALLOCATED: \$33.1M

AWARDED: \$4.0M

IMPLEMENTED: \$4.0M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

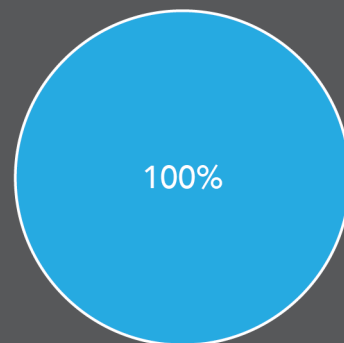
#### GHG BENEFITS

900 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

2016-2020

### FUNDING DISTRIBUTION



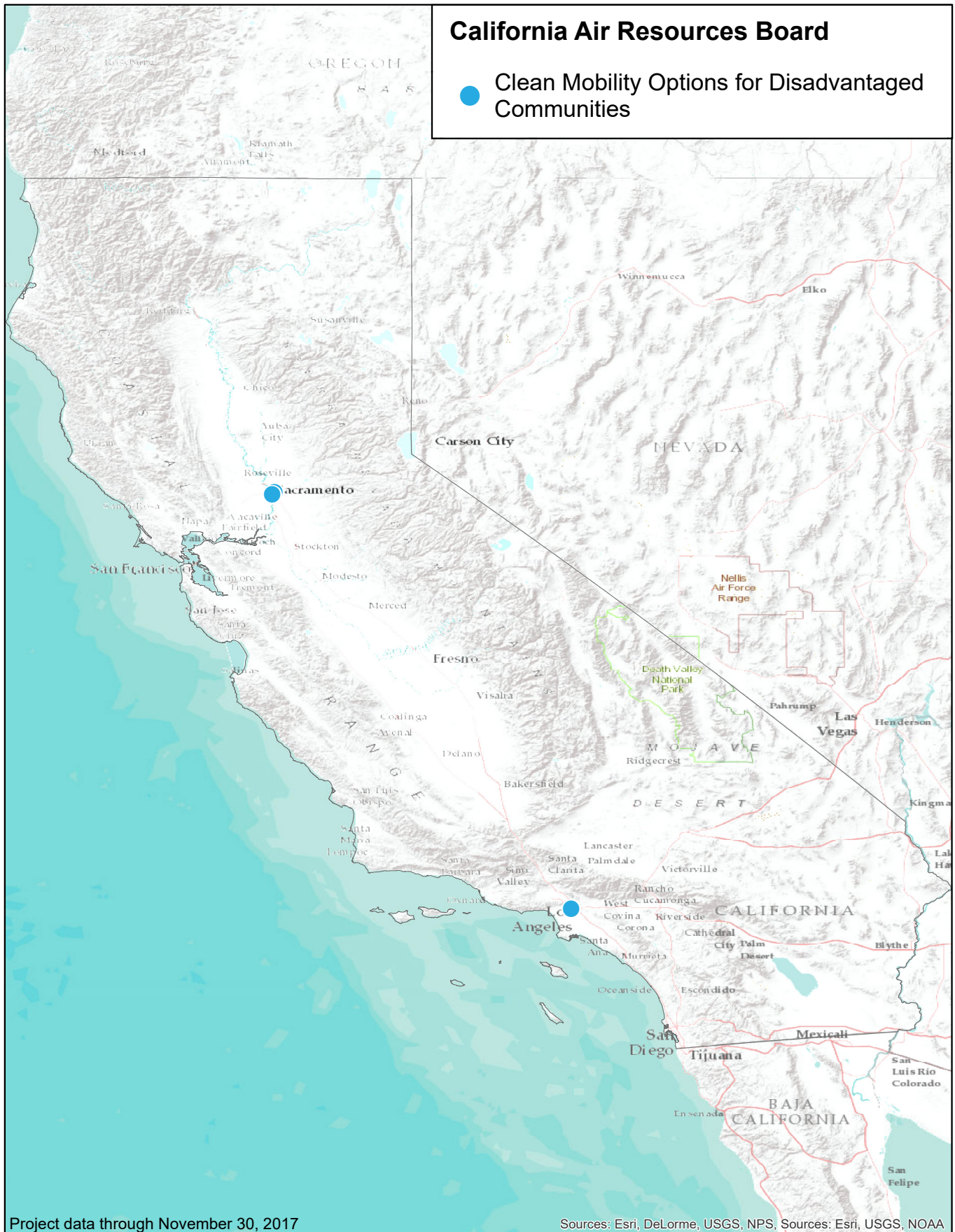
- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California

<sup>31</sup> Previously the Car Sharing and Mobility Options Pilot Project.



## California Air Resources Board

- Clean Mobility Options for Disadvantaged Communities



Project data through November 30, 2017

Sources: Esri, DeLorme, USGS, NPS, Sources: Esri, USGS, NOAA



# Clean Mobility Options for Disadvantaged Communities Program

## Our Community CarShare Program

### SACRAMENTO COUNTY

May 2017 marked the launch of the Our Community CarShare Sacramento Program. This new car sharing pilot program, available to low-income Sacramento residents, was great news to Susan Brown and came to her attention at the right time.

"People would come up and say to me 'oh this (program) would be perfect for you!' because they knew I had lost my car," Susan said. "So, I was among the first to sign-up!"

Susan became one of the first residents to benefit from the car sharing program, which offers easy-and-free access to eight zero-emission Kia Soul EVs. Nearly 100 residents of three public housing complexes in Sacramento have signed up with dozens more working through the application process.

The Sacramento Metropolitan Air Quality Management District administers the program as part of CARB's Clean Mobility Options for Disadvantaged Communities, funded by Cap-and-Trade dollars. Zipcar maintains the car share fleet and reservation systems at program sites.



"This was just heaven sent," expressed Susan. "Living in senior housing that is for low-income can be depressing. Having accessibility to transportation, private transportation, is so beneficial. You know when people lose their cars, they lose their sense of freedom."

Fortunately, car sharing helped free her of vehicle worries and she is now able to go to doctor appointments in Roseville and run errands around Sacramento, with so much ease.

Soon the program will soon expand to three more low-income housing communities and offer at least six additional electric vehicles. Additionally, residents will be able to take advantage of subsidies for ride hailing services.

Providing residents of disadvantaged communities access to zero-emission transportation options is one of the main goals of the program. Vehicle emissions contribute more than 70 percent of the pollutants that form ground-level ozone in Sacramento. While the region has made progress, air pollution levels still exceed federal health standards for ozone, high concentrations of which can trigger asthma attacks and damage lungs. Programs like car share play an important role in the fight against air pollution and climate change by reducing transportation-related emissions and serving as a model for others to follow.



## Clean Vehicle Rebate Project (CVRP)<sup>32</sup>

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** Promotes clean vehicle adoption by offering rebates for the purchase or lease of new, eligible light-duty vehicles, including electric, fuel-cell, and plug-in hybrid electric vehicles.

**Structure:** First-come, first-served statewide; administered by the Center for Sustainable Energy.

**Eligible Recipients:** Individuals, businesses, and government entities.

**Reaching Priority Populations:** Outreach events targeting priority populations; larger rebates for lower-income applicants and for public fleets located in disadvantaged communities.

#### Program Benefits

Zero-emission and plug-in hybrid electric vehicles emit less GHG emissions per mile traveled than comparable conventional vehicles. Because these clean vehicles use less petroleum, they also have lower emissions of air pollutants (NO<sub>x</sub>, ROG, CO, PM, and toxics), resulting in better air quality and improved public health. Fuel costs for clean vehicles are also lower. Vehicle rebates are larger for lower-income Californians and for California public entities with light-duty vehicle fleets located in disadvantaged communities, giving priority populations greater access to clean transportation and magnifying the economic and environmental benefits of clean vehicles in these communities. Increasing the number of clean vehicles on the road accelerates the broader implementation of advanced clean vehicle technology by enhancing public acceptance of clean vehicle technology and spurring demand for clean vehicle infrastructure, such as electric vehicle charging stations and hydrogen fueling stations.

### FUNDING OUTCOMES

2017

AWARDED: \$138.0M

IMPLEMENTED: \$95.2M

#### CUMULATIVE

ALLOCATED: \$508.4M

AWARDED: \$406.3M

IMPLEMENTED: \$340.8M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

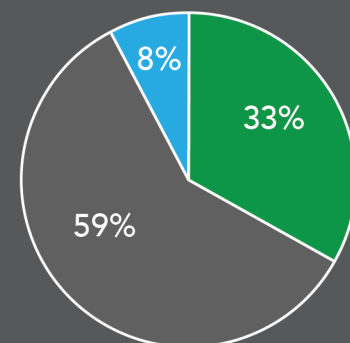
#### GHG BENEFITS

5,104,100 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

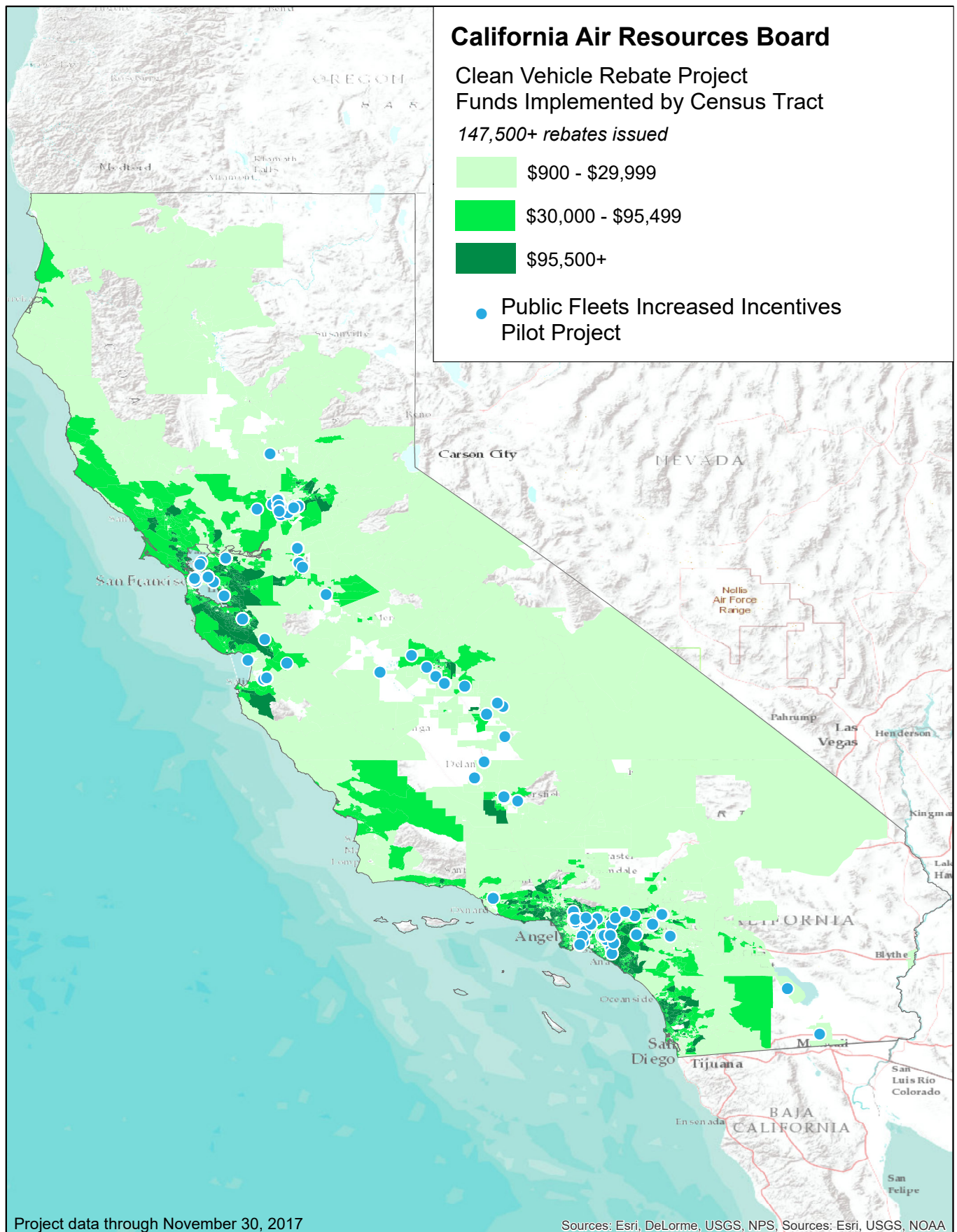
2015-2032

#### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California

<sup>32</sup> The Public Fleets Increased Incentives Pilot Project has been integrated into the CVRP and the data have been combined here.





## Clean Vehicle Rebate Project

### STATEWIDE

Clean cars are a cool and growing trend in California. Each month, California moves closer towards its goal of five million ZEVs by 2030—with more than 367,000 on the road as of February 2018.

This trend is happening as more drivers, like Jimmy Chang, become aware of the benefits clean vehicles bring to the environment and to their pocketbooks, and learn about the programs available to make cleaner vehicles more accessible to all Californians.

"I'm able to reduce emissions and save some money by driving this car," said Jimmy Chang, a Rosemead resident who now drives a sporty electric Fiat 500e. "I used to spend about \$100 to \$200 in gas, but now maybe I spend \$20-\$30 in electricity every month."

Jimmy qualified for the State's CVRP, which offered him a \$4,000 rebate to lease his zero-emission vehicle. CVRP, primarily supported by Cap-and-Trade dollars, promotes clean vehicle adoption by offering rebates of up to \$7,000 for the purchase or lease of new clean cars including electric, plug-in hybrid-electric, and fuel cell vehicles. This statewide program is available on a first-come, first-served basis for new eligible clean cars.

"I would definitely recommend this program to other people," Jimmy added.

As of July 2017, CVRP had issued more than \$448 million in rebates for more than 205,000 vehicles. Eligible California residents follow a simple process to apply for a CVRP rebate after purchasing or leasing an eligible vehicle. Individuals who live in communities most impacted by air pollution, lower-income consumers (with household incomes of less than or equal to 300 percent of the federal poverty level) are eligible for a higher rebate amount.

New in 2018, Rebate Now makes CVRP even better! This pre-approved rebate program makes it easier and faster for California residents to lease or purchase electric vehicles by providing instant rebates at the point-of-sale or lease. The Rebate Now pilot program is currently available to San Diego County car shoppers only, who will be able to apply online and use Rebate Now at participating dealerships with statewide expansion anticipated in the future.





## Enhanced Fleet Modernization Program Plus-Up (EFMP Plus-Up)

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** Provides financial incentives to retire older vehicles and replace them with zero-emission or hybrid vehicles.

**Structure:** First-come, first-served; administered by local air districts

**Eligible Recipients:** Lower-income residents in disadvantaged communities of the San Joaquin Valley Air Pollution Control District and the South Coast Air Quality Management District.

**Reaching Priority Populations:** Incentives offered only to low-income residents of disadvantaged communities. Outreach to disadvantaged communities to engage residents in the program.

#### Program Benefits

This voluntary program incentivizes residents to replace older, high-emitting vehicles with new vehicles that are more fuel efficient and emit less GHG emissions. Because these cleaner vehicles use less petroleum, they also have lower emissions of air pollutants (NO<sub>x</sub>, ROG, CO, PM, and toxics), resulting in better air quality and improved public health. Fuel costs for clean vehicles are also lower, giving low-income residents of disadvantaged communities greater access to clean transportation and providing economic and environmental benefits in these communities. Increasing the number of clean vehicles on the road accelerates the broader implementation of advanced clean vehicle technology by enhancing public acceptance of clean vehicle technology and spurring demand for clean vehicle infrastructure, such as electric vehicle charging stations.

### FUNDING OUTCOMES

#### 2017

AWARDED: \$30.0M

IMPLEMENTED: \$6.5M

#### CUMULATIVE

ALLOCATED: \$82.0M

AWARDED: \$42.0M

IMPLEMENTED: \$10.9M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

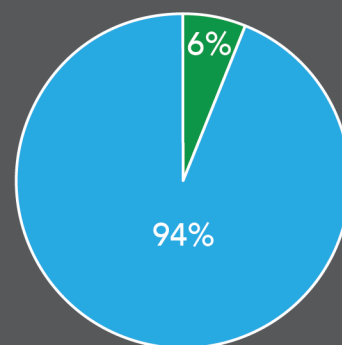
#### GHG BENEFITS

12,100 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

2015-2020

### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California

## Enhanced Fleet Modernization Program Plus-Up

### Replace Your Ride Program

#### GREATER LOS ANGELES REGION

Mark Panes cut his monthly gas bill to a quarter of what it was after learning about a pilot program in Southern California that ultimately helped him afford a battery-electric plug-in hybrid car.

Previously, he commuted in what he calls a “gas guzzler” – a 2000 Isuzu Rodeo—from North Hollywood to East Los Angeles. His 50-mile roundtrip commute cost him more than \$240 every month. Once Mark got into a cleaner car in 2016, his monthly gas bill shrunk to just \$60, saving him more than \$2,000 in gas expenses that first year.

“The program has benefited me very well,” Mark said. “In addition to helping the environment and saving a ton of money in gas, I’ve been able to use the HOV lane because of my car, which has saved me numerous hours on my commute.”

After submitting an application for funding from the Replace Your Ride program, administered by the South Coast Air Quality Management District, it took about a month to get into an environmentally friendly and more fuel-efficient car. Mark says it was easy with a case manager guiding him through the process to determine eligibility.

Mark qualified for \$5,500 toward a plug-in hybrid and settled on a 2013 Chevy Volt. The scrap-and-replace program known as Replace Your Ride serves eligible residents of the South Coast Air Basin. It’s part of CARB’s EFMP Plus-Up and just one of many clean transportation projects using Cap-and-Trade dollars to provide incentives to help people get into eco-friendly vehicles.

A similar EFMP program is available to residents of the San Joaquin Valley, and new EFMP programs are expected to launch in the Bay Area and Sacramento region by the end of 2018.

Since Mark became the proud owner of a Chevy Volt, he landed a new job and moved to Glendale. He’s now just 10 minutes from work and has a charging station on site. He still takes long drives on the weekend to go cycling and snowboarding, but when he sticks close to home his gas bill can shrink to nothing. “Overall, I’ve been very grateful for my earth-friendly car,” Mark says.



## Financing Assistance for Lower-Income Consumers

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** 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.

**Structure:** Low-interest loans and buy downs available first-come, first-served; program administration awarded competitively.

**Eligible Recipients:** Lower-income residents of disadvantaged communities in the Bay Area.

**Reaching Priority Populations:** Incentives offered only to low-income residents of disadvantaged communities. Outreach to disadvantaged communities to engage residents in the program.

#### Program Benefits

This pilot provides financing assistance for lower-income consumers interested in buying a zero-emission, plug-in hybrid electric, or hybrid vehicle. Compared to conventional vehicles, these vehicles use less fuel and emit less GHGs and air pollutants (NO<sub>x</sub>, PM, and ROG). Residents of disadvantaged communities that are eligible for the program benefit from the lower vehicle operating costs associated with reduced fuel use. In addition to the economic benefits, participants benefit from increased access to transportation and improvements to air quality and public health. Co-benefits of car ownership include increased access to healthcare, schooling, jobs, and shopping. The use of zero-emission vehicles raises demand for clean vehicle infrastructure and increases public acceptance of advanced technology.

#### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.1M

#### CUMULATIVE

ALLOCATED: \$16.9M

AWARDED: \$0.9M

IMPLEMENTED: \$0.25M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

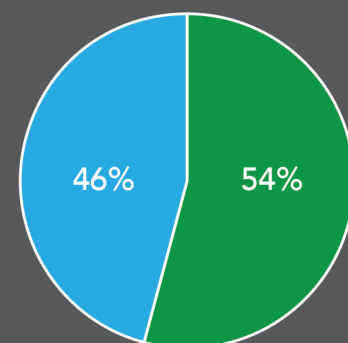
#### GHG BENEFITS

100 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

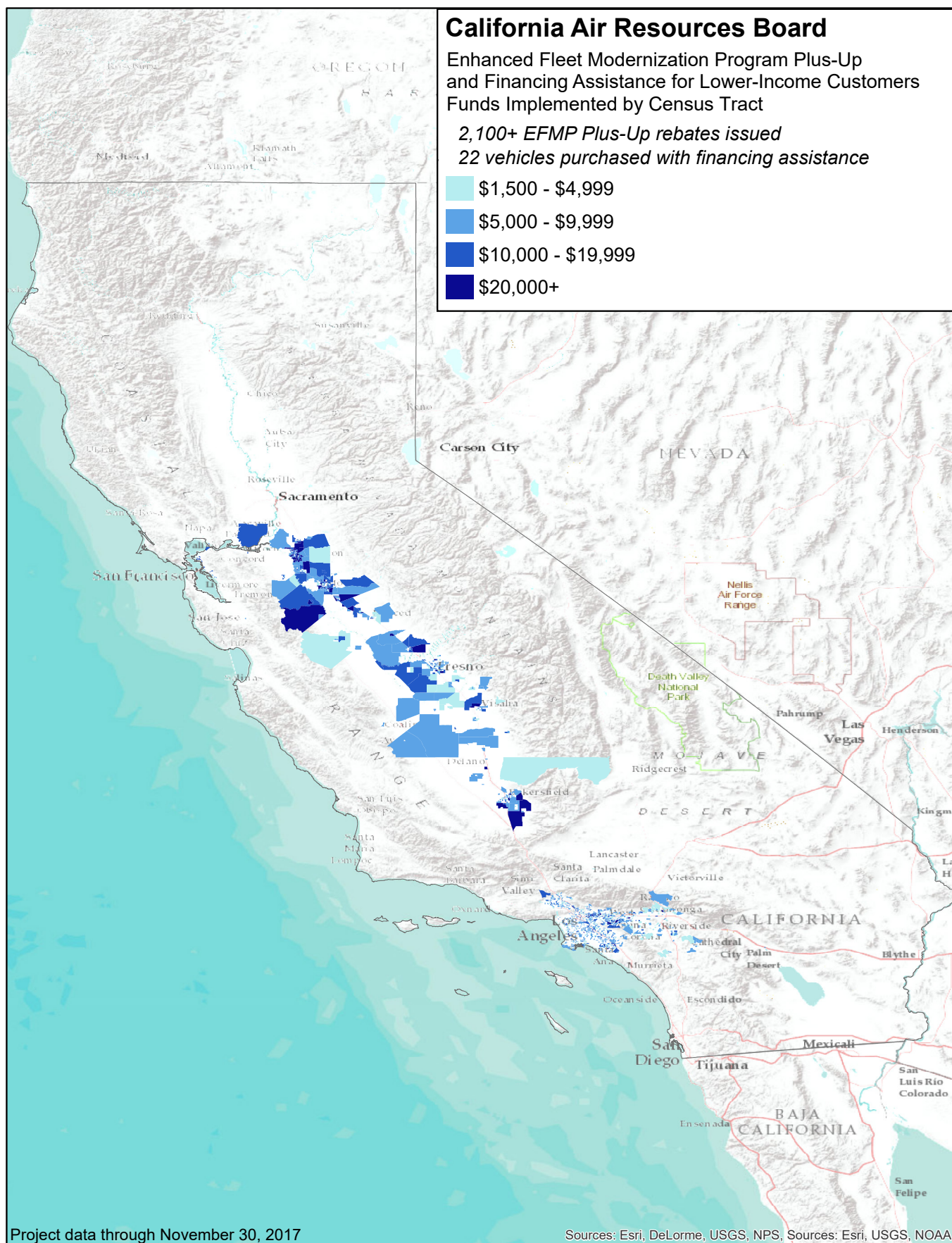
2016-2020

#### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California







## Clean Truck and Bus Vouchers<sup>33</sup>

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** Promotes clean vehicle adoption by offering vouchers for the purchase of zero-emission, hybrid, and low NO<sub>x</sub> emitting trucks and buses.

**Structure:** Vouchers available first-come, first-served; program administration awarded competitively.

**Eligible Recipients:** Public and private operators of medium- and heavy-duty truck and bus fleets.

**Reaching Priority Populations:** Larger vehicle rebates for vehicles located in disadvantaged communities.

#### Program Benefits

The Clean Truck and Bus Vouchers Program provides funding for public and private truck and bus fleet owners to help incentivize the purchase of new zero-emission, hybrid, and low NO<sub>x</sub> vehicles. These vehicles emit less GHGs and air pollutants (NO<sub>x</sub>, PM, and ROG) than comparable conventionally-fueled vehicles. The decreases in air pollutant emissions improve air quality and public health. These new, low-emissions vehicles often have lower operating costs than conventionally-fueled vehicles. Deployment of these advanced trucks and buses raises demand for zero-emission vehicle infrastructure (such as charging stations) and increases public acceptance of low-emissions vehicle technology. Larger vehicle rebates for vehicle fleets located in disadvantaged communities help to concentrate the economic, air quality, and public health benefits to residents in those areas.

#### FUNDING OUTCOMES

##### 2017

AWARDED: \$71.1M

IMPLEMENTED: \$5.9M

##### CUMULATIVE

ALLOCATED: \$237.9M

AWARDED: \$95.9M

IMPLEMENTED: \$31.0M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

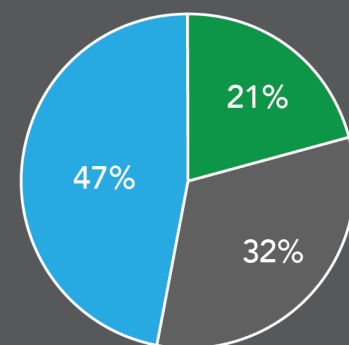
##### GHG BENEFITS

119,700 MTCO<sub>2</sub><sup>E</sup>

##### GHG TIMEFRAME

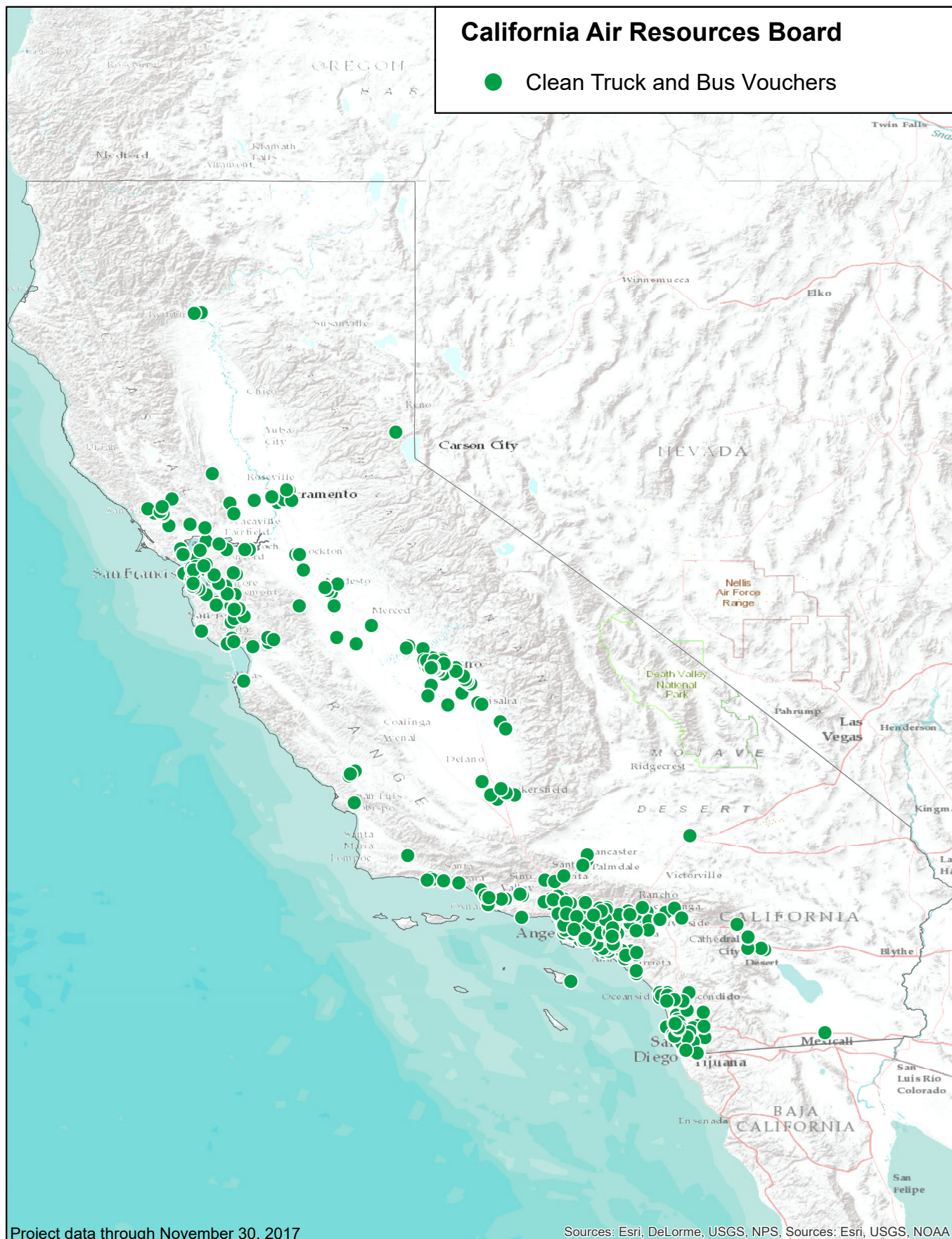
2014-2033

#### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California

<sup>33</sup> Previously the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project.



## Clean Truck and Bus Vouchers Program

### STATEWIDE

Foothill Transit has embraced change, and has the electric buses to prove it. Since 2010, the agency serving the San Gabriel and Pomona Valleys in the Greater LA region has added 30 zero-emission vehicles to its fleet, and its Executive Board set a goal to go “all-electric by 2030.”

According to Doran Barnes, Foothill Transit’s Executive Director, the vehicles have proven reliable in service, traveling more than 1.3 million miles in the service area since 2010. The agency has a total of 373 buses, including 343 Compressed Natural Gas (CNG), 16 “fast charge” and 14 “extended range” electric buses, and is responsible for 15 million passenger trips per year.

Foothill Transit has been able to take full advantage of CARB’s Clean Truck and Bus Vouchers Program, purchasing 15 of its 30 Proterra electric buses with CARB vouchers funded with Cap-and-Trade dollars.

Barnes points out that while riders care about getting from point A to point B, they also appreciate the public benefits of going electric. “It’s a matter of pride to the community and its leadership to have a high-profile project in the neighborhood that is also helping to clean the air.”



In a May 2016 press release announcing its goal to go all-electric in little more than a decade, the agency said its electric buses eliminate the same amount of emissions as 2,424 cars every year, and that since 2010, they have eliminated 2,616 tons of greenhouse gases and have helped the agency save 200,405 gallons of natural gas. “Most engines release harmful chemicals into the air like carbon monoxide, nitrogen dioxide, PM, and volatile organic compounds found to have a negative impact on public health, but Foothill Transit’s clean fleet—currently made up of CNG and electric buses—reduce the amount of pollutants released into the air. The impact will even be greater when the fleet is 100 percent electric.”

Proterra, which supplied the vehicles, has opened a West Coast vehicle manufacturing plant in the City of Industry, and has moved its corporate headquarters from Greenville, South Carolina to Burlingame, in large part to serve the rapidly growing e-bus market in California that is fueled by this CARB voucher program. While it retains its Greenville manufacturing facility for its east coast customers, it has added a battery system manufacturing plant to its Burlingame location.

Kent Leacock, Government Relations and Policy Director at Proterra, credits Barnes and his team for providing “invaluable input” as Proterra has evolved. “We were not long on transit experience when we started,” he says, adding that in large part “we are where we are today because of Foothill Transit.” Proterra currently has e-bus clients across the country, from Alaska to Hawaii to Texas and New England.

So the countdown to 2030 is on—only about 4,000 days to go!





## Rural School Bus Pilot Projects

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** Funds school bus fleet expansion with zero-emission buses and replacement of conventional-fuel buses with hybrid or conventional-fuel buses using renewable fuels.

**Structure:** Competitive

**Eligible Recipients:** 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.

#### Program Benefits

The use of zero-emission buses and the replacement of conventionally-fueled diesel buses with hybrid and renewable-fueled buses reduce GHG emissions and decrease petroleum use. Zero-emission and hybrid buses emit less air pollutants (NO<sub>x</sub>, ROG, CO, PM, and toxics) than comparable diesel buses, resulting in better air quality and improved public health in the communities where these buses are driven. School systems benefit economically from reduced costs for vehicle acquisition and lower fuel costs for hybrid and zero-emission buses. Increasing the number of clean buses on the road accelerates the broader implementation of advanced clean vehicle technology by enhancing public acceptance of clean vehicle technology and spurring demand for clean vehicle infrastructure, such as electric vehicle charging stations.

#### FUNDING OUTCOMES

##### 2017

AWARDED: \$10.0M

IMPLEMENTED: \$8.5M

##### CUMULATIVE

ALLOCATED: \$25.0M

AWARDED: \$10.0M

IMPLEMENTED: \$8.5M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

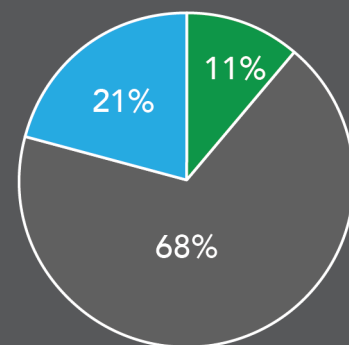
##### GHG BENEFITS

7,000 MTCO<sub>2</sub>E

##### GHG TIMEFRAME

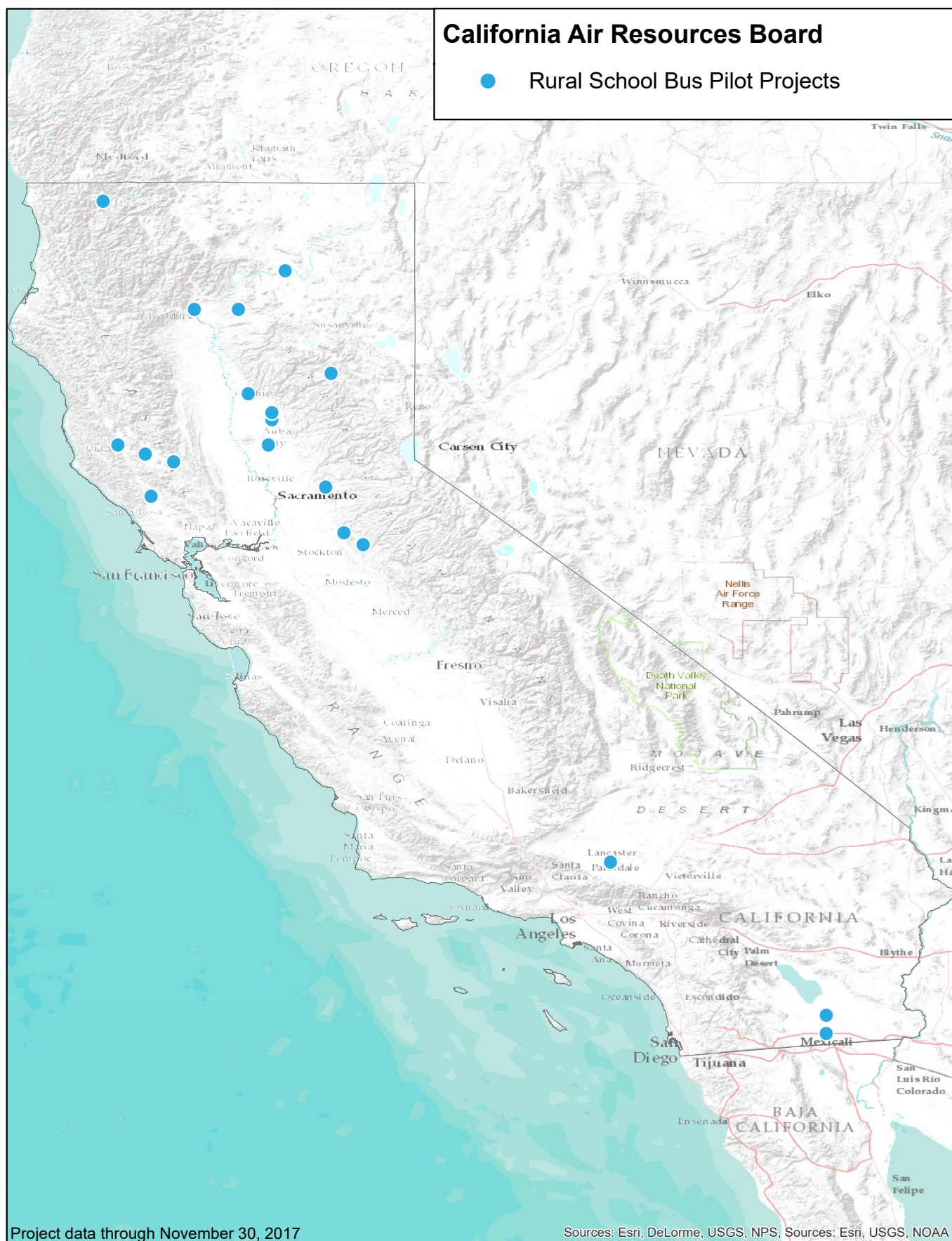
2017-2033

##### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California





## Zero-Emission Truck and Bus Pilot Projects

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** Supports pilot deployment of clusters of zero-emission trucks, transit buses, or school buses, including potential funding for charging or fueling infrastructure.

**Structure:** Competitive

**Eligible Recipients:** Local air districts, transit agencies, school districts, other California-based public entities, and California-based nonprofit organizations, which may partner with private sector parties as technology providers.

**Reaching Priority Populations:** Projects benefiting disadvantaged communities receive additional points during application scoring, with the majority of funding going to these projects.

#### Program Benefits

The goal of the Zero-Emission Truck and Bus Pilot Project is to help accelerate the commercialization of zero-emission and near zero-emission trucks and buses by placing clusters of these vehicles in hubs such as transit agencies, school districts, and freight fleets. Funds are also available to develop clean vehicle infrastructure, such as charging stations. The zero-emission or near zero-emission vehicles produce less GHG and air pollutant (NO<sub>x</sub>, PM, and ROG) emissions than comparable conventional vehicles. Residents of disadvantaged communities hosting these pilot projects benefit from improved air quality and public health that result from lower air pollutant emissions and increased access to transportation. In addition, because these low-emission vehicles use less petroleum, they often have lower operating costs than conventionally-fueled vehicles. Deployment of these advanced vehicles raises demand for associated infrastructure (such as charging stations) and increases public acceptance of low-emission vehicle technology.

#### FUNDING OUTCOMES

2017

IMPLEMENTED: \$69.4M

#### CUMULATIVE

ALLOCATED: \$85.0M

IMPLEMENTED: \$82.8M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

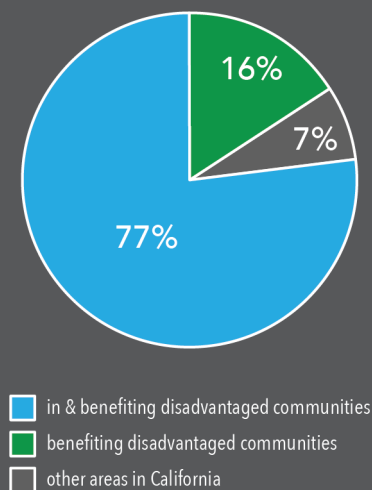
#### GHG BENEFITS

106,500 MTCO<sub>2</sub>E

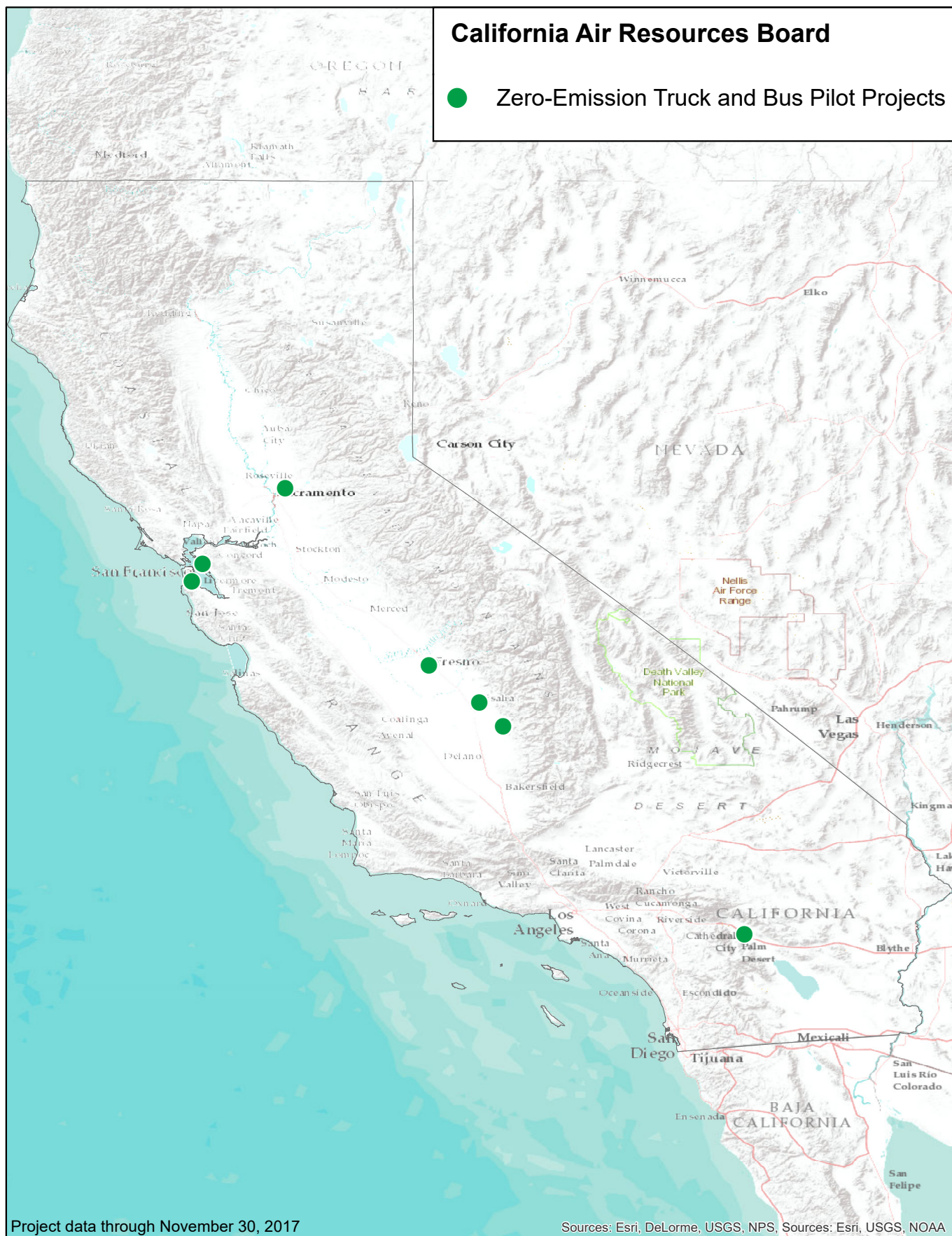
#### GHG TIMEFRAME

2016-2032

#### FUNDING DISTRIBUTION







## Zero-Emission Truck and Bus Pilot Project

### SACRAMENTO COUNTY

In May 2017, the Sacramento Metropolitan Air Quality Management District and its partners unveiled the first six of 29 electric school buses—what will be the largest electric school bus deployment in the U.S.—at a press event in north Sacramento.

This zero-emission fleet, funded with Cap-and-Trade dollars, was made possible by \$7.5 million CARB grant and \$7 million in cost-share funds from partners. It will serve three Sacramento county school districts.

Students at the Martin Luther King Jr. Technology Academy in the Twin Rivers Unified School District were excited to ride one of the buses at the unveiling. “It was fun. It was smooth. It was very quiet, which I like, and I love the air conditioning,” student Leyla Harris said at the time.

Along the way, the students learned the buses don’t pollute the air.

“I think that we should have more buses like this,” Leyla added, “Because my little sister, she has asthma and I don’t want her to have an asthma attack off of this stuff. So electric buses will be good,” she said, with a smile.

The 29 electric school buses will serve students in the Sacramento City, Twin Rivers, and Elk Grove Unified School Districts. Most of the routes run through disadvantaged communities, or those most impacted by air pollution, reducing harmful diesel exhaust in those neighborhoods and protecting children’s health.

“When we think about these buses, it’s both about the kids who ride on them, but also... it’s about the people who live along the school routes,” California State Senator Richard Pan said at the press event. “Having these buses not emit particulate pollution as they’re going down the streets of this community is something that’s very important.”

“This is proof that Cap-and-Trade dollars not only sound good on paper, but they make a difference in communities,” added California State Assemblymember Kevin McCarty.

So far, eight eLion electric buses serve students in the Twin Rivers district and two more Trans Tech Bus buses will soon be on the road there. Both the Elk Grove and Sacramento City districts are installing charging infrastructure. It is anticipated that all 29 buses will be deployed by this fall.

CARB Executive Officer Richard Corey said the fleet of electric school buses is “additional proof that zero-emission transportation is growing rapidly in California.” The buses “will help to improve the air quality in areas where our children study and play,” he added.





## Zero- and Near Zero-Emission Freight Facilities

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** Accelerates the introduction of advanced GHG emission reduction technologies for heavy-duty vehicles and equipment in the freight transport and other sectors by expanding the type and number of zero-emission and near zero-emission equipment, and by facilitating technology transfer.

**Structure:** Competitive

**Eligible Recipients:** Local air districts, other California public entities, and nonprofits, which may partner with private sector parties (e.g., end-users, manufacturers) as providers or demonstrators.

**Reaching Priority Populations:** All projects must benefit disadvantaged communities and projects within disadvantaged communities receive enhanced application scoring.

#### Program Benefits

Advanced technology demonstration projects provide funding for pre-commercial demonstrations of advanced vehicles, engines, equipment, and transportation systems. These advanced technology projects demonstrate zero-emission or near zero-emission vehicles and equipment that use less petroleum and produce less GHG and air pollutant (NO<sub>x</sub>, PM, CO, and ROG) emissions than conventional diesel-fueled equipment. Lower emissions of air pollutants means that disadvantaged communities and low-income communities benefit from these projects through improved air quality and public health. More broadly, these demonstration projects are intended to lead to the commercialization of larger numbers of cleaner vehicles and equipment by accelerating the adoption of advanced technology.

#### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.0M

#### CUMULATIVE

ALLOCATED: \$100.0M

IMPLEMENTED: \$0.0M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

#### GHG BENEFITS

NEW PROGRAM  
FOR FY 2017-18

#### FUNDING DISTRIBUTION

NEW PROGRAM  
FOR FY 2017-18

## Zero-Emission Off-Road Freight Voucher Incentive Project

### LOW CARBON TRANSPORTATION PROGRAM

**Agency:** California Air Resources Board (CARB)

**Purpose:** Promotes clean vehicle adoption by offering vouchers toward the purchase of zero-emission and near zero-emission equipment used in off-road freight transport (such as forklifts, transport refrigeration units, gantry cranes, and terminal trucks).

**Structure:** First-come, first-served; program administration is awarded competitively.

**Eligible Recipients:** Public and private off-road freight fleet operators.

**Reaching Priority Populations:** Larger voucher values for vehicles located within disadvantaged communities.

#### Program Benefits

Zero-Emission Off-Road Freight Voucher Incentive Project provide vouchers to incentivize the purchase of zero-emission or near zero-emission vehicles and equipment in freight facilities that use less petroleum and emit less GHG emissions and air pollutants (NO<sub>x</sub>, PM, ROG, and toxics) than conventional equipment. Lower emissions of air pollutants improve air quality and public health. Because many freight facilities are located in disadvantaged or low-income communities, and voucher values are higher in disadvantaged communities, benefits will be concentrated toward residents in these communities. This voucher program is expected to help promote wide-scale adoption of zero-emission off-road freight equipment and expand zero-emission infrastructure, which will decrease costs and support a broader zero-emission vehicle market.

#### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.0M

#### CUMULATIVE

ALLOCATED: \$40.0M

IMPLEMENTED: \$0.0M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

#### GHG BENEFITS

NEW PROGRAM  
FOR FY 2017-18

#### FUNDING DISTRIBUTION

NEW PROGRAM  
FOR FY 2017-18

## Active Transportation Program (ATP)

**Agency:** California Department of Transportation (Caltrans)

**Purpose:** Supports the construction of new bicycle paths or lanes, new pedestrian facilities, and new or expanded bike share programs.

**Structure:** Competitive

**Eligible Recipients:** Local, regional, and state agencies (including transit, natural resources, and public land agencies), public schools or school districts, tribal governments, and Caltrans.

**Reaching Priority Populations:** Higher application scores for projects benefiting disadvantaged communities.

### Program Benefits

ATP funds new bicycle and pedestrian facility construction projects, and new or expanded bike share programs. Increased biking and walking reduces vehicle miles traveled, which decreases GHG and air pollutant (NO<sub>x</sub>, ROG, CO, PM, and toxics) emissions, resulting in better air quality. Both increases in active transportation and better air quality improve public health in communities where projects are located. Investments in active transportation projects also provide communities with better, cheaper, and safer access to jobs, shopping, schools, and other essential services. The emphasis on funding ATP projects that benefit disadvantaged communities helps to ensure that residents of these communities share in the health, transportation, and air quality benefits.

### FUNDING OUTCOMES

2017

IMPLEMENTED: \$10.0M

### CUMULATIVE

ALLOCATED: \$10.0M

IMPLEMENTED: \$10.0M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

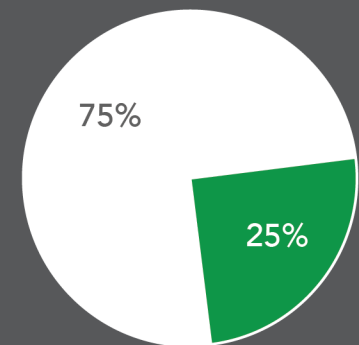
### GHG BENEFITS





61 MTCO<sub>2</sub>E

### GHG TIMEFRAME

2017-2037

### FUNDING DISTRIBUTION



-  in & benefiting disadvantaged communities
-  benefiting disadvantaged communities
-  other areas in California
-  in & benefiting low income communities

## Low Carbon Transit Operations Program (LCTOP)

**Agency:** California Department of Transportation (Caltrans)

**Purpose:** LCTOP was created to provide operating and capital assistance for transit agencies to reduce GHG emissions and improve mobility, with a priority on serving disadvantaged communities.

**Structure:** Non-competitive, formula-based list of eligible recipients prepared by the State Controller's Office.

**Eligible Recipients:** The State Controller's Office provides a list of transportation planning agencies and transit operators that are eligible for State Transit Assistance Funds.

**Reaching Priority Populations:** Transit agencies whose service areas include a disadvantaged community are required to expend at least 50 percent of program funding on projects that benefit a disadvantaged community.

### Program Benefits

LCTOP reduces GHG emissions by funding transit operations and capital improvements that increase ridership, reduce vehicle miles traveled, and decrease congestion. These expenditures support a variety of transit activities, such as new transit routes that include better bus connections to intercity rail, the deployment of zero-emission buses on new or expanded routes, and fare reduction and or voucher programs, all of which encourage people to shift from cars to mass transit. Better access to transit services provides greater access to jobs, schools, and businesses for disadvantaged community residents. Reductions in vehicle miles traveled and the use of low-emission transit vehicles also decrease air pollutant emissions (NO<sub>x</sub>, ROG, CO, PM, and toxics), providing disadvantaged communities with better air quality and improved public health. Transit investments also promote housing and business development near transit stations.<sup>34</sup>

<sup>34</sup> For FY 2014-15, as an interim guide to comply with the GHG emission reduction requirement, Caltrans, in consultation with CARB, developed and used a list of eligible projects determined to meet the statutory requirements of SB 862 for distribution of funds, and did not quantify GHG emission reductions at the project scale. For FY 2015-16, CARB and Caltrans developed a quantification methodology to estimate GHG emission reductions prior to project implementation.

### FUNDING OUTCOMES

#### 2017

AWARDED: \$34.5M  
IMPLEMENTED: \$28.3M

#### CUMULATIVE

ALLOCATED: \$231.0M  
AWARDED: \$121.0M  
IMPLEMENTED: \$114.8M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

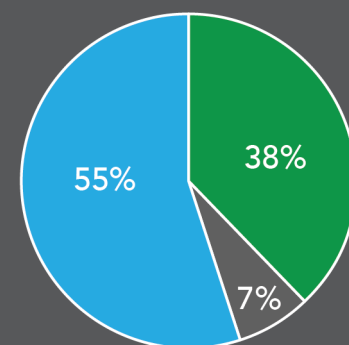
#### GHG BENEFITS

1,652,400 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

2015-2068

#### FUNDING DISTRIBUTION

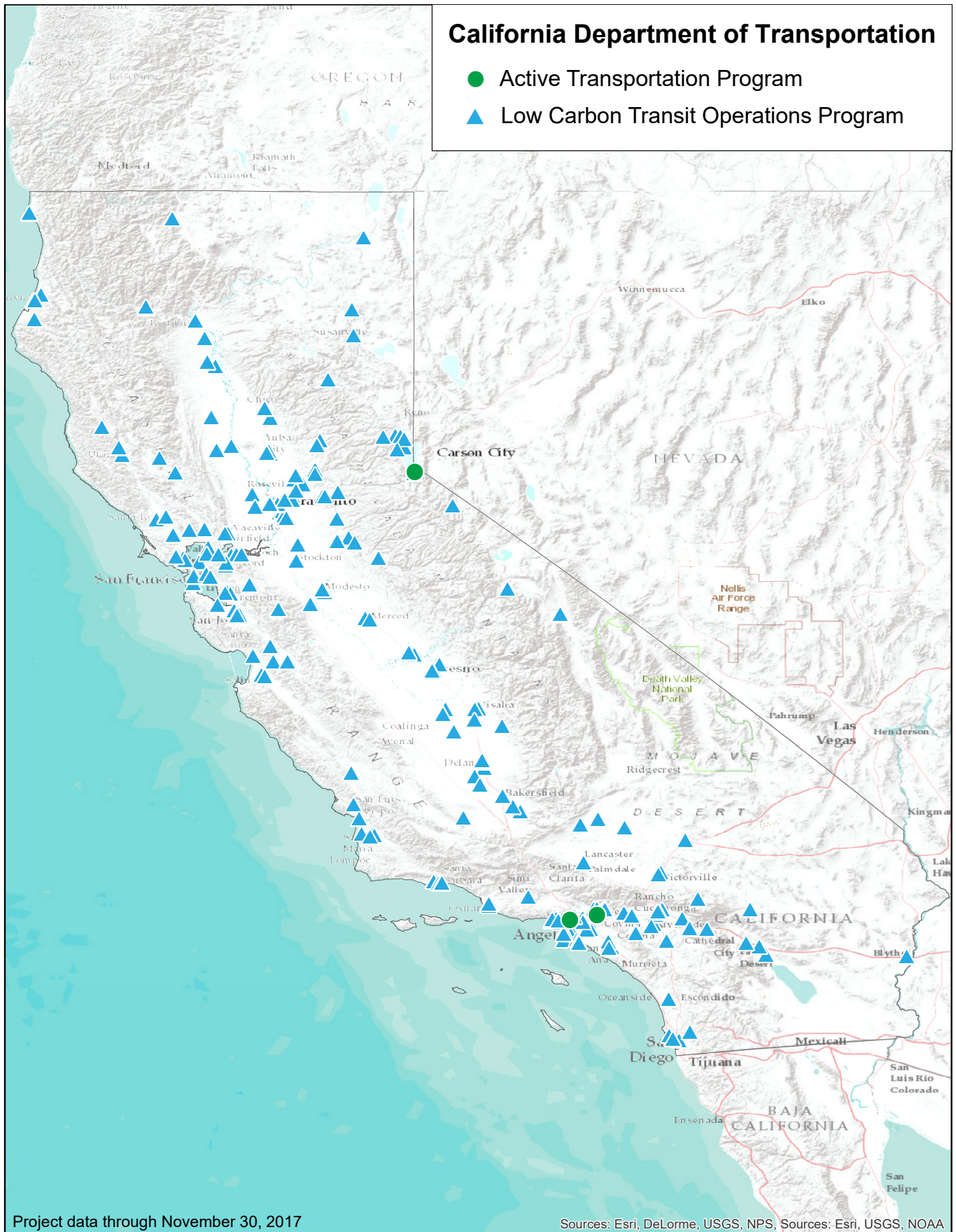


■ in & benefiting disadvantaged communities  
■ benefiting disadvantaged communities  
■ other areas in California



## California Department of Transportation

- Active Transportation Program
- ▲ Low Carbon Transit Operations Program



Project data through November 30, 2017

Sources: Esri, DeLorme, USGS, NPS, Sources: Esri, USGS, NOAA



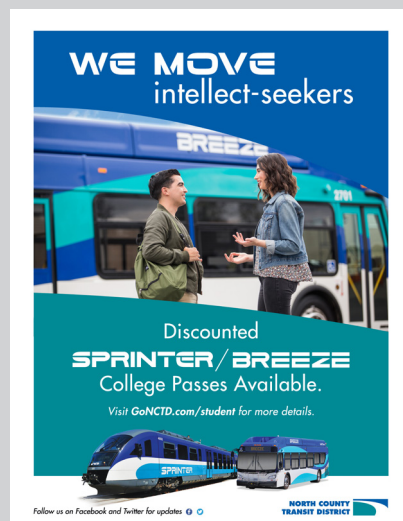


## Low Carbon Transit Operations Program Student Transit Pass Reduced Fare Program

### SAN DIEGO COUNTY

College students in North San Diego can get around a little easier thanks to program using Cap-and-Trade dollars to subsidize transit passes.

With a grant from Caltrans' LCTOP, the North County Transit District (NCTD) offers deep discounts on monthly college passes to students from four eligible schools including Palomar College, Cal State San Marcos, Mira Costa College, and Vista Adult School.



For just \$19-24, compared to \$59 for a regular pass, college pass holders get unlimited rides on NCTD's integrated bus and hybrid rail routes. By attracting riders at a young age, the program intends to encourage regular ridership.

NCTD is a vital piece of San Diego's regional transportation network, serving San Diego County between the Orange County boundary and city of Del Mar. The system moves approximately 11 million passengers annually, serving over 800,000 people in a thousand-square mile service area. Ultimately, the college pass program aims to create lifelong transit riders who choose more environmentally-friendly ways to get around, helping reduce congestion, pollution, and GHG emissions.

NCTD spread the word on campus and throughout the community with radio, print, and kiosk ads. The program shattered its goal of increasing enrollment 10 percent in the first year, growing instead by more than 50 percent. These early results are positive proof that, when made easy and affordable, people will choose to transit over driving alone.



## High-Speed Rail Project

**Agency:** California High-Speed Rail Authority (CHSRA or Authority)

**Purpose:** Planning, designing, building and operation of the first high-speed rail system in the nation.

**Structure:** Legislative appropriation

**Eligible Recipients:** CHSRA

**Reaching Priority Populations:** Outreach to priority populations and coordination with local and regional entities to target job creation, job training, and small business participation in these communities.

### Program Benefits

California High-Speed Rail will connect the mega-regions of the State, contribute to economic development and a cleaner environment, create jobs and preserve agricultural and protected lands. The system will run from San Francisco to the Los Angeles basin in under three hours at speeds capable of over 200 miles per hour. The system will eventually extend to Sacramento and San Diego, totaling 800 miles with up to 24 stations. In addition, 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 21<sup>st</sup> century transportation needs. This investment includes the electrification of the Caltrain corridor and LINK Union Station, among others.

Completion of the California High-Speed Rail Project will decrease of GHG and air pollutant (NO<sub>x</sub>, ROG, CO, PM, and toxics) emissions by over 50 million tons and more than one hundred thousand tons, respectively, when people shift from cars, planes, and other GHG-intensive forms of transportation to an electrified high-speed rail. In addition to the emission reductions associated with future rail use, other air pollutant and GHG emissions reductions are being achieved by the recycling of construction waste, the use of clean construction equipment, a commitment to powering the rail system with 100 percent renewable energy, an agreement with San Joaquin Valley Air Pollution Control District to replace diesel engines, and an agreement with CAL FIRE to offset construction emissions by funding urban and rural tree planting programs. To date, more than 1,000 tons of lifetime criteria pollutant emissions have been offset, and more than 1,000 pounds of black carbon emissions have been avoided. Implementation of grade separations between rail and vehicle road systems increase public safety. Construction of the rail system has created thousands of jobs and directly employed more than 400 small businesses. Between 2006 and 2017, investment in the High-Speed Rail system delivered over \$1 billion in outlay to disadvantaged communities.

### FUNDING OUTCOMES

2017

IMPLEMENTED: \$198.5M

### CUMULATIVE

ALLOCATED: \$1,286.5M<sup>35</sup>

IMPLEMENTED: \$546.5M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

### GHG BENEFITS

58,700,00 MTCO<sub>2</sub>E<sup>36</sup>

### GHG TIMEFRAME

2025-2075

### FUNDING DISTRIBUTION

1,648 DISPATCHED  
CONSTRUCTION WORKERS

OVER 875,000  
HOURS WORKED

<sup>35</sup> SB 862 states that \$400 million shall be available to CHSRA beginning in FY 2015-16, as repayment of a loan from the GGRF to the General Fund. This money shall be repaid as necessary, based on the financial needs of the High-Speed Rail Project. This loan amount is not included in the reported \$1.29 billion cumulative value.

<sup>36</sup> CHSRA's GHG emission reduction estimate is based on the 2016 Business Plan and the 2016 Sustainability Report. In March 2018, CHSRA released the draft 2018 Business Plan with a revised estimate on the GHG emission reduction range (64.9 million to 84.1 million MTCO<sub>2</sub>e). CHSRA will finalize this Business Plan in 2018.





## Job Training Programs From Security Guard to Electrician

### THE CENTRAL VALLEY

In the more than two years since its official groundbreaking, the High-Speed Rail Project has created hundreds of well-paying jobs for workers throughout the Central Valley.

Fernando Madrigal, Jr. personifies the opportunities associated with High-Speed Rail. After 12 years of service with the Marine Corps, Fernando found work as a security guard. He then signed up for a 10-week training program sponsored by PG&E to introduce workers to the various construction trades.

Fernando settled on a career path as an electrician and worked his way up to a third-year apprentice union electrician with Local 100 of the International Brotherhood of Electrical Workers.

He was hired by AC Electric Company in early 2017 and has worked on the High-Speed Rail Project ever since. He helped build a new administration building and a school-bus refueling station for the Kings Canyon Unified School District, and he's currently part of a crew that's working near the site of the new Clinton Avenue Bridge, which is being rebuilt as part of the realignment of State Route 99. Madrigal's crew is identifying underground utility locations and setting up power connections for new traffic signals.



**CALIFORNIA**  
High-Speed Rail Authority



## Transit and Intercity Rail Capital Program (TIRCP)

**Agency:** California State Transportation Agency (CalSTA) where the California Department of Transportation (Caltrans) assists with program administration

**Purpose:** To fund 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.

**Structure:** Competitive

**Eligible Recipients:** 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.

**Reaching 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.

### Program Benefits

TIRCP provides funding for capital improvement investments that will significantly reduce vehicle miles traveled, congestion, greenhouse gas emissions, and air pollutants while improving accessibility through improved rail, transit, and ferry system integration. Projects may achieve emission reductions by increasing the capacity of an existing transit system or otherwise increasing ridership of a transit system through supporting capital investments. Communities benefit from improved access to key destinations, improved transit integration, reduced traffic congestion, and improved air quality and public health. Improved transit infrastructure and performance encourage higher density and in-fill development, which further decrease vehicle usage and related emissions.

<sup>37</sup> 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 through continuous appropriation established in SB 862.

<sup>38</sup> Funding distribution underrepresents benefits to disadvantaged communities. Future reports will provide updated benefit information.

### FUNDING OUTCOMES

2017

SELECTED/AWARDED: \$286.7M<sup>37</sup>

IMPLEMENTED: \$74.0M

### CUMULATIVE

ALLOCATED: \$574.6M

AWARDED: \$511.0M

IMPLEMENTED: \$298.3M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

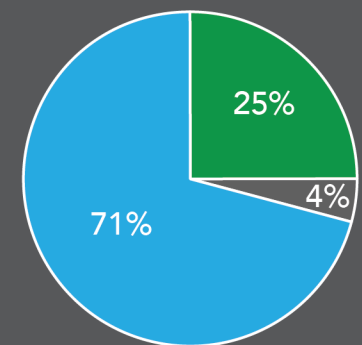
#### GHG BENEFITS

1,828,100 MTCO<sub>2</sub>E

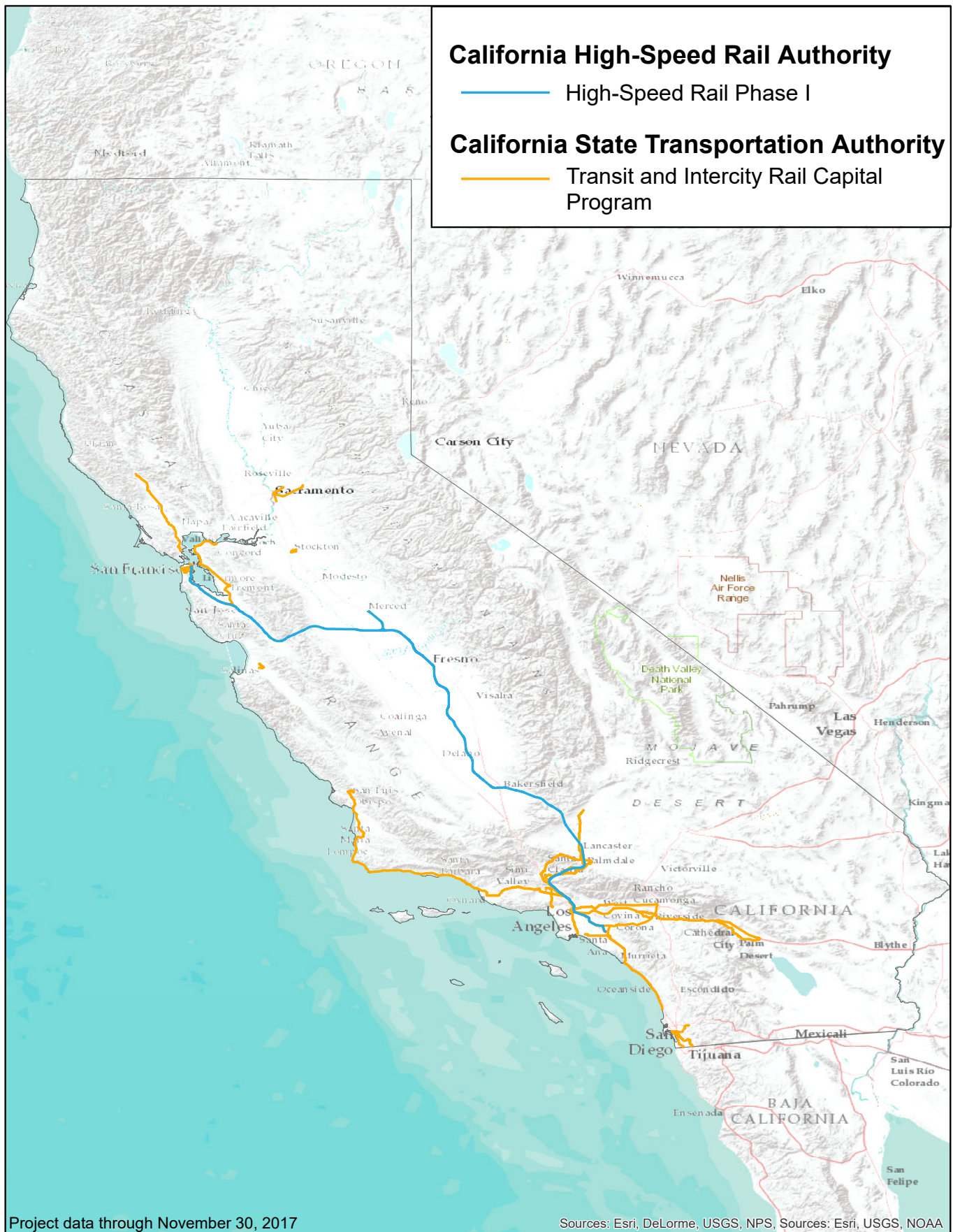
#### GHG TIMEFRAME

2015-2067

### FUNDING DISTRIBUTION<sup>38</sup>



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California



## Transit and Intercity Rail Capital Program

### Light Rail Vehicle Fleet Expansion Project

#### SAN FRANCISCO

It's here, and it's real: the first of a new generation of light rail trains have arrived in San Francisco, marking a huge milestone for the fleet that will play a major role in transforming the Muni Metro riding experience in the years to come.

With Cap-and-Trade funding from CalSTA's TIRCP, the San Francisco Municipal Transportation Agency (SFMTA) is purchasing eighteen new light rail trains moving the agency one-step closer to fulfilling its "Transit Capacity Expansion Program."

As ridership is expected to grow 40 percent over the next two decades, SFMTA is working to replace old light rail trains and expand its fleet. By providing an attractive alternative to commuting alone, transit options can help drive smart growth and development near transit corridors. The new trains are also better for the environment, reducing transportation-related emissions, the State's largest source of GHG emissions.

The first of these state-of-the-art trains went into service in November 2017 with the remaining cars expected on city streets by the end of 2018. Passenger feedback is overwhelmingly positive as riders are excited about the spacious layout, the smooth, quiet ride and new features such as improved lighting, more signage, and better climate control.



"An incredible amount of work went into making sure these vehicles are going to work for us in San Francisco—for our riders, for our hills, for our environment on the streets," said Ed Reiskin, Director of Transportation at the SFMTA. "So much detail went into making sure that we're really going to get the performance, the comfort, the safety that we want in our system."

SFMTA's "Transit Capacity Expansion Program" includes replacing 151 existing light rail vehicles, and expanding its fleet by 64 light rail vehicles, for a total of 215 new light rail vehicles overall. Siemens is manufacturing the vehicles at a solar-powered facility in Sacramento. The purchase is one of the largest light rail procurements in U.S. history.





## Affordable Housing and Sustainable Communities (AHSC) Program

**Agency:** Administered by Strategic Growth Council (SGC), and implemented by the California Department of Housing and Community Development (HCD)

**Purpose:** To provide affordable housing loans and other capital grants for affordable housing developments, housing-related infrastructure, sustainable transportation infrastructure, transportation-related amenities, and related programs.

**Structure:** Competitive

**Eligible Recipients:** Local government agencies or districts (e.g., housing, transit, redevelopment, or planning), university, college, or school districts, developers, and federally recognized tribes.

**Reaching Priority Populations:** At least 50 percent of funds go to projects benefiting disadvantaged communities; projects should fulfill an identified community need and the community should be involved in project development.

### Program Benefits

The AHSC program supports the development of compact affordable housing near transit, biking and walking options, and transportation infrastructure and enhancements. These projects reduce passenger vehicle miles traveled, which decreases petroleum use and associated GHG and air pollutant (NO<sub>x</sub>, ROG, CO, PM, and toxics) emissions. AHSC projects provide a range of benefits to residents in local communities and Californians overall, including increased access to affordable homes closer to jobs and services, increased access to transit, safer options for walking and biking, as well as improved air quality.

### FUNDING OUTCOMES

2017

IMPLEMENTED: \$77.4M

#### CUMULATIVE

ALLOCATED: \$915.0M

SELECTED: \$436.3M

IMPLEMENTED: \$148.4M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

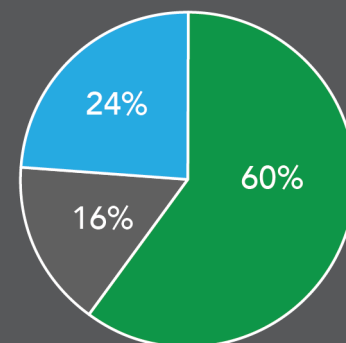
##### GHG BENEFITS

621,800 MTCO<sub>2</sub>E

##### GHG TIMEFRAME

2015-2048

#### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California



## Affordable Housing and Sustainable Communities Program

### Sierra Village Project

#### TULARE COUNTY

As early as this summer, Sierra Village will offer 44 affordable homes with easy access to bike lanes and sidewalks in the rural community of Dinuba. This apartment rental community will not only bring an affordable housing option to hardworking low-income families, but it will also feature a vanpool program and other transportation improvements, solar and water conservation features—all of which are designed to reduce GHG emissions.

It's an example of an exemplary project funded with Cap-and-Trade dollars through the AHSC Program, which will improve the health and quality of life Dinuba residents.

Led by Self-Help Enterprises, the development responds directly to community needs by addressing gaps in transit connectivity, improving safety for cyclists and pedestrians and providing much needed affordable housing.

"Paired with meaningful transportation improvements, such as traffic calming measures, sidewalks, bike lanes and vanpool services, Sierra Village ensures quality housing opportunities while reducing GHG emissions," Self-Help Enterprises President/Chief Executive Officer Tom Collishaw said.

The Sierra Village project includes one-, two- and three-bedroom residences to accommodate a range of family sizes and will offer a large community center with a full-service kitchen, computer lab and common laundry room. Sierra Village includes solar energy, helping to ensure long-term affordability for residents and result in a grid-neutral zero net energy project.

The AHSC Program is unique in that it provides an opportunity for affordable housing developers to collaborate with transit providers and other partners to create integrated housing developments. For example, Sierra Village will broaden the transportation resources available to residents, including reduced/free transit passes and the opportunity to participate in an on-site vanpool program.

"Sierra Village was a starting point for us to holistically look at affordable housing with really meaningful transit infrastructure investments," Self-Help Enterprises Program Director of Real Estate Development Betsy McGovern said.

Self-Help's work with the California Vanpool Authority on the Sierra Village development led to a blossoming partnership that will continue to expand vanpool access to a broader ridership, she added.

Sierra Village is currently under construction. The development is on track to be completed in July 2018.



**CALIFORNIA STRATEGIC  
GROWTH COUNCIL**

## Sustainable Agricultural Lands Conservation (SALC) Program

**Agency:** California Department of Conservation (DOC) and California Natural Resources Agency (CNRA), on behalf of the Strategic Growth Council (SGC)

**Purpose:** Protects critical agricultural lands from conversion to more GHG-intensive urban or rural residential uses by facilitating conservation easements and strategy plans that result in direct protection of at-risk lands.

**Structure:** Competitive

**Eligible Recipients:** Easement funding available to local and regional government entities and nonprofit organizations. Strategy and Outcome grants available to local governments in collaboration with other organizations, such as land trusts and open space districts.

**Reaching Priority Populations:** Projects benefiting disadvantaged communities receive higher application scores and have a lower requirement for matching funds.

### Program Benefits

The SALC Program focuses on protecting agricultural lands (including rangeland and pasture) at risk of conversion to more GHG-intensive land uses. Funded easements extinguish development rights, thereby avoiding increases in GHG emissions by limiting opportunities for low-density, vehicle-dependent forms of development. Strategy and Outcome projects are funded only when the proposed strategies result in permanent protection of agricultural land via zoning ordinances or agricultural conservation easements that effectively eliminate development on agricultural lands under threat of conversion. Preserving agricultural lands and preventing low-density development benefits communities by decreasing vehicle miles travelled, avoiding associated GHG and air pollutant (NO<sub>x</sub>, ROG, CO, PM, and toxics) emissions that degrade air quality, maintaining open space, and preserving the ecosystems services supported by agricultural lands, such as wildlife habitat, pollination, storm water mitigation, and water filtration.

### FUNDING OUTCOMES

2017

SELECTED/AWARDED: \$34.0M  
IMPLEMENTED: \$4.3M

### CUMULATIVE

ALLOCATED: \$44.3M  
SELECTED/AWARDED: \$37.4M  
IMPLEMENTED: \$7.7M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

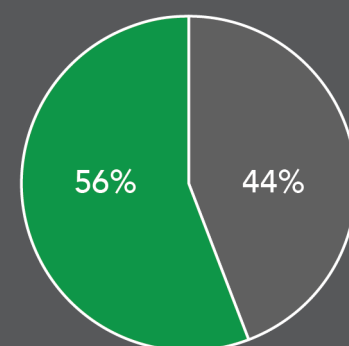
#### GHG BENEFITS

1,029,700 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

2015-2048

### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California



Photo courtesy of the Cecchini family

## **Sustainable Agricultural Lands Conservation Program**

### **Cecchini Farm Agricultural Conservation Easement**

#### **CONTRA COSTA COUNTY**

Fifth-generation farmers Bob and Barbara Cecchini wrestled with the idea of selling the family's century-old asparagus farm in Contra Costa County. It would not be an easy decision, but they were growing older and the market for their product has changed. If they sold the farm, it's likely more than 500 acres of prime farmland would be paved over to make way for housing.

Once they learned about an agricultural conservation easement program, however, it didn't take long for the Cecchinis to decide to keep the farm. Keeping the farm would not only protect their family business and way of life, but a valuable source of healthy food for people in need, and resources and precious farmland for new and future farmers. Putting more than 500 acres into a land trust "was a family decision with all generations involved," Barbara Cecchini recalled.

An agricultural conservation easement is a voluntary, permanent deed restriction that eliminates the development rights associated with a property while allowing landowners to continue to use their land for agricultural purposes.

The Cecchinis worked with a local land trust that was willing to purchase an easement on their property, and the land trust secured Cap-and-Trade dollars through the SALC Program to purchase the conservation easement and permanently protect the land. The easement holder, Central Valley Farmland Trust, extinguished development rights on the property while the landowners retained ownership of the land.

"We are delighted that this unique family farm will continue to serve as a hub for not only the Cecchini family, but also the Brentwood community and the future farmers the family supports," Central Valley Farmland Trust Executive Director Charlotte Mitchell said. "This easement epitomizes the goals of the SALC Program by protecting farmland on the urban edge that would otherwise be developed and no longer able to provide fresh, local food for the community."



Besides protecting the family farm, the easement also protects First Generation Farmers, a nonprofit launched in 2013 by the Cecchini's daughter, Alli. Through the nonprofit, Alli grows diversified, organic produce on her parents' land, and sells it throughout east Contra Costa County on a "take what you need, pay what you can" basis, allowing all individuals, no matter their income level, access to fresh, healthy vegetables. What First Generation Farmers can't sell, it donates to local food banks. To date, it has donated approximately 60,000 pounds of fresh produce to those in need.

First Generation Farmers also uses plots on the Cecchini property to connect new and future farmers to the land.

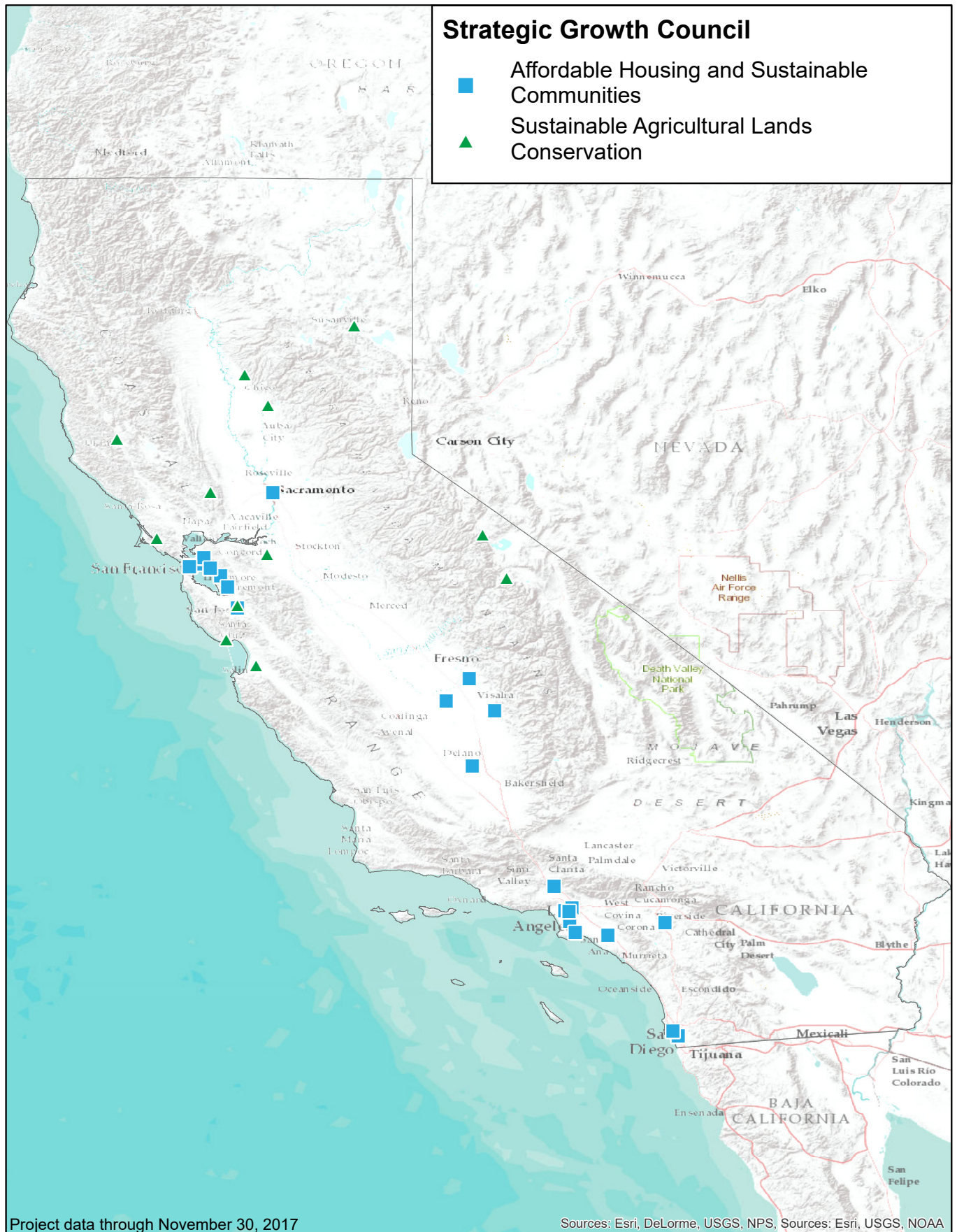
"We plan to aid aspiring farmers through our nonprofit First Generation Farmers Urban Edge Sustainable Farming program," Barbara Cecchini said. "If the graduates wish to continue farming in our rich diverse area we will facilitate their ability to transition in place on the 500 acres protected by the agricultural land trust."

Through this program, First Generation Farmers provides after-school programs, summer camps, farm tours, and a farm incubator program that teaches budding farmers to grow ecologically sustainable food; and its efforts are only growing. With the help of the SALC Program, the Cecchinis have protected their property from development forever—not just for their family, but for generations of farmers to come.



**CALIFORNIA STRATEGIC  
GROWTH COUNCIL**





## Transformative Climate Communities (TCC) Program

**Agency:** Strategic Growth Council (SGC)

**Purpose:** To foster 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.

**Structure:** Competitive, with half of the funds allocated in the City of Fresno, one fourth of the funds in the City of Los Angeles, and the remaining one fourth of the funds in a third location.

**Eligible Recipients:** Community-based organizations, local governments, nonprofit organizations, philanthropic organizations and foundations, faith-based organizations, coalitions or associations of nonprofit organizations, community development finance institutions, community development corporations, joint powers authorities, and tribal governments

**Reaching Priority Populations:** The majority of a project area must be comprised of census tracts that are within the top 5 percent of the most disadvantaged communities (as defined by CalEnviroScreen 3.0), with the remainder of the project occurring within a disadvantaged or low-income community.

### Program Benefits

The TCC program funds neighborhood-scale projects that layer multiple California Climate Investments project types to provide concentrated benefits to priority populations, with an emphasis on community engagement. Project activities can include sustainable housing developments, improved transit access, active transportation infrastructure, residential weatherization and efficiency improvements, and clean vehicles, among others. These activities provide a wide range of benefits. For example, reduced fossil fuel use for buildings and transportation decrease GHG and air pollutant emissions, and improve air quality. Better air quality and active transportation enhancements provide community health benefits. Residents benefit economically from jobs and job training, and lower costs for transit and housing costs. In addition, program requirements to leverage additional funding sources fosters further investment in these communities.

### FUNDING OUTCOMES

#### 2017

SELECTED: \$105.0M

IMPLEMENTED: \$0.0M

#### CUMULATIVE

ALLOCATED: \$140.0M

SELECTED: \$105.0M

IMPLEMENTED: \$0.0M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

#### GHG BENEFITS

TBD

#### FUNDING DISTRIBUTION

TBD

# Transformative Climate Communities Program

## CITY OF FRESNO

Three Fresno neighborhoods are about to undergo an economic and environmental transformation that promises to improve the quality of life for residents of Southwest, Chinatown, and Downtown Fresno.

With technical assistance from SGC, local leaders established a collaborative to pursue Cap-and-Trade funding through the TCC Program. The TCC Program's unique, place-based strategy to reduce GHG emissions catalyzes collective impact through a combination of community-driven climate projects in a single neighborhood. A Community Steering Committee, comprised of more than 160 residents and local business owners, participated in a series of community meetings that put the decision-making power in their hands.

Residents of Southwest Fresno, one of the State's most disadvantaged neighborhoods, played an active role in the Community Steering Committee. The City of Fresno and the Central Valley Community Foundation collaborated with community groups, such as the California Endowment's Building Healthy Communities, to provide support for the meetings.

Participants developed five packages of projects during community meetings including a package developed by committee members who live in Southwest Fresno. At its final meeting, 126 committee members voted to select the projects they wanted to see come to fruition in their communities. In a 125-to-1 vote, the committee overwhelmingly chose the Southwest Fresno residents' package.

"The SGC truly listened to the concerns of the residents by writing policy guidelines that addressed the history of racial inequities and environmental injustice that has plagued Southwest Fresno," Ivanka Saunders, a Southwest Fresno community member said. "I believe that the transformation of Southwest Fresno will be a success and will improve the lives of current residents."

Because of these efforts, SGC awarded \$70 million to the City of Fresno in January 2018. The final package includes a wide array of community benefits, such as:

- An affordable housing project near the future High-Speed Rail station
- Low-income weatherization projects
- Urban greening projects
- Bicycle pathways
- Active transportation and complete streets components
- Electric vehicle, vanpool and bike share programs
- Urban and community forestry projects
- Food waste prevention and rescue programs

"I am extremely proud of the proposal put forward by Fresno. The money will be directed to one of the most underserved areas in the State," Assemblymember Dr. Joaquin Arambula said. "This money will leverage over \$85 million in other funds and will help transform the neighborhoods of Downtown, Southwest and Chinatown."

In addition to the City of Fresno, SGC awarded the cities of Watts and Ontario \$35 million Cap-and-Trade dollars each through TCC. In both places, community members were also deeply involved in planning processes to create meaningful and ultimately successful proposals.



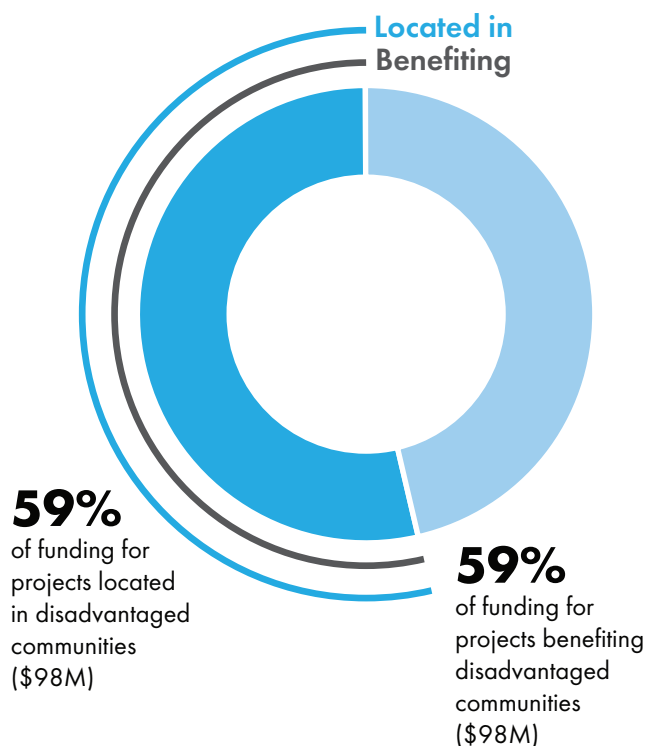
**CALIFORNIA STRATEGIC  
GROWTH COUNCIL**



# INVESTMENTS IN CLEAN ENERGY AND ENERGY EFFICIENCY

California's energy sector—including use of electricity and natural gas—accounts for about half of the State's near-term GHG emissions. In October 2015, the Governor signed SB 350 (De León, Chapter 547, Statutes of 2015), which requires the State to double building energy efficiency and increase renewable energy to 50 percent by 2030. California Climate Investments provide funding for energy efficiency and clean energy generation, reduced energy and water use through installation of more efficient appliances, and agricultural equipment. Residential energy efficiency programs support SB 350 targets through investments that allow low-income homeowners in disadvantaged communities to improve their homes through weatherization and solar installation projects.

## Clean Energy and Energy Efficiency \$167M Implemented



These investments provide a variety of benefits for communities, households, and individuals statewide. For example, in addition to providing jobs and job training, CSD's LIWP and DWR's Water-Energy Grant Program are installing measures to increase residential energy and water efficiency, which results in cost-savings for individuals and families. CDFA's SWEEP is funding installation of irrigation systems that are reducing exposure to toxic air contaminants and resulting in water savings. CARB's Woodsmoke Reduction Program will install measures that improve indoor and outdoor air quality and deliver health benefits.

The following pages describe agency California Climate Investments in clean energy and energy efficiency.

For more information, visit:  
[caclimateinvestments.ca.gov/energy-efficiency-clean-energy/](https://caclimateinvestments.ca.gov/energy-efficiency-clean-energy/).



## Woodsmoke Reduction Program

**Agency:** California Air Resources Board (CARB)

**Purpose:** Provides 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.

**Structure:** First-come, first-served, with preference to priority populations; administered via California Air Pollution Control Officers Association and local air districts

**Eligible Recipients:** Households using uncertified wood stoves or wood inserts, or utilizing a fireplace as a primary heat source

**Reaching Priority Populations:** Larger incentives for members of priority populations, as well as outreach targeting these residents and prioritization of applicants from these populations.

### Program Benefits

The Woodsmoke Reduction Program funds the replacement of uncertified wood stoves, wood inserts, or fireplaces with a new certified wood stove, certified wood insert, or heating device that uses natural gas, propane, or electricity. Projects decrease GHG emissions through the use of cleaner, more efficient heating devices. Especially during the winter, biomass burning for home heating is one of the largest sources for fine PM, a type of air pollution strongly linked to asthma, lung disease, and higher mortality rates. Replacing uncertified wood stoves with certified wood stoves decreases fine PM emissions by up to 80 percent, while replacement with gas or electric stoves decreases fine PM emissions by almost 100 percent. Along with decreased PM pollution, emissions of black carbon and air toxics such as formaldehyde and benzene also decrease. These decreases in emissions will increase air quality both inside the recipient's home and in their community, providing a clear public health benefit. Targeting these incentives toward priority populations ensures that these residents will see the strongest benefit of this program.

### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.0M

### CUMULATIVE

ALLOCATED: \$5.0M

IMPLEMENTED: \$0.0M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

### GHG BENEFITS

TBD

### FUNDING DISTRIBUTION

TBD

## Multi-Family Energy Efficiency and Renewables<sup>39</sup>

### LOW-INCOME WEATHERIZATION PROGRAM

**Agency:** California Department of Community Services and Development (CSD)

**Purpose:** Provides technical assistance and incentives for the installation of energy-efficiency measures and solar photovoltaics (PV) in low-income multifamily dwellings in disadvantaged communities.

**Structure:** First-come, first-served for eligible multi-family property owners; administered by the Association for Energy Affordability.

**Eligible Recipients:** Owners of low-income multi-family properties in disadvantaged communities.

**Reaching Priority Populations:** Program services and funding only available for property owners of low-income multi-family properties in disadvantaged communities. Service provider provides outreach to promote program awareness in disadvantaged communities.

#### Program Benefits

The Multi-Family Energy Efficiency and Renewables subprogram provides technical assistance and incentives for the installation of residential energy-efficiency measures (such as upgraded heating and air conditioning systems) as well as solar energy systems. The program reduces residential energy demand and reduces associated GHG and air pollutant emissions. Residents of the low-income multi-family properties in disadvantaged communities that participate in this program benefit from lower energy costs, health and comfort improvements, and the preservation of affordable housing. Communities also benefit from improved air quality and public health.

<sup>39</sup> Services to small multi-family buildings are now available under the existing and expanded Multi-Family Energy Efficiency and Renewables subprogram, previously named the Large Multi-Family Energy Efficiency and Renewables subprogram.

#### FUNDING OUTCOMES

2017

AWARDED: \$14.0M  
IMPLEMENTED: \$15.4M

#### CUMULATIVE

ALLOCATED: \$38.0M  
AWARDED: \$38.0M  
IMPLEMENTED: \$15.4M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

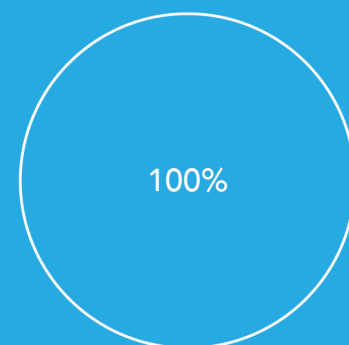
#### GHG BENEFITS




79,100 MTCO<sub>2</sub>E

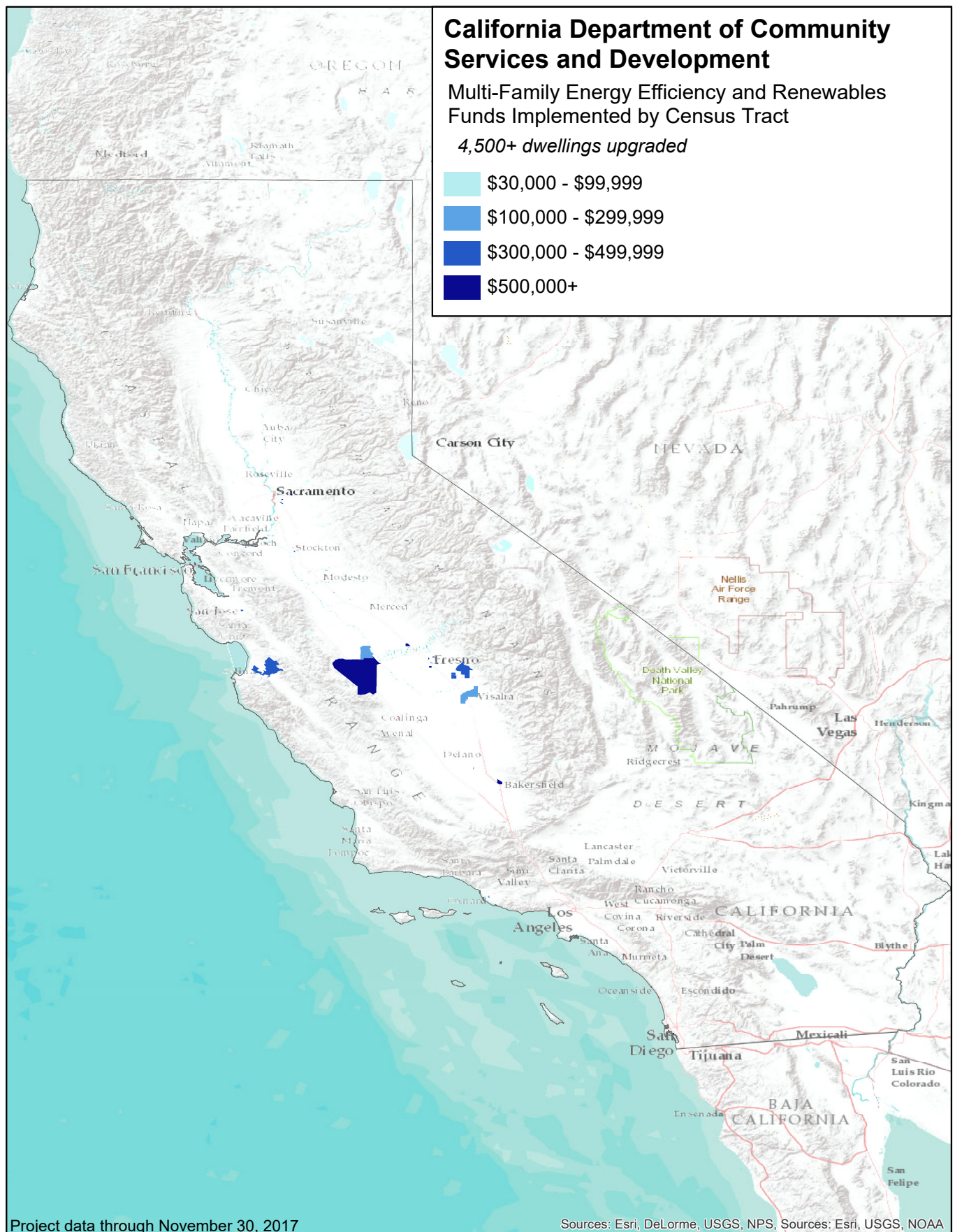
#### GHG TIMEFRAME

2017-2043

#### FUNDING DISTRIBUTION



-  in & benefiting disadvantaged communities
-  benefiting disadvantaged communities
-  other areas in California





## Low-Income Weatherization Program

### Multi-Family Energy Efficiency and Renewables

#### MADERA COUNTY

Dana Guzman is a resident of Casas de la Viña, a 56-unit affordable apartment rental community that serves low-income families and farmworkers. The mother of two boys, Dana moved to Casas de la Viña when she needed to find a new home after the death of her husband.

Casas de la Viña is one of several properties owned by Self-Help Enterprises, an organization that develops affordable housing to serve the needs of low-income Central Valley residents. One of the many ways that Self-Help Enterprises supports low-income families is by helping them save money on their electric bills through improvements made throughout their properties.

Self-Help Enterprises was able to install solar PV systems and make energy efficiency improvements at Casas de la Viña with Cap-and-Trade dollars from CSD's LIWP. The LIWP Multi-Family Energy Efficiency and Renewables subprogram administrator, the Association for Energy Affordability, provides technical assistance and incentives for the installation of energy-efficiency measures and solar PV in low-income multi-family dwellings in disadvantaged communities. The LIWP Multi-Family Energy Efficiency and Renewables subprogram not only reduces GHG emissions, it also reduces energy costs. And, by lowering operating costs for property owners, it also helps preserve affordable housing.

Proteus, a nonprofit that provides education, job training, job placement, and other services to farm working families, installed several of the energy-saving measures on the property. Overall, the project included a deep energy efficiency and renewable energy retrofit, with the installation of more than 181 kilowatts of solar panels generating 95 percent of the development's energy needs onsite to offset resident energy bills. The project also consisted of the installation of efficient new heat pump heating and cooling systems, heat pump water heaters, energy efficient windows, LED lighting, refrigerators and plumbing fixtures.

Dana has seen first-hand the benefits of the improvements made to Casas de la Viña. "The improvements are really helping because it's saving me money," said Dana. "I'm saving up to \$70 a month on my bills; I'm only paying \$25 for PG&E. That makes a huge difference."

Thanks to Casas de la Viña's participation in the LIWP Multi-Family Energy Efficiency and Renewables subprogram, the community expects to achieve zero net energy, with the property now generating as much energy as it consumes. Over its quantification period, the solar PV system and installed energy efficiency measures will lead to an estimated reduction of over 3,000 MTCO<sub>2</sub>e in GHG emissions.

Just as important, the residents of Casas de la Viña will now be able to use the money they save on utility bills to support their family's other critical needs. In Dana's case, those savings are going towards necessities like clothes and school supplies for her boys.





## Single-Family Energy Efficiency and Solar Photovoltaics<sup>40</sup>

### LOW-INCOME WEATHERIZATION PROGRAM

**Agency:** California Department of Community Services and Development (CSD)

**Purpose:** Funds 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.

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

**Eligible Recipients:** Households with low-income residents in disadvantaged communities.

**Reaching Priority Populations:** Program services only available for low-income residents in disadvantaged communities; Regional Administrators provide outreach to promote program awareness in disadvantaged communities.

#### Program Benefits

The Single-Family Energy Efficiency and Solar Photovoltaics subprogram funds the installation of residential weatherization and energy-efficiency measures (such as upgraded heating and air conditioning systems) as well as solar PV systems. The program reduces residential energy demand and reduces associated GHG and air pollutant emissions. The low-income residents of disadvantaged communities that participate in this program benefit from lower energy costs. Communities also benefit from improved air quality and public health.

40 For FY 2015 16 appropriations, CSD awarded funds under a new integrated Single-Family Energy Efficiency and Solar Photovoltaics subprogram to Regional Administrators selected through an open and competitive procurement. Prior awards and funds expended under the initial Single Family/Small Multi-Family Energy Efficiency and Solar Water Heating subprogram are combined with this redesigned subprogram in this Report. Services to small multi-family buildings are now available under the existing and expanded Multi-Family Energy Efficiency and Renewables subprogram, previously named the Large Multi-Family Energy Efficiency and Renewables subprogram.

41 Based on program evaluation, CSD reduced funding awards in the initial Single-Family/Small Multi-Family Energy Efficiency and Solar Water Heating subprogram, and increased awards under the Single-Family Solar Photovoltaics subprogram.

### FUNDING OUTCOMES

#### 2017

AWARDED: \$55.8M<sup>41</sup>

IMPLEMENTED: \$5.2M

#### CUMULATIVE

ALLOCATED: \$70.3M

AWARDED: \$70.3M

IMPLEMENTED: \$10.7M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

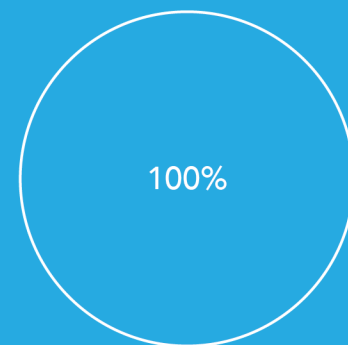
#### GHG BENEFITS

65,500 MTCO<sub>2</sub>E

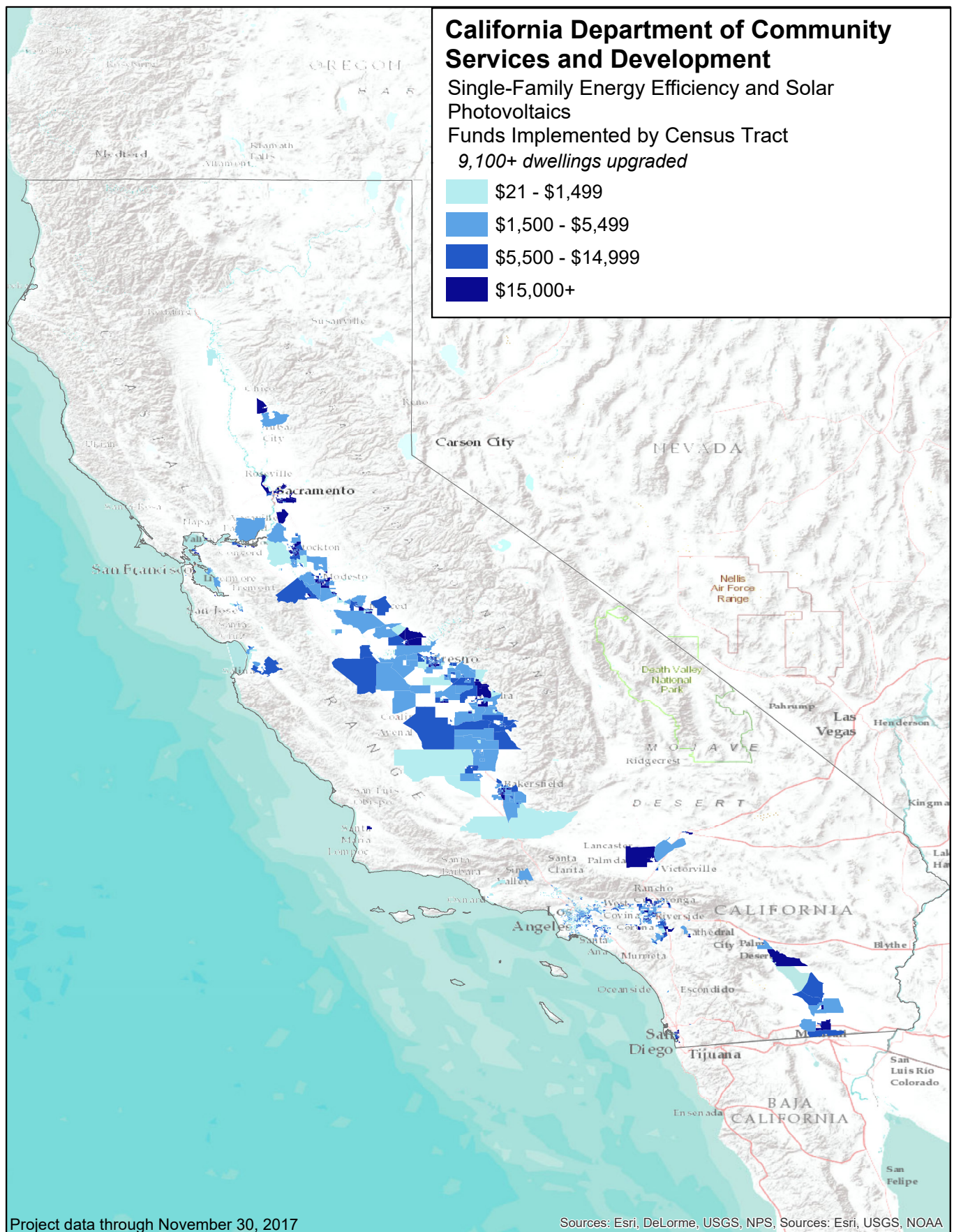
#### GHG TIMEFRAME

2015-2047

#### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California







## Low-Income Weatherization Program

### Single-Family Energy Efficiency and Solar Photovoltaics

#### RIVERSIDE COUNTY

For years, Irma Vargas' family of four struggled to pay the high utility bills that come with living on the north shore of the Salton Sea in Mecca while still maintaining a comfortable and healthy home for their children. The family's limited income made the \$400 per month bill nearly impossible during the summer months when temperatures can exceed 110°F in their Riverside County community.

Relief finally came when the La Cooperativa Campesina de California approved their application for energy efficiency services. La Cooperativa is a regional administrator for the CSD's LIWP, which is funded by Cap-and-Trade dollars.

An assessment of the Vargas home uncovered the need for a number of improvements to help reduce the family's utility bill through improved energy efficiency, ultimately increasing their disposable income.

The Vargas' also qualified for a rooftop solar PV system and received a new high efficiency heating and air conditioning system, window replacements, LED light bulbs, power strips, and low-flow shower heads among other improvements.

Overall, Irma is very happy with the improvements, which are expected to lower the family's utility bill by approximately 75 percent.

"I'm extremely excited and grateful to the State for providing this program," she told La Cooperativa. "(It) allows us to feel safer and more comfortable in our home with services we would not be able to afford ourselves."



## Single-Family Solar Photovoltaics

### LOW-INCOME WEATHERIZATION PROGRAM

**Agency:** California Department of Community Services and Development (CSD)

**Purpose:** Funds solar PV installations in low-income single family dwellings in disadvantaged communities at no cost to residents.

**Structure:** First-come, first-served for eligible households; single statewide solar PV provider and a solar PV pilot program.

**Eligible Recipients:** Low-income residents in disadvantaged communities.

**Reaching Priority Populations:** Program services only available for low-income residents in disadvantaged communities; service providers and grantees provide outreach to promote program awareness in disadvantaged communities.

#### Program Benefits

The Single-Family Solar Photovoltaics subprogram funds the installation of residential solar energy systems through a single provider administering services on a statewide basis, and a solar PV pilot. These projects reduce residential energy demand, and reduce GHG and air pollutant emissions associated with conventional energy generation. The low-income residents of disadvantaged communities that participate in this program benefit from lower energy costs. Communities can also benefit from improved air quality and public health.

### FUNDING OUTCOMES

#### 2017

AWARDED: \$1.8M<sup>42</sup>

IMPLEMENTED: \$19.4M

#### CUMULATIVE

ALLOCATED: \$50.6M

AWARDED: \$50.6M

IMPLEMENTED: \$38.4M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

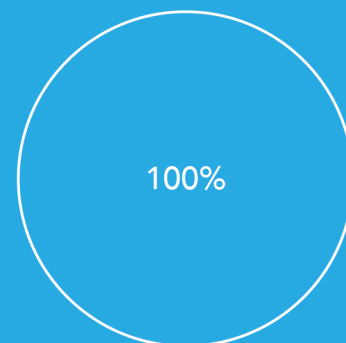
#### GHG BENEFITS




111,600 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

2015-2042

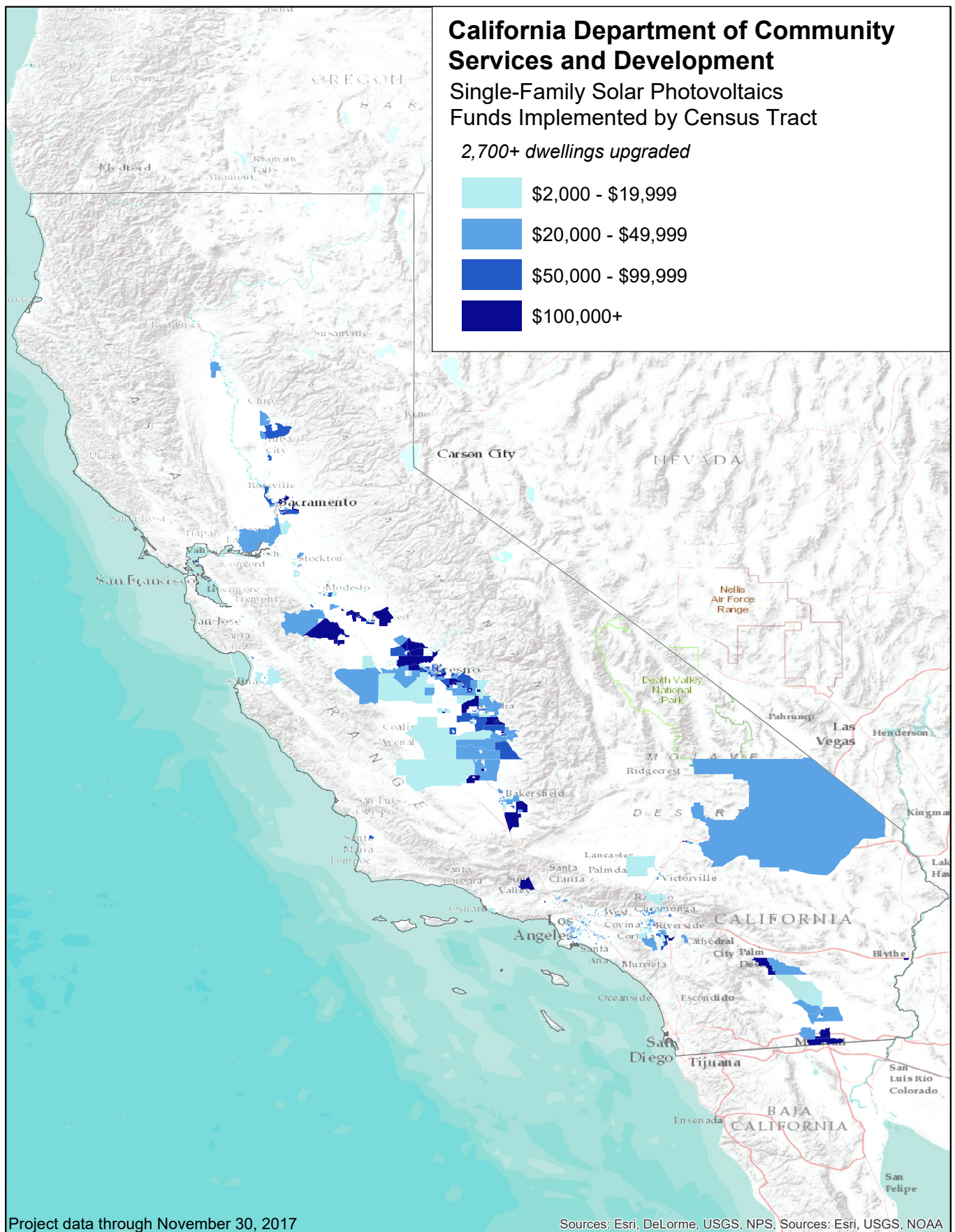
#### FUNDING DISTRIBUTION



-  in & benefiting disadvantaged communities
-  benefiting disadvantaged communities
-  other areas in California

<sup>42</sup> Based on program evaluation, CSD reduced funding awards in the initial Single-Family/Small Multi-Family Energy Efficiency and Solar Water Heating subprogram, and increased awards under the Single-Family Solar Photovoltaics subprogram.





## State Water Efficiency and Enhancement Program (SWEEP)

**Agency:** California Department of Food and Agriculture (CDFA)

**Purpose:** Funds on-farm pump and motor enhancement or replacement, irrigation system enhancement, and fuel conversion; projects must reduce water use.

**Structure:** Competitive

**Eligible Recipients:** California agricultural operations (excluding government and academic operators).

**Reaching Priority Populations:** Outreach to disadvantaged communities.

### Program Benefits

SWEEP provides financial incentives to agricultural operations to invest in water irrigation and distribution systems that reduce energy use, reduce on-farm water use, and use renewable fuel sources. Because agricultural water pumps require significant energy use, increased energy efficiency and use of renewable fuels decreases GHG and air pollutant (NO<sub>x</sub>, PM, and ROG) emissions. These projects result in water conservation, more precise fertilizer usage, decreases in agricultural runoff that can degrade water quality, lower irrigation costs for farmers, and sustained crop production. Residents in project locations and of nearby disadvantaged communities benefit from the improvements in air quality and public health created by efficiency improvements and conversion to renewable fuels.

### FUNDING OUTCOMES

2017

AWARDED: \$27.6M  
IMPLEMENTED: \$26.4M

### CUMULATIVE

ALLOCATED: \$66.0M  
AWARDED: \$61.6M  
IMPLEMENTED: \$59.8M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

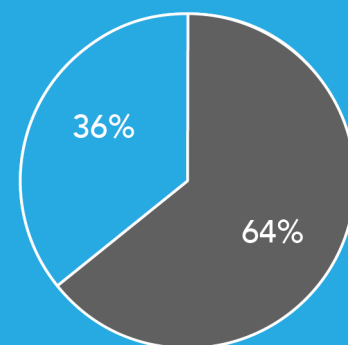
### GHG BENEFITS

736,200 MTCO<sub>2</sub>E

### GHG TIMEFRAME

2015-2028

### FUNDING DISTRIBUTION

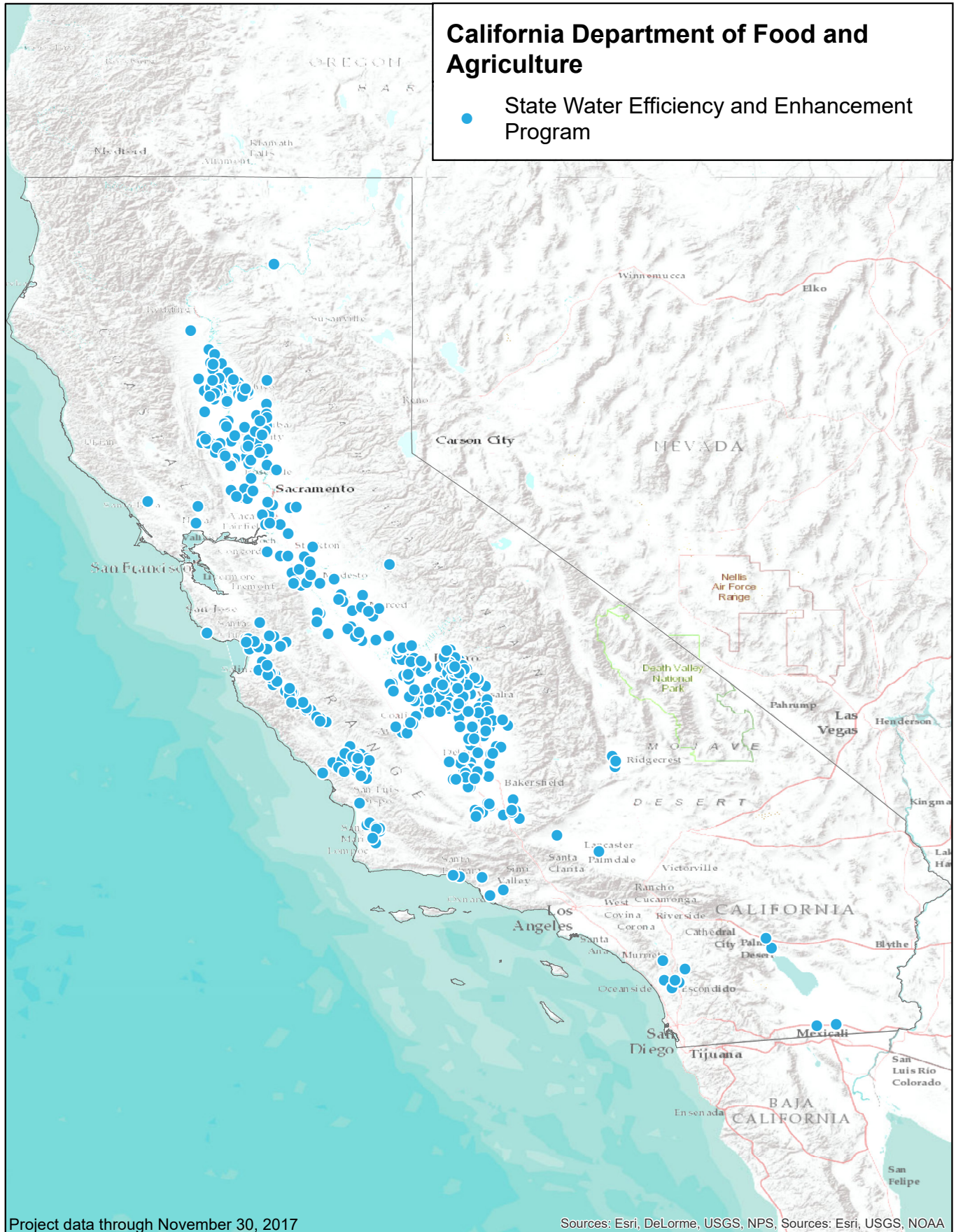


- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California



## California Department of Food and Agriculture

- State Water Efficiency and Enhancement Program







## **State Water Efficiency and Enhancement Program**

### **Desert Fresh Irrigation and Filtration Project**

#### **RIVERSIDE COUNTY**

Growing grapes, lemons, and row crops in some of California's most arid lands just got a little easier at Desert Fresh, Inc. thanks to a grant funded with Cap-and-Trade dollars. Newly installed climate-smart technology is now saving water and decreasing carbon emissions on this small farm operation located in the heart of Coachella Valley in Riverside County.

With support from CDFA's SWEEP, the Desert Fresh project lowered irrigation water use by nearly 15 percent while producing the same yield using precision agriculture technology. The system also uses soil moisture sensing technology to identify when the crop needs water and know exactly how much to apply—taking the guesswork out of irrigation.

The grant also funded a new state-of-the-art water filtration system to reduce drip emitter clogging and maintain a high water distribution uniformity, all while reducing system maintenance.

This new filtration system uses a self-cleaning screen filter as opposed to a traditional sand media filtration system. To put this into perspective, a sand media filtration system takes 24 minutes to back-flush debris and the installed state-of-the-art filtration system takes 20 seconds to self-clean. This results in incredibly less water being lost during necessary system maintenance and less energy used by the pump to perform this task. Less pumping results in less emissions.

"The new filtration station, provided to us by the SWEEP program, eliminates our drip system's downtime when cleaning the filter," grant recipient Blaine Carian said. "Technology like this will help ensure that the water pumped into the system is used for irrigation and not system maintenance."

With this modest investment, Desert Fresh will see almost 23 million gallons of water savings every year, proving that technology like this has the potential to help California meet its climate change goals while also adapting to expected impacts such as water shortage.



**CALIFORNIA DEPARTMENT OF  
FOOD & AGRICULTURE**



## State Water Project Turbines Program

**Agency:** California Department of Water Resources (DWR)

**Purpose:** Funded the replacement of hydroelectric turbine runners at two DWR State Water Project facilities.

**Structure:** Legislative appropriation

**Eligible Recipients:** DWR

### Program Benefits

The State Water Project Turbines Program provided funds for the retrofitting of two hydroelectric turbines in DWR State Water Project facilities, increasing the efficiency of hydroelectricity generation and the availability of turbine units, which decreases the need to procure fossil-fuel based electricity. Decreasing the generation of fossil-fuel based electricity decreases emissions of GHG and air pollutant emissions, which improves air quality.

### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.0M

### CUMULATIVE

ALLOCATED: \$20.0M

IMPLEMENTED: \$20.0M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

### GHG BENEFITS

36,900 MTCO<sub>2</sub>E

### GHG TIMEFRAME

2014-2024

### FUNDING DISTRIBUTION

TURBINE PROJECTS  
NOT LOCATED WITHIN  
DISADVANTAGED OR  
LOW-INCOME COMMUNITIES

## Water-Energy Grant Program

**Agency:** California Department of Water Resources (DWR)

**Purpose:** Funded commercial and institutional water-energy efficiency programs or projects, and residential water-energy efficiency programs or projects benefiting disadvantaged communities.

**Structure:** Competitive

**Eligible Recipients:** Local agencies, joint power authorities, and nonprofit organizations.

**Reaching Priority Populations:** Projects benefiting disadvantaged communities received higher funding priority rankings.

### Program Benefits

The Water-Energy Grant Program funded the installation of energy- and water-efficient fixtures and other devices that decrease both energy and water use. The heating of water requires significant energy use, therefore increased efficiency reduces water use and decreases GHG and air pollutant emissions. Residential projects can benefit disadvantaged community residents through lower water and energy bills, improved water conservation, and more reliable water supply. Commercial projects can result in reduced utility costs to disadvantaged community business owners. Institutional projects can result in lower utility costs for the institution.

### FUNDING OUTCOMES

2017

SELECTED/AWARDED: \$17.7M

IMPLEMENTED: \$12.5M

### CUMULATIVE

ALLOCATED: \$50.0M

SELECTED/AWARDED: \$45.5M

IMPLEMENTED: \$19.2M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

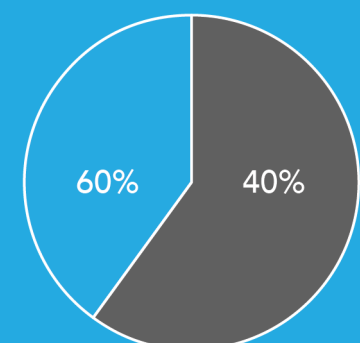
#### GHG BENEFITS

173,400 MTCO<sub>2</sub>E

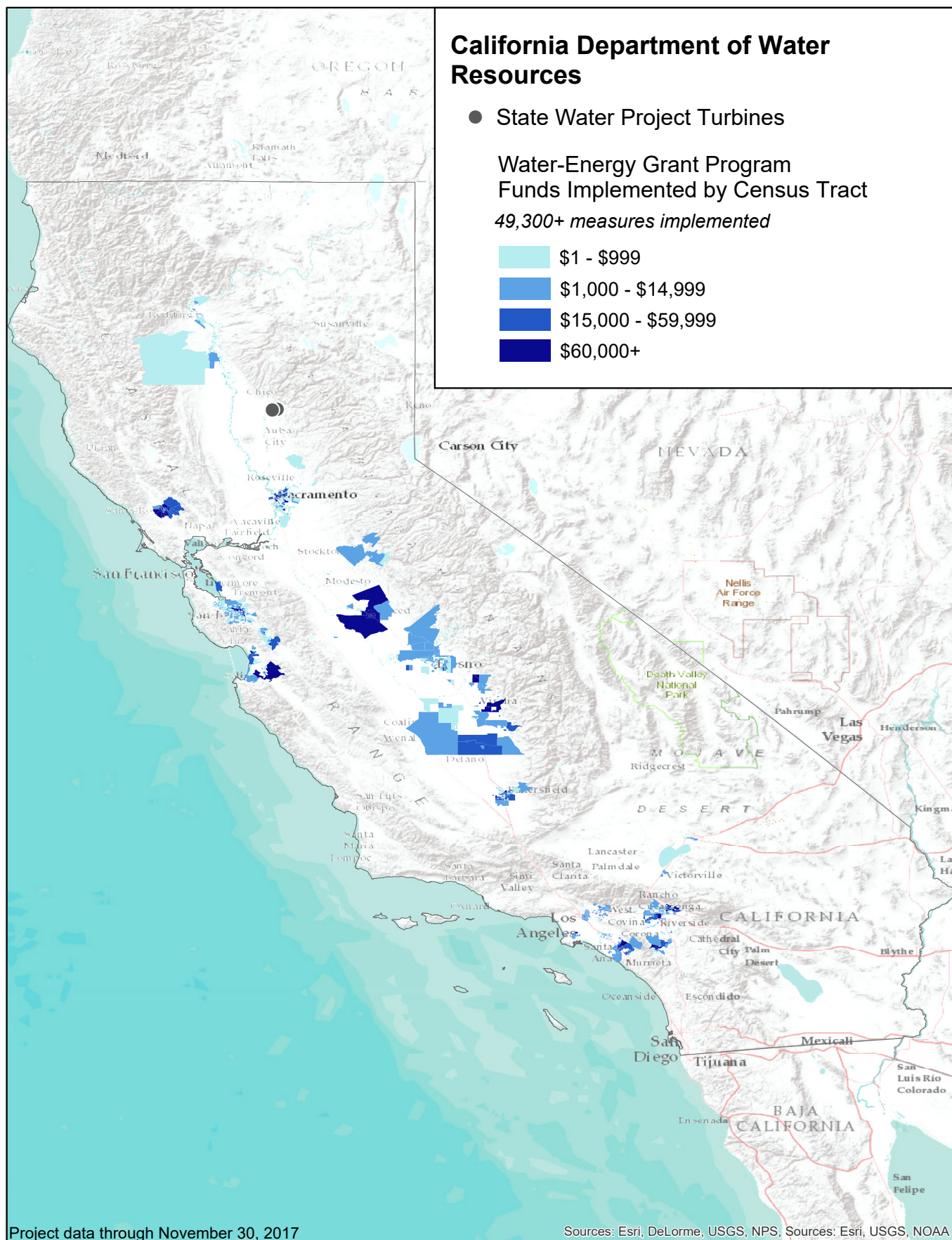
#### GHG TIMEFRAME

2016-2038

### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California







## **Water-Energy Grant Program**

### **San Gabriel Valley Municipal Water District Water and Energy Conservation Rebate Program**

#### **LOS ANGELES COUNTY**

More than 1,900 households in the San Gabriel Valley are saving money, water, and energy through a new rebate program supported by Cap-and-Trade dollars. With funding from DWR's Water-Energy Grant Program, the San Gabriel Valley Municipal Water District is offering rebates for water- and energy-efficient appliances. To date, customers have taken advantage of rebates for 2,000 washing machines, 150 smart irrigation controllers, and 20 waterless urinals, with more than half benefiting residents of disadvantaged communities.

Local residents and businesses have been able to do their part for water conservation efforts, saving from 25 to over 50 gallons of water per day through this program.

"As we continue to face water supply challenges, the San Gabriel Valley Municipal Water District is committed to water conservation and water-use efficiency," said Thomas Wong, Board President of the SGVMWD. "This grant has allowed us to enhance our rebate program by providing additional funding for water and energy saving devices, such as washing machines, waterless urinals, and more efficient irrigation controllers."

Limited to one per installation address, each rebate provides between \$100 to \$150 of assistance for the purchase and installation of eligible water and energy efficient appliances.

In addition to reducing residents' water and energy bills, the overall benefits of the project include an annual water savings of 7.9 million gallons, energy savings of 5,609,767 kilowatt hours, and over 1.5 million MTCO<sub>2</sub>e of estimated GHG emission reduction.

SGVMWD also conducted extensive public outreach efforts to educate the public on various water issues and the importance for water conservation including a water education program in schools and a mascot, H2Owl.

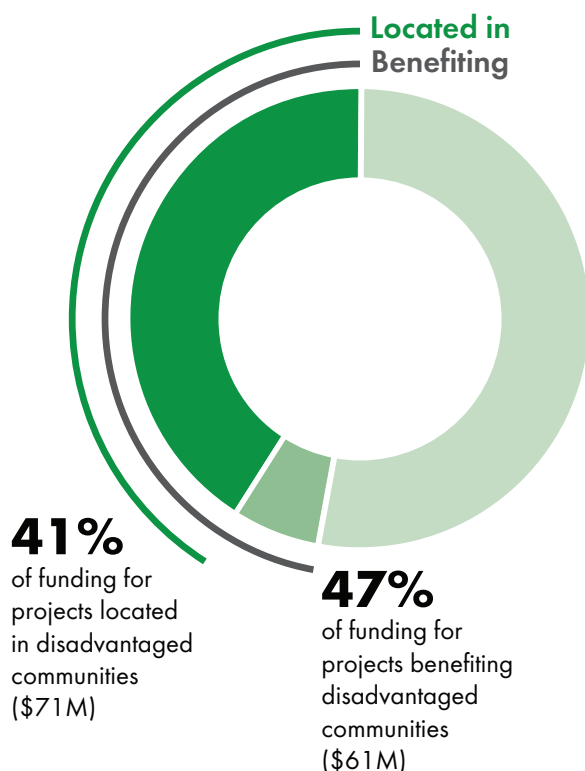




# INVESTMENTS IN NATURAL RESOURCES AND WASTE DIVERSION

California's natural and working lands comprise three-quarters of the land base statewide. These lands provide food, fiber, and a variety of ecosystem services including important opportunities for climate mitigation that reduce GHG emissions from wildfire and land conversion, and store carbon in biomass and soils. In addition, investments in organic waste management and waste diversion reduce GHG emissions as well as criteria and toxic air pollutants by reducing the amount of municipal solid waste that is disposed of in landfills. Investments in natural resources and waste diversion can also help protect against the impacts of future climate change.

## Natural Resources and Waste Diversion \$151M Implemented



These investments provide a variety of environmental and economic co-benefits statewide. For example, the Department of Fish and Wildlife's (DFW) Wetlands and Watershed Restoration Program is improving habitat to support biodiversity and climate resilience. CAL FIRE is planting trees in urban areas to reduce urban heat effects and potentially resulting in cost-savings for households. CalRecycle's Waste Diversion Program is supporting more efficient use of materials—including the use of recycled instead of virgin materials—to conserve natural resources, potentially reducing supply chain costs, and resulting in consumer cost-savings.

The following pages describe California Climate Investments in natural resources and waste diversion.

For more information, visit:  
[caclimateinvestments.ca.gov/natural-resources-waste-diversion/](https://caclimateinvestments.ca.gov/natural-resources-waste-diversion/).

## Wetlands and Watershed Restoration Program

**Agency:** California Department of Fish and Wildlife (DFW)

**Purpose:** Funds the restoration of Sacramento-San Joaquin Delta wetlands, coastal wetlands, and mountain meadows.

**Structure:** Competitive

**Eligible Recipients:** Public agencies, nonprofit organizations, and recognized tribes.

**Reaching Priority Populations:** Projects benefiting disadvantaged communities receive higher application scores.

### Program Benefits

Wetland restoration projects create a GHG benefit by increasing the amount of carbon sequestered in plants, soils, and sediments. Restored wetlands protect and improve water quality through filtration and pollution reduction, and enhance water storage through the replenishment of groundwater aquifers. Wetlands also protect against floods and sea level rise. In the Sacramento–San Joaquin Delta, wetland restoration may reduce or reverse land subsidence. Restored wetlands can enhance biodiversity by providing essential habitat for many species of fish and wildlife, including endangered or threatened species such as salmon. By improving habitat and water quality, wetland restoration creates and enhances opportunities for recreational, subsistence, and commercial fishing and/or hunting. Adjacent communities directly benefit from decreased flood risk and increased recreation opportunities, and may benefit from jobs created by restoration activities.

### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.0M

### CUMULATIVE

ALLOCATED: \$41.8M

IMPLEMENTED: \$21.3M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

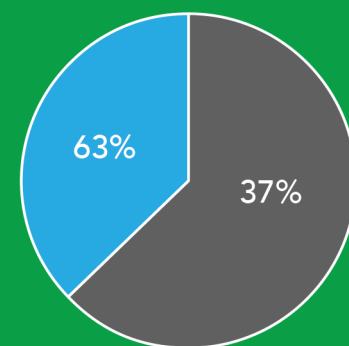
### GHG BENEFITS

570,900 MTCO<sub>2</sub>E

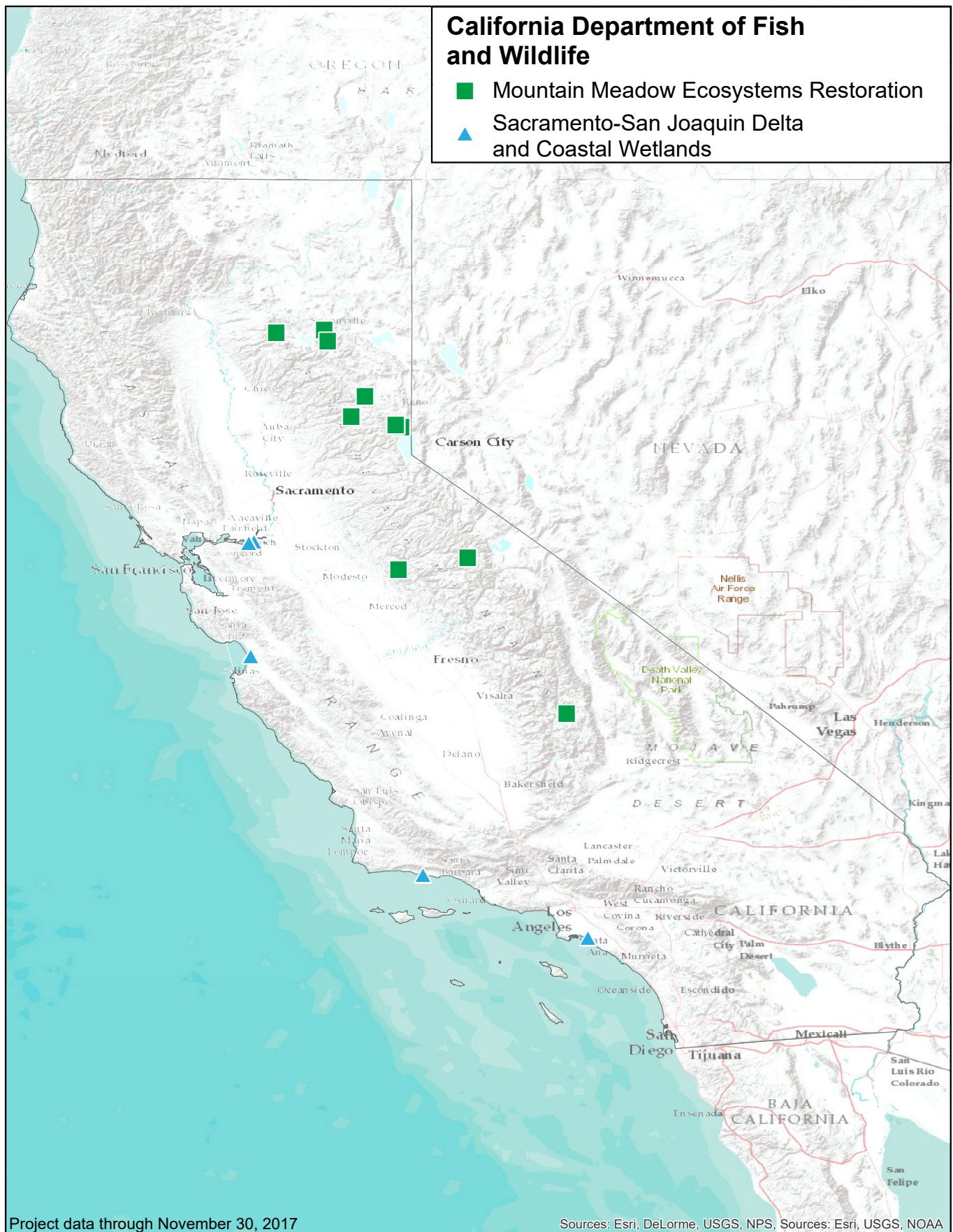
### GHG TIMEFRAME

2016-2070

### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California





## Wetlands and Watershed Restoration Program

### Mountain Meadow Ecosystem Restoration Project

#### SIERRA NEVADA AND CASCADE MOUNTAINS

Meadows in the Sierra Nevada and Cascade mountain ranges act as nature's sponge and filter, accumulating high amounts of organic soils that help provide California with a year-round water supply. Acting like a mini-reservoir, the meadows store carbon as they capture and clean water.

Sadly, damage from poor land use practices over the last century is compromising the meadows' ability to provide these critical functions. Some meadow streams have transformed into gullies that quickly move water through and off, leaving the meadows high and dry. The meadows often suffer further degradation as they lose soil and vegetation. For downstream residents and users, this means increased winter flooding, poor water quality, and a reduced amount of water available during drier times of the year.

That's why the Sierra Meadows Restoration Partnership formed as a coalition of groups interested in restoring California's damaged mountain meadows. The group then sought support from the DFW's Wetlands and Watershed Restoration Program, funded by Cap-and-Trade dollars. Now the partnership is using those funds to restore more than 700 acres of degraded mountain meadows in the Sierra Nevada-Cascade mountains system.



"Mountain meadows, in healthy conditions, are high carbon-sinks and provide an array of important benefits of supporting plants, animals, fish and downstream communities, as well as supporting a more water-secure California," says Mark Drew of California Trout Inc. "Unfortunately, roughly 50 percent of these meadows are in a degraded state. The provision of California Climate Investments grants from the Department of Fish and Wildlife to restore some mountain meadows to healthy conditions was well-timed for an urgent need to bring back these important ecosystems."

The Sierra Meadows Restoration Partnership, Yosemite National Park, and University of California, Davis are collaborating on the projects. The restorations not only improve the conditions of some meadows in the Sierra Nevada-Cascade, it also is estimated to sequester over 52,000 MTCO<sub>2</sub>e, while making California more resilient to climate change.

Under healthy conditions, the mountain meadows will also improve flood protection, increase the meadow's ability to clean and store water for longer into the drier season, improve wildlife habitat, and create recreational/education opportunities for the benefit of all.

- \* The Sierra Meadows Restoration Partnership is a coalition of entities working together on California Climate Investments (DFW) funded mountain meadow restoration projects. The partnership comprises of the following: California Trout, Inc., Plumas Corporation, Truckee River Watershed Council, Sierra Foothill Conservancy, and South Yuba River Citizens League.



## Alternative Manure Management Program (AMMP)

**Agency:** California Department of Food and Agriculture (CDFA)

**Purpose:** Provides 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.

**Structure:** Competitive

**Eligible Recipients:** Commercial dairy and livestock operators.

**Reaching Priority Populations:** Higher application scores for projects benefiting disadvantaged and low-income communities.

### Program Benefits

Methane released from dairy and livestock manure storage lagoons represents approximately 25 percent of all California emissions of methane, a powerful GHG. Methane is created when the manure is stored in anaerobic conditions; AMMP funds the implementation of practices that process manure in aerobic conditions and/or decrease the amount of manure volatile solids stored under anaerobic conditions. These practices include solid separation and conversion from flush to scrape manure collection, followed by drying or composting, as well as conversion to pasture-based management. AMMP-supported practices can produce animal bedding and soil amendments. Treatment of manure via AMMP-supported practices can also decrease emissions of polluting and noxious gases such as ammonia, hydrogen sulfide, and ROG. In addition to potential air and water quality benefits for disadvantaged communities, the installation and operation of AMMP-supported systems also creates jobs.

### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.0M

### CUMULATIVE

ALLOCATED: \$29-43M

IMPLEMENTED: \$0.0M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

### GHG BENEFITS

TBD

### FUNDING DISTRIBUTION

TBD

## Dairy Digester Research and Development Program (DDRDP)

**Agency:** California Department of Food and Agriculture (CDFA)

**Purpose:** Provides financial incentives for the design and construction of new digester systems that decrease methane emissions.

**Structure:** Competitive

**Eligible Recipients:** Dairy operations, dairy digester developers, and partnerships between these entities.

**Reaching Priority Populations:** Outreach to local communities evaluated in application scoring for all projects, and higher scores possible for projects benefiting disadvantaged and low-income communities.

### Program Benefits

Methane released from anaerobic manure storage in lagoons represents approximately 25 percent of all California emissions of methane, a powerful GHG. Instead of releasing this methane to the atmosphere, dairy digesters create an opportunity to capture this methane and use it to generate renewable energy or fuels. Dairy digesters also produce animal bedding, soil amendments, and fertilizers. Treatment of manure via dairy digesters also decreases emissions of polluting and noxious gases such as ammonia, hydrogen sulfide, and ROG. DDRDP projects also have double-lined manure storage systems or other highly protective barriers, helping to protect water quality. The installation and operation of dairy digester systems also creates jobs.

### FUNDING OUTCOMES

2017

IMPLEMENTED: \$35.3M

### CUMULATIVE

ALLOCATED: \$107-121M

IMPLEMENTED: \$46.6M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

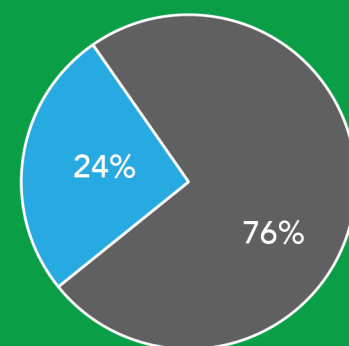
### GHG BENEFITS

5,679,900 MTCO<sub>2</sub>E

### GHG TIMEFRAME

2015-2028

### FUNDING DISTRIBUTION

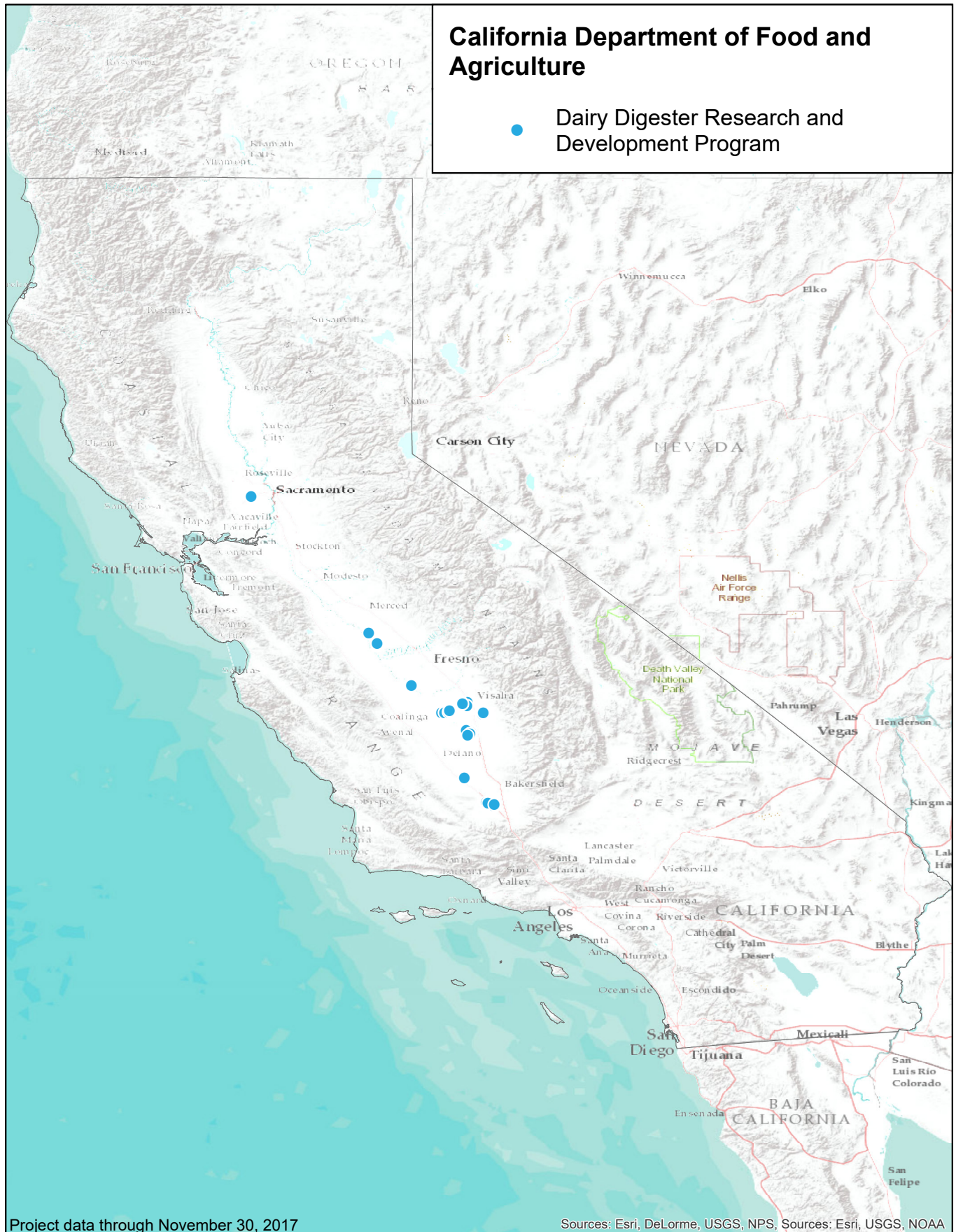


- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California



## California Department of Food and Agriculture

- Dairy Digester Research and Development Program



Project data through November 30, 2017

Sources: Esri, DeLorme, USGS, NPS, Sources: Esri, USGS, NOAA

## Dairy Digester Research and Development Program

### Carlos Echeverria and Sons Dairy Biogas Project

#### KERN COUNTY

For 2nd generation dairy farmer Felix Echeverria, dairy farming is a family affair. His father, an immigrant from Spain's Basque country, began milking cows in Southern California in the early 1950's. Since then, Felix and his brother Johnny, have spent most of their mornings on dairy farms, waking early to milk the cows, put out the feed, and check the water.

Yet for the next generation of Echeverria dairy farmers, there will be a new addition to the sights and sounds of an early morning on the farm—the humming of a dairy digester producing electricity.

Located outside Bakersfield, the Carlos Echeverria and Sons (CE&S) Dairy Biogas project will use anaerobic digester technology to produce energy, reduce GHG emissions, comply with environmental regulations, and increase nutrient availability to crops. The project is funded through CDFA's DDRDP, supported by Cap-and-Trade dollars and the California Energy Commission.

The CE&S digester will work by using a high-density synthetic cover to capture methane from the dairy's manure lagoon. The captured methane will be stored and then combusted in a high-efficiency generator, producing renewable electricity. By using this system, the CE&S Dairy Biogas expects to cut its methane emissions by approximately 75 percent and reduce energy costs by 15-20 percent.

Although initially cautious of digesters, Felix says he was ultimately convinced by his trust in neighboring farmers already embracing digesters and the partnership developed with California Bioenergy, who will own, operate, and maintain the digester system. "At first, we were very skeptical because this is something we knew very little about," said Felix. "But having trust in my neighbors and seeing the changes that digesters bring led us to building our own."

Alongside reducing emissions, the CE&S Dairy Biogas project also advances California's efforts to connect energy providers and fuel created by State-supported incentive programs. In this case, the CE&S digester will deliver approximately 7.6 million kWh of renewable electricity annually to PG&E, enough energy to fully power 705 homes.

The CE&S project is also part of the Kern County Dairy Biogas cluster, a group of sixteen dairies with approximately 100,000 cows that would collectively produce 2.5-3 million cubic feet of biogas per day and 1.5-2.5 million diesel gallon equivalents per year. The renewable energy created through the cluster would support the State's sustainable transportation efforts and generate enough fuel to power 100,000 cars across the country every year.

Felix applauds the State's desire to work collaboratively with industry in developing digester projects. To date, DDRDP has helped fund 24 projects across California, capturing an estimated 5.7 million metrics tons of CO<sub>2</sub>e over ten years.

"I am truly delighted about the partnership between industry and government," said Felix. "It's a huge step in the right direction."



## Healthy Soils Program

**Agency:** California Department of Food and Agriculture (CDFA)

**Purpose:** Provides 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.

**Structure:** Competitive

**Eligible Recipients:** Incentives available to farmers, ranchers, and recognized tribes; demonstration project funding to educational institutions, conservation districts, and nonprofit organizations collaborating with farmers, ranchers and recognized tribes.

**Reaching Priority Populations:** Projects benefiting disadvantaged communities receive higher application scores.

### Program Benefits

The Healthy Soils Program provides funds for farmers and ranchers to implement practices that increase the amount of carbon stored in the soil and decrease GHG emissions (specifically CO<sub>2</sub> and nitrous oxide (N<sub>2</sub>O)). The application of compost and the growth of cover crops increase soil organic matter content, which stores carbon and supplies water and nutrients to support crops. The supply of nutrients reduces the need for fertilizers, which decreases soil N<sub>2</sub>O emissions. These agricultural practices also decrease erosion and dust, leading to improved air quality and public health benefits. Cover crops can also provide important habitat for wildlife.

### FUNDING OUTCOMES<sup>43</sup>

2017

AWARDED: \$5.1M

IMPLEMENTED: \$0.0M

### CUMULATIVE

ALLOCATED: \$7.5M

IMPLEMENTED: \$0.0M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

### GHG BENEFITS

TBD

### FUNDING DISTRIBUTION

TBD

<sup>43</sup> CDFA's grant solicitation and project selection occurred within reporting year 2017. CDFA announced selected funding recipients on December 5, 2017 to coincide with World Soil Day.



## Forest Health Program

**Agency:** California Department of Forestry and Fire Protection (CAL FIRE)

**Purpose:** Reforestation, forest fuel reduction, pest management, conservation easements and fee acquisitions, and forest biomass utilization.

**Structure:** Competitive

**Eligible Recipients:** Federal, state, and local agencies, tribes, private forest landowners, conservation districts, and nonprofit organizations.

### Program Benefits

The Forest Health Program funds forest management projects that provide GHG benefits by increasing forest resiliency, creating conservation easements, and utilizing wood for bioenergy and forest products. Fuels reduction projects implement fuel breaks and forest thinning, creating forests with fewer, larger trees that are more resistant to fire. Pest management projects treat forests at risk from insects or disease, decreasing tree mortality. Reforestation projects plant trees in areas where forests are failing to regenerate, storing carbon in growing trees. Forest conservation projects fund land easements that keep the landscape safe from conversion to other uses. Intact and resilient forests decrease erosion and improve water quality. Forest biomass utilization activities produce forest products or bioenergy from material left over from forest management operations, avoiding emissions and air pollution that would be produced when these residues were burned or left to decay in the forest.

### FUNDING OUTCOMES

2017

SELECTED: \$6.0M

IMPLEMENTED: \$15.0M

### CUMULATIVE

ALLOCATED: \$249.2M<sup>44</sup>

IMPLEMENTED: \$29.7M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

#### GHG BENEFITS

2,534,500 MTCO<sub>2</sub>E<sup>45</sup>

#### GHG TIMEFRAME

2015-2098

### FUNDING DISTRIBUTION

NO FOREST HEALTH  
PROJECTS YET REPORTING  
DISADVANTAGED OR  
LOW-INCOME  
COMMUNITY BENEFITS

<sup>44</sup> \$200M has been appropriated to the Forest Health Program and the Fire Prevention Program, with allocation between the two programs not yet determined

<sup>45</sup> One Forest Health project has not yet reported GHG benefits.



## **Forest Health Program**

### **Reef to Ridge Coastal Forest Protection: Ten Mile River Watershed Easement Acquisition Project**

#### **MENDOCINO COUNTY**

Over 23,000 acres of ecologically valuable forest and wildlife habitat will be protected using Cap-and-Trade dollars through a project selected by CAL FIRE's Forest Health Program. When implemented, the Nature Conservancy's (Conservancy) Reef to Ridge Coastal Forest Protection: Ten Mile River Watershed Easement Acquisition Project (Phase I) will protect the upper watershed of the Ten Mile River with a conservation easement. The easement will prohibit subdivision, retire development rights, expand protection of riparian forests and improve forest management practices.

The Ten Mile River harbors the only remaining Coho salmon in Mendocino County. Its three forks flow through headwaters to a protected estuary at the river mouth, providing over 80 total miles of unhindered freshwater habitat. The Conservancy works to protect the river because of its value as fish habitat, the intact nature of its forests, downstream natural resources such as the estuary and protected lands surrounding the estuary, and the climate benefits associated with avoiding land-use change and improving forest management. The estimated GHG emission reductions associated with Phase I of this project is over 50,500 MTCO<sub>2</sub>e. Since 2010, the Conservancy and its partners have used conservation easements to protect 3,900 acres in the Lower Ten Mile River watershed, nearly all the private land immediately surrounding the Ten Mile River estuary.

California Climate Investments enable the first phase of headwaters conservation planned by the Conservancy. When all three phases of the upper watershed conservation plan are complete, nearly the entire Ten Mile River watershed will be conserved in perpetuity.



## Urban and Community Forestry Program

**Agency:** California Department of Forestry and Fire Protection (CAL FIRE)

**Purpose:** Funds urban forest expansion, management, and improvement, and utilization of urban tree waste for wood products and bioenergy.

**Structure:** Competitive

**Eligible Recipients:** Local government agencies and nonprofit organizations

**Reaching Priority Populations:** Projects benefiting disadvantaged communities are eligible for a cost-share waiver and receive enhanced application scoring.

### Program Benefits

The Urban and Community Forestry Program provides grants to enhance the urban tree canopy through tree planting and improved urban forest management. Planting trees provides a GHG benefit by storing carbon in trees and providing shade that cools buildings and reduces urban heat islands, decreasing the need for air conditioning. Trees remove air pollutants (NO<sub>x</sub> and PM), improving air quality. Trees also help capture storm water, mitigating flooding. Residents of disadvantaged communities benefit from decreased energy costs, storm water capture, and better public health as a result of improved air quality and decreased heat stress. The Urban and Community Forestry Program also provides grants for urban tree wood utilization, which uses urban tree waste for wood products and bioenergy production.

### FUNDING OUTCOMES

2017

AWARDED: \$19.5M  
IMPLEMENTED: \$0.0M<sup>47</sup>

### CUMULATIVE

ALLOCATED: \$52.8M  
AWARDED: \$35.1M  
IMPLEMENTED: \$15.6M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

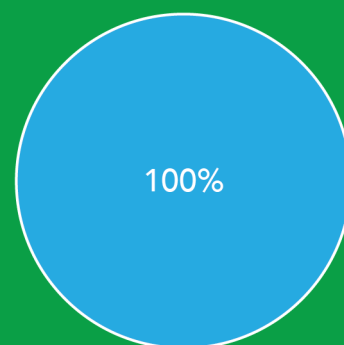
#### GHG BENEFITS

133,700 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

2016-2058

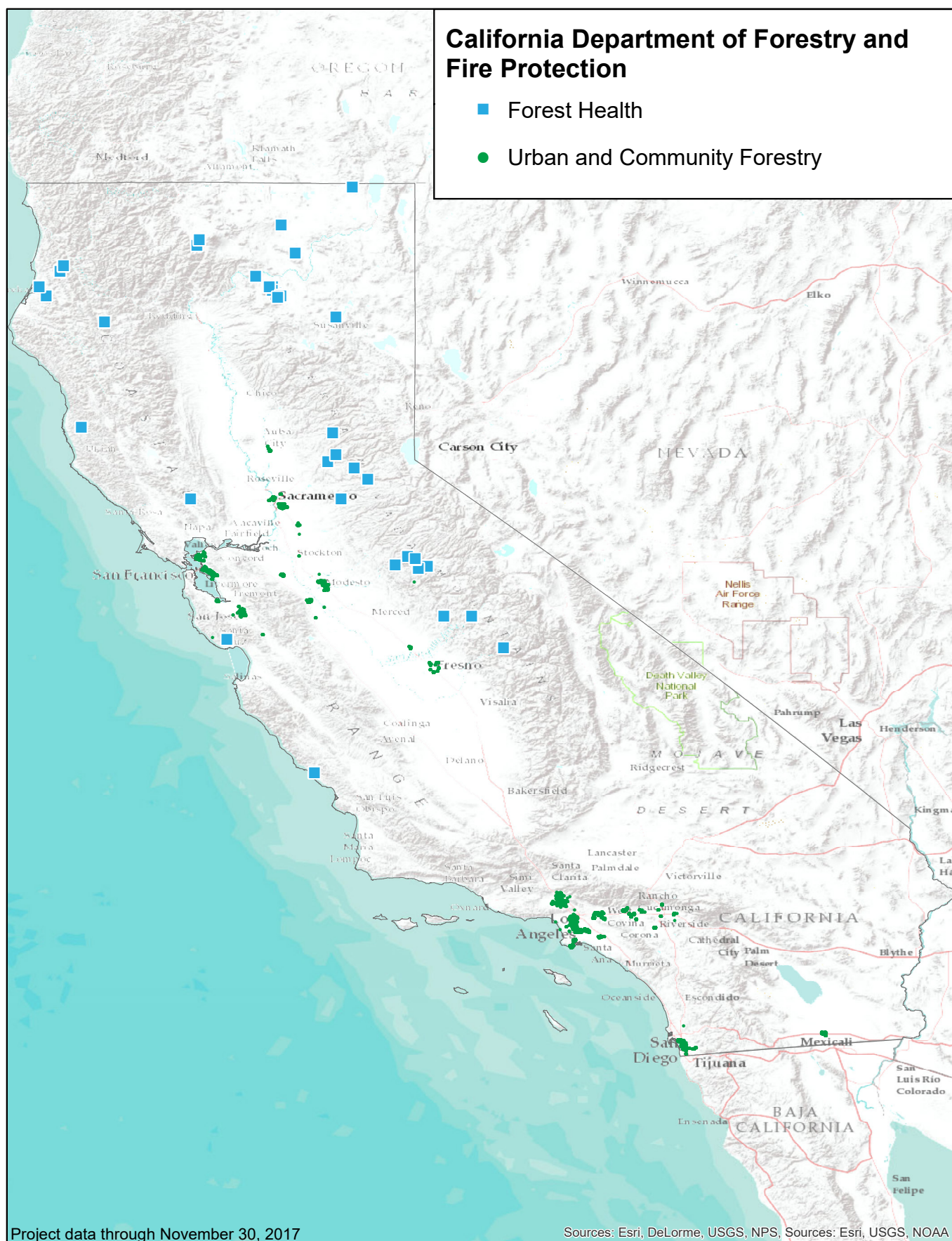
#### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California

<sup>46</sup> Projects that include tree planting are not considered implemented for reporting purposes until planting activities have been completed.





## Urban and Community Forestry Program

### Urban Tree Canopy Revival Project

#### SAN JOAQUIN COUNTY

The San Joaquin County Urban Tree Canopy Revival (SJCUTCRC) project sets Stockton on a trajectory to restore the city's once proud urban forest by planting over 1200 new trees in Stockton's disadvantaged communities and maintaining them for the life of the grant to ensure their success.

This project, led by Promotores Unidas para Educacion Nacional de Tecnologias Sostenibles (PUENTES) and funded with Cap-and-Trade dollars, involves a coalition of diverse community interests with a shared mission of reversing decades of canopy loss.

In March 2002, a Sunset Magazine article designated Stockton as the "Best Tree City in the West." Unfortunately, years of neglect took a devastating toll on the city's once formidable urban forest canopy. Today, many of the same trees that garnered such acclaim for Stockton have fallen victim to disease and removal for road expansion. Others suffer stress due to increasing temperatures and persistent drought.

The City of Stockton's precarious financial health constrained tree maintenance and replanting in the city for over a decade, and deterioration of the tree canopy disproportionately occurred in Stockton's most disadvantaged communities. Outside of the obvious loss of the beauty these trees afforded, the diminishing tree canopy worsens the city's already unhealthy air quality. The loss tree shade also intensifies the devastating heat island effect, in which the sunlight absorbed by buildings and pavement increases air temperatures in urban environments. The loss of so many trees also increased stormwater runoff into the San Joaquin Delta, polluting waterways and damaging the ecosystem.

For this project, PUENTES worked with the coalition to establish a common vision to achieve a shared goal of a stronger urban forest. These diverse interests include educational institutions, the State's largest regional recreation facility, local businesses, the industrial and transportation hub at the Port of Stockton, and private real estate development. Together, these entities representing a cross section of Stockton identified several areas of need the SJCUTCRC project will address.

PUENTES' record of success in improving the urban environment in Stockton shows that a broad, multi-organizational approach to reviving Stockton's tree canopy across many communities has the potential to serve as a model statewide and nationally. By using the award from CAL FIRE's Urban and Community Forestry Program to plant and maintain 1200 trees, PUENTES is helping Stockton take a step towards a healthier urban forest, reducing GHG emissions by over 3,000 MTCO<sub>2</sub>e and providing numerous other co-benefits.



## Food Waste Prevention and Rescue Grants

### WASTE DIVERSION PROGRAM

**Agency:** California Department of Resources Recycling and Recovery (CalRecycle)

**Purpose:** Funds projects to prevent food waste from being generated and/or becoming landfill waste, promote distribution of rescued food to people, and require food waste residuals to be composted or digested when available.

**Structure:** Competitive

**Eligible Recipients:** Local governments, nonprofit organizations, for-profit entities, state and federal agencies, public universities and colleges, solid waste facilities, public school districts, and qualifying tribes.

**Reaching Priority Populations:** Outreach to disadvantaged communities and projects benefiting disadvantaged communities receive additional points during application scoring.

#### Program Benefits

The production, transportation, and packaging of food emit large amounts of GHG and air pollutant emissions. By funding the prevention, rescue, and diversion of food that would otherwise be landfilled, this program avoids related emissions from food production and distribution and landfill methane. Food waste residuals from these projects are digested or composted, replacing landfill emissions with processing that produces renewable energy or compost. Disadvantaged community residents benefit from increased food access, jobs, and job training provided by the program. Application of compost to soils decreases synthetic fertilizer use and enhances soil water holding capacity and soil health.

#### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.0M

#### CUMULATIVE

ALLOCATED: \$5.0M

IMPLEMENTED: \$0.0M

#### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

#### GHG BENEFITS

TBD

#### FUNDING DISTRIBUTION

TBD



## Organics and Recycling Manufacturing Loans

### WASTE DIVERSION PROGRAM

**Agency:** California Department of Resources Recycling and Recovery (CalRecycle)

**Purpose:** Provides 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.

**Structure:** First-come, first-served

**Eligible Recipients:** Local governments, nonprofit organizations, for-profit entities.

**Reaching Priority Populations:** Projects benefiting disadvantaged communities receive preferential points during application scoring.

#### Program Benefits

CalRecycle's loan program provides funds for projects that reduce GHG emissions by generating renewable energy in waste digesters, avoiding landfill methane emissions and emissions associated with the production, and distribution of virgin materials and food. Upgrades to materials processing equipment can also decrease GHG and air pollutant emissions. The decreases in air pollutant emissions improve air quality and public health. Projects also provide job and job training benefits to communities. Compost production<sup>47</sup> decreases synthetic fertilizer use, and enhances soil water holding capacity and soil health.

<sup>47</sup> The GHG accounting boundaries for FY 2014-15 included GHG benefits associated with compost application to soils; however, subsequent years do not include compost-related GHG benefits. CARB continues to work with CalRecycle and CDFA to develop an approach to quantify project-level GHG emission reductions associated with the application of compost to soils and may expand the GHG accounting boundary to include compost application in a future solicitation and quantification methodology.

### FUNDING OUTCOMES

2017

IMPLEMENTED: \$0.0M

#### CUMULATIVE

ALLOCATED: \$11.1M

IMPLEMENTED: \$2.6M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

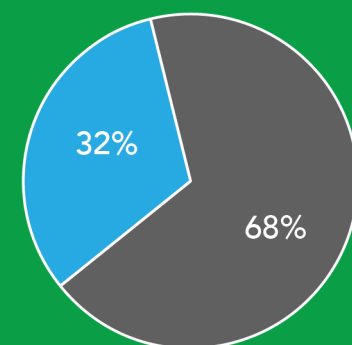
#### GHG BENEFITS

483,900 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

2015-2026

#### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California

## Organics Grants

### WASTE DIVERSION PROGRAM

**Agency:** California Department of Resources Recycling and Recovery (CalRecycle)

**Purpose:** Funds the construction, renovation, or expansion of facilities to preprocess, digest, or compost organics into compost, soil amendments, biofuels, or bioenergy.

**Structure:** Competitive

**Eligible Recipients:** Local governments, nonprofit organizations, for-profit entities, state and federal agencies, public universities and colleges, solid waste facilities, public school districts, and qualifying tribes.

**Reaching Priority Populations:** Outreach to disadvantaged communities and projects benefiting disadvantaged communities (notably those that have a food waste prevention or reduction component) receive additional points during application scoring.

#### Program Benefits

The Organics Grants Program provides funding to expand capacity or establish new facilities that compost or digest organic materials. These facilities divert green materials, food materials, and/or alternative daily cover from landfills, creating a GHG benefit by avoiding landfill methane emissions. Digester systems also use organic waste to generate renewable energy. Compost production<sup>48</sup> creates soil amendments that can be used to decrease the use of synthetic fertilizers and enhance soil water holding capacity and soil health. Equipment upgrades at existing facilities can also decrease GHG and air pollutant emissions from processing. Overall, these projects can benefit communities through improved air and water quality, public health, and by providing jobs and job training.

<sup>48</sup> The GHG accounting boundaries for FY 2014-15 included GHG benefits associated with compost application to soils; however, subsequent years do not include compost-related GHG benefits. CARB continues to work with CalRecycle and CDFA to develop an approach to quantify project-level GHG emission reductions associated with the application of compost to soils and may expand the GHG accounting boundary to include compost application in a future solicitation and quantification methodology.

### FUNDING OUTCOMES

2017

AWARDED: \$8.0M  
IMPLEMENTED: \$16.0M

#### CUMULATIVE

ALLOCATED: \$38.5M  
IMPLEMENTED: \$30.5M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

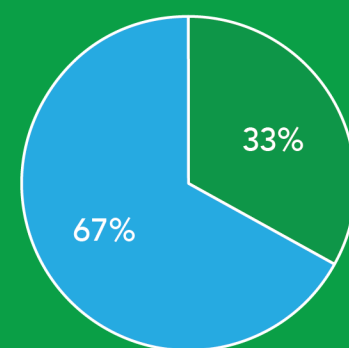
#### GHG BENEFITS

1,774,800 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

2016-2026

#### FUNDING DISTRIBUTION



- in & benefiting disadvantaged communities
- benefiting disadvantaged communities
- other areas in California

## Organics Grants Program

### Anaerobic Digestion Expansion Project

#### RIVERSIDE COUNTY

The second phase of a massive \$100 million organic waste recycling infrastructure project is now online in Riverside County. Southern California waste management and recycling company CR&R just doubled capacity to transform the region's food and green waste into biofuel.

The expansion of CR&R's anaerobic digestion operation in Perris brought more than two years of high-paying construction jobs to the city, as well as 10 permanent jobs ranging from sorters and engineers to chemists and operators.

"This is big time. It's a 21st century facility that is recycling 100 percent of our organic waste, and it's right here in our town," says Perris Mayor Michael Vargas. "It plays into our efforts to be sustainable as a city."

The technology also plays into California's efforts to combat climate change with the potential to dramatically reduce GHG emissions in the State. Organic waste in landfills decomposes and emits methane—a powerful super-pollutant 84 times more potent than carbon dioxide. With the help of \$3 million Cap-and-Trade dollars from CalRecycle's Organics Grants Program, CR&R's anaerobic digestion operation in Perris can now divert about 500 tons of organic waste from area landfills each day.

"This is the second phase of a four-phase project that will ultimately process about 320,000 tons of our region's organic waste each year," says CR&R project engineer Michael Silva. "Each phase adds another 80,000 tons of capacity per year."

Those food scraps, yard trimmings, and other green waste materials are processed in anaerobic digesters where the material is broken down into carbon-neutral renewable energy. CR&R uses the low-carbon biofuel in place of high-carbon diesel in its vehicle fleet. Soon, the company's renewable biofuel will begin to flow from its Perris facility through the pipelines of the SoCalGas system, the nation's largest natural gas distribution utility.

CR&R has also started selling a soil amendment and liquid fertilizer—valuable by-products of the anaerobic digestion process, to agricultural markets across the State.

"The grants we received have been critical to allow the development to occur as quickly as it has," Silva says. "Grants also allow us to reduce our rates to the 15 cities that contract with us to recycle their organic waste."

CR&R is building the project in four phases, to ensure the fully built facility can ultimately handle organic waste from more than 3 million people and over 25,000 businesses it serves throughout Orange, Los Angeles, San Bernardino, Imperial, and Riverside counties. CR&R says it's already looking toward launching phase three—adding more capacity and more jobs, and further reducing GHG emissions.

"Right now, this is the premier project in the whole country and maybe even the world," Silva says of their digester operation, noting that he's welcomed contingents from such countries as China, Vietnam, South Korea, the Philippines, Spain, and France.





## Recycled Fiber, Plastic, and Glass Grants<sup>49</sup>

### WASTE DIVERSION PROGRAM

**Agency:** California Department of Resources Recycling and Recovery (CalRecycle)

**Purpose:** Funds construction, renovation, or expansion of facilities to process or manufacture value-added products from California-derived, newly diverted fiber, plastic, or glass waste.

**Structure:** Competitive

**Eligible Recipients:** Local governments, nonprofit organizations, for-profit entities, state and federal agencies, public universities and colleges, solid waste facilities, public school districts, and qualifying tribes.

**Reaching Priority Populations:** Outreach to disadvantaged communities and projects benefiting disadvantaged communities receive additional points during application scoring.

#### Program Benefits

The Recycled Fiber, Plastic, and Glass Grants Program provides funding to expand existing capacity or establish new facilities that process or create manufactured products from post-consumer recycled fiber (such as paper or textiles), plastic, or glass. Benefits from these projects include avoiding GHG and air pollutant emissions during the production and distribution of virgin materials. Upgrades to materials processing equipment can also decrease GHG and air pollutant (NO<sub>x</sub>, PM, and ROG) emissions. The decreases in air pollution emissions provide improved air quality and public health to communities. Projects also provide job and job training benefits to communities.

### FUNDING OUTCOMES

2017

SELECTED: \$9.0M

IMPLEMENTED: \$0.0M

#### CUMULATIVE

ALLOCATED: \$14.0M

IMPLEMENTED: \$5.0M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

#### GHG BENEFITS

322,700 MTCO<sub>2</sub>E

#### GHG TIMEFRAME

2016-2026

#### FUNDING DISTRIBUTION<sup>50</sup>

<sup>49</sup> Previously the Recycling Manufacturing Grants Program.

<sup>50</sup> All projects are located in disadvantaged communities; future reports will reflect disadvantaged community benefits.

## Recycled Fiber, Plastic, and Glass Grants Program

### Recycled Plastic Manufacturing Upgrade Project

#### LOS ANGELES COUNTY

Move over Farm-to-Fork! There is a new sustainability movement emerging in California that is reducing waste, cutting GHG emissions, and providing access to new green jobs in communities across the State. You can see it on display at Command Packaging's manufacturing facility south of downtown Los Angeles in Vernon. Think of it as "Ag-to-Bag."

This sustainable recycling model is transforming millions of tons of agricultural plastic into top-of-the-line reusable bags each year. Now, with the help of \$3 million from California Climate Investments, Command Packaging (recently acquired by Delta Plastics) is taking closed loop to the next level.

"Our goal is to recycle up to 100 million pounds of the plastic each year and keep growing in that way," explains Cherish Changala, Command Packaging's Vice President of Marketing and Sustainability. "In the past, farmers had to pay landfills to bury this material, but we're able to recycle it and turn it into reusable bags."



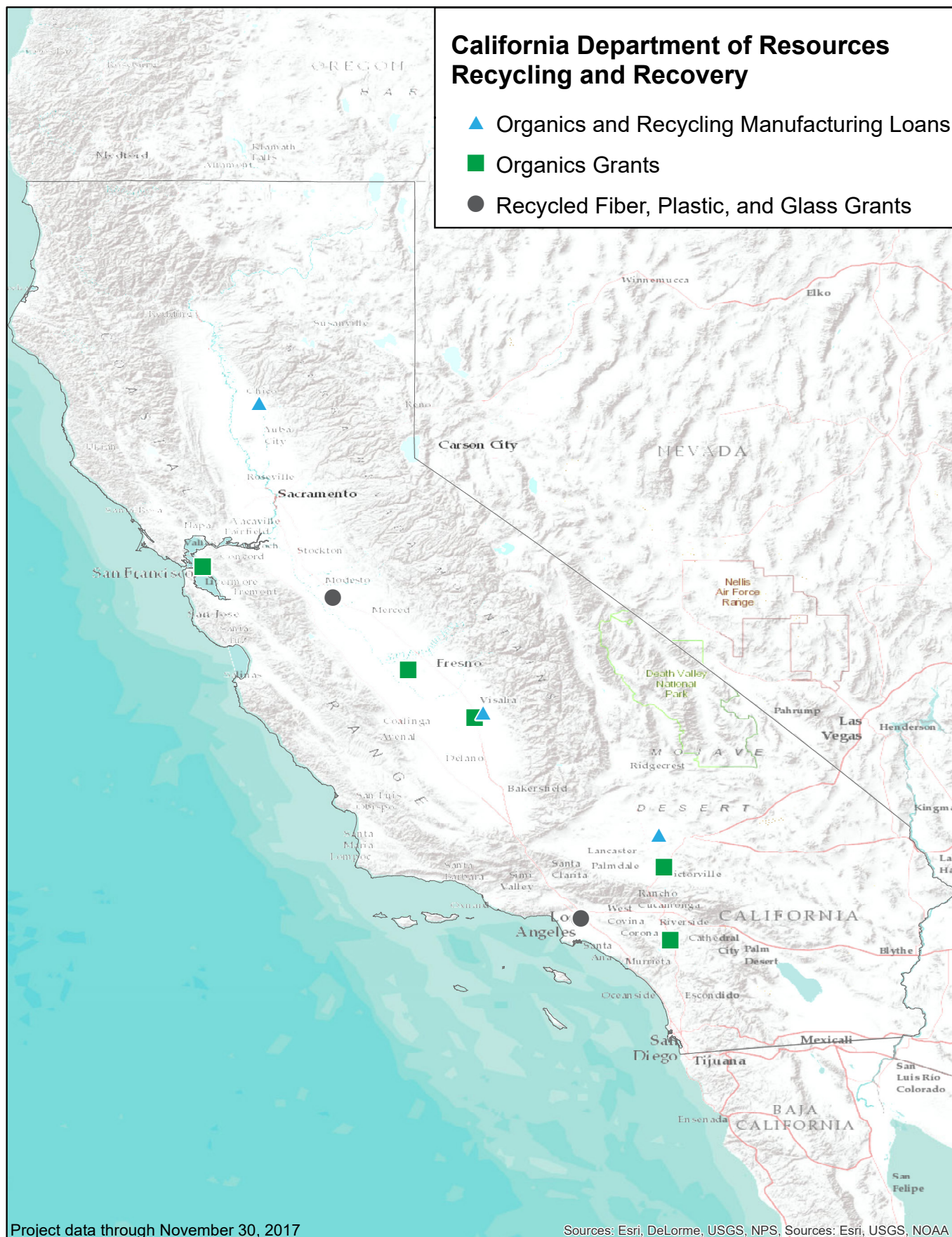
Agricultural plastic is what you see on fields throughout the Central Valley and other major farming communities. Farmers use it to cover grapes and almonds, keep pests away from strawberries, and irrigate tomatoes, among other uses. As the plastic is removed at the end of its useful life, Command Packaging's sister company, Encore Recycling, collects, cleans, and converts the material into pellets at its plant in Salinas. The pellets are then taken to Command Packaging's Vernon plant, where they are made into bags.

"We've seen a big increase in production of our reusable bags since California's single-use plastic bag ban took effect," Changala notes. "The demand has steadily increased, and our workforce has expanded as a result."

The steady supply of agricultural plastic from California farms means Command Packaging's future growth potential is virtually unlimited. The company is using its \$3 million grant from CalRecycle's Recycled Fiber, Plastic, and Glass Grants Program to upgrade its bag-making equipment, allowing the company to increase the recycled content of its reusable bags significantly. Recycling materials like fiber, plastic, and glass avoids using energy and producing GHG emissions associated with mining and refining raw materials.

"The good thing about what we're doing is taking something that was going to landfills and ensuring that does not happen," Changala says. "It's not just talk. We're doing it and we're really trying to make a difference."







## Urban Greening Program

**Agency:** California Natural Resources Agency (CNRA)

**Purpose:** Supports establishment, enhancement, and expansion of community spaces and parks, tree planting, green infrastructure in streets and alleys, and the construction of active transportation infrastructure

**Structure:** Competitive

**Eligible Recipients:** Local governments, special districts, nonprofit organizations, and joint powers authorities

**Reaching Priority Populations:** Higher application scores for projects benefiting disadvantaged communities

### Program Benefits

Urban Greening projects provide GHG benefits by sequestering carbon in planted trees, providing shade that decreases building energy use, and increasing the use of active transportation. Infrastructure improvements for active transportation facilitate better and safer access to jobs, shopping, schools, and other essential services. Biking and walking decrease GHG emissions by reducing vehicle miles traveled. Urban Greening projects provide improved air quality from avoided vehicle air pollutant emissions and air pollutant removal by trees. Trees and green infrastructure (such as bioswales) help capture storm water and mitigate flooding. Residents of disadvantaged communities benefit from decreased transportation and energy costs, flood mitigation, and better public health as a result of greater access to active transportation and green spaces, improved air quality, and decreased heat stress.

### FUNDING OUTCOMES

2017

SELECTED: \$76.0M  
IMPLEMENTED: \$0.0M

### CUMULATIVE

ALLOCATED: \$106.0M  
IMPLEMENTED: \$0.0M

### OUTCOMES OF CUMULATIVE IMPLEMENTED FUNDS

### GHG BENEFITS

TBD

### FUNDING DISTRIBUTION

TBD



# APPENDIX A

## 2017 Statistics on Competitive Project Proposals Received

Agency	Program Category	Type of Award Recipient	Response to Solicitation				Program Percent Oversubscribed
			Proposals Received		Proposals Selected		
			Number	Amount Requested	Number	Amount Selected	
California Air Resources Board	Clean Mobility Options for Disadvantaged Communities	Awarded to an Intermediary	1	\$1,000,000	1	\$1,000,000	100%
	Clean Truck and Bus Vouchers (Hybrid and Zero-emission Truck and Bus Voucher Incentive Project)	Awarded to an Intermediary	3	\$108,000,000	1	\$36,000,000	300%
	Zero-Emission Truck and Bus Pilot Projects	Awarded to an Intermediary	38	\$290,024,181	8	\$69,406,100	418%
California Department of Transportation	Active Transportation Program	Awarded Directly to Recipient	27	\$30,931,000	3	\$10,000,000	309%
	Low Carbon Transit Operations Program	Awarded Directly to Recipient	129	\$34,606,048	125	\$34,539,105	100%
Strategic Growth Council	Sustainable Agricultural Lands Conservation Program	Awarded Directly to Recipient	29	\$36,722,475	27	\$33,962,403	108%
California Department of Community Services and Development	Single-Family Energy Efficiency and Solar Photovoltaics	Awarded to an Intermediary	15	\$166,359,158	5	\$57,636,074	289%

Agency	Program Category	Type of Award Recipient	Response to Solicitation				Program Percent Oversubscribed
			Proposals Received		Proposals Selected		
			Number	Amount Requested	Number	Amount Selected	
California Department of Food and Agriculture	State Water Efficiency and Enhancement Program <sup>52</sup>	Awarded Directly to Recipient	509	\$49,688,699	216	\$27,645,828	180%
California Department of Water Resources	Water-Energy Grant Program	Awarded to an Intermediary	24	\$22,954,337	14	\$17,721,805	130%
California Department of Food and Agriculture	Dairy Digester Research and Development Program	Awarded Directly to Recipient	36	\$75,753,039	18	\$35,250,000	215%
	Healthy Soils Program <sup>53</sup>	Awarded Directly to Recipient	96	\$6,690,000	86	\$5,130,000	130%
California Department of Forestry and Fire Protection	Forest Health Program	Awarded Directly to Recipient	36	\$115,195,479	6	\$21,049,381	547%
	Urban and Community Forestry Program	Awarded Directly to Recipient	122	\$59,538,793	37	\$19,511,375	305%
California Department of Resources Recycling and Recovery	Food Waste Prevention and Rescue Grants	Awarded Directly to Recipient	31	\$9,566,326	20	\$5,000,000	191%
	Organics Grants	Awarded Directly to Recipient	35	\$88,672,383	10	\$24,000,000	369%
	Recycled Fiber, Plastic, and Glass Grants (Recycling Manufacturing Grants)	Awarded Directly to Recipient	16	\$37,452,419	3	\$9,000,000	416%
California Natural Resources Agency	Urban Greening Program	Awarded Directly to Recipient	143	\$268,084,240	39	\$76,000,000	353%
TOTAL			1,290	\$1,401,238,577	619	\$482,952,071	290%

<sup>51</sup> Values combine funding from three unique solicitation rounds: 2016 SWEEP Round 2, 2017 SWEEP, and 2017 SWEEP-DWR-Joint.

<sup>52</sup> CDFA's grant solicitation and project selection occurred within reporting year 2017. CDFA announced selected funding recipients on December 5, 2017 to coincide with World Soil Day.

# APPENDIX B

California Climate Investments 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	Low Carbon Transportation Program	Advanced Technology Freight Demonstration Projects	\$47.3	\$73.9	\$26.6	0.56
		Clean Mobility Options for Disadvantaged Communities	\$4.0	\$10.8	\$6.8	1.71
		Clean Truck and Bus Vouchers (Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project)	\$31.0	\$71.0	\$40.0	1.29
		Clean Vehicle Rebate Project	\$340.8	\$2,822.7	\$2,481.9	7.28
		Enhanced Fleet Modernization Program Plus-Up	\$10.9	\$10.9	\$0.0	0.00
		Financing Assistance for Lower-Income Consumers	\$0.2	\$0.2	\$0.05	0.25
		Zero-Emission Truck and Bus Pilot Projects	\$82.8	\$143.9	\$61.1	0.74
California Department of Transportation	Active Transportation Program		\$10.0	\$16.3	\$6.3	0.63
California High-Speed Rail Authority	Low Carbon Transit Operations Program		\$114.8	\$980.5	\$865.7	7.54
	High-Speed Rail Project		\$546.5	\$64,000.0	TBD	TBD
California State Transportation Agency	Transit and Intercity Rail Capital Program		\$298.3	\$3,771.7	\$3,473.4	11.64
Strategic Growth Council	Affordable Housing and Sustainable Communities Program		\$148.4	\$1,056.3	\$907.9	6.12
	Sustainable Agricultural Lands Conservation Program		\$7.7	\$40.8	\$33.1	4.30

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 Community Services and Development	Low-Income Weatherization Program	Multi-Family Energy Efficiency and Renewables	\$15.4	\$25.1	\$9.7	0.63
		Single-Family Energy Efficiency and Solar Photovoltaics	\$10.7	\$26.4	\$15.7	1.46
		Single-Family Solar Photovoltaics	\$38.4	\$53.1	\$14.7	0.38
California Department of Food and Agriculture	Alternative and Renewable Fuels Program		\$3.0	\$3.0	\$0.0	0.00
	State Water Efficiency and Enhancement Program		\$59.8	\$98.4	\$38.6	0.65
California Department of Water Resources	State Water Project Turbines Program		\$20.0	\$35.7	\$15.7	0.78
	Water-Energy Grant Program		\$19.2	\$20.8	\$1.6	0.08
California Department of Fish and Wildlife	Wetlands and Watershed Restoration Program		\$21.3	\$36.4	\$15.1	0.71
California Department of Food and Agriculture	Dairy Digester Research and Development Program		\$46.6	\$163.3	\$116.7	2.50
California Department of Forestry and Fire Protection	Sustainable Forests	Forest Health Program	\$29.7	\$51.3	\$21.6	0.73
		Urban and Community Forestry Program	\$15.6	\$30.0	\$14.4	0.93
California Department of Resources Recycling and Recovery	Waste Diversion Program	Organics and Recycling Manufacturing Loans	\$2.6	\$14.0	\$11.4	4.43
		Organics Grants	\$30.5	\$89.5	\$59.0	1.93
		Recycled Fiber, Plastic, and Glass Grants (Recycling Manufacturing Grants)	\$5.0	\$19.0	\$14.0	2.80
TOTALS			\$1,414.0 <sup>54</sup>	\$9,665.2	\$8,251.2	5.84

53 Total implemented funds excludes the \$546M in funds implemented by the High-Speed Rail Project.



# APPENDIX C

## Summary of Legislative Guidance for California Climate Investments

### 2012

#### **SB 535 (De León, Chapter 830, Statutes of 2012)**

- Requires CalEPA to identify disadvantaged communities for investment opportunities.
- Requires CARB to provide guidance on maximizing benefits to the identified disadvantaged communities.
- Requires that a minimum of 25 percent of the total investments provide benefit to disadvantaged communities; of that, a minimum of 10 percent are required to be located within disadvantaged communities.

#### **SB 1018 (Budget and Fiscal Review Committee, Chapter 39, Statutes of 2012)**

- Establishes the GGRF as the account to receive Cap-and-Trade auction proceeds.
- Requires State agencies that receive appropriations from the GGRF to prepare an Expenditure Record to describe how the appropriated funds will reduce GHG emissions and further the purposes of AB 32.

#### **AB 1532 (Pérez, Chapter 807, Statutes of 2012)**

- Requires that Cap-and-Trade auction proceeds be used to facilitate the achievement of GHG emission reductions:
  - Maximize economic, environmental, and public health benefits to the State;
  - Foster job creation by promoting in-State GHG emissions reduction projects carried out by California workers and businesses;
  - Complement efforts to improve air quality;
  - Direct investment toward the most disadvantaged communities and households in the State;
  - Provide opportunities for businesses, public agencies, nonprofits, and other community institutions to participate in and benefit from statewide efforts to reduce GHG emissions; and
  - Lessen the impacts and effects of climate change on the State's communities, economy, and environment.
- Requires the Department of Finance, in consultation with CARB and agencies administering programs funded with Cap-and-Trade auction proceeds, to submit a 3-year Investment Plan to identify opportunities for GHG emission reductions, and identify potential State investment priorities to help achieve GHG emission reduction goals, benefit disadvantaged communities and low-income communities, and provide co-benefits.
- Requires the Department of Finance to submit an Annual Report to the Legislature each March on the status and outcomes of projects funded from the GGRF.

#### **AB 1464 (Blumenfeld, Chapter 21, Statutes of 2012)**

- Authorizes a loan from the GGRF to the General Fund, without an appropriation.

<b>2013</b>	<p><b>AB 110 (Committee on Budget, Chapter 20, Statutes of 2013)</b></p> <ul style="list-style-type: none"> <li>Appropriated funds for program administration and a loan to the general fund as authorized by AB 1464 (Blumenfeld, Chapter 21, Statutes of 2012)</li> </ul>
<b>2014</b>	<p><b>SB 103 (Committee on Budget and Fiscal Review, Chapter 2, Statutes of 2014)</b></p> <ul style="list-style-type: none"> <li>Amends the Budget Act of 2013 to appropriate approximately \$40 million for investments in water and energy efficiency.</li> </ul> <p><b>SB 852 (Leno, Chapter 25, Statutes of 2014)</b></p> <ul style="list-style-type: none"> <li>Appropriates over \$800 million from the GGRF to multiple agencies for investments in a variety of programs and project types.</li> </ul> <p><b>SB 862 (Senate Budget and Fiscal Review Committee, Chapter 36, Statutes of 2014)</b></p> <ul style="list-style-type: none"> <li>Requires CARB to develop guidance on investments for disadvantaged communities, Expenditure Record preparation, reporting, tracking and quantification approaches, and other guidance to be used by all agencies that receive appropriations from the GGRF.</li> <li>Establishes continuous appropriations totaling 60 percent of GGRF monies beginning in FY 2015-16 to the following agencies and programs:             <ul style="list-style-type: none"> <li>25 percent to the High-Speed Rail Project administered by CHSRA;</li> <li>20 percent to the AHSC Program administered by OPR, SGC, and its member agencies;</li> <li>10 percent to TIRCP administered by CalSTA; and</li> <li>5 percent to LCTOP administered by Caltrans.</li> </ul> </li> </ul> <p><b>SB 1204 (Lara, Chapter 524, Statutes of 2014)</b></p> <ul style="list-style-type: none"> <li>Establishes the California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program to be administered by CARB and funded with the GGRF.</li> </ul>
<b>2015</b>	<p><b>AB 91 (Committee on Budget, Chapter 1, Statutes of 2015)</b></p> <ul style="list-style-type: none"> <li>Amends the Budget Act of 2014 to appropriate funds for investments in clean energy, energy efficiency, and waste diversion.</li> </ul> <p><b>AB 93 (Weber, Chapter 10, Statutes of 2015)</b></p> <ul style="list-style-type: none"> <li>Appropriates over \$200 million from the GGRF for low carbon transportation, energy efficiency, and waste diversion projects, not inclusive of the continuously appropriated funds.</li> </ul> <p><b>AB 97 (Committee on Budget and Fiscal Review, Chapter 11, Statutes of 2015)</b></p> <ul style="list-style-type: none"> <li>Amends AB 93 to repeal some expenditures for agencies that administer continuously appropriated funds.</li> </ul> <p><b>SB 101 (Committee on Budget and Fiscal Review, Chapter 321, Statutes of 2015)</b></p> <ul style="list-style-type: none"> <li>Appropriates over \$200 million from the GGRF for low carbon transportation and energy efficiency programs, not inclusive of the continuously appropriated funds.</li> </ul>

## 2016

### **AB 1550 (Gomez, Chapter 369, Statutes of 2016)**

- Amends the existing SB 535 disadvantaged community investment minimums to require new investment minimums for low-income communities and low-income households:
- A minimum of 25 percent of the proceeds be invested in projects that are located within and benefiting individuals living in disadvantaged communities;
- An additional minimum of 5 percent be invested in projects that are located within and benefiting individuals living in low-income communities or benefiting low-income households statewide; and
- An additional minimum of 5 percent that are located within and benefiting individuals living in low-income communities, or benefiting low-income households, that are within a 1/2 mile of a disadvantaged community.

### **AB 1613 (Committee on Budget, Chapter 370, Statutes of 2016)**

- Amends the Budget Act of 2016 to appropriate over \$1 billion from the GGRF to administering agencies to invest in programs and projects.

### **AB 2722 (Burke, Chapter 371, Statutes of 2016)**

- Establishes the TCC Program, administered by SGC to fund the implementation of neighborhood-level transformative climate projects that provide local economic, environmental, and health benefits to disadvantaged communities.

### **SB 859 (Committee on Budget and Fiscal Review, Chapter 368, Statutes of 2016)**

- Provides administrative direction for existing programs and new programs funded with appropriations in AB 1613.

### **SB 1464 (De León, Chapter 679, Statutes of 2016)**

- Requires that the Investment Plan:
- Assess how proposed investments interact with current State regulation, policies, and programs;
- Evaluate how proposed investments could be incorporated into existing programs; and
- Recommend metrics that would measure progress and benefits from the proposed investments.

**AB 97 (Ting, Chapter 14, Statutes of 2017)**

- Appropriates funds for program administration.

**AB 134 (Committee on Budget, Chapter 254, Statutes of 2017)**

- Appropriates \$900 million from the GGRF for investments in low carbon transportation, agricultural equipment, and air quality improvements in California's most polluted communities.

**AB 109 (Ting, Chapter 249, Statutes of 2017)**

- Appropriates over \$600 million from the GGRF to multiple agencies for investments in a variety of programs and project types.

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

- Reauthorizes the State's Cap-and-Trade Program from January 1, 2021, through December 31, 2030.
- Identifies legislative priorities for allocating auction revenue proceeds, to include but not be limited to:
  - Air toxic and criteria air pollutants from stationary and mobile sources;
  - Low- and zero-carbon transportation alternatives;
  - Sustainable agricultural practices that promote transition to clean technology, water efficiency, and improved air quality;
  - Healthy forests and urban greening;
  - Short-lived climate pollutants;
  - Climate adaptation and resiliency; and
  - Climate and clean energy research.

**SB 563 (Lara, Chapter 671, Statutes of 2017)**

- Codifies the Woodsmoke Reduction Program to be administered by CARB, in coordination with air districts, to promote the voluntary replacement of old wood-burning stoves with cleaner and more efficient alternatives. Authorizes funds from the GGRF to be allocated for incentives offered as part of the program.

**AB 617 (C. Garcia, Chapter 136, Statutes of 2017)**

- Requires CARB to develop a statewide strategy to reduce criteria pollutants and toxic air contaminants in communities with high pollution exposure burdens through approved community emissions reduction programs developed by local air districts, in partnership with residents in the affected communities. AB 134 appropriated \$255 million from the GGRF to CARB to support early action in the deployment of cleaner technologies in these communities.
- Requires CARB to establish a uniform system of annual reporting of criteria pollutants and toxic air contaminants for the existing statewide air monitoring network and expedites implementation of best available retrofit control technology in non-attainment areas.



# APPENDIX D

## 2017 Public Meetings on California Climate Investments

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California Air Resources Board	Low Carbon Transportation Program	Outreach at Cap-and-Trade Funding Workshop: Bringing Resources to Los Angeles, Culver City, and South LA	12/13/2016	Los Angeles	50	No
	Low Carbon Transportation Program	Outreach at OneStop Diesel Truck Event	12/14/2016	Sacramento	150	No
	Low Carbon Transportation Program	Outreach at OneStop Diesel Truck Event	1/18/2017	Red Bluff	150	No
	Low Carbon Transportation Program	Work Group Meeting: Off-Road Advanced Technology Demonstration Project	1/18/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: HVIP Implementation	1/30/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Workshop: FY 2017-18 Funding Plan	2/10/2017	Sacramento	75	Yes
	Low Carbon Transportation Program	Work Group Meeting: Light-Duty Equity Projects	2/14/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: CVRP	2/14/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: Heavy-Duty Three Year Plan	2/15/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: HVIP and Low NO <sub>x</sub> Engine Incentives	2/16/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: Heavy-Duty Vehicle Investments	2/23/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: EFMP Plus-up	2/24/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: CVRP	2/28/2017	Sacramento	25	Yes

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California Air Resources Board (cont.)	Low Carbon Transportation Program	Work Group Meeting: Heavy-Duty Vehicle Investments	3/1/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Outreach at EJAC Scoping Plan Local Community Meeting	3/1/2017	Sacramento	25	No
	Low Carbon Transportation Program	Work Group Meeting: Light-Duty Equity Projects (Agricultural Worker Vanpools, Financing Assistance, and Clean Mobility Options for Disadvantaged Communities)	3/2/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: CVRP Implementation	3/2/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: HVIP and Low NO <sub>x</sub> Engine Incentives	3/6/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Outreach at San Bernardino County Transportation Authority Multi-Source Freight Facility Demonstration Project Press Event	3/10/2017	San Bernardino	25	No
	Low Carbon Transportation Program	Work Group Meeting: In-State Low Carbon Fuels Incentive Project	3/14/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Outreach at EJAC Scoping Plan Local Community Meeting	3/15/2017	Los Angeles	25	No
	Low Carbon Transportation Program	Outreach at EJAC Scoping Plan Local Community Meeting	3/16/2017	Bay Area	25	No
	Low Carbon Transportation Program	Work Group Meeting: Heavy-Duty Three Year Plan	3/16/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: Light-Duty Equity Projects (Potential New Projects and Volkswagen 3.0 Liter Settlement)	3/17/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Outreach to California State University Sustainability Officers	3/22/2017	Sacramento	35	No
	Low Carbon Transportation Program	Outreach at EJAC Scoping Plan Local Community Meeting	3/27/2017	Modesto	30	No
	Low Carbon Transportation Program	Outreach at Environmental Justice Advisory Committee Meeting	3/29/2017	Los Angeles	20	No
	Low Carbon Transportation Program	Outreach at Environmental Justice Advisory Committee Meeting	3/30/2017	Los Angeles	20	No
	Low Carbon Transportation Program	Outreach at Goodwill Zero-Emission Delivery Van Project Press Event	4/7/2017	Bay Area	20	No
	Low Carbon Transportation Program	Outreach at Sunline Transit Agency Award Ceremony	4/21/2017	Thousand Palms	20	No
	Low Carbon Transportation Program	Outreach at Green California Summit	4/26/2017	Sacramento	50	No

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California Air Resources Board (cont.)	Low Carbon Transportation Program	Outreach at Strategic Growth Council Technical Assistance for Affordable Housing and Sustainable Communities Program	5/3/2017	Fresno	35	No
	Low Carbon Transportation Program	Outreach at State Climate Investment Workshop (Housing/Transportation)	5/5/2017	Gilroy	35	No
	Low Carbon Transportation Program	Outreach at Demonstration Site Launch for City of LA Car Share Pilot Project Press Event	5/9/2017	Los Angeles	30	No
	Low Carbon Transportation Program	Outreach at Sacramento Metropolitan Car Share Community Forum	5/11/2017	Sacramento	30	No
	Low Carbon Transportation Program	Outreach at City of LA Car Share Community Forum	5/11/2017	Los Angeles	30	No
	Low Carbon Transportation Program	Outreach at 8th Annual Statewide Energy Efficiency Forum	5/14/2017	Fresno	200	No
	Low Carbon Transportation Program	Outreach at 8th Annual Statewide Energy Efficiency Forum	5/15/2017	Fresno	200	No
	Low Carbon Transportation Program	Outreach at Sacramento Zero-Emission School Bus Pilot Project Event	5/12/2017	Sacramento	30	No
	Low Carbon Transportation Program	Work Group Meeting: Heavy-Duty Three Year Plan	5/18/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Work Group Meeting: CVRP Implementation	5/19/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Outreach at OneStop Diesel Truck Event	5/23/2017	Madera	150	No
	Low Carbon Transportation Program	Outreach at City of Porterville Grant Award Ceremony/Site Launch	6/2/2017	Porterville	30	No
	Low Carbon Transportation Program	Work Group Meeting: Light-Duty Equity Projects (Green Mobility in Schools)	6/15/2017	Sacramento	30	Yes
	Low Carbon Transportation Program	Outreach at Leveraging Climate Investments in the Valley	7/18/2017	Merced	30	No
	Low Carbon Transportation Program	Outreach at Kern Environmental Enforcement Task Force Meeting	8/1/2017	Bakersfield	10	No
	Low Carbon Transportation Program	Outreach at California Climate Investments Guidelines Community Meeting	8/22/2017	Fresno	10	No
	Low Carbon Transportation Program	Outreach at California Climate Investments Guidelines Community Meeting	8/23/2017	Los Angeles	10	No
	Low Carbon Transportation Program	Outreach at California Climate Investments Guidelines Community Meeting	8/28/2017	Oakland	10	No
	Low Carbon Transportation Program	Outreach at OneStop Diesel Truck Event	8/30/2017	Santa Rosa	100	No
	Low Carbon Transportation Program	Outreach at California Climate Investments Guidelines Community Meeting	8/31/2017	Sacramento	10	No

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California Air Resources Board (cont.)	Low Carbon Transportation Program	Workshop: FY 2017-18 Funding Plan	10/4/2017	Sacramento	75	Yes
	Low Carbon Transportation Program	Outreach at Oakland Yard Party in Partnership with WOEP	10/24/2017	Oakland	20	No
	Low Carbon Transportation Program	Workgroup Meeting: Freight Facilities Project	10/30/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Outreach at OneStop Diesel Truck Event	11/1/2017	Moreno Valley	150	No
	Low Carbon Transportation Program	Outreach at California Climate Change Programs Housing and Transportation Meeting	11/14/2017	Elk Grove	30	No
	Low Carbon Transportation Program	Workgroup Meeting: Clean Mobility Options for Disadvantaged Communities	11/29/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Outreach at OneStop Diesel Truck Events	11/30/2017	Simi Valley	150	No
	Low Carbon Transportation Program	Outreach at South Coast Air Quality Management District Annual EJ Conference	12/1/2017	Los Angeles	300	No
	Low Carbon Transportation Program	Workgroup Meeting: Zero-Emission Off-Road Freight Voucher Incentive Project	12/5/2017	Sacramento	25	Yes
	Low Carbon Transportation Program	Outreach at Cap-and-Trade Funding Workshop	12/15/2017	Del Paso Heights	30	No
	Low Carbon Transportation Program	Outreach at OneStop Diesel Truck Events	12/21/2017	Fortuna, Eureka	150	No
	Active Transportation Program	San Gabriel Valley Council of Governments Meeting of the Transportation Committee	5/19/2017	Monrovia	NA	No
	Low Carbon Transit Operations Program	FY16-17 Allocation Request Workshop	2/7/2017	San Francisco	14	No
	Low Carbon Transit Operations Program	FY16-17 Allocation Request Workshop	2/8/2017	San Luis Obispo	8	No
California Department of Transportation	Low Carbon Transit Operations Program	FY16-17 Allocation Request Workshop	2/9/2017	Fresno	20	No
	Low Carbon Transit Operations Program	FY16-17 Allocation Request Workshop	2/14/2017	Redding	6	No
	Low Carbon Transit Operations Program	FY16-17 Allocation Request Workshop	2/16/2017	Sacramento	20	Yes
	Low Carbon Transit Operations Program	FY16-17 Allocation Request Workshop	2/16/2017	San Bernardino	12	No
	Low Carbon Transit Operations Program	FY16-17 Allocation Request Workshop	2/16/2017	Santa Monica	15	No
	Low Carbon Transit Operations Program	FY17-18 Draft Guidelines Workshop	11/14/2017	Fresno	7	No
	Low Carbon Transit Operations Program	FY17-18 Draft Guidelines Workshop	11/16/2017	San Bernardino	6	No
	Low Carbon Transit Operations Program					



Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California High Speed Rail Authority	High-Speed Rail Project	Stakeholder Working Group	1/10/2017	Edison	NA	No
	High-Speed Rail Project	Stakeholder Working Group	1/10/2017	Tehachapi	NA	No
	High-Speed Rail Project	Stakeholder Working Group	1/11/2017	Palmdale	NA	No
	High-Speed Rail Project	Stakeholder Working Group	1/12/2017	Lancaster	NA	No
	High-Speed Rail Project	Stakeholder Working Group	1/12/2017	Rosamond	NA	No
	High-Speed Rail Project	North Fresno Rotary Club	1/12/2017	Fresno	NA	No
	High-Speed Rail Project	Technical Working Group	1/19/2017	Shafter	NA	No
	High-Speed Rail Project	Technical Working Group	1/19/2017	Bakersfield	NA	No
	High-Speed Rail Project	Community Working Group	1/23/2017	San Jose	40	No
	High-Speed Rail Project	Technical Working Group	1/23/2017	San Jose	17	No
	High-Speed Rail Project	Community Working Group	1/26/2017	Morgan Hill	55	No
	High-Speed Rail Project	Technical Working Group	1/26/2017	Gilroy	22	No
	High-Speed Rail Project	Open House Community Meeting	1/28/2017	Rosamond	NA	No
	High-Speed Rail Project	Dailey Elementary School	1/30/2017	Fresno	NA	No
	High-Speed Rail Project	Community Working Group	1/30/2017	San Mateo	24	No
	High-Speed Rail Project	Community Working Group	1/31/2017	Santa Clara	27	No
	High-Speed Rail Project	Open House Community Meeting	1/31/2017	Lancaster	NA	No
	High-Speed Rail Project	Open House Community Meeting	2/1/2017	Tehachapi	NA	No
	High-Speed Rail Project	Community Working Group	2/2/2017	San Francisco	24	No
	High-Speed Rail Project	Open House Community Meeting	2/2/2017	Edison	NA	Yes
	High-Speed Rail Project	Open House Community Meeting	2/7/2017	Palmdale	NA	No
	High-Speed Rail Project	Construction Package 2-3 Open House	2/8/2017	Corcoran	70	No
	High-Speed Rail Project	Pre-Bid for Right-of-Way Contracts	2/10/2017	San Jose	NA	No
	High-Speed Rail Project	Business Advisory Council Meeting	2/15/2017	West Sacramento	35	No
	High-Speed Rail Project	City/County Staff Coordinating Group	2/15/2017	San Mateo	18	No
	High-Speed Rail Project	California Black Chamber Policy Conference	2/16/2017	Sacramento	NA	No
	High-Speed Rail Project	Friendly Acres-Centennial Neighborhood Association	2/16/2017	Redwood City	NA	No
	High-Speed Rail Project	Meet the Primes	2/22/2017	Los Angeles	NA	No
	High-Speed Rail Project	Local Policy Makers Group	2/23/2017	San Mateo	15	No

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California High Speed Rail Authority (cont.)	High-Speed Rail Project	San Francisco Chamber of Commerce	2/23/2017	San Francisco	NA	No
	High-Speed Rail Project	Small Business Certification Workshop	2/28/2017	Bakersfield	NA	No
	High-Speed Rail Project	Yokuts Tribal Meeting	2/28/2017	Fresno	NA	No
	High-Speed Rail Project	Fernandeno Tataviam Tribal Meeting	3/1/2017	San Fernando	NA	No
	High-Speed Rail Project	Gabrieleno Tribal Meeting	3/1/2017	Covina	NA	No
	High-Speed Rail Project	Visalia Rotary Club	3/1/2017	Visalia	NA	No
	High-Speed Rail Project	San Manuel Band of Mission Indians Tribal Meeting	3/2/2017	Highland	NA	No
	High-Speed Rail Project	Department of General Services Small Business Council	3/8/2017	West Sacramento	NA	No
	High-Speed Rail Project	Small Business Certification Workshop	3/10/2017	San Jose	33	No
	High-Speed Rail Project	San Joaquin Valley Landowner Meeting	3/14/2017	Los Banos	NA	No
	High-Speed Rail Project	Meet the Primes	3/15/2017	Oakland	NA	No
	High-Speed Rail Project	Sunnyside High School	3/20/2017	Fresno	NA	No
	High-Speed Rail Project	Caltrans State Route 99 Public Meeting	3/21/2017	Fresno	NA	No
	High-Speed Rail Project	Democratic Club of the High Desert	3/22/2017	Palmdale	NA	No
	High-Speed Rail Project	Fresno High School Career Day	3/23/2017	Fresno	NA	No
	High-Speed Rail Project	Grade Separation Informational Meeting	3/25/2017	Glendale	30	No
	High-Speed Rail Project	California Student Opportunity and Access Program College/Career Fair	3/28/2017	Firebaugh	NA	No
	High-Speed Rail Project	Grade Separation Informational Meeting	3/29/2017	Glendale	58	No
	High-Speed Rail Project	Open House Community Meeting	3/30/2017	Los Angeles	13	No
	High-Speed Rail Project	McLane High School College and Career Fair	3/30/2017	Fresno	NA	No
	High-Speed Rail Project	Clovis School District Latino Students Success Conference	3/31/2017	Fresno	NA	No
	High-Speed Rail Project	Open House Community Meeting	4/4/2017	Santa Fe Springs	27	No
	High-Speed Rail Project	Small Business Partnership Program	4/4/2017	Los Angeles	NA	No
	High-Speed Rail Project	Construction Package 1 Open House	4/5/2017	Fresno	60	No
	High-Speed Rail Project	Open House Community Meeting	4/5/2017	Buena Park	29	No
	High-Speed Rail Project	Open House Community Meeting	4/5/2017	San Francisco	57	No
	High-Speed Rail Project	Duncan Polytechnical High School College and Career Fair	4/6/2017	Fresno	NA	No
	High-Speed Rail Project	Open House Community Meeting	4/6/2017	Anaheim	69	No

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California High Speed Rail Authority (cont.)	High-Speed Rail Project	Madera County Job Fair	4/6/2017	Madera	NA	No
	High-Speed Rail Project	Open House Community Meeting	4/11/2017	Mountain View	60	No
	High-Speed Rail Project	Construction Package 4 Open House	4/13/2017	Wasco	22	No
	High-Speed Rail Project	Open House Community Meeting	4/13/2017	San Mateo	NA	No
	High-Speed Rail Project	Open House Community Meeting	4/18/2017	Gilroy	80	No
	High-Speed Rail Project	Business Advisory Council Meeting	4/19/2017	West Sacramento	37	No
	High-Speed Rail Project	Open House Community Meeting	4/20/2017	San Jose	NA	No
	High-Speed Rail Project	Santa Clara County Board of Supervisors	4/20/2017	San Jose	NA	No
	High-Speed Rail Project	Public Contracting Small Business Outreach Conference	4/21/2017	Bakersfield	NA	No
	High-Speed Rail Project	Open House Community Meeting	4/25/2017	Los Banos	73	No
	High-Speed Rail Project	Small Business Certification Workshop	4/25/2017	Sacramento	30	No
	High-Speed Rail Project	Visalia Rotary Club	4/26/2017	Visalia	NA	No
	High-Speed Rail Project	Local Policy Makers Group	4/27/2017	San Carlos	NA	No
	High-Speed Rail Project	Open House Community Meeting	5/1/2017	Morgan Hill	154	No
	High-Speed Rail Project	Railway and Locomotive Historical Society	5/2/2017	San Marino	NA	No
	High-Speed Rail Project	California Public Utilities Commission/Joint Utilities Small Business Expo	5/3/2017	Los Angeles	NA	No
	High-Speed Rail Project	Valley Transportation Authority and San Clara County Procurement Fair	5/11/2017	San Jose	NA	No
	High-Speed Rail Project	Community Working Group	5/31/2017	San Jose	NA	No
	High-Speed Rail Project	Small Business Day Conference	6/5/2017	Sacramento	NA	No
	High-Speed Rail Project	African American Chamber of Commerce	6/9/2017	Palmdale	NA	No
	High-Speed Rail Project	Grade Separation Informational Meeting	6/13/2017	Los Angeles	148	No
	High-Speed Rail Project	Business Advisory Council Meeting	6/21/2017	West Sacramento	36	No
	High-Speed Rail Project	City/County Staff Coordination Group	6/21/2017	San Mateo	NA	No
	High-Speed Rail Project	San Carlos City Council	6/26/2017	San Carlos	NA	No
	High-Speed Rail Project	Local Policy Makers Group	6/29/2017	San Carlos	NA	No
	High-Speed Rail Project	Belmont City Council Presentation	7/11/2017	Belmont	NA	No
	High-Speed Rail Project	Community Working Group	7/12/2017	San Jose	30	No

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California High Speed Rail Authority (cont.)	High-Speed Rail Project	Early Train Operator Pre-Bid	7/12/2017	West Sacramento	70	No
	High-Speed Rail Project	City of Gilroy Community and Neighborhood Revitalization Committee Meeting	7/19/2017	Gilroy	NA	No
	High-Speed Rail Project	Long Beach Rotary Club	7/19/2017	Long Beach	NA	No
	High-Speed Rail Project	CalCon	7/20/2017	Anaheim	NA	No
	High-Speed Rail Project	San Martin Neighborhood Association Board of Directors Meeting	7/20/2017	San Martin	NA	No
	High-Speed Rail Project	North Fair Oaks Community Council Presentation	7/27/2017	Fair Oaks	NA	No
	High-Speed Rail Project	Community Working Group	8/2/2017	San Jose	NA	No
	High-Speed Rail Project	San Mateo Elks Club	8/3/2017	San Mateo	NA	No
	High-Speed Rail Project	Sons In Retirement	8/3/2017	Rancho Cordova	NA	No
	High-Speed Rail Project	Selma Rotary Club	8/8/2017	Selma	NA	No
	High-Speed Rail Project	City/County Staff Coordination Group	8/16/2017	San Mateo	26	No
	High-Speed Rail Project	Business Advisory Council Meeting	8/17/2017	West Sacramento	35	No
	High-Speed Rail Project	Local Policy Makers Group	8/24/2017	San Carlos	NA	No
	High-Speed Rail Project	Kern County Black Chamber of Commerce	8/24/2017	Bakersfield	NA	No
	High-Speed Rail Project	Community Working Group	8/30/2017	San Jose	NA	No
	High-Speed Rail Project	Madera-Merced Farm Bureau Working Group	9/7/2017	Madera	NA	No
	High-Speed Rail Project	Newport Irvine Rotary Club	9/7/2017	Irvine	NA	No
	High-Speed Rail Project	Silicon Valley Chamber of Commerce	9/11/2017	Santa Clara	NA	No
	High-Speed Rail Project	Small Business and Procurement Expo	9/12/2017	Stockton	NA	No
	High-Speed Rail Project	Greater Gardner Presentation	9/18/2017	San Jose	NA	No
	High-Speed Rail Project	Alameda County Career Expo	9/19/2017	San Leandro	NA	No
	High-Speed Rail Project	Business Outreach Committee Disadvantaged Business Enterprises Certification Workshop	9/20/2017	San Francisco	NA	No
	High-Speed Rail Project	50th Annual Native American Day	9/22/2017	Sacramento	NA	No
	High-Speed Rail Project	Caltrans Calmentor	9/22/2017	Sacramento	NA	No
	High-Speed Rail Project	Community Working Group	9/27/2017	San Jose	NA	No
	High-Speed Rail Project	Station Cities Meeting	9/28/2017	San Jose	NA	No
	High-Speed Rail Project	Tehachapi Rotary Club	9/28/2017	Tehachapi	NA	No



Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California High Speed Rail Authority (cont.)	High-Speed Rail Project	Training and Employment Association of Tulare County	10/12/2017	Visalia	NA	No
	High-Speed Rail Project	Career Technical Expo	10/18/2017	Fresno	NA	No
	High-Speed Rail Project	City/County Staff Coordination Group	10/18/2017	San Carlos	NA	No
	High-Speed Rail Project	California Public Utilities Commission/Small Diverse Business Expo	10/19/2017	Redding	NA	No
	High-Speed Rail Project	Rotary Club of San Carlos	10/20/2017	San Carlos	NA	No
	High-Speed Rail Project	Black Political Association of California	10/21/2017	Sacramento	NA	No
	High-Speed Rail Project	Redwood City Council Meeting	10/23/2017	Redwood City	NA	No
	High-Speed Rail Project	City of San Carlos Presentation	10/24/2017	San Carlos	NA	No
	High-Speed Rail Project	Urban Land Institute Annual Meeting	10/25/2017	Los Angeles	NA	No
	High-Speed Rail Project	Community Working Group	10/26/2017	San Jose	NA	No
	High-Speed Rail Project	Business Advisory Council/Construction Tour	11/8/2017	Fresno	NA	No
	High-Speed Rail Project	Valley Transportation Authority Procurement and Supplier Diversity Outreach Event	11/9/2017	San Jose	NA	No
	High-Speed Rail Project	Milpitas Chamber of Commerce	11/14/2017	Milpitas	NA	No
	High-Speed Rail Project	LA Co-Motion Panel	11/17/2017	Los Angeles	NA	No
	High-Speed Rail Project	Local Policy Makers Group	11/30/2017	San Carlos	NA	No
	High-Speed Rail Project	Kings Canyon Middle School	11/30/2017	Fresno	NA	No
	High-Speed Rail Project	Fresno City Council Workforce Development Workshop	12/14/2017	Fresno	NA	No
	High-Speed Rail Project	Meet the Primes	12/14/2017	Modesto	NA	No
	High-Speed Rail Project	Veteran Business Outreach Center and Department of General Services Small Business Summit	12/15/2017	West Sacramento	NA	No
	High-Speed Rail Project	Public Hearing Fresno to Bakersfield Environmental Impact Report/Statement	12/19/2017	Bakersfield	NA	No
California State Transportation Agency	Transit and Intercity Rail Capital Program	Kick-off Workshop for Guideline Development	6/26/2017	Los Angeles	39	No
	Transit and Intercity Rail Capital Program	Kick-off Workshop for Guideline Development	6/27/2017	Sacramento	101	Yes
	Transit and Intercity Rail Capital Program	Workshop for Discussion Draft Guidelines	8/18/2017	Los Angeles	23	No
	Transit and Intercity Rail Capital Program	Workshop for Discussion Draft Guidelines	8/21/2017	Sacramento	72	Yes
	Transit and Intercity Rail Capital Program	Workshop for Formal Draft Guidelines	9/29/2017	Los Angeles	17	No
	Transit and Intercity Rail Capital Program	Workshop for Formal Draft Guidelines	10/2/2017	Sacramento	101	Yes

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
Strategic Growth Council	Affordable Housing and Sustainable Communities Program	Affordable Housing and Sustainable Communities in San Bernardino County Workshop	12/7/2016	Fontana	45	No
	Affordable Housing and Sustainable Communities Program	Lessons Learned Listening Session from Round 2 of Affordable Housing and Sustainable Communities	12/8/2016	Merced	25	No
	Affordable Housing and Sustainable Communities Program	Affordable Housing and Sustainable Communities in Imperial County Workshop	12/8/2016	Imperial	20	No
	Affordable Housing and Sustainable Communities Program	Affordable Housing and Sustainable Communities in Orange County Workshop	12/9/2016	Anaheim	20	No
	Affordable Housing and Sustainable Communities Program	Lessons Learned Listening Session from Round 2 of Affordable Housing and Sustainable Communities	12/12/2016	Oakland	40	No
	Affordable Housing and Sustainable Communities Program	California Climate Investments in LA County Workshop (Host: Senator Holly Mitchell)	12/13/2016	Los Angeles	20	No
	Affordable Housing and Sustainable Communities Program	Lessons Learned Listening Session from Round 2 of Affordable Housing and Sustainable Communities	12/15/2016	Long Beach	50	No
	Affordable Housing and Sustainable Communities Program	The Road to Affordable Housing and Sustainable Communities (Housing Leadership Council of San Mateo County)	1/26/2017	San Mateo	30	No
	Affordable Housing and Sustainable Communities Program	Health and Prosperity Roundtable: San Joaquin County (Institute for Local Government and American Lung Association)	2/21/2017	Stockton	25	No
	Affordable Housing and Sustainable Communities Program	Health and Prosperity Roundtable: Merced County (Institute for Local Government and American Lung Association)	2/22/2017	Merced	30	No
	Affordable Housing and Sustainable Communities Program	LA County and Enterprise Community Partners Workshop	3/2/2017	Los Angeles	25	No
	Affordable Housing and Sustainable Communities Program	California Climate Investments in the San Joaquin Valley Panel (San Joaquin Valley Policy Council)	3/9/2017	Fresno	20	No
	Affordable Housing and Sustainable Communities Program	Panel at Housing California Conference	3/10/2017	Sacramento	40	No
	Affordable Housing and Sustainable Communities Program	Financial Tools to Develop and Preserve Affordable Housing in Transit Rich Neighborhoods (Enterprise Community Partners and Federal Reserve Bank of San Francisco)	3/15/2017	Los Angeles	60	No
	Affordable Housing and Sustainable Communities Program	Roundtable and Tour	3/20/2017	Redding	20	No
	Affordable Housing and Sustainable Communities Program	California Climate Investments Presentation at Meeting of CSU Statewide Sustainability Managers	3/22/2017	Sacramento	25	No

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
Strategic Growth Council (cont.)	Affordable Housing and Sustainable Communities Program	Draft Guidelines Feedback Workshop	4/7/2017	Sacramento	40	Yes
	Affordable Housing and Sustainable Communities Program	Draft Guidelines Feedback Workshop	4/8/2017	San Jose	25	No
	Affordable Housing and Sustainable Communities Program	Draft Guidelines Feedback Workshop	4/10/2017	Los Angeles	40	Yes
	Affordable Housing and Sustainable Communities Program	Affordable Housing and Sustainable Communities at Yuba/Sutter Economic Development Corporation	4/19/2017	Yuba City	10	No
	Affordable Housing and Sustainable Communities Program	Opportunities for Small Transit Agencies at California Association for Coordinated Transportation Conference	4/27/2017	Olympic Valley	50	No
	Affordable Housing and Sustainable Communities Program	San Joaquin Valley Housing Collaborative Workshop	5/3/2017	Fresno	30	No
	Affordable Housing and Sustainable Communities Program	State Funding Opportunities for Gilroy Workshop	6/5/2017	Gilroy	30	No
	Affordable Housing and Sustainable Communities Program	Affordable Housing and Sustainable Communities in the East Bay (Association for Bay Area Governments and Enterprise Community Partners)	6/6/2017	Oakland	40	No
	Affordable Housing and Sustainable Communities Program	SGC Programs in Southwest LA County (Host: Assemblymember Autumn Burke)	6/8/2017	Gardena	40	No
	Affordable Housing and Sustainable Communities Program	Affordable Housing and Sustainable Communities in Eureka and Arcata Roundtable	6/12/2017	Arcata	10	No
	Affordable Housing and Sustainable Communities Program	California Climate Investments Panel at Statewide Energy Efficiency Collaborative Conference	6/14/2017	Fresno	60	No
	Affordable Housing and Sustainable Communities Program	San Diego Housing Federation Roundtable	6/20/2017	San Diego	25	No
	Affordable Housing and Sustainable Communities Program	Climate Investments in the San Joaquin Valley Workshop (Greenlining Institute and Enterprise Community Partners)	7/18/2017	Merced	20	No
	Affordable Housing and Sustainable Communities Program	Providing Technical Assistance on Affordable Housing and Sustainable Communities Workshop	8/9/2017	Sacramento	25	Yes
	Affordable Housing and Sustainable Communities Program	Roundtable and Tour	8/18/2017	Delano	10	No
	Affordable Housing and Sustainable Communities Program	Best Practices Panel (San Joaquin Valley Housing Collaborative)	9/7/2017	Fresno	50	No
	Affordable Housing and Sustainable Communities Program	San Diego Association of Governments Workshop	9/20/2017	San Diego	35	No

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
Strategic Growth Council (cont.)	Affordable Housing and Sustainable Communities Program	Best Practices Panel (Southern California Association of Nonprofit Housing)	9/22/2017	Los Angeles	25	No
	Affordable Housing and Sustainable Communities Program	Funding Opportunities from SGC Panel (California Chapter of the American Planning Association)	9/25/2017	Sacramento	40	No
	Affordable Housing and Sustainable Communities Program	Community Partnerships for Active Transportation and Urban Greening (Enterprise Community Partners and LA County Bike Coalition)	9/28/2017	Los Angeles	20	No
	Affordable Housing and Sustainable Communities Program	Opportunities from AHSC Presentation (California Department of Public Health Office of Health Equity Advisory Committee)	9/28/2017	Marin City	60	No
	Affordable Housing and Sustainable Communities Program	Application Workshop: Round 3 of AHSC	10/2/2017	Sacramento	40	No
	Affordable Housing and Sustainable Communities Program	Application Workshop: Round 3 of AHSC	10/4/2017	Fresno	35	No
	Affordable Housing and Sustainable Communities Program	Application Workshop: Round 3 of AHSC	10/5/2017	San Francisco	65	No
	Affordable Housing and Sustainable Communities Program	Application Workshop: Round 3 of AHSC	10/10/2017	Los Angeles	90	No
	Affordable Housing and Sustainable Communities Program	Application Workshop: Round 3 of AHSC	10/11/2017	Riverside	20	No
	Affordable Housing and Sustainable Communities Program	Application Workshop: Round 3 of AHSC	10/12/2017	San Diego	25	No
	Affordable Housing and Sustainable Communities Program	Rural Communities Presentation (Sacramento Chapter of the American Planning Association)	10/20/2017	West Sacramento	30	No
	Affordable Housing and Sustainable Communities Program	Opportunities for Public Health Departments in Climate Investments (CA Health Officers Chronic Disease Prevention Leadership Team)	10/25/2017	Sacramento	10	Yes
	Affordable Housing and Sustainable Communities Program	Tribal Housing Roundtable at Rural Housing Summit (California Coalition for Rural Housing and the Nevada California Indian Housing Association)	11/8/2017	Pacific Grove	40	No
	Affordable Housing and Sustainable Communities Program	Presentation at Rural Housing Summit (California Coalition for Rural Housing)	11/9/2017	Pacific Grove	30	No
	Affordable Housing and Sustainable Communities Program	California Climate Investments in Sacramento County (Host: Assemblymember Jim Cooper)	11/14/2017	Elk Grove	20	No
	Sustainable Agricultural Lands Conservation Program	Round 3 SALCP Guidelines Public Hearing	3/2/2017	Sacramento	17	Yes



Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
Strategic Growth Council (cont.)	Sustainable Agricultural Lands Conservation Program	American Farmland Trust-Local Government Commission Meeting	5/17/2017	Sacramento	8	No
	Sustainable Agricultural Lands Conservation Program	Metropolitan Planning Organization State Agency 375 Implementation Working Group	5/30/2017	Sacramento	15	No
	Sustainable Agricultural Lands Conservation Program	Preparing Your 2016-17 SALCP Application	6/5/2017	Gilroy	14	No
	Sustainable Agricultural Lands Conservation Program	Preparing Your 2016-17 SALCP Application	6/15/2017	Sacramento	44	Yes
	Sustainable Agricultural Lands Conservation Program	Preparing Your 2016-17 SALCP Application	6/22/2017	Sacramento	13	Yes
	Sustainable Agricultural Lands Conservation Program	American Planning Association-CA Conference: Governor's Office of Planning and Research Funding Opportunities Workshop	9/26/2017	Sacramento	35	No
	Transformative Climate Communities Program	TCC Summit	2/10/2017	Sacramento	250	No
	Transformative Climate Communities Program	Draft Scoping Guidelines Workshop	2/15/2017	Fresno	92	No
	Transformative Climate Communities Program	Draft Scoping Guidelines Workshop	2/22/2017	Los Angeles	63	No
	Transformative Climate Communities Program	Draft Scoping Guidelines Workshop	2/23/2017	San Bernardino	27	No
	Transformative Climate Communities Program	CEC Public Workshop Panel: Incorporating Community Focused Equity in Funding	3/20/2017	Fresno	10	No
	Transformative Climate Communities Program	CEC Public Workshop Panel: Incorporating Community Focused Equity in Funding	3/27/2017	Los Angeles	25	No
	Transformative Climate Communities Program	Physicians for Social Responsibility	4/26/2017	Los Angeles	10	Yes
	Transformative Climate Communities Program	Fresno Town Hall	4/27/2017	Fresno	200	No
	Transformative Climate Communities Program	Tour of Proposed Project Area in Pacoima	5/5/2017	Los Angeles	8	No
	Transformative Climate Communities Program	Inland Valley Tour of Potential Sites	6/9/2017	Multiple sites	40	No
	Transformative Climate Communities Program	CA Smart Growth Funders Webinar	6/15/2017	Sacramento	20	Yes

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
Strategic Growth Council (cont.)	Transformative Climate Communities Program	Guidelines Workshop Webinar	6/19/2017	Sacramento	61	Yes
	Transformative Climate Communities Program	Guidelines Workshop	6/20/2017	Los Angeles	41	No
	Transformative Climate Communities Program	Guidelines Workshop	6/22/2017	Fresno	64	No
	Transformative Climate Communities Program	Fresno Steering Committee Meeting	7/20/2017	Fresno	200	No
	Transformative Climate Communities Program	Proposed South LA Project Area Tour	8/14/2017	Los Angeles	40	No
	Transformative Climate Communities Program	One-on-one Consultations with Potential Applicants	8/15/2017	Fresno	25	No
	Transformative Climate Communities Program	Fresno Collaborative Project	8/15/2017	Fresno	200	No
	Transformative Climate Communities Program	Fresno Collaborative Project	8/16/2017	Fresno	200	No
	Transformative Climate Communities Program	One-on-one Consultations with Potential Applicants	8/17/2017	Fresno	8	No
	Transformative Climate Communities Program	Century Latino Organization & Jordan Downs Redevelopment	8/30/2017	Los Angeles	40	No
	Transformative Climate Communities Program	Workforce Development Stakeholder Meeting	9/7/2017	Fresno	35	No
	Transformative Climate Communities Program	Funding Opportunities from SGC Panel (CA Chapter of the American Planning Association)	9/25/2017	Sacramento	40	No
	Transformative Climate Communities Program	Implementation Grant Concept Proposal Webinar	9/28/2017	Sacramento	59	Yes
	Transformative Climate Communities Program	San Joaquin Valley Funders Presentation and Tour	10/3/2017	Fresno	10	No
	Transformative Climate Communities Program	Planning Grant Webinar	10/16/2017	Sacramento	28	Yes
	Transformative Climate Communities Program	Implementation Grant Full Application Process Webinar	10/31/2017	Sacramento	12	Yes

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California Department of Community Services and Development	Low-Income Weatherization Program	Community Solar Stakeholder Meeting	1/18/2017	Sacramento	93	Yes
	Low-Income Weatherization Program	CARB Community Meeting: Investment of Cap-and-Trade Auction Proceeds to Benefit Disadvantaged Communities/Low Income Communities	2/2/2017	Los Angeles	25	No
	Low-Income Weatherization Program	CARB Community Meeting: Investment of Cap-and-Trade Auction Proceeds to Benefit Disadvantaged Communities/Low Income Communities	2/6/2017	Oakland	25	No
	Low-Income Weatherization Program	CEC Workshop: Incorporating Community Focused Equity in Research Funding	3/20/2017	Fresno	15	Yes
	Low-Income Weatherization Program	CEC Workshop: Incorporating Community Focused Equity in Research Funding	3/27/2017	Los Angeles	30	Yes
	Low-Income Weatherization Program	8th Annual Statewide Energy Efficiency Forum: CA Climate Investments	6/14/2017	Fresno	30	No
	Low-Income Weatherization Program	CARB Community Meeting: Funding Guidelines for Agencies Administering California Climate Investments	8/23/2017	Los Angeles	15	No
	Low-Income Weatherization Program	CARB Community Meeting: Funding Guidelines for Agencies Administering California Climate Investments	8/28/2017	Oakland	20	No
	Low-Income Weatherization Program	CARB Community Meeting: Funding Guidelines for Agencies Administering California Climate Investments	8/31/2017	Sacramento	40	Yes
	Low-Income Weatherization Program	The Environmental Indicators Project and CalEPA's Annual West Oakland Yard Party	10/24/2017	Oakland	50	No
	Low-Income Weatherization Program	Community Solar Pilot Workshop	11/1/2017	Sacramento	34	No
	Low-Income Weatherization Program	Community Solar Pilot Workshop	11/6/2017	Los Angeles	37	No
	Low-Income Weatherization Program	Community Solar Pilot Workshop	11/8/2017	Fresno	29	No
	Climate Smart Agriculture	Application Workshop	1/9/2017	Sacramento	25	No
	Climate Smart Agriculture	Science Advisory Panel Meeting	1/19/2017	Sacramento	19	No
	Climate Smart Agriculture	CDFA-DWR Joint Program Application workshop	1/23/2017	Sacramento	28	No
California Department of Food and Agriculture	Climate Smart Agriculture	DDRDP Public Meeting Webinar	2/6/2017	Sacramento	42	Yes
	Climate Smart Agriculture	SWEEP 2017 Application Workshop	2/7/2017	Fresno	21	Yes
	Climate Smart Agriculture	SWEEP 2017 Application Workshop	2/8/2017	San Diego	6	Yes
	Climate Smart Agriculture	SWEEP 2017 Application Workshop	2/9/2017	Red Bluff	5	Yes
	Climate Smart Agriculture	SWEEP 2017 Application Workshop Webinar	2/10/2017	Sacramento	51	No
	Climate Smart Agriculture	Roundtable on Renewable Natural Gas	2/27/2017	Sacramento	45	No
	Climate Smart Agriculture	Coalition for Agricultural Greenhouse Gases	3/8/2017	Sacramento	52	No
	Climate Smart Agriculture	Science Advisory Panel Meeting	3/16/2017	Sacramento	23	No

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California Department of Food and Agriculture	Climate Smart Agriculture	AMMP Public Workshop	4/17/2017	Sacramento	25	No
	Climate Smart Agriculture	AMMP Public Workshop	4/21/2017	Santa Rosa	33	No
	Climate Smart Agriculture	AMMP Public Workshop	4/24/2017	Tulare	11	No
	Climate Smart Agriculture	AMMP Public Workshop	4/28/2017	Sacramento	45	Yes
	Climate Smart Agriculture	DDRD Application Workshop	5/12/2017	Sacramento	15	No
	Climate Smart Agriculture	DDRD Application Workshop	5/15/2017	Tulare	20	No
	Climate Smart Agriculture	DDRD Application Workshop Webinar	5/16/2017	Sacramento	22	Yes
	Climate Smart Agriculture	Science Advisory Panel Meeting	5/18/2017	Sacramento	17	No
	Climate Smart Agriculture	Science Advisory Panel Meeting	7/20/2017	Berkeley	11	No
	Climate Smart Agriculture	AMMP Public Workshop	7/25/2017	Sacramento	35	Yes
	Climate Smart Agriculture	Healthy Soils Program Application Assistance Workshop	8/15/2017	Sacramento	9	No
	Climate Smart Agriculture	Healthy Soils Program Application Assistance Workshop	8/15/2017	Sacramento	101	No
	Climate Smart Agriculture	Healthy Soils Program Application Assistance Workshop	8/16/2017	Orland	12	No
	Climate Smart Agriculture	Healthy Soils Program Application Assistance Workshop	8/24/2017	Fresno	17	No
	Climate Smart Agriculture	Healthy Soils Program Application Assistance Workshop	8/25/2017	Ventura	16	No
	Climate Smart Agriculture	AMMP Application Workshop	9/7/2017	Eureka	12	No
	Climate Smart Agriculture	AMMP Application Workshop	9/8/2017	Santa Rosa	12	No
	Climate Smart Agriculture	AMMP Application Workshop	9/14/2017	Modesto	44	Yes
	Climate Smart Agriculture	AMMP Application Workshop	9/15/2017	Tulare	19	No
California Department of Water Resources	Climate Smart Agriculture	Air & Waste Management Association	10/12/2017	Bakersfield	65	No
	Climate Smart Agriculture	US Biogas Conference	10/25/2017	San Diego	85	No
	Climate Smart Agriculture	Science Advisory Panel Meeting	10/26/2017	Salinas	6	No
	Climate Smart Agriculture	American Biogas Council Webinar	12/19/2017	Sacramento	43	Yes
	Water-Energy Grant Program	Draft Funding and Monitoring Recommendations	2/8/2017	Sacramento	10	Yes
	Water-Energy Grant Program	Presentation to the Water-Energy Team of the Climate Action Team	9/27/2017	Sacramento	20	Yes



Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California Department of Forestry and Fire Protection	Forest Health Program	Quantification Webinar	6/15/2017	Online	21	Yes
	Forest Health Program	Forest Health and Fire Prevention Public Comment Workshop	12/5/2016	Sacramento	20	No
	Forest Health Program	Forest Health and Fire Prevention Public Comment Workshop	12/8/2016	Redding	20	No
	Forest Health Program	Forest Health and Fire Prevention Public Comment Workshop	12/15/2016	Fresno	20	No
	Forest Health Program	Forest Health and Fire Prevention Public Comment Webinar	12/20/2016	Online	100	Yes
	Waste Diversion Program	Central California Environmental Justice Network/Identifying Violations Affecting Neighborhoods	12/1/2016	Fresno	15	No
	Waste Diversion Program	UC Zero Waste Workgroup	2/27/2017	Oakland	45	No
California Department of Resources Recycling and Recovery	Waste Diversion Program	CalEPA Tribal Advisory Committee	3/7/2017	Sacramento	15	No
	Waste Diversion Program	Monthly Public Meeting: Eligibility, Scoring Criteria, and Evaluation Process for the Food Waste Prevention and Rescue Grants Program	3/21/2017	Sacramento	50	Yes
	Waste Diversion Program	California Resource Recycling Association Webinar on GGRF Grant Programs	3/28/2017	Sacramento	100	Yes
	Waste Diversion Program	California Association of Food Banks Conference	5/1/2017	Oakland	75	No
	Waste Diversion Program	Public Health Alliance Workshop	7/17/2017	Sacramento	25	No
	Waste Diversion Program	Bayview Hunters Point Environmental Justice Response Task Force/Identifying Violations Affecting Neighborhoods	7/19/2017	San Francisco	25	No
	Waste Diversion Program	Central California Environmental Justice Network/Kern Environmental Reporting Network/Identifying Violations Affecting Neighborhoods	8/1/2017	Bakersfield	15	No
	Waste Diversion Program	Monthly Public Meeting: Awards for the Organics Grants Program	8/15/2017	Sacramento	50	Yes
	Waste Diversion Program	CalEPA Tribal Advisory Committee meeting	8/30/2017	Sacramento	12	No
	Waste Diversion Program	Los Angeles Environmental Justice Network	10/1/2017	Los Angeles	20	No
	Waste Diversion Program	Environmental Justice Community Event	10/19/2017	San Francisco	40	No
	Waste Diversion Program	US Biogas Conference	10/26/2017	San Diego	100	No
	Waste Diversion Program	US EPA Region 9 Tribal Conference	10/31/2017	Alpine	100	No
	Waste Diversion Program	US EPA Region 9 Tribal Conference	11/2/2017	Alpine	50	No
	Waste Diversion Program	Awards for the Greenhouse Gas Reduction Recycled Fiber, Plastic, and Glass Grants Program	11/21/2017	Sacramento	50	Yes
	Waste Diversion Program	Zone Works Workshop	12/5/2017	Sacramento	80	No

Agency	Program Name	Subject	Date	City	Attendees	Remote Participation
California Department of Resources Recycling and Recovery (cont.)	Waste Diversion Program	CalRecycle GGRF FY17/18 Workshop	12/19/2017	Sacramento	120	Yes
	Urban Greening Program	30th Senate District Presentation (Host: Senator Holly Mitchell)	12/13/2016	Los Angeles	20	No
California Natural Resources Agency	Urban Greening Program	Technical Assistance	3/13/2017	Sacramento	35	Yes
	Urban Greening Program	Technical Assistance	3/14/2017	Fresno	35	No
	Urban Greening Program	Technical Assistance	3/16/2017	Coachella	14	No
	Urban Greening Program	Technical Assistance	3/17/2017	Riverside	40	No
	Urban Greening Program	Technical Assistance	3/20/2017	Tracy	8	No
	Urban Greening Program	Technical Assistance	3/24/2017	San Diego	45	No
	Urban Greening Program	Technical Assistance	3/27/2017	Oakland	71	No
	Urban Greening Program	Technical Assistance	3/28/2017	Lynwood	126	No
	Urban Greening Program	Technical Assistance	4/4/2017	Oakland	50	No
	Urban Greening Program	9th Assembly District Presentation (Host: Assemblymember Jim Cooper)	11/14/2017	Elk Grove	20	No
	California Climate Investments	Eastside Sol (Host: Senator Kevin De León)	8/19/2017	Los Angeles	150	No
	California Climate Investments	Career & Trade Fair	9/23/2017	Pico Rivera	200	No
	California Climate Investments	Climate Equity Coalition Convening (Greenlining Institute)	10/13/2017	Oakland	100	No
	California Climate Investments	Sacramento Housing Alliance Conference	10/30/2017	Sacramento	200	No
	California Climate Investments	Environmental Health Leadership Summit (Comite Civico del Valle)	11/2/2017	Heber	250	No
	California Climate Investments	United for Health and Justice Block Party (California Endowment)	11/18/2017	Oakland	500	No
	California Climate Investments	South Bay Sustainability Fair (National City Chamber of Commerce)	11/18/2017	National City	100	No
	California Climate Investments	Sacramento Hmong New Year Celebration	11/23/2017-11/26/2017	Sacramento	40,000	No
	California Climate Investments	Christmas at the Waterfront	12/2/2017	Suisun City	50	No
	California Climate Investments	Inequity and the Rise of Environmental Justice (National Council of Jewish Women)	12/7/2017	Los Angeles	80	No
Foundation for California Community Colleges	California Climate Investments	Central Valley Ag Funders Forum (Valley Vision)	12/12/2017	Davis	70	No
	California Climate Investments	Cap-and-Trade Funding Workshop (SEED Corporation and City Councilmember Allen Warren)	12/15/2017	Sacramento	20	No
	California Climate Investments	Replace Your Ride	12/17/2017	Diamond Bar	100	No

# APPENDIX E

## Cumulative Budgetary Expenditures

Agency	Program	(\$M)					
		Cumulative Appropriation	State Ops	Local Assistance	Capital Outlay	Cumulative Budgetary Expenditures	Cumulative Program Administration Costs
California Air Resources Board	Community Air Protection Program; Low Carbon Transportation Program; Woodsmoke Reduction Program	\$1,623	\$51.7	\$655.4	\$0.0	\$707.0	\$21.2
California Department of Transportation	Active Transportation Program; Low Carbon Transit Operations Program	\$241	\$0.0	\$133.4	\$0.0	\$133.4	\$0.0
California High-Speed Rail Authority	High-Speed Rail Project	\$1,287 <sup>54</sup>	\$0.0	\$0.0	\$546.5	\$546.5	\$0.0
California State Transportation Agency	Transit and Intercity Rail Capital Program	\$575	\$1.9	\$244.5	\$0.0	\$246.4	\$1.9
Strategic Growth Council *	Affordable Housing and Sustainable Communities Program; California Climate Investments Technical Assistance Program; Transformative Climate Communities Program	\$1,122	\$21.3	\$461.3	\$0.0	\$482.7	\$21.3
California Department of Community Services and Development *	Low-Income Weatherization Program	\$192	\$8.9	\$157.0	\$0.0	\$165.9	\$8.9

<sup>54</sup> SB 862 states that \$400 million shall be available to CHSRA beginning in FY 2015-16, as repayment of a loan from the GGRF to the General Fund. This money shall be repaid as necessary, based on the financial needs of the High-Speed Rail Project. This loan amount is not included in the reported \$1.29 billion cumulative appropriation.

Agency	Program	(\$M)					
		Cumulative Appropriation	State Ops	Local Assistance	Capital Outlay	Cumulative Budgetary Expenditures	Cumulative Program Administration Costs
California Department of Water Resources	State Water Project Turbines Program; Water-Energy Grant Program	\$70	\$1.6	\$45.3	\$20.0	\$66.9	\$1.4
California Energy Commission	Food Protection Investment Program; Renewable Energy for Agriculture Program	\$66	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
California Conservation Corps *	Training and Workforce Development Program	\$5	\$2.1	\$0.0	\$0.0	\$2.1	\$0.4
California Department of Fish and Wildlife *	Wetlands and Watershed Restoration Program	\$42	\$3.6	\$21.3	\$0.0	\$24.9	\$3.6
California Department of Food and Agriculture	Alternative Renewable Fuels Program; Dairy Digester Research and Development Program; Healthy Soils Program; State Water Efficiency and Enhancement Program	\$238	\$76.7	\$5.1	\$0.0	\$81.8	\$10.6
California Department of Forestry and Fire Protection	Forest Health and Fire Prevention Program; Urban and Community Forestry Program; Wildfire Prevention Program	\$377	\$75.6	\$24.1	\$0.0	\$99.7	\$2.7
California Department of Resources Recycling and Recovery *	Food Waste Prevention and Rescue Grants; Organics and Recycling Manufacturing Loans; Organics Grants; Recycled Fiber, Plastic, and Glass Grants (Recycling Manufacturing Grants)	\$112	\$11.3	\$31.5	\$0.0	\$42.8	\$1.3
California Natural Resources Agency	Urban Greening Program	\$106	\$0.3	\$0.3	\$0.0	\$0.6	\$0.6
California State Coastal Conservancy	Climate Ready Program and Coastal Resilience Planning	\$6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
California Wildlife Conservation Board	Climate Adaptation and Resiliency Program	\$20	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Governor's Office of Emergency Services	Wildfire Response and Readiness	\$25	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
TOTALS FOR PROGRAMS		\$6,084	\$255.0	\$1,779.2	\$566.5	\$2,600.7	\$73.7
California Air Resources Board	Fund Administration and Management	\$40	\$32.4	\$0.0	\$0.0	\$32.4	\$32.4
Office of Environmental Health and Hazard Assessment	Identification of Disadvantaged Communities	\$3	\$2.5	\$0.0	\$0.0	\$2.5	\$2.5
Sum of Control Agencies (Finance, Fiscal, Controller)		\$5	\$3.9	\$0.0	\$0.0	\$3.9	\$3.9
TOTALS FOR PROGRAMS INCLUDING ADMINISTRATION AND SUPPORT		\$6,155	\$293.8	\$1,779.2	\$566.5	\$2,639.5	\$112.5

Totals may not sum due to rounding.

\* Denotes agencies which transitioned to FISCAL in 2017/2018 and as such provided estimated budgetary expenditures.



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