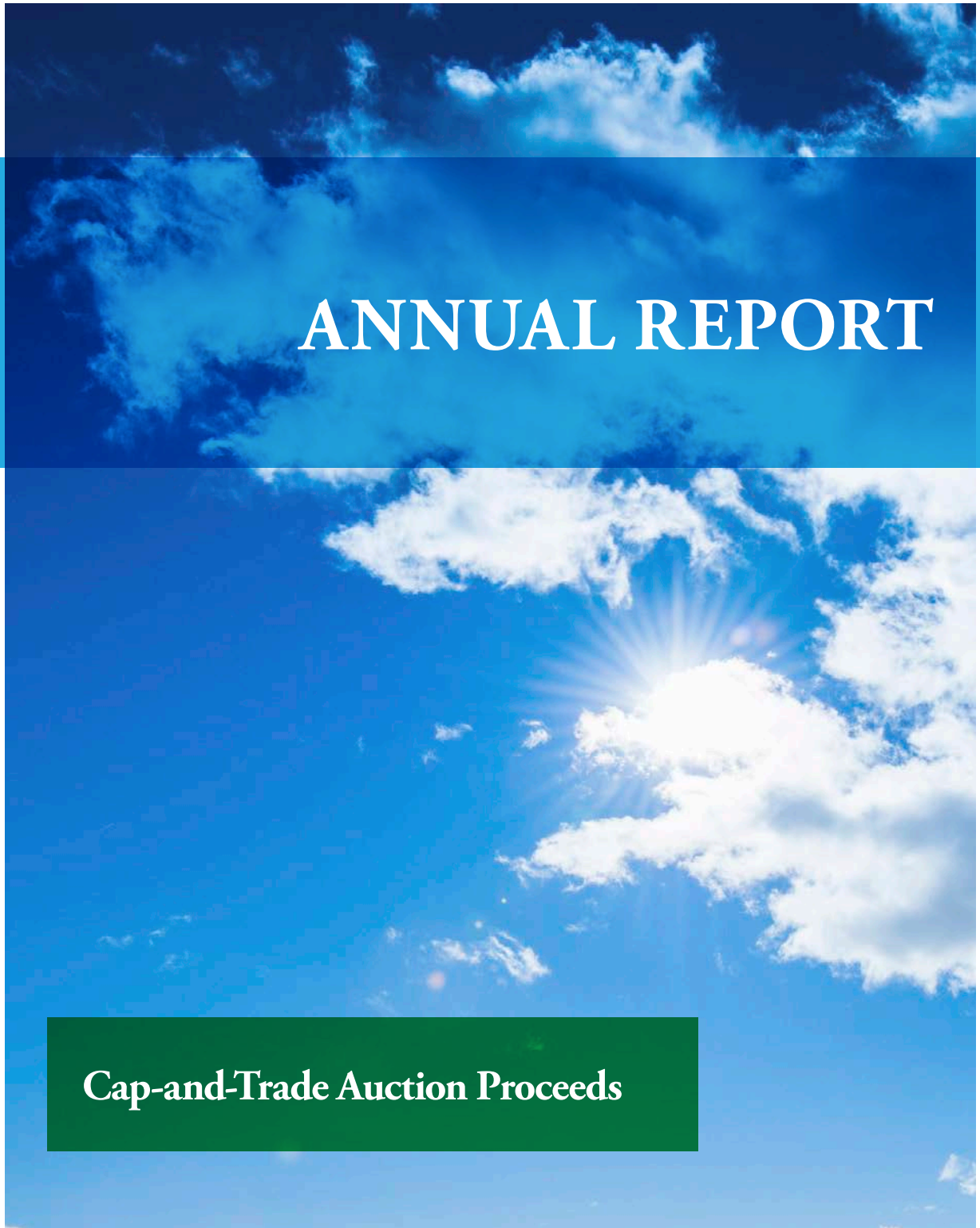
2017

CALIFORNIA CLIMATE INVESTMENTS

Cap and Trade Dollars at Work



ANNUAL REPORT

Cap-and-Trade Auction Proceeds

Program Webpage

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

Document Availability

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

Alternatively, paper copies may be obtained from:
Air Resources Board's Public Information Office
1001 I Street, 1st Floor
Visitors and Environmental Services Center
Sacramento, California 95814
(916) 322-2990

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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 2017

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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 reduce greenhouse gas (GHG) emissions in the State and also deliver major economic, environmental, and public health benefits for Californians, including meaningful benefits to the most disadvantaged communities. Communities where investments occur are realizing a wide range of benefits, including: increased affordable housing opportunities; improved mobility options through transit, walking, and biking; cleaner air through zero-emission vehicles; job creation, energy and water savings; and greener, more vibrant communities.

The State's portion of the Cap-and-Trade auction proceeds are deposited in the Greenhouse Gas Reduction Fund (GGRF), and used to further the objectives of the California Global Warming Solutions Act of 2006 (Assembly Bill 32 (AB 32); Núñez, Chapter 488, Statutes of 2006). To date, nearly $3.4 billion has been appropriated by the Legislature to State agencies implementing GHG emission reduction programs and projects. Agencies receiving appropriations, referred to as "administering agencies," develop and implement a suite of programs in transportation and sustainable communities, clean energy and energy efficiency, and natural resources and waste diversion. These programs are collectively referred to as California Climate Investments. With 12 agencies administering numerous programs, near- and long-term benefits to the State's individuals, households, businesses, and communities are underway.

CUMULATIVE OUTCOMES

Nearly 30,000 projects installing efficiency measures in homes

105,000+ rebates issued for zero-emission and plug-in hybrid vehicles

16,000+ acres of land preserved or restored

6,200+ trees planted in urban areas

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

1,100+ new affordable housing units under contract

50% of projects benefiting Disadvantaged Communities ($614M)

140,000+ total projects implemented

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 2017 Annual Report provides a summary of programmatic investments made from the GGRF, and provides estimates of the GHG reductions expected from project investments. It also provides key statistics on benefits to disadvantaged communities, demand for funding, and leveraging. This report provides program-level data for 2016 and cumulatively, described as follows:

- "2016" data – reported for December 1, 2015 - November 30, 2016.
- "Cumulative" data – reported since a program's inception.

Detailed data are available on the California Air Resources Board (CARB) website, including the program information and specific project location, GHG reductions, and benefits to disadvantaged communities for implemented projects. The information is also available on an interactive map and in a downloadable format to support independent analyses. Links to the program website and map are provided at the end of this Executive Summary.

Appropriations

The Legislature appropriates money from the GGRF to administering agencies for programs that result in 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.

- The first appropriations in Fiscal Year (FY) 2013-14 provided over $70 million to programs.
- Subsequent appropriations in FY 2014-15 included over $850 million, resulting in a significant expansion of the number and types of California Climate Investments.
- In FY 2015-16, the Legislature and Governor appropriated approximately $1.3 billion, which provided funding to continue a subset of programs established in the previous fiscal years.
- In FY 2016-17, the Legislature and Governor appropriated over $1.1 billion for existing and new programs.

The Governor's proposed Budget for FY 2017-18 includes $2.2 billion in funding from the GGRF. The Budget proposes that this funding be allocated after legislation confirming CARB's authority to administer the Cap-and-Trade Program beyond 2020 is enacted through a two-thirds vote. The Governor's proposed Budget for FY 2017-18 is available at: www.ebudget.ca.gov/2017-18/pdf/BudgetSummary/ClimateChange.pdf.

Table ES-1 shows the FY 2016-17 and cumulative appropriations for investments in projects as of November 30, 2016.

Table ES-1: Appropriations for California Climate Investments FY 2016-17 and Cumulative

Administering Agency	Program	Appropriations ($M)[1]	
		FY 2016-2017	Cumulative Total
California Environmental Protection Agency Air Resources Board	Low Carbon Transportation	$369	$695
Caltrans	Active Transportation Program	$10	$10
	Low Carbon Transit Operations Program*	$19	$135
California High-Speed Rail Authority[2]	High-Speed Rail Project*	$93	$800
CalSTA California State Transportation Agency	Transit and Intercity Rail Capital Program*	$172	$381
California Strategic Growth Council	Affordable Housing and Sustainable Communities*	$75	$570
	Technical Assistance to Disadvantaged Communities	$2	$2
	Transformative Climate Communities	$140	$140
California Environmental Protection Agency Air Resources Board	Woodsmoke Reduction Program	$5	$5
CSD	Low-Income Weatherization Program	$20	$174
cdfa California Department of Food & Agriculture	Biofuels	$0	$3
	State Water Efficiency and Enhancement Program	$8	$68
Department of Water Resources	State Water Project Turbines	$0	$20
	Water-Energy Grant Program	$0	$50
California Department of Fish and Wildlife	Wetlands and Watershed Restoration	$2	$30
cdfa California Department of Food & Agriculture	Dairy Digester Research and Development Program	$50	$62
	Healthy Soils	$8	$8
CAL FIRE	Forest Health	$25	$49
	Urban and Community Forestry	$15	$33
CalRecycle	Waste Diversion	$41	$71
California Natural Resources Agency	Urban Greening Program	$80	$80
	TOTAL	$1,133	$3,385

1 Appropriations from previous fiscal years may be retroactively adjusted to account for Budget Control Sections or for special legislation (e.g., Trailer Bills). As a result, reported cumulative appropriations may not reflect summations of Budget Act line items.

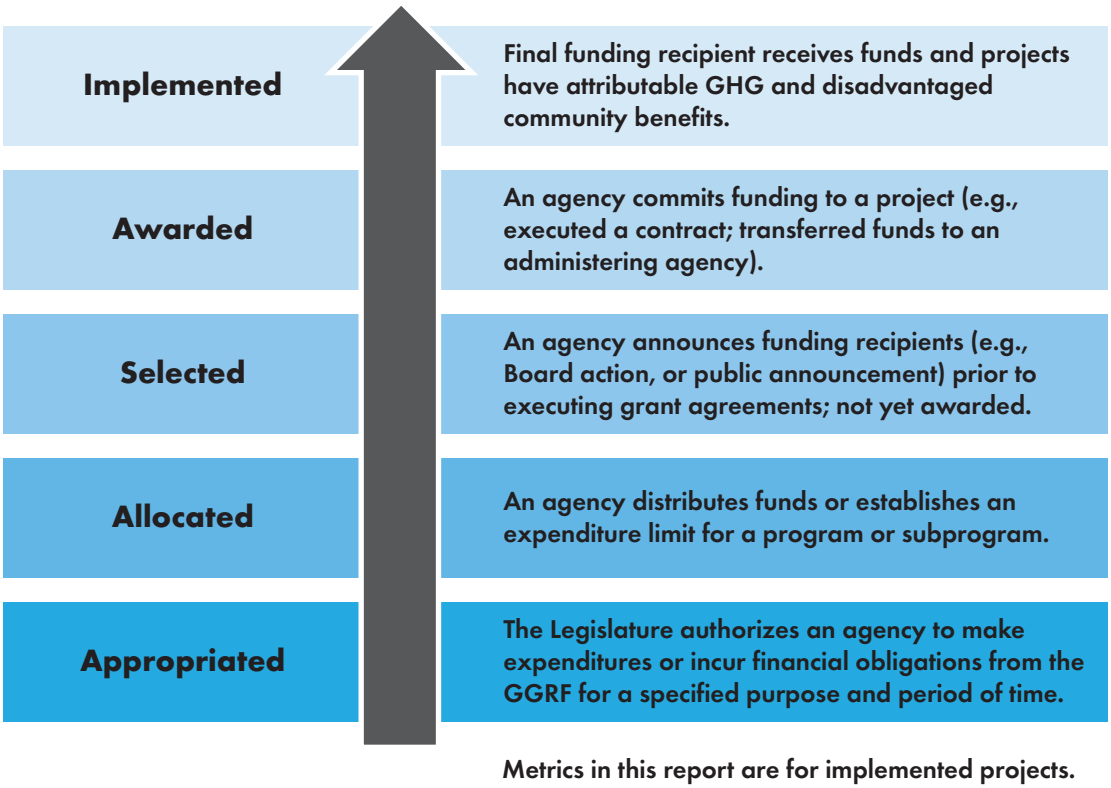
2 SB 862 states that $400 million shall be available to the High-Speed Rail Authority beginning in FY 2015-16, as repayment of a loan from the GGRF to the General Fund. This money shall be repaid as necessary, based on the financial needs of the High-Speed Rail Project. This loan amount is not included in the reported $800 million cumulative appropriation.

* Programs denoted with an asterisk received continuous appropriations as described in more detail in the Annual Report.

Evaluating California Climate Investments

California Climate Investments fund a broad portfolio of programs among administering agencies. To consistently report data across a variety of program and project types, this report uses terms including "Appropriated," "Allocated," "Selected," "Awarded," and "Implemented," to describe how funds flow from the GGRF to administering agencies, which ultimately distribute funds to end-users for projects on the ground throughout California. These terms, depicted in Figure ES-1, are used throughout this report and are described in more detail on pages 19-21.

Figure ES-1: Terms for California Climate Investments



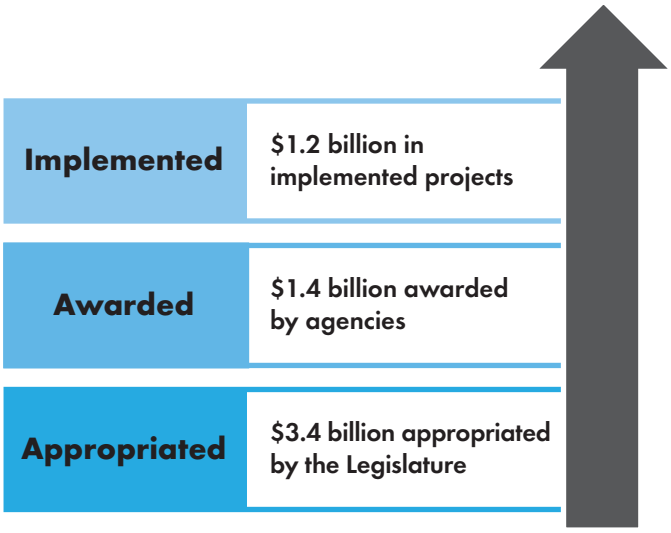
Cumulative and 2016 GHG benefits, disadvantaged community benefits, and co-benefits from investments are reported for "implemented" funds. This helps to provide consistency and transparency across all programs, and to ensure that reported metrics are for projects on the ground that are providing benefits to individuals and communities.

This report introduces "selected" as a new term to describe funds. This term refers to funds identified for specific projects that have not been awarded through a contract or other legally binding obligation to a funding recipient. This category increases transparency by providing a clear indication of the progress agencies are making toward project implementation, between program solicitation and project contracts. Therefore, once a project with "selected" funds has an executed contract, those funds are no longer considered "selected," but are now accounted for as "awarded."

Cumulative Accomplishments and Outcomes

California Climate Investments continue to provide net GHG benefits, disadvantaged community benefits, and other valuable co-benefits to communities and individuals throughout the State. To date, $1.2 billion in projects have been implemented, as shown in Figure ES-2.

Figure ES-2: Cumulative Summary of California Climate Investments

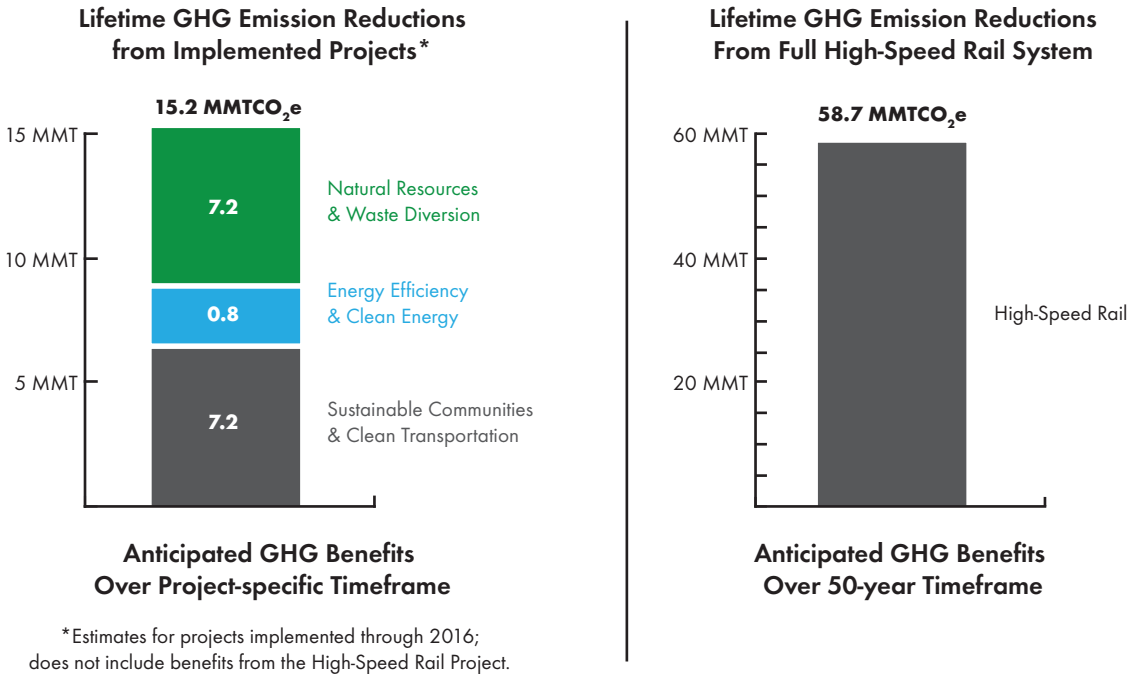


Greenhouse Gas Reductions

Implemented projects are expected to reduce GHG emissions by over 15 million metric tons of carbon dioxide equivalent ($MTCO_2e$) over their respective GHG reduction timeframes, which vary by program and are based on when projects are implemented and the duration of reductions as defined in the quantification methodology. Reduction timeframes are explained in more detail on page 25, and provided for each program beginning on page 28. In addition, the full High-Speed Rail Project is expected to reduce GHG emissions by nearly 59 million $MTCO_2e$ over its first 50-years of operating life, as detailed in the 2016 California High-Speed Rail Sustainability Report. This revised estimate is based on increased ridership forecasts and the extension from Los Angeles to Anaheim sooner, which result in greater GHG reductions over the operating life.[3] The reductions estimated from implemented projects and the High-Speed Rail Project are shown in Figure ES-3.

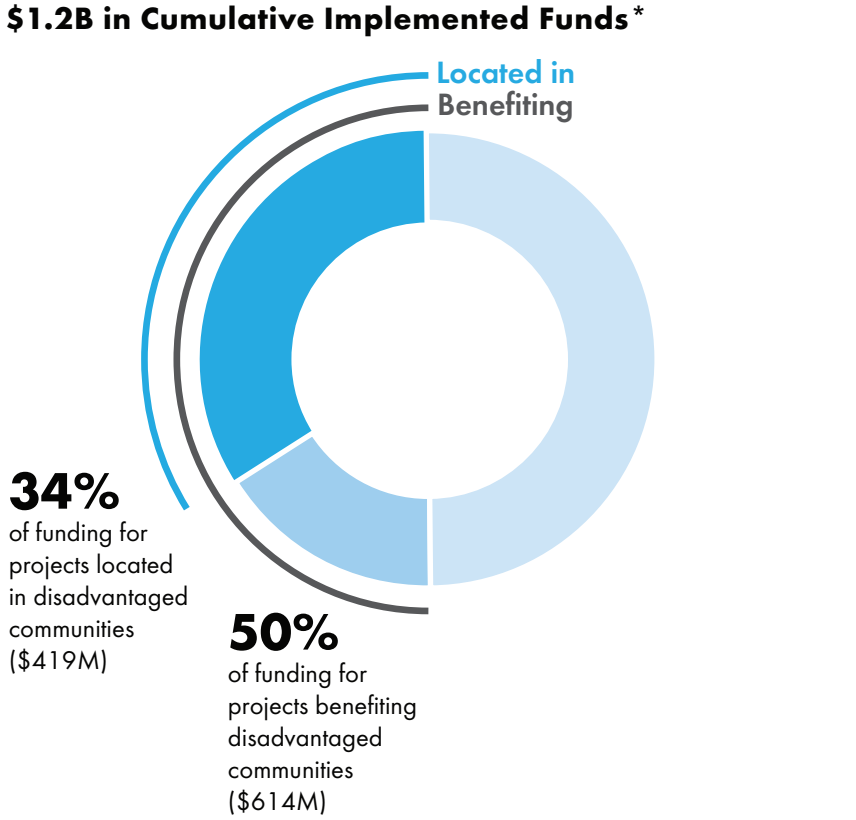
3 The High-Speed Rail Authority's GHG reduction estimate is based on the 2016 Sustainability Report and the 2016 Business Plan.

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



Disadvantaged Community Benefits

Figure ES-4: Cumulative Investments Benefiting Disadvantaged Communities



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

Cumulatively, agencies have implemented projects in 97 percent of disadvantaged community census tracts, which are providing a variety of benefits to those communities. For example, through CAL FIRE's Urban and Community Forestry Program, the City of Modesto Tree Replanting Activity Project has planted over 1,400 trees that provide shade, result in energy savings, and create a more comfortable environment for active transportation and recreation. Caltrans' Low Carbon Transit Operations Program is supporting Visalia Transit system's V Line bus service expansion to seven days a week. CSD's Low-Income Weatherization Program is helping low-income residents in disadvantaged communities reduce their energy use and energy costs; in Kern County alone, over 600 homes received energy efficiency upgrades.

Under SB 535 (de León, Chapter 830, Statutes of 2012), a minimum of 25 percent of the total investments are required to benefit disadvantaged communities; of that, a minimum of 10 percent are required to be located within and provide benefits to those communities. For projects implemented to date, 50 percent of investments are benefiting disadvantaged communities, and 34 percent are located within disadvantaged communities, as shown in Figure ES-4.[4]

4 These percentages do not include benefits from High-Speed Rail. 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.

In September 2016, the Legislature passed and the Governor signed AB 1550 (Gomez, Chapter 369, Statutes of 2016), which modifies the SB 535 disadvantaged community investment minimums. AB 1550 requires that a minimum of 25 percent of the proceeds be invested in projects that are located within and benefiting individuals living in disadvantaged communities; it requires an additional minimum of 5 percent of funds be invested in projects that benefit low-income households or communities statewide; and that an additional 5 percent be invested in projects that benefit low-income households or communities that are within a ½ mile of a disadvantaged community.

Co-benefits

California Climate Investments not only support the State's climate change goals, they also provide many additional social, economic, and environmental benefits, or "co-benefits." The Legislature, through enactment of AB 1532, directed administering agencies to maximize co-benefits of these investments. As a result, California Climate Investments are delivering a broad spectrum of benefits to individuals, households, businesses, and communities.

Programs stimulate job creation and training, especially for individuals and households in disadvantaged communities. CSD's Low Income Weatherization Program, CDFA's Dairy Digester Research and Development Program, and the High-Speed Rail Project all reported that projects are using targeted hiring, creating new jobs, and providing training that results in credentials and promotes career development.

Some agencies administering competitive programs rank applications based in part on the co-benefits potential projects may provide. SGC's Affordable Housing and Sustainable Communities Program (AHSC) gives considerable weight to factors including the number of affordable housing units created, the ability of a project to bring jobs and transit closer together, community engagement, avoided displacement of communities or residents, and workforce training. CDFA's State Water Efficiency and Enhancement Program includes criteria ranking projects based on water savings, soil management practices, and workforce training.

Other agencies are administering programs that are designed to achieve a variety of co-benefits. CARB's light duty pilot projects that benefit disadvantaged communities, and heavy-duty freight demonstration pilot projects, are intended to provide multiple benefits. These projects result in cleaner air and reduce exposure to criteria pollutants and toxic air contaminants, particularly in disadvantaged communities where exposure can be substantial. These projects also support existing State strategies including the reduction of petroleum use in vehicles, and deployment of zero-emission and near zero-emission vehicles. Additionally, these projects support the accelerated implementation of advanced technology.

Similarly, CNRA's Urban Greening Program, new in FY 2016-17, requires projects to achieve multiple benefits including greening of public land and structures, green streets and alleys, urban heat island mitigation and energy conservation efforts, tree canopy, wetland, parks and open space, or other economic, social, and public health benefits.

Co-benefits being achieved from implemented projects are currently reported by each administering agency and are qualitatively described in this Report.

In an effort to quantify and standardize reporting on co-benefits achieved by these programs and others, CARB contracted with University of California (UC), Berkeley in 2016 to research and evaluate potential quantification methods for a number of economic, social, and environmental co-benefits. Administering agencies collaborated to prioritize benefits for initial evaluation based on those most broadly applicable across GGRF programs, and those with interest from multiple agencies and stakeholders, including job creation and local air quality. Methods will be developed next year and results will be included in future Annual Reports.

2016 Accomplishments and Outcomes

Since the previous Annual Report, State agencies and other funding recipients made significant progress in awarding and implementing projects that deliver GHG benefits, disadvantaged community benefits, and other valuable co-benefits to communities and individuals throughout the State. In addition, CARB and other administering agencies have been working to improve outreach, engage communities, and incorporate feedback to build a foundation for the continued success of investments from the GGRF. CARB and administering agencies are taking steps to enhance transparency, improve ease of use for project proponents, and address community concerns.

In 2016, administering agencies awarded and implemented over $500 million in new funding, which is expected to reduce over 4 million $MTCO_2e$ over the timeframe for which reductions are estimated. The timeframes in this Report cover the lifetimes of implemented projects.

As a supplement to the 2016 Annual Report, CARB released the GGRF Project Map — an interactive map displaying all implemented projects — and a comprehensive project list in a downloadable and searchable format. These tools are intended to provide greater transparency and support independent evaluation of investments. The map and project list are updated to include the information covered in this 2017 Annual Report. Links are provided at the end of this Executive Summary.

Administering agencies are also making investment opportunities more accessible to a broad range of stakeholders throughout California.

For example, in 2016, administering agencies formed an inter-agency work group to leverage resources and better serve disadvantaged communities seeking access to funding opportunities. In addition, in FY 2015-16, SGC received a $0.5 million appropriation to provide technical assistance for the AHSC Program to disadvantaged community applicants requesting additional support. For FY 2016-17, SGC received a $2 million appropriation to provide support and build capacity for disadvantaged community applicants for a broader range of programs.

In response to comments from funding applicants, CARB made the methodologies used to quantify GHG benefits from project investments easier to use by automating the quantification methodologies and providing additional user guidance.

IMPLEMENTED IN 2016

27,000+ projects installing efficiency measures in homes

47,000+ rebates issued for zero-emission and plug-in hybrid vehicles

1,100+ acres of land preserved or restored

6,200+ trees planted in urban areas

100+ transit agency projects funded

1,100+ affordable housing units under contract

75,000+ projects implemented

Demand for California Climate Investments

Interest in California Climate Investments has continued to exceed funds available for competitive solicitations in 2016. Appendix C shows solicitation responses for programs that selected projects in 2016 through competitive processes. The programs included in Appendix C are a subset of total investments and do not include projects administered directly by agencies, such as High-Speed Rail, or projects awarded on a first-come, first-served basis. In 2016, on average, funds available were oversubscribed by 5 to 1. This indicates high demand and significant additional opportunity for GHG reductions. The value of these investments is also demonstrated through the additional capital leveraged. Cumulatively, $900 million in implemented funds (not including High-Speed Rail) have attracted over $4.5 billion from other sources, resulting in over $5 leveraged, on average, for every dollar invested. Appendix D shows leveraged funds for awarded dollars for applicable agencies and project types.

Changes Since 2016 Report

As the appropriations and number of programs grow, so do the breadth of projects and variety of benefits they deliver. To maintain consistency in quantification and reporting on outcomes from these investments, CARB and administering agencies may make periodic changes to the way information is presented.

For example, benefits (GHG, disadvantaged community, and co-benefits) reported for "2016" and "cumulative" in this Report are based on "implemented" funds. "Selected" funds are also reported by program or subprogram where a public announcement of funding has been made, but final contracts have not been signed. This approach provides better transparency of how funds are flowing from appropriations to implemented projects.

Program information for each legislative district will be available online.

Finally, similar to the 2016 Annual Report, the information provided in this Report comprises program level summaries and statistics. In order to connect these metrics to projects on the ground, this report provides "project profiles" for many of the programs. These project profiles highlight how California Climate Investments are providing GHG benefits, disadvantaged community benefits, and other economic, social, and environmental co-benefits to individuals, households, and communities statewide.

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—particularly in disadvantaged communities. The Cap-and-Trade Program also creates a financial incentive for industries to invest in clean technologies and develop innovative ways to reduce pollution. California Climate Investment projects include affordable housing, renewable energy, public transportation, zero-emission vehicles, environmental restoration, more sustainable agriculture, recycling and much more.

For More Information

California Climate Investments:
caclimateinvestments.ca.gov

GGRF Project Map and Data:
www.arb.ca.gov/ccimap.htm

Guidance for Administering Agencies:
www.arb.ca.gov/ccifundingguidelines

Email: GGRFProgram@arb.ca.gov

Table ES-2: Summary of California Climate Investments and Outcomes through 2016

Administering Agency	Program	FUNDING STATUS ($M)			IMPLEMENTED PROJECTS								
					GHG Reduction[5] (1,000 $MTCO_2e$)	Cost per GHG ($/ $MTCO_2e$)	#	Funds to Disadvantaged Communities					
								Benefiting			Subtotal Located In		
		Allocated	Awarded	Implemented				#	($M)	%	#	($M)	%
Air Resources Board	Advanced Technology Freight Demonstration Projects	$84.0	$47.3	$47.3	13	3,613	3	3	$47.3	100%	2	$23.6	50%
	Agricultural Worker Vanpools in San Joaquin Valley	$3.0	$0.0	$0.0	NEW								
	Car Sharing and Mobility Options Pilot Project	$11.1	$3.0	$3.0	1	2,427	3	3	$3.0	100%	3	$3.0	100%
	Clean Vehicle Rebate Project	$337.5	$334.5	$243.2	4,852	50	108,130	41,657	$92.8	38%	7,210	$16.2	7%
	Enhanced Fleet Modernization Program Plus-Up	$72.0	$12.0	$4.4	7	636	1,066	1,066	$4.4	100%	684	$2.8	64%
	Financing Assistance Incentives Pilot Project	$6.9	$0.9	$0.1	<1	1,633	7	7	$0.1	100%	4	<$0.1	61%
	Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project	$37.9	$29.9	$25.1	76	329	742	517	$15.6	62%	369	$10.7	43%
	Low NO_x Engine Incentives with Renewable Fuel	$23.0	$0.0	$0.0	NEW								
	Public Fleets Increased Incentives Pilot	$5.9	$5.8	$2.4	7	326	341	341	$2.4	100%	153	$1.0	42%
	Rural School Bus Pilot Project	$10.0	$0.0	$0.0	NEW								
	Zero-Emission Truck and Bus Pilot Projects	$85.0	$13.4	$13.4	17	793	1	1	$13.4	100%	1	$13.4	100%
	Zero-Emission Freight Equipment Pilot Commercial Deployment Project	$5.0	$0.0	$0.0	NEW								

Administering Agency	Program	FUNDING STATUS ($M)			IMPLEMENTED PROJECTS								
		Allocated	Awarded	Implemented	GHG Reduction[5] (1,000 $MTCO_2e$)	Cost per GHG ($/ $MTCO_2e$)	#	Funds to Disadvantaged Communities					
								Benefiting			Subtotal Located In		
								#	($M)	%	#	($M)	%
Department of Transportation	Active Transportation Program	$10.0	$0.0	$0.0	NEW								
	Low Carbon Transit Operations Program	$134.8	$86.6	$86.6	728[6]	119	214	144	$81.3	94%	110	$58.0	67%
High-Speed Rail Authority	High-Speed Rail Project	$800.5	$348.0	$348.0	--[7]	--[8]	1	--	--	--	--	--	--
State Transportation Agency	Transit and Intercity Rail Capital Program	$379.8	$224.3	$224.3	869	258	14	13	$213.3	95%	11	$182.4	81%
Strategic Growth Council	Affordable Housing and Sustainable Communities	$526.0	$71.0	$71.0	529	134	19	13	$47.3	67%	11	$36.2	51%
	Sustainable Agricultural Lands Conservation	$44.0	$3.8	$3.8	69	55	10	0	$0	0%	0	0	0%
	Technical Assistance to Disadvantaged Communities	$2.0	$0.0	$0.0	NEW								
	Transformative Climate Communities	$140.0	$0.0	$0.0	NEW								
Air Resources Board	Woodsmoke Reduction Program	$5.0	$0.0	$0.0	NEW								
Department of Community Services and Development	Community Solar	$0.0	$0.0	$0.0	NEW								
	Large Multi-Family Energy Efficiency and Renewables	$24.0	$24.0	$0.0	TBD								
	Single-Family Solar Photovoltaics	$71.8	$48.8	$19.0	60	316	1,525	1,525	$19.0	100%	1,525	$19.0	100%
	Single-Family/Small Multi-Family Energy Efficiency and Solar Heating	$49.2	$14.5	$5.5	44	123	6,523	6,523	$5.5	100%	6,523	$5.5	100%
Department of Food and Agriculture	Biofuels	$3.0	$3.0	$3.0	0	0	0	0	$0.0	0%	0	$0.0	0%
	State Water Efficiency and Enhancement Program	$58.1	$34.0	$34.0	609	56	361	124	$12.3	36%	124	$12.3	36%

Administering Agency	Program	FUNDING STATUS ($M)			IMPLEMENTED PROJECTS								
								Funds to Disadvantaged Communities					
								Benefiting			Subtotal Located In		
		Allocated	Awarded	Implemented	GHG Reduction[5] (1,000 $MTCO_2e$)	Cost per GHG ($/ $MTCO_2e$)	#	#	($M)	%	#	($M)	%
Department of Water Resources	State Water Project Turbines	$20.0	$20.0	$11.8	37	542[9]	2	0	$0.0	0%	0	$0.0	0%
	Water-Energy Grant Program	$50.0	$27.8	$6.7	67	100	21,424	13,135	$3.4	51%	13,135	$3.4	51%
Department of Fish and Wildlife	Mountain Meadow Ecosystem Restoration	$5.9	$5.9	$5.9	52	113	8	0	$0.0	0%	0	$0.0	0%
	Sacramento-San Joaquin Delta and Coastal Wetlands	$15.4	$15.4	$15.4	519	30	4	2	$13.4	87%	2	$13.4	87%
Department of Food and Agriculture	Dairy Digester Research and Development Program	$61.1	$11.4	$11.4	1,539	7	7	4	$8.1	71%	4	$8.1	71%
	Healthy Soils	$7.5	$0.0	$0.0	NEW								
Department of Forestry and Fire Protection	Forest Health	$49.2	$14.7	$14.7	2,482	6	37	0	$0.0	0%	0	$0.0	0%
	Urban and Community Forestry	$32.8	$15.6	$15.6	134	117	29	29	$15.6	100%	TBD[10]	TBD	TBD
Department of Resources Recycling and Recovery	Food Waste Prevention and Rescue Grants	$5.0	$0.0	$0.0	NEW								
	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	$14.5	$14.5	1,658	9	5	5	$14.5	100%	3	$8.9	61%
	Recycling Manufacturing Grants	$14.0	$5.0	$5.0	323	15	3	0	$0.0	0%	0	$0.0	0%
Natural Resources Agency	Urban Greening Program	$80.0	$0.0	$0.0	NEW								
	Total	**$3,320.1**	**$1,437.8**	**$1,237.6**	**15,176 (plus HSR)**	**–[11]**	**140,482**	**71,298**	**$613.5**	**50%**	**29,875**	**$419.0**	**34%**

5 GHG estimates are based on CARB's quantification methodologies which are available at: www.arb.ca.gov/cci-quantification.

6 For FY 2014-15, as an interim guide to comply with the GHG 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.

7 The High-Speed Rail Authority's GHG reduction estimate is based on the 2016 Sustainability Report and the 2016 Business Plan.

8 GGRF funds provide a critical part of the total funds for the system, though it is difficult to estimate precisely what the ultimate GGRF investment will be, and consequently, a comparable cost effectiveness per ton of emissions reduced.

9 The cost-effectiveness of the turbine project is calculated based on the GGRF awarded funds and estimated GHG emission reductions from the entire project.

10 For CAL FIRE's Urban and Community Forestry Program, a project is considered located within a disadvantaged community if more than 50% of the trees planted are located within disadvantaged communities. The projects being implemented have not planted 100% of trees and therefore it is it too soon to determine benefits located within disadvantaged communities. All projects are contractually obligated to benefit disadvantaged communities and are included in the benefiting category accordingly.

11 Cost-effectiveness represents dollar of GGRF investment per GHG benefit. This metric does not capture full project benefits including disadvantaged community benefits, or other economic, environmental, or public health benefits.

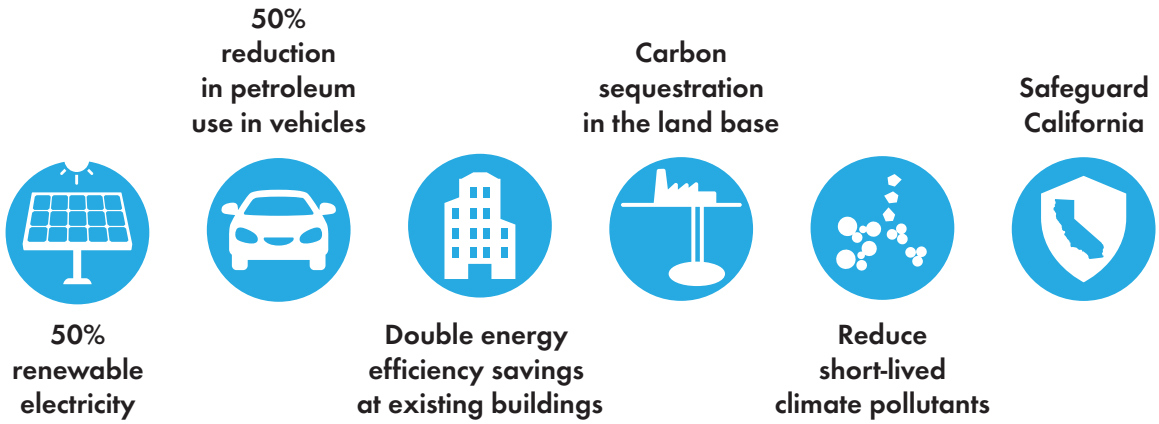

To
San Ysidro/
Tijuana
Start tactile line

BACKGROUND

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 greenhouse gas (GHG) emissions in California. AB 32 requires California to reduce GHGs to 1990 levels by 2020, and to maintain and continue reductions beyond 2020.

In January 2015, Governor Edmund G. Brown Jr. identified key climate strategy pillars, recognizing that several major areas of the California economy will need to reduce emissions to meet the State's climate goals. The pillars, shown in Figure 1, include the following: (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing our electricity derived from renewable sources from one-third to 50 percent; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm, rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating "Safeguarding California," the State's climate adaptation strategy.

Figure 1: The Governor's Climate Change Pillars: 2030 Greenhouse Gas Reduction Goals

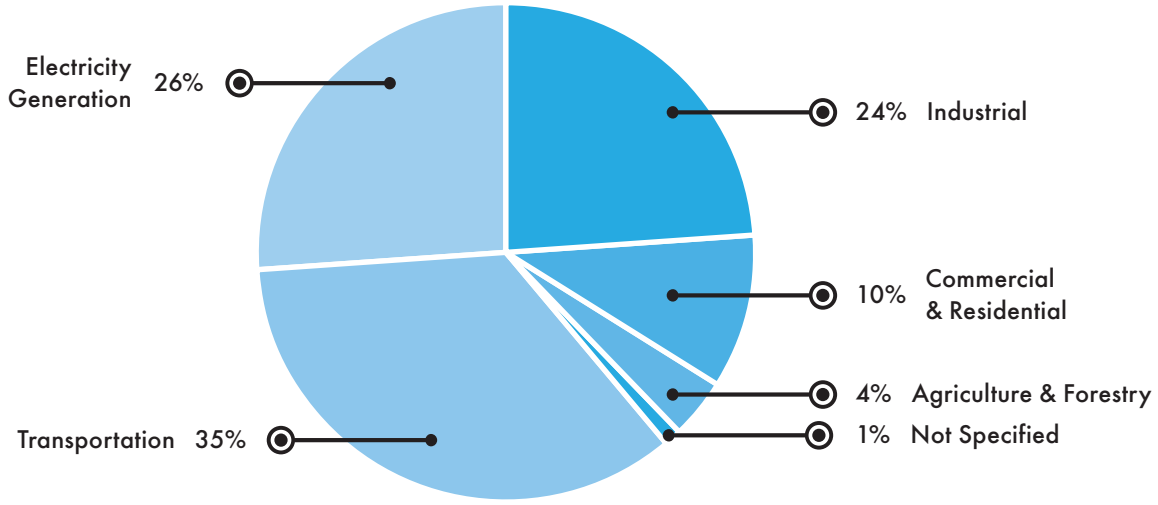


Since the establishment of the Governor's climate pillars, the Legislature has enacted legislation to codify these strategies. For example, in 2015 the Legislature passed SB 350 (de León, Chapter 547, Statutes of 2015) which requires that the amount of electricity generated and sold to retail customers per year from renewable energy sources be increased to 50 percent by 2031. In 2016, the Legislature passed SB 1383 (Lara, Chapter 395, Statutes of 2016), which requires CARB to approve and begin implementing a strategy to reduce short-lived climate pollutants. Also in 2016, the Legislature passed SB 1386, (Wolk, Chapter 545, Statutes of 2016), which declares it the policy of the State that the protection and management of natural and working lands is an important strategy in meeting the State's GHG reduction goals.

In April 2015, the Governor issued Executive Order B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. In 2016, the Legislature passed SB 32 (Pavley, Chapter 249, Statutes of 2016), which codified this goal into statute.

CARB (or Board) is responsible for identifying the 1990 emissions level to serve as the emissions limit and preparing an overall plan to meet California's GHG reduction goals ("Scoping Plan"). CARB's emission inventory, shown in Figure 2, indicates the 1990 emission levels were equal to 431 million metric tons of carbon dioxide equivalent ($MMTCO_2e$). With SB 32, the Legislature passed companion legislation AB 197 (Garcia, E., Chapter 250, Statutes of 2016), which provides additional direction for developing the Scoping Plan. CARB is developing a second update to the Scoping Plan to reflect the 2030 target of 260 $MMTCO_2e$ set by Executive Order B-30-15 and codified by SB 32 (www.arb.ca.gov/cc/scopingplan/scopingplan.htm). Significant investments from both public and private entities are needed to reach the goal.

Figure 2: 1990 California Greenhouse Gas Emissions by Sector



1990: 431 $MMTCO_2e$

Cap-and-Trade: Source of Auction Proceeds

The Cap-and-Trade Program is a key element of California's 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. In addition to reducing GHG emissions, the Cap-and-Trade Program complements California's existing efforts to reduce criteria and toxic air pollutants.

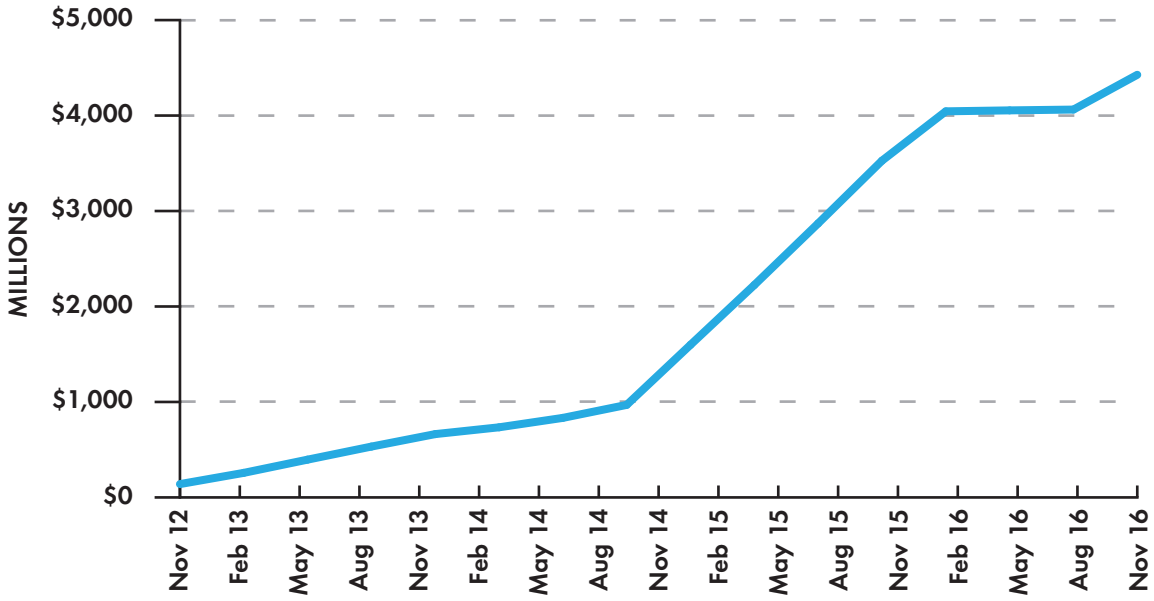
Under the Cap-and-Trade regulation, CARB places a statewide limit, or cap, on GHG emissions by issuing a limited number of tradable permits, or allowances, equal to the cap. A portion of the allowances are auctioned quarterly. The funds raised by the sale of California State-owned allowances are deposited into the GGRF and are available for appropriation by the Legislature to further the purposes of AB 32. Budgetary appropriations for California Climate Investments are described in more detail on page 5, and the process by which budget appropriations become implemented projects is described in on pages 19-21.

Each year, the number of allowances declines to achieve the intended emission reductions. Each source that is subject to the Cap-and-Trade regulation must turn in one allowance or offset credit for every $MTCO_2e$ emissions that it produces. Businesses that aggressively reduce their emissions can trade or sell their surplus allowances to firms that find it more expensive to reduce their emissions.

The first Cap-and-Trade auction was held on November 14, 2012, and subsequent auctions have been conducted quarterly. Cumulative proceeds from sale of State-owned allowances are shown in Figure 3.

Beginning in 2013, the cap included GHG emissions from electricity and large industrial sources. The Cap-and-Trade Program expanded in 2015 to address emissions from transportation fuels, and from combustion of other fossil fuels not directly covered in the program's initial phase. The latest auction was held on February 22, 2017, and results were not available at the time of this report. Funds in excess of current appropriations may be appropriated to administering agencies in the future. Cumulative proceeds are shown in Figure 3, and additional information on Cap-and-Trade auctions is available at: www.arb.ca.gov/auction.

Figure 3: Cumulative Proceeds from the Sale of State-Owned Allowances Deposited in the GGRF (as of December 31, 2016)



Implementing Legislation for the Expenditure of Auction Proceeds

In 2012, the Legislature passed and Governor Brown signed into law three bills—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 established the GGRF to receive proceeds from the sale of State allowances via auction and provide the framework for how those auction proceeds would be appropriated and expended.

These statutes require that the State portion of the proceeds from the auction of allowances under the Cap-and-Trade Program be deposited to the GGRF and used to facilitate the achievement of GHG emission reductions, benefit disadvantaged communities, and, where applicable and to the extent feasible, further additional goals of AB 32. Additionally, expenditures must comply with the requirements contained in SB 862 (Chapter 836, Statutes of 2014), the trailer bill that provides continuous appropriations of GGRF monies for High-Speed Rail, affordable housing and sustainable communities, transit capital, and transit operations.

1. AB 1532 Goals and Requirements

To be consistent with AB 32, auction proceeds must be used to reduce GHG emissions. AB 1532 establishes several additional goals for the investment of auction proceeds, including:

- Maximize economic, environmental, and public health benefits to the State;
- Foster job creation by promoting in-State GHG emission 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.

AB 1532 also establishes a process for allocating funding to State agencies. This process is described on page 9.

2. SB 535 Requirements

SB 535 specifically directs the California Environmental Protection Agency (CalEPA) to identify disadvantaged communities, and that:

- At least 25 percent of the available proceeds are allocated to projects that provide benefits to disadvantaged communities; and
- At least 10 percent of the available proceeds are allocated to projects located within disadvantaged communities.

3. SB 1018 Requirements

SB 1018 establishes the GGRF as the account to receive auction proceeds and includes requirements to help ensure that all GGRF expenditures help achieve GHG reductions and further the purposes of AB 32. SB 1018 also requires State agencies that have been appropriated monies from the GGRF to prepare an Expenditure Record, which is a document that provides specific information prospectively identifying how the funds will be used.

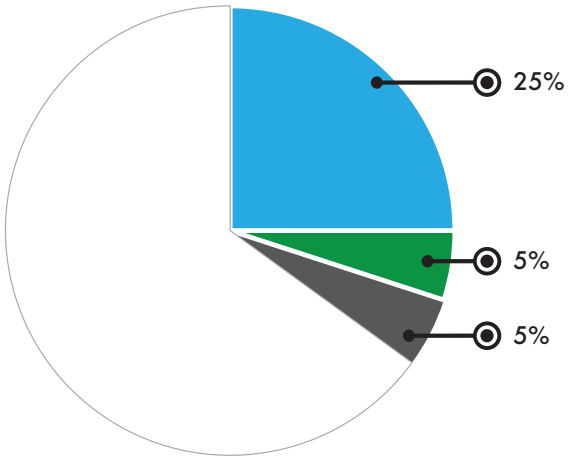
4. SB 862 Requirements

SB 862 establishes requirements for agencies receiving GGRF monies and provides continuous appropriations of future GGRF monies for transportation, transit, land use, and affordable housing and sustainable communities programs. In addition, SB 862 requires that CARB develop guidance on how benefits should be maximized for disadvantaged communities.

New Legislation in 2016

In September 2016, the Legislature passed and the Governor signed new legislation that updates the implementation direction for the GGRF. This includes both the FY 2016-17 budget and trailer bills (described in more detail on page 6), along with AB 1550 (Gomez, Chapter 369, Statutes of 2016) and AB 2722 (Burke, Chapter 371, Statutes of 2016), which create new requirements for expenditures and establish a new GGRF program, respectively:

Figure 4: AB 1550 Investment Minimums



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 ½ mile of a disadvantaged community.

1. AB 1550 Investments to Benefit Disadvantaged Communities

AB 1550 modifies the SB 535 disadvantaged community investment minimums as shown and described in Figure 4. Administering agencies are in the process of transitioning to full implementation of AB 1550 as part of FY 2017-18 funded programs. Guidance on implementation will be included in the 2017 update to the Funding Guidelines, which is described in more detail on page 9.

2. AB 2722 Transformative Climate Communities

AB 2722 creates the new Transformative Climate Communities Program (TCC), administered by the Strategic Growth Council. This program will fund the implementation of neighborhood-level transformative climate projects that provide local economic, environmental, and health benefits to disadvantaged communities. The TCC Program is described in more detail in on page 66.

Budget Appropriations

The 2013 Budget Act and related trailer bills—SB 862 and SB 103 (Budget and Fiscal Review Committee, Chapter 2, Statutes of 2013)—appropriated over $70 million in GGRF monies for investments in water and energy efficiency and conservation, investments in zero-emission and near-zero-emission vehicles, the designation of disadvantaged communities, and administrative funds for GGRF management. In addition, the 2013 Budget Act issued a loan of $500 million from the GGRF to the General Fund.

The 2014 Budget Act included $852 million in appropriations from the GGRF to administering agencies to invest in projects. This included $30 million for water-energy efficiency programs as the result of an

emergency drought bill enacted in March of 2015 (AB 91, Committee on Budget, Chapter 1, Statutes of 2015). In part, AB 91 amended Chapter 25 of the Budget Act of 2014 (SB 852, Leno, Chapter 25, Statutes of 2014). The 2014 Budget Act trailer bill, SB 862, provided that $400 million of the 2013 General Fund loan be available as needed upon repayment to the GGRF to the High-Speed Rail Program. This budget trailer bill also established continuing appropriations totaling 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 the High-Speed Rail Authority;
- 20 percent to the Affordable Housing and Sustainable Communities Program administered by the Office of Planning and Research, the Strategic Growth Council, and its member agencies;
- 10 percent to the Transit and Intercity Rail Capital Program administered by the California State Transportation Agency; and
- 5 percent to the Low Carbon Transit Operations Program administered by the Department of Transportation.

In addition to the continuous appropriations, the 2015 Budget Act was enacted with limited funding to cover administrative costs for existing GGRF-funded programs. In September 2015, subsequent legislation appropriated additional funding, and support for low carbon transportation, low-income weatherization programs, and water-energy efficiency programs. In total, the Legislature and Governor appropriated $1.3 billion for FY 2015-16.

In 2016, the budget and related trailer bill appropriated funds for existing and new programs, and provided statutory direction for GHG reductions and program implementation. AB 1613 (Committee on Budget, Chapter 370, Statutes of 2016) amended the Budget Act of 2016 to appropriate $900 million from the GGRF to administering agencies to invest in programs and projects. Additionally, SB 859 (Committee on Budget and Fiscal Review, Chapter 368, Statutes of the budget and related trailer bills) provides administrative direction for existing programs and establishes new programs. In total, the Legislature and Governor appropriated over $1.1 billion for FY 2016-17.

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 GGRF appropriations and how those investments are providing benefits, including to disadvantaged communities. Each Annual Report describes the status and outcomes of these investments, and identifies how administering agencies are meeting the requirement for investing in projects that benefit disadvantaged communities.

CARB also hosts a central website to provide direct public access to information on the various programs, including information published in Annual Reports. The website provides overall budget and program information, upcoming milestones and activities for all programs, guidance documents, expenditure records, program status tables, and links to additional agency webpages and upcoming events. The website is available at: www.arb.ca.gov/auctionproceeds.

Following the release of the 2016 Annual Report, CARB released the GGRF Project Map, an interactive map displaying California Climate Investments, and a detailed project list in a downloadable and searchable format, to supplement the information provided in the Report. CARB has updated the map and project list with 2017 Annual Report data. Data included on both the map and the project list can be filtered by county or legislative district to create summary statistics.[12] The map and project list are available at the central website link above.

CARB is in the process of developing a project reporting and tracking system that will provide an online portal for administering agencies to enter project information. The system will allow the public to easily access reported data. Once launched, it will replace the existing map and project list, and better integrate publicly accessible information. The mapping function will display projects geographically, including those located within and providing benefits to target populations (e.g., under SB 535 or AB 1550). The system will facilitate public access to information on each individual project, including project type, location, and estimated benefits.

For purposes of communications with fund recipients and the general public, any project that is paid for in part or in whole by the GGRF is considered under the umbrella of the "California Climate Investments" program.

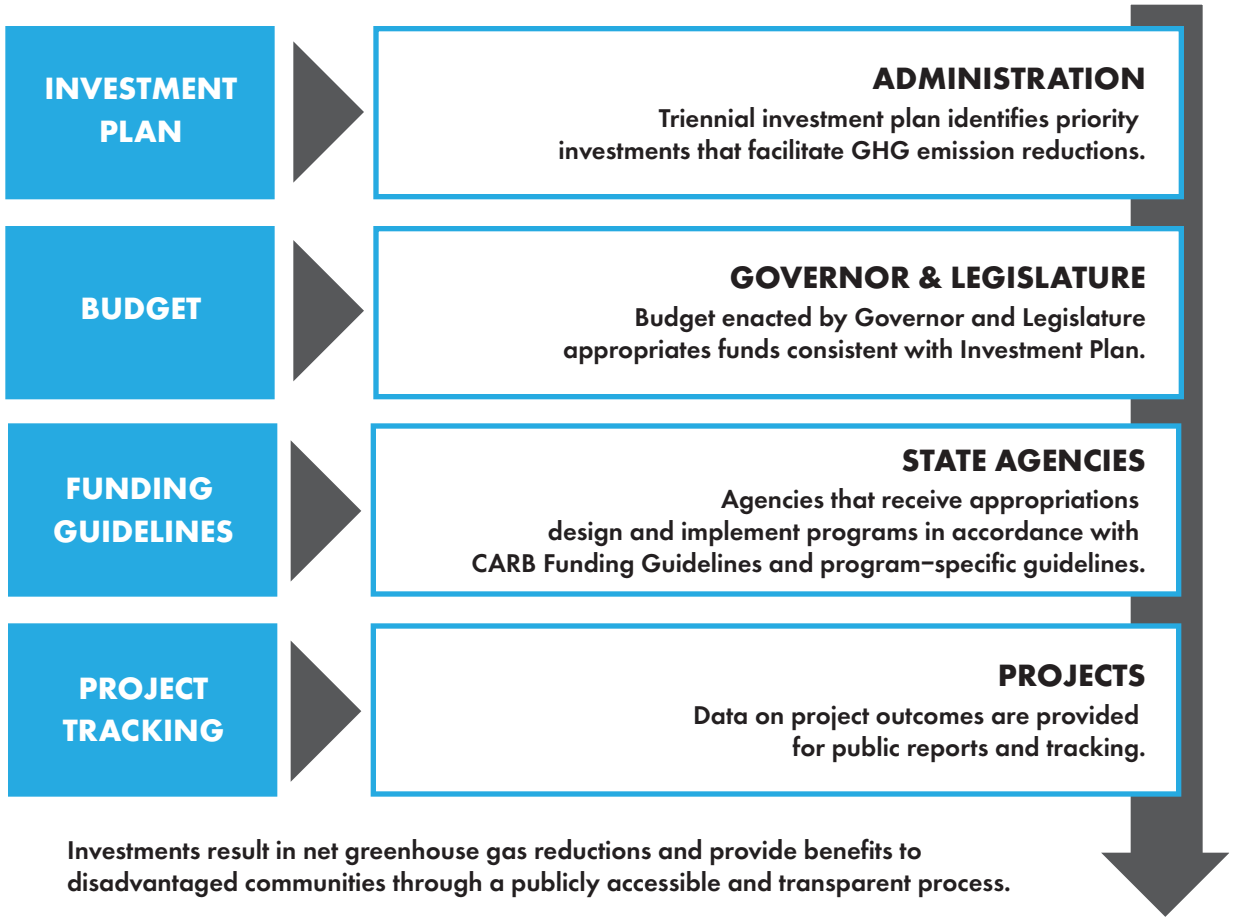
This name and the associated logo bring the broad portfolio of GGRF funded projects under a single brand. These investments, which are collectively implemented by administering agencies, represent a coordinated initiative by the State to address climate change by reducing GHG emissions, while also improving air quality, creating jobs, and supporting more sustainable communities. This logo serves to reflect this effort and identify California as a world leader in innovation and sustainability.

12 Many projects on the map are tied to one project location, although some projects span multiple geographic boundaries (e.g., a transit bus line or large forestry project). Where it was not feasible to associate a project with a single county or legislative district, the project is displayed in each county or legislative district that benefits from the investment.

IMPLEMENTING CALIFORNIA CLIMATE INVESTMENTS

Finance and CARB have respective statutory requirements to develop guidance for coordinated implementation of California Climate Investments in the form of a three-year Cap-and-Trade Auction Proceeds Investment Plan (Investment Plan) and Funding Guidelines for Agencies that Administer California Climate Investments (Funding Guidelines). Figure 5 shows how the legislative process and funding guidance for agencies inform implementation of California Climate Investments to achieve GHG reductions.

Figure 5: Administrative Process for Implementing California Climate Investments



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 auction proceeds. The purpose of the Investment Plan is to identify opportunities for GHG reductions, and to identify potential State investment priorities to help achieve GHG emission reduction goals, benefit disadvantaged communities, and yield valuable co-benefits. Funding priorities presented in the Investment Plan come from the State's suite of climate legislation, its broader climate strategy, and the Governor's Executive Orders, and are informed by stakeholder input through a public process. Funding for California Climate Investments is proposed by the Governor and appropriated by the Legislature, consistent with the Investment Plan.

- Finance submitted the First Investment Plan to the Legislature in May 2013, which addresses auction proceeds appropriated in FY 2013-14 through FY 2015-16. The Second Investment Plan, released in 2015, addresses investments for FY 2016-17 through FY 2018-19.
- The Second Investment Plan recommends a diversified approach to achieve the State's climate targets through a strategic investment portfolio that facilitates ongoing emission reductions from transportation and sustainable communities, clean energy and energy efficiency, and natural resources and waste diversion. The Investment Plan is available at: www.arb.ca.gov/investmentplan.
- In 2016, the Legislature passed SB 1464 (de León, Chapter 679, Statutes of 2016), which requires that the Investment Plan also: 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. The metrics and other information on program effectiveness contained in this and other Annual Reports to the Legislature will help shape the next investment plan as required by AB 1532 and SB 1464.

Funding Guidelines for Agencies that Administer California Climate Investments

SB 1018 and SB 862 establish CARB as the GGRF administrator and require that CARB develop funding guidelines for agencies receiving GGRF appropriations. In accordance with its statutory role, CARB is working in partnership with administering agencies to provide guidance and tools that support consistent and streamlined implementation of California Climate Investments. SB 862 amended the Health and Safety Code to require that CARB do the following:

- Develop funding guidelines for agencies administering GGRF appropriations to ensure the requirements of the chapter are met (Health and Safety Code, Sections 39710-39723). These guidelines must include a component for how administering agencies should maximize benefits for disadvantaged communities.
- Develop guidance on reporting and quantification methods for all State agencies that receive appropriations from the GGRF (Government Code, Section 16428.9(b)).

To comply with this law, CARB released the current version of the Funding Guidelines in December 2015 to ensure administering agencies use appropriations to reduce GHG emissions, further the purposes of AB 32, maximize benefits to disadvantaged communities, and meet the other statutory requirements. The document was the result of a robust public process that included a series of public workshops and a public hearing before the Board in September 2015.

Upon enactment of 2016 legislation, CARB developed the Funding Guidelines Supplement for FY 2016-17 Funds (Supplement). The Supplement provides interim direction for administering agencies implementing the September 2016 funding appropriations established in AB 1613. The updated guidance uses existing SB 535

requirements regarding benefits to disadvantaged communities. CARB released a draft document in fall 2016 to obtain public input and released the final Supplement in December 2016.

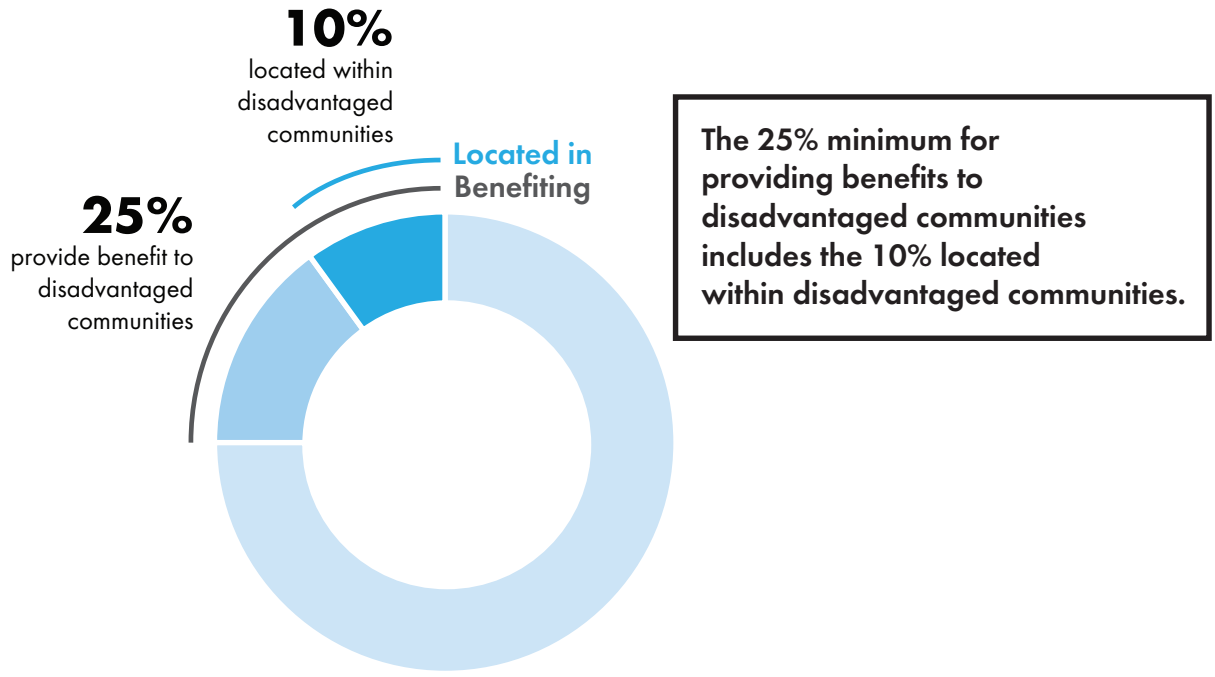
Guidance for Investments to Benefit Disadvantaged Communities

SB 535 directs the State and administering agencies to make significant investments that benefit California's disadvantaged communities. The Secretary for Environmental Protection identified disadvantaged communities using California Communities Environmental Health Screening Tool (CalEnviroScreen), developed by the Office of Environmental Health Hazard Assessment (OEHHA). CalEnviroScreen assesses all census tracts in California to identify the areas disproportionately burdened by and vulnerable to multiple sources of pollution.

SB 535 requires that at least 25 percent of California Climate Investments provide benefits to disadvantaged communities, and of those, at least 10 percent are located within disadvantaged communities. The Funding Guidelines establish how to determine whether a specific project qualifies to be counted toward SB 535 funding minimums, and provide criteria to evaluate whether projects provide direct, meaningful, and assured benefits to disadvantaged communities.

The Funding Guidelines establish that all projects that count toward the SB 535 requirements for investments "within" disadvantaged communities are also considered to be investments "benefiting" disadvantaged communities. The result is that all projects credited as investments "within" disadvantaged communities are a subset of the projects credited as investments "benefiting" disadvantaged communities. This construct is depicted in Figure 6.

Figure 6: SB 535 Investment Minimums for Disadvantaged Community Benefits



For the purposes of tracking and reporting progress in complying with SB 535, the percentage requirements apply to the overall appropriation from the GGRF, rather than to each agency appropriation. This approach recognizes that some agencies will expend more than 25 percent to benefit disadvantaged communities, while others may expend less, based on the nature of the programs and funded projects. For instance, while statute and the Funding Guidelines encourage all agencies to maximize benefits for disadvantaged communities wherever possible, certain programs are better-suited for being located within disadvantaged communities (e.g., urban forestry, weatherization), and some are well-suited to provide benefits to those communities even if they are located outside the boundaries of those census tracts (e.g., low carbon transportation). The Funding Guidelines and Supplement identify the estimated minimums for benefits to disadvantaged communities for each of the funded programs, based on the current SB 535 requirements.

The disadvantaged community benefits included in this Report account for the portion of total of funds that meet the SB 535 statutory requirements for benefits to disadvantaged communities. Future Annual Reports will reflect the ongoing implementation of AB 1550.

Quantification Methodologies

Agencies are periodically required to report on the estimated benefits of California Climate Investments. Under SB 862, CARB has a statutory role to develop methods to ensure the requirements of Government Code Section 16428.9 are met. This work relies on available science, coordination with the administering agencies, academics, and other experts as needed. To date, the quantification methodologies focus on estimating project-level GHG emission reductions. Drafts are available for public comment and final methodologies are posted at: www.arb.ca.gov/cci-quantification.

QUANTIFYING GHG REDUCTIONS

- In 2016 CARB developed or updated 36 quantification methodologies for new and existing programs
- Over 100 project types included

Quantification methodologies are specific to each program and/or project type and may be expanded or updated over time.

As funds are appropriated to existing programs, CARB evaluates existing quantification methodologies for effectiveness and updates them to be more robust, user-friendly, and appropriate to the projects being quantified. CARB also evaluates the methodologies in light of new scientific developments or tools, or modifications in the analytical tools or approaches upon which the methods were based.

In 2016, CARB contracted with UC Berkeley to research and evaluate potential quantification methods for a limited number of co-benefits. Administering agencies collaborated to prioritize benefits for initial evaluation based on those most broadly applicable across GGRF programs, and those with interest from multiple agencies and stakeholders, including job creation and local air quality. In the future, as methods are developed and co-benefits are quantified, results will be included in future Annual Reports to the Legislature. For this Report, administering agencies provided qualitative reports on co-benefits.

2017 Updates to Guidance Documents and Tools

Several tools and documents are being updated in 2017 to reflect new legislation, public comment, and new or updated information.

1. CalEnviroScreen Update 3.0

In early 2017, CalEPA and OEHHA released CalEnviroScreen 3.0, an updated version of the health screening tool used to inform the investments of Cap-and-Trade funds under SB 535. The update was developed through an extensive public review process, and reflects both new data and comments on prior versions of the tool.

The updated version includes two new indicators, which measure housing costs and cardiovascular health. The housing-cost indicator shows the fraction of each census tract's low-income households that pay a large portion of their income for housing. The cardiovascular health indicator shows the rate of visits to emergency departments for treatment of heart attacks. The new version also adds new data sources, incorporates additional information on pollution along the California-Mexico border, and uses updated data for each of the previously-included indicators.

This updated version will inform CalEPA's designation of disadvantaged communities for minimum investments under AB 1550.

2. Funding Guidelines Update

The enactment of AB 1550 modifies the SB 535 disadvantaged community investment minimum thresholds, and requires new investments to benefit low-income communities and low-income households. Administering agencies are in the process of transitioning to full implementation of AB 1550 beginning with FY 2017-18. CARB will update the Funding Guidelines to address: new legislation; benefits to low-income communities and individuals; reporting requirements; and lessons learned from program administration. The Funding Guidelines are currently under revision and being informed by a public process, and the document will be presented to the Board for consideration in 2017.

OUTREACH FOR CALIFORNIA CLIMATE INVESTMENTS

Public engagement plays a critical role in the development and implementation of California Climate Investments programs. Engaged stakeholders provide valuable feedback and input that supports investment recommendations and results in meaningful benefits to disadvantaged communities and other areas of the State.

Statewide Outreach

Administering agencies have been working to engage stakeholders and potential applicants in investment opportunities, and have held program-specific workshops, webinars, teleconferences, and other public meetings at various locations throughout the State. In 2016 alone, these agencies convened over 200 public meetings in over 60 cities, with over 12,000 attendees and participants; Appendix A includes a complete list of these public meetings, and Figure 7 maps these events for 2016.

In addition to program outreach, some agencies are also looking for ways to provide technical support to potential applicants. For example, in 2016, CDFA leveraged funding through the U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS) to provide technical assistance for potential applicants to its State Water Efficiency and Enhancement Program. Through that contract, CDFA partnered with 11 non-profit organizations, Resource Conservation Districts, and academic institutions to host 23 workshops and engaged over 200 potential applicants throughout the State.

Administering agencies will continue to provide opportunities for public input and comment as programs are developed, implemented, and refined.

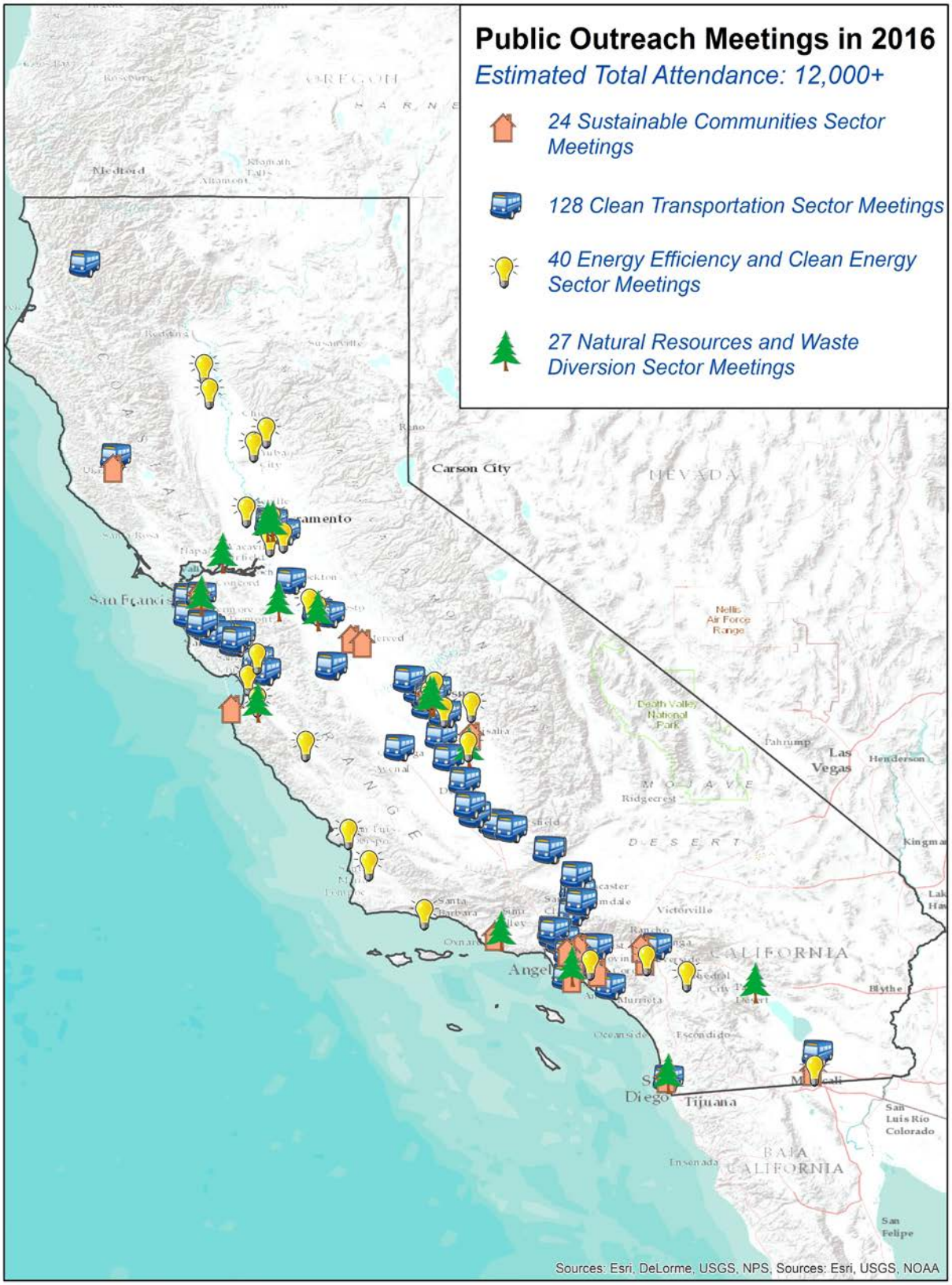
TECHNICAL ASSISTANCE HIGHLIGHT

STATE WATER EFFICIENCY & ENHANCEMENT PROGRAM (SWEEP)

- Leveraged $50,000 from US Department of Agriculture for technical assistance
- 11 partners (non-profit organizations, Resource Conservation Districts, and academic institutions)
- 23 workshops statewide
- 209 attendees

cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

Figure 7: California Climate Investments Public Outreach Events by Location, Reporting Year 2016



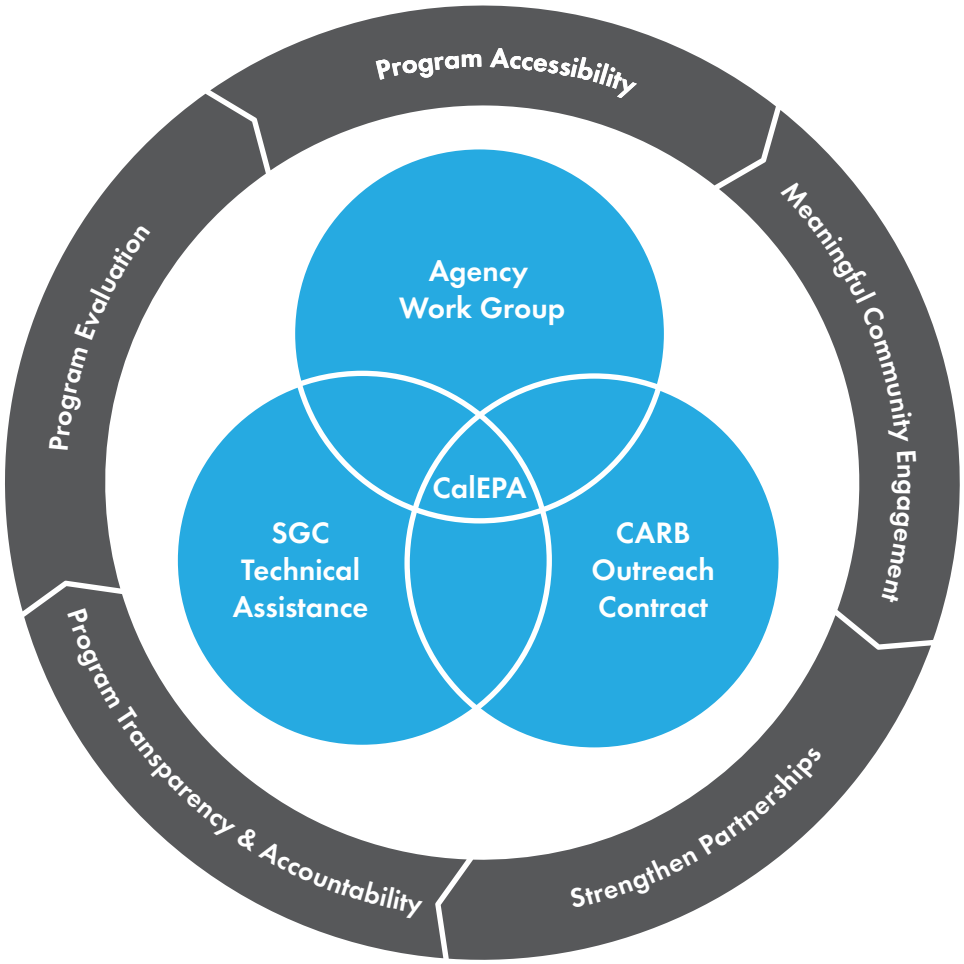
Outreach to Disadvantaged Communities

Many disadvantaged community residents and groups have interest in applying for funds, but may lack awareness of available programs or capacity and resources to access funds. These communities require information about the range of funding opportunities and the various program application requirements, and technical assistance to fully leverage the opportunities these funds present.

The State and administering agencies have undertaken a broad effort to help disadvantaged communities better understand and access program information, and promote effective engagement and participation in the California Climate Investments program. This coordinated effort comprises several components, which are shown in Figure 8 and described in more detail below.

Many of the existing outreach efforts for disadvantaged communities under SB 535 will extend to low-income communities and households defined under AB 1550. Administering agencies are committed to providing ongoing and enhanced outreach to disadvantaged and low-income communities across the State. This coordinated outreach effort will improve funding access, build community capacities, and strengthen partnerships with these communities for effective and successful implementation of climate investments that benefit and strengthen California's most vulnerable communities.

Figure 8: Coordinated Disadvantaged and Low-Income Community and Household Outreach Efforts



1. California Climate Investments Outreach Work Group

The California Climate Investments Outreach Work Group (Work Group) is a new interagency team formed to support direct program outreach and coordination across California Climate Investments programs. The goal of the Work Group is to leverage resources to better serve disadvantaged and low-income communities seeking to access funding opportunities.

The Work Group is made up of staff representatives from administering agencies, chaired by CalEPA. This multi-disciplinary group benefits from the breadth and depth of its collective experience with programs and stakeholders.

In 2016, the Work Group focused on building a framework to most effectively serve disadvantaged communities. Initial objectives included developing a shared expertise across GGRF programs and building relationships across agencies. The Work Group also convened environmental justice stakeholders from across the State to identify barriers to accessing funding opportunities; to share examples of best-practices for agency outreach; and to identify opportunities for the Work Group to better reach disadvantaged communities.

For 2017, efforts will focus on connecting applicants with GGRF programs through coordinated outreach activities in disadvantaged communities throughout the State, and establishing metrics for evaluating the effectiveness of outreach and community engagement efforts. Additionally, the Work Group will engage key community-based and environmental justice organizations to strengthen partnerships between agencies and local organizations, and expand disadvantaged community access to California Climate Investments programs.

Goals for the California Climate Investments Outreach Work Group 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 GGRF 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.

OUTREACH WORK GROUP

Dedicated program staff across agencies to provide outreach to disadvantaged communities and low-income communities

CALIFORNIA STRATEGIC GROWTH COUNCIL

CalEPA California Environmental Protection Agency

CAL FIRE SINCE 1885

CSD

CALIFORNIA CONSERVATION

California Environmental Protection Agency Air Resources Board

CalRecycle

CALIFORNIA DEPARTMENT OF FISH & WILDLIFE

DEPARTMENT OF WATER RESOURCES STATE OF CALIFORNIA

CALIFORNIA natural resources AGENCY

Caltrans

cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

2. Disadvantaged Community Outreach Contract

In fall 2016, CARB entered into a contract with the Foundation for California Community Colleges to support agency outreach efforts statewide. The contractor is working in partnership with the Young Invincibles, a nonprofit organization with experience promoting engagement on a range of issues. CARB's objective is to expand participation of disadvantaged communities in the California Climate Investments program.

3. Technical Assistance

The Budget Act of 2015 (SB 101, Committee on Budget and Fiscal Review, Chapter 321, Statutes of 2015) appropriated $500,000 from the GGRF to the Strategic Growth Council, to establish a pilot program to provide technical assistance to disadvantaged communities during FY 2015-16. To date, SGC has contracted with three teams to provide direct application assistance to certain applicants whose projects were located in disadvantaged communities, and whose applications were not selected during the FY 2014-15 funding cycle.

SGC also invested a portion of the pilot funds to build capacity for its Affordable Housing and Sustainable Communities Program. These funds supported a variety of activities, including: convening local government agencies along with transportation and housing entities to encourage partnerships for future funding rounds; additional technical assistance in using quantification methodologies for GHG reductions in the application phase; and policy planning to maximize the impacts of these investments. Additionally, SGC contracted with UC Davis researchers to conduct a third-party evaluation of the pilot program. The evaluation is anticipated in spring 2017 and will include recommended strategies to inform outreach and technical assistance throughout the California Climate Investment programs.

Building on the lessons learned through the pilot program, AB 1613 appropriated $2 million from the GGRF to the Office of Planning and Research for SGC to provide technical assistance to disadvantaged communities in FY 2016-17. This funding is intended to support a broad range of assistance efforts and to increase the capacity of disadvantaged community applicants to successfully compete for GGRF program funds. To maximize the impact of this new funding, SGC staff are working with administering agencies to identify technical assistance needs in disadvantaged communities.

In response to lessons learned and subsequent interviews with administering agencies, the proposed framework for providing technical assistance includes activities in the following three areas: partnership and capacity building; project development; and direct application assistance. This framework is depicted in Figure 9.

Figure 9: Framework for Providing Technical Assistance to Disadvantaged Communities

This approach can be tailored to fit a broad spectrum of needs for disadvantaged community applicants across GGRF programs, and is designed to inform how programs and project types may be developed to support disadvantaged community applications. SGC intends to support investments in technical assistance that reflect the needs and geographic diversity of potential applicants.

Goals for SGC's FY 2016-17 Technical Assistance program include:

- Increase competitiveness of applications from disadvantaged community applicants, as indicated by their ability to successfully compete for GGRF program and technical assistance funds;
- Identify the nature and scope of technical assistance needs for each program, and prioritize those with the greatest level of need (including new programs, those with significant disadvantaged community investments, and those with funding opportunities in 2017); and
- Finalize the program framework and solicit proposals from third-party providers in 2017.

OUTCOMES OF CALIFORNIA CLIMATE INVESTMENTS

As projects are implemented, agencies are responsible for collecting project information from funding recipients and submitting reports, consistent with the Funding Guidelines. CARB consolidates the data from all agencies to support the Annual Report on program outcomes, including:

- How agencies are using appropriated funds to achieve the statutory objectives of auction proceeds;
- GHG reductions achieved or anticipated using the established CARB quantification methodology;
- Progress toward SB 535 targets for investment in and benefits to disadvantaged communities;
- Update on economic, environmental, and public health co-benefits achieved or anticipated; and
- Project locations.

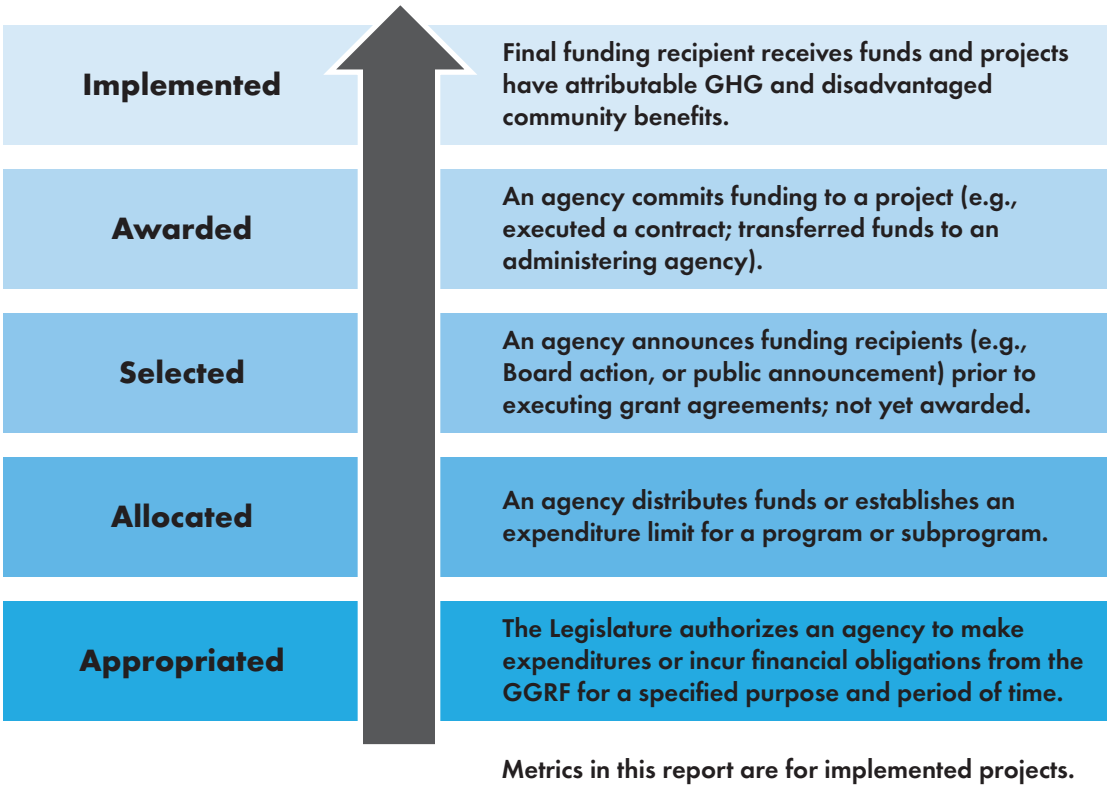
The data provided by each agency on implemented projects, which include a project description, location, GHG benefits, and disadvantaged community benefits are available on the Auction Proceeds website. The data are downloadable to support independent analyses. Additionally, CARB is developing an online tracking system that will allow the public to view detailed information on funded projects and will support the ability to search by project type or location.

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 2016-17 funds are finalizing program guidelines, soliciting project proposals, or evaluating those proposals. The number of projects on the ground will grow as agencies continue to implement appropriated funding.

For a more complete understanding of the financial status of programs, it is useful to understand how California Climate Investments flow from the GGRF, through administering agencies, to project implementers. Figure 10 shows the movement of funds and provides a working definition for terms that are used in this Annual Report in reporting the outcomes of these investments. These terms, specific to the reporting and tracking of California Climate Investments, and the funding process are described in more detail below.

Figure 10: Terms for California Climate Investments



Metrics in this report are for implemented projects.

Funds flow through GGRF to projects in several steps, which may vary by agency. To provide a consistent approach for reporting funds and project benefits, this report establishes several terms to describe these steps: appropriated, allocated, selected, awarded, and implemented, as shown in Figure 10.

All GGRF funds are "appropriated" by the Legislature to agencies, which may make expenditures or incur financial obligations from the GGRF for a specified purpose and period of time. Appropriations may be continuous or Budget items.

Some appropriations are used to fund programs directly, such as High-Speed Rail. Other appropriations may then be "allocated" by the recipient agency to fund one or more sub-programs. For example, CalRecycle allocates its Waste Diversion appropriation to: the Organics and Recycling Manufacturing Loans Program; the Organics Grants Program; the Recycling Manufacturing Grants Program; and the new Food Waste Prevention and Rescue Grant Program. Allocations to programs may not sum to total appropriated amounts due to administrative costs incurred at the agency (versus program) level.

Once funds are appropriated or allocated, agencies may begin "selecting" or "awarding" projects consistent with their Expenditure Record and other programmatic requirements.

"Selected" funds is a new term this year, and is used only when an agency announces funding recipients (e.g., Board action or public announcement) but has not yet executed a grant agreement or "awarded" funding to a project. This category supports greater transparency of the movement of funds from allocation to implementation and the progress agencies are making toward project implementation, between program solicitation and project contracts. Not all programs have "selected" funds.

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

Funds are "implemented" once the final funding recipient receives funds and the projects have accountable GHG, disadvantaged community, and other benefits. For some programs, this may occur concurrently with "awarded," such as DFW's Wetland and Watershed Restoration Program. That is, once a project is awarded, the project benefits are known and can be reported on in the Annual Report. For other programs, such as CARB's electric vehicle rebates, funds may be "awarded" to a third-party administrator but not "implemented" until the voucher recipient is known and benefits can be attributed to specific locations. **Benefits (GHG, disadvantaged community, and co-benefits) described in this Report are based on implemented funds only.** This helps to provide consistency and transparency across all programs, and to ensure that reported metrics are for projects on the ground that are providing benefits to individuals and communities.

Fiscal budgetary expenditures for each agency are detailed in Appendix B. For this report, "budgetary expenditures" represent the amount of GGRF monies that have been expended by the administering agencies, including any remaining encumbrances. Any monies that are 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.

Demand for California Climate Investments

Interest in California Climate Investments has continued to exceed funds available for competitive solicitations in 2016. Appendix C shows solicitation responses for programs that selected projects in 2016 through competitive processes. The programs included in Appendix C are a subset of total investments and do not include projects administered directly by agencies, such as High-Speed Rail, or projects awarded on a first-come, first-served basis. In 2016, on average, funds available were oversubscribed by five to one. This indicates high demand and significant additional opportunity for GHG reductions. The value of these investments is also demonstrated through the additional capital leveraged. Nearly $900 million in implemented funds (not including High-Speed Rail) have attracted over $4.5 billion from other sources, resulting in over $5 leveraged, on average, for every dollar invested. Appendix D shows leveraged funds for awarded dollars for applicable agencies and project types.

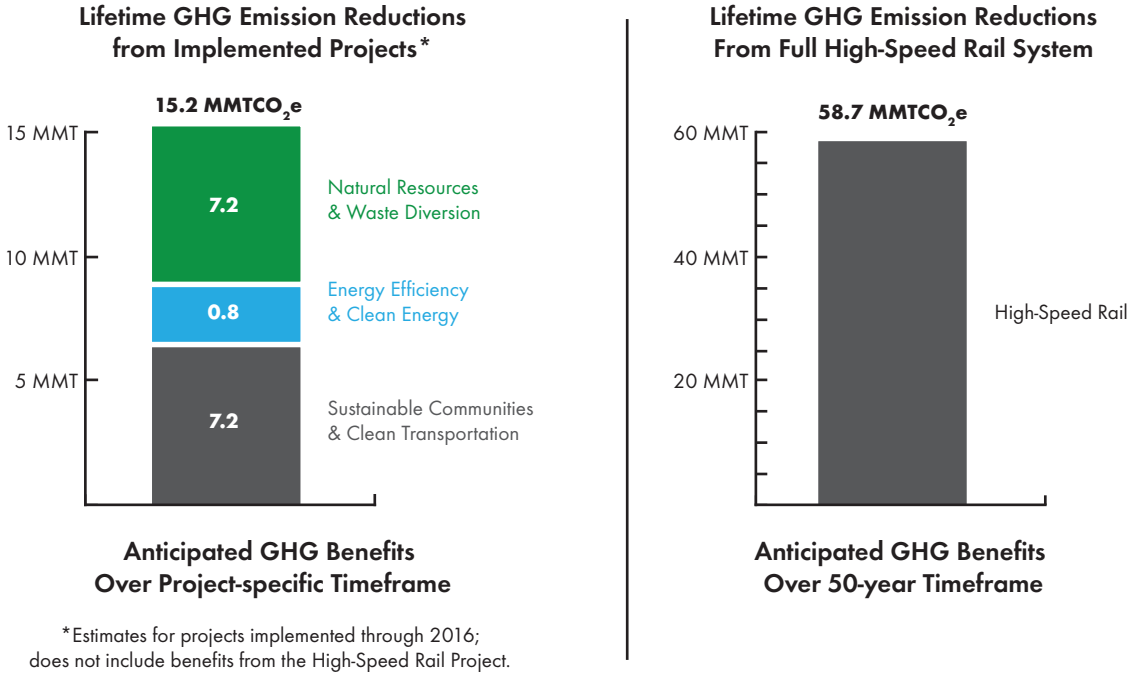
Greenhouse Gas Benefits

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

Nearly $900 million in funds implemented through 2016 are anticipated to provide 15.2 million $MTCO_2e$ GHG reductions over the lifetime of implemented projects. In addition, the full High-Speed Rail Project is expected to reduce GHG emissions by nearly 59 million $MTCO_2e$ over its 50 year operating life.[13] Figure 11 shows reductions from investments implemented through 2016, as well as the reductions from High-Speed Rail.

13 The High-Speed Rail Authority's GHG reduction estimate is based on the 2016 Sustainability Report and the 2016 Business Plan.

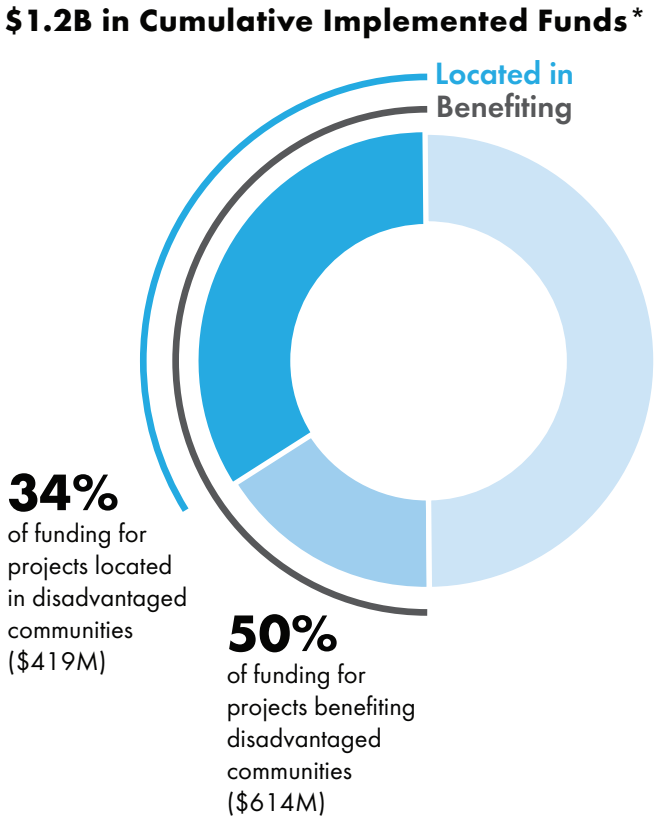
Figure 11: Estimated GHG Benefits from Cumulative Implemented Projects



Providing Benefits to Disadvantaged Communities

Based on cumulative data, 50 percent of the $1.2 billion dollars implementing California Climate Investments is funding projects that provide benefits to disadvantaged communities; and 34 percent of the $1.2 billion is funding projects located within disadvantaged communities. Figure 12 shows the percentage of investments that provide benefits to, and are located within, disadvantaged communities. Implemented funds include those for High-Speed Rail, but benefits anticipated from the project are not included.

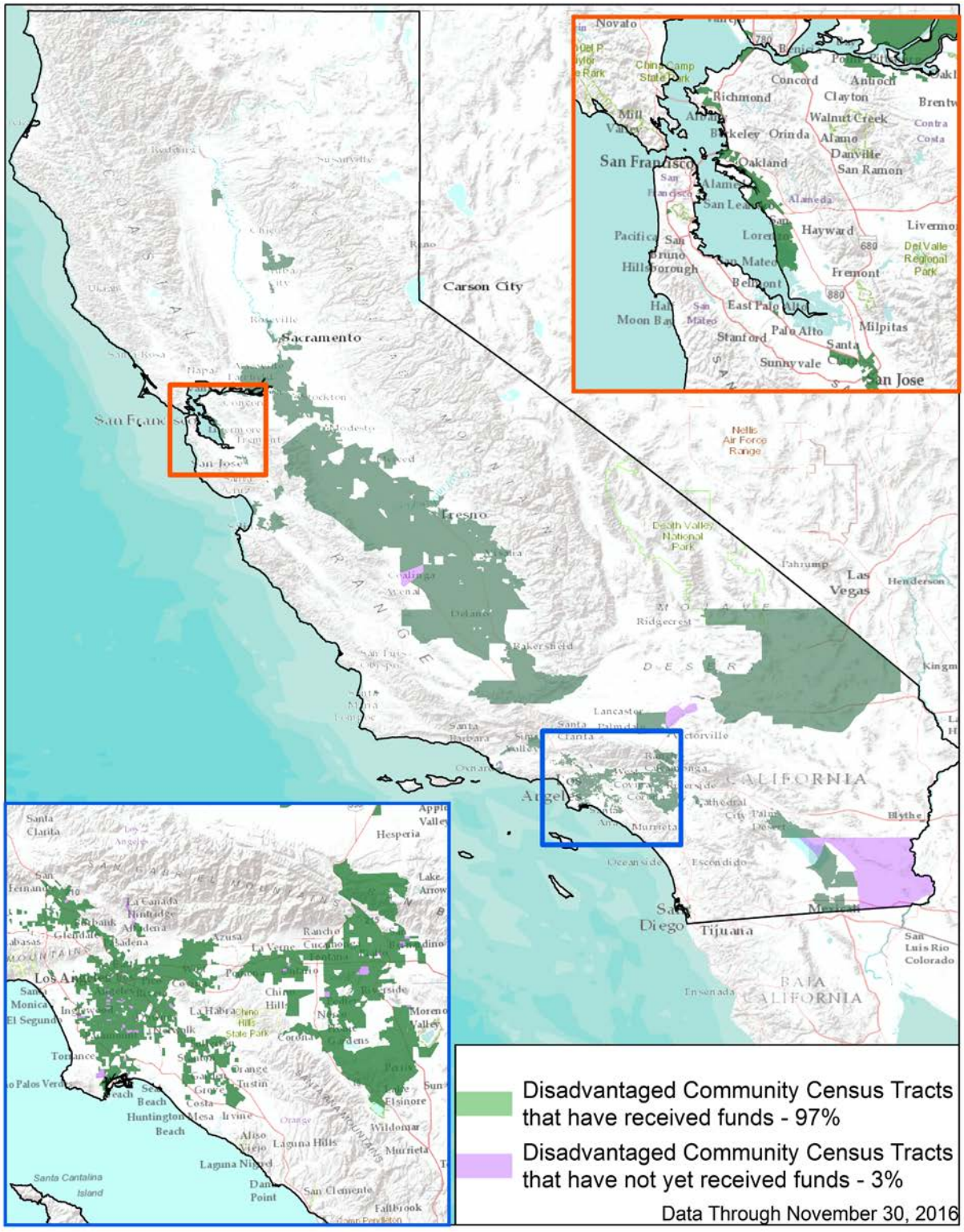
Figure 12: Cumulative Investments Benefiting Disadvantaged Communities



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

In total, administering agencies have invested $614 million of $1.2 billion total in projects that benefit disadvantaged communities through 2016. Figure 13 shows that approximately 97 percent of the disadvantaged community census tracts have projects funded by California Climate Investments within them.

Figure 13: Disadvantaged Community Census Tracts with California Climate Investments, Cumulative through 2016



Co-Benefits of California Climate Investments

California Climate Investments not only support the State's climate change goals, they also provide many additional social, economic, and environmental benefits, or co-benefits. These programs deliver a broad spectrum of benefits to individuals and communities.

For example, job creation and training provide direct material benefits to individuals and households, and are underway in several programs. Jobs data were reported in 2016 on a voluntary basis for CSD's Low Income Weatherization Program, CDFA's Dairy Digester Research and Development Program, and the High-Speed Rail Project (described in more detail in the following pages).

Additional examples of investments that provide direct benefits to individuals, households, and communities include programs that reduce petroleum use, support renewable fuels and energy, or increase energy efficiency. These investments reduce air pollution, and result in energy-cost savings.

These investments also provide benefits that improve quality of life for neighborhoods and communities. Examples include projects that: expand transit and reduce local air pollution; plant trees in publicly accessible areas to increase recreational opportunities; or reduce wildfire risk to potentially save homes at the urban-forest interface.

While some co-benefits of these investments may be more easily quantified than others, all programs are providing benefits beyond GHG and disadvantaged community benefits to improve the lives and environment for California residents. Co-benefits are described in more detail for California Climate Investments sectors and programs on the following pages.

Program Specific Outcomes of California Climate Investments

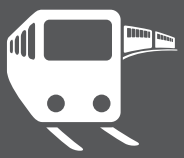
The remainder of this Report provides a summary of the status of California Climate Investments and the outcomes of those investments, for each program and administering agency by sector under the Investment Plan.

Each program or subprogram overview provides the following:

- For each program or subprogram, the total amount appropriated through 2016
- A description of how GHG, disadvantaged community, and other benefits are achieved
- Cumulative anticipated GHG benefits from implemented projects
- Disadvantaged community benefits from implemented projects
    - These values represent the portion of total funds that meet the SB 535 statutory requirements for benefits to disadvantaged communities. Future reports to the Legislature will reflect the ongoing implementation of AB 1550.
- The schedule or timeframe over which GHG reductions are expected to be achieved as a result of implemented projects
    - This value represents the timeframe over which GHG reductions from implemented projects are expected to occur. These are based on when projects are implemented and the duration of reductions as defined in the quantification methodology. The initial year is the first year of implemented projects for that program and the final year accounts for the last year of expected reductions from currently-implemented projects. The final year may be extended if additional projects continue to be implemented. The duration of a project's expected reductions is specific to the program or project type. For example, energy efficiency retrofit projects will yield GHG reductions soon after implementation and will continue to provide GHG reductions for the "life" of the retrofit (lighting, HVAC system), generally five to 20 years. Other projects that may be implemented now, such as Healthy Forest 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 GHGs for many years.
- Maps of implemented projects

INVESTMENTS IN TRANSPORTATION AND SUSTAINABLE COMMUNITIES

California's transportation sector represents 37 percent of GHG emissions statewide. 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 High-Speed Rail, local and regional public transit, and affordable housing projects. In addition, annual appropriations are supporting the Low Carbon Transportation Program.



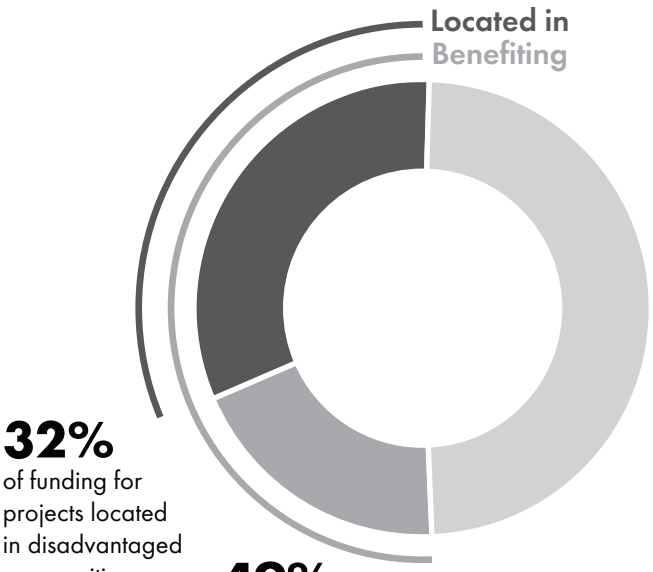
TRANSPORTATION AND SUSTAINABLE COMMUNITIES

- $2.7B appropriated
- 5 agencies
- 7.2 MMTCO$_2$e GHG reductions (excluding High-Speed Rail)

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 advanced technologies; 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' Low Carbon Transit Operations Program is delivering cost-savings to riders by reducing the fare to ride transit. CalSTA's Transit and Intercity Rail Capital Program is increasing availability and use of transit to reduce vehicle miles traveled and pollution from single-occupancy vehicles. SGC's Affordable Housing and Sustainable Communities program is bringing jobs and housing closer together to increase housing affordability while reducing commute times and passenger trips taken.

Transportation and Sustainable Communities

$1.1B Implemented



32%
of funding for projects located in disadvantaged communities ($348M)

49%
of funding for projects benefiting disadvantaged communities ($521M)

Percent based on actual dollar amount.

Agency investments are described on the following pages; in some cases, these investments are allocated to multiple sub-programs. For more information about the details of a specific program or sub-program, please visit: www.arb.ca.gov/cc/capandtrade/auctionproceeds/ggrfprogrampage.htm.

California Environmental Protection Agency

Air Resources Board

LOW CARBON TRANSPORTATION

Provides mobile source incentives to reduce GHG emissions, criteria pollutants, and air toxics through the development of advanced technology and clean transportation. The program is comprised of several sub-programs that provide a variety of disadvantaged community benefits.

APPROPRIATIONS TO DATE

$695M

Advanced Technology Freight Demonstration Projects

LOW CARBON TRANSPORTATION
CUMULATIVE ALLOCATION: $84.0M
CUMULATIVE IMPLEMENTED FUNDS: $47.3M

Accelerates the introduction of advanced GHG emission reduction technologies on the cusp of commercialization. Provides funding that encourages industry to expeditiously invent, develop, test, and introduce cutting-edge emission reduction technologies faster than would occur without incentives. FY 2014-15 funds were directed toward demonstration of zero-emission drayage trucks and multi-source freight facility projects. FY 2016-17 funds will demonstrate advanced technology on-road trucks and off-road freight equipment.

Program Benefits

Achieves GHG reductions by funding zero-emission or near zero-emission vehicles, engines, equipment, and systems which emit fewer GHGs than conventionally fueled vehicles or equipment.

Disadvantaged community benefits include: improved public health and reduced exposure to environmental contaminants through reduced emissions from vehicles and equipment operating in or near disadvantaged communities. Funding is limited to projects that provide benefits to disadvantaged communities.

Co-benefits include: reduced nitrogen oxides (NO_X), reactive organic carbon (ROG), carbon monoxide (CO), particulate matter (PM), and toxic air contaminant emissions, which help improve air quality and provide health benefits to the communities where projects are located; reduced petroleum use; economic benefit by reducing vehicle/equipment/technology costs and fuel costs; and accelerated implementation of advanced technology.

Selected		Awarded	Implemented
$34.0M	2016	$47.3M	$47.3M
	Cumulative	$47.3M	$47.3M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

13,100 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$23.6M | 50%

Benefiting

$47.3M | 100%

TIMEFRAME

2016 - 2019

Advanced Technology Demonstration Project

PORT OF LOS ANGELES GREEN OMNI TERMINAL

The busiest container port in the United States, the 7,500-acre Port of Los Angeles, is now charting a course to be the greenest port as well.

Thanks to a demonstration project testing advanced technologies, the Port of Los Angeles is serving as a proving ground to show how large industrial facilities can operate sustainably.

The Green Omni Terminal Demonstration Project is a full-scale demonstration of zero- and near-zero-emission technologies at a working marine terminal. At full build-out, the 40-acre terminal will be the world's first marine terminal to generate all of its energy needs from renewable sources.

"With this partnership, we begin a new era for global shipping where we can eliminate emissions as we power our economy ahead," Los Angeles Mayor Eric Garcetti said in a press release celebrating a $14.5 million award from CARB to launch the project in mid-2016.

The project will improve the health, quality of life, and local economy of Wilmington, which is adjacent to the terminal, disproportionately impacted by industrial pollution, and one of California's most disadvantaged communities. The terminal handles general,

project, and heavy-lift cargoes of all shapes and sizes including break bulk commodities such as steel and containerized cargo, making it the ideal laboratory for developing zero-emission solutions for many industries.

The Green Omni Terminal Demonstration Project incorporates many innovative clean technologies, including:

- A microgrid that includes a 1-megawatt solar array, a 2.6-megawatt-hour battery storage system and an energy management system to maximize usage, with the goal of enabling the terminal to operate off the grid in the event of a power loss;
- A fleet of new and retrofitted zero-emission battery-electric trucks and cargo handling equipment that includes four electrified yard tractors, two high-tonnage fork lifts, two drayage trucks, and a top handler;
- Two wharf cranes upgraded with new electrical drives and control systems; and
- The latest generation of advanced technology for capturing ship emissions from vessels unable to plug into shore power at berth.

"The Green Omni Terminal Demonstration Project is a great example of moving forward to achieve greater emission reductions from port-related sources and improving air quality for those who live in the neighborhoods next to the port," Port of Los Angeles Executive Director Gene Seroka said.

The total cost of the project is $26.6 million. In addition to serving as a demonstration site, terminal operator Pasha has committed $11.4 million in cash and in-kind participation. The project is expected to reduce more than 3,200 $MTCO_2e$ per year, and nearly 28 tons per year of diesel particulate matter, nitrogen oxides and other harmful emissions from operations at the nation's busiest container port.

California Environmental Protection Agency
Air Resources Board

Agricultural Worker Vanpools in San Joaquin Valley

LOW CARBON TRANSPORTATION
CUMULATIVE ALLOCATION: $3.0M
CUMULATIVE IMPLEMENTED FUNDS: $0

NEW PROGRAM

FY 2016-2017

This new program will be designed to expand access to cleaner, lower GHG-emitting vanpools for agricultural workers in the San Joaquin Valley's disadvantaged communities. Eligible vehicles include zero-emission, plug-in hybrid, or hybrid passenger vans, with preference for vehicles eligible under the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project.

Program Benefits

GHG reductions will be achieved by funding the purchase of zero- or near-zero-emission vehicles, which emit fewer GHG emissions than comparable conventionally-fueled vehicles that would otherwise be used by vanpool participants.

Disadvantaged community benefits may include: improved public health and reduced exposure to environmental contaminants by reducing emissions from vehicles operating in disadvantaged communities. Projects will increase disadvantaged community agricultural workers' access to cleaner vehicles and transportation. Projects will provide an economic benefit to those disadvantaged community agricultural workers that use these vanpool services. Program will be limited to projects that serve disadvantaged communities in the San Joaquin Valley.

Co-benefits may include: reduced NO_X, ROG, CO, PM, and toxic air contaminant emissions, which help improve air quality and provide health benefits to the communities where projects will be located; reduced petroleum use; economic benefit to vanpool participants; and accelerated implementation of advanced technology.

Car Sharing and Mobility Options Pilot Project

LOW CARBON TRANSPORTATION
CUMULATIVE ALLOCATION: $11.1M
CUMULATIVE IMPLEMENTED FUNDS: $3.0M

Increases access to clean transportation by providing funds for government entities or non-profit organizations to start or expand advanced clean vehicle (i.e., hybrids, plug-in hybrids, and/or zero-emission vehicles) car share programs serving residents of disadvantaged communities using car shares, ride-shares, vanpools, and other mobility options.

Program Benefits

Achieves GHG reductions by funding the purchase of zero or near-zero-emission vehicles, which emit fewer GHGs than comparable conventionally fueled vehicles that would otherwise be used by car share participants.

Disadvantaged community benefits include: improved public health and reduced exposure to environmental contaminants by reducing emissions from vehicles operating in disadvantaged communities. Increases disadvantaged community residents' access to cleaner vehicles and transportation. Provides an economic benefit to disadvantaged community residents that use these car sharing and mobility services. Funding is limited to projects that serve disadvantaged communities.

Co-benefits include: reduced NO_X, ROG, CO, PM, and toxic air contaminant emissions, which help improve air quality and provide health benefits to the communities where projects are located; reduced petroleum use; economic benefit to car sharing and mobility service participants; and accelerated implementation of advanced technology.

Selected		Awarded	Implemented
$8.0M	2016	$1.1M	$1.1M
	Cumulative	$3.0M	$3.0M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

1,300 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$3.0M | 100%

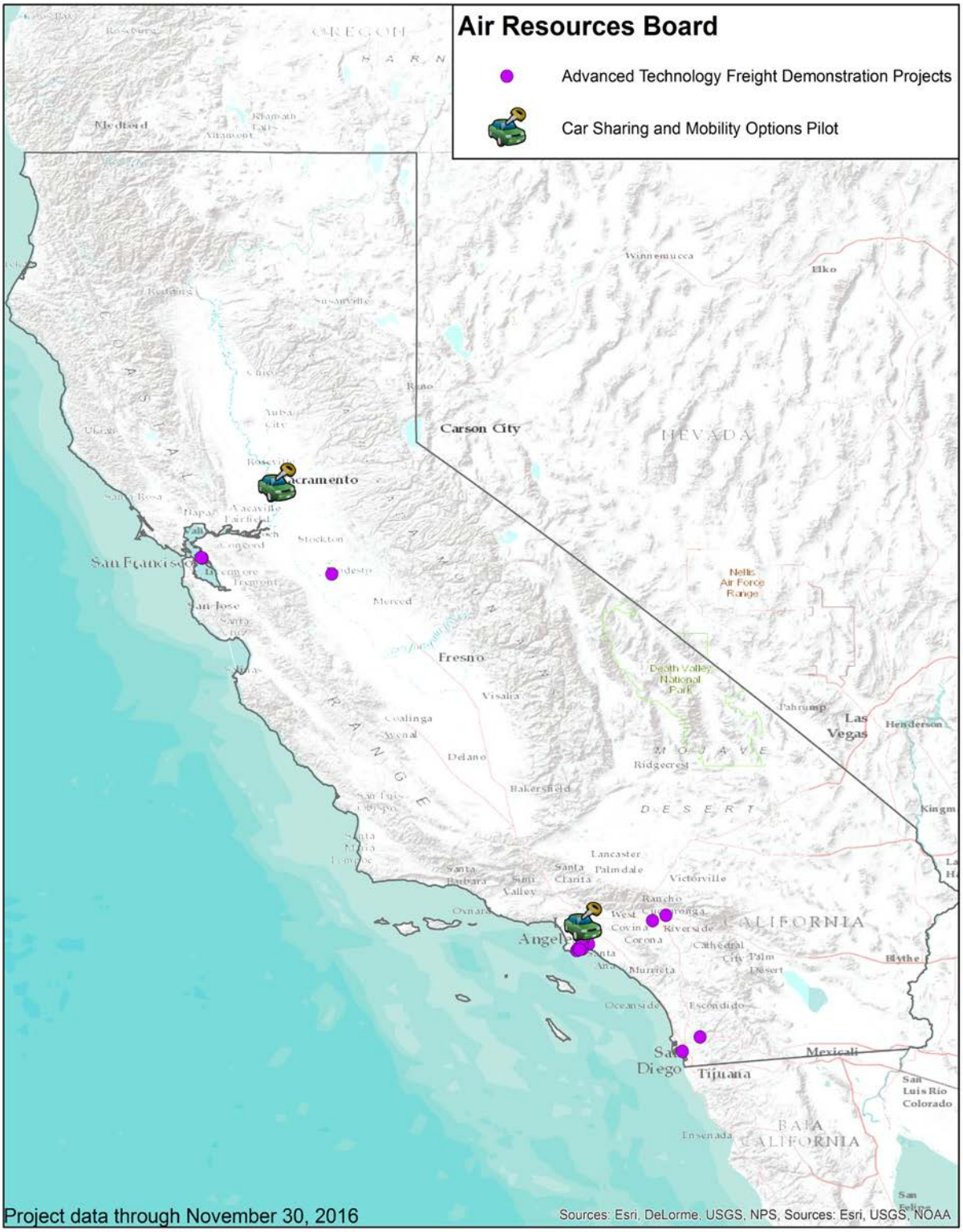
Benefiting

$3.0M | 100%

TIMEFRAME

2016-2020

Figure 14: Advanced Technology Freight Demonstration and Car Sharing and Mobility Options Pilot Projects



Clean Vehicle Rebate Project

LOW CARBON TRANSPORTATION
CUMULATIVE ALLOCATION: $337.5M
CUMULATIVE IMPLEMENTED FUNDS: $243.2M

Promotes clean vehicle adoption by offering rebates for the purchase or lease of new, eligible light-duty vehicles, including electric, plug-in hybrid electric, and fuel-cell vehicles. Offers vehicle rebates on a first-come, first-served statewide basis to eligible California residents.

Program Benefits

Achieves GHG reductions by funding the purchase of zero-emission vehicles or plug-in hybrid electric vehicles, which emit fewer GHGs than comparable conventionally fueled vehicles.

Disadvantaged community benefits include: improved public health and reduced exposure to environmental contaminants by reducing emissions from vehicles operating in or near disadvantaged communities. Increases disadvantaged community residents' access to cleaner vehicles and transportation. Provides an economic benefit to lower-income Californians and disadvantaged community residents that receive funding.

Co-benefits include: reduced NO_X, ROG, CO, PM, and toxic air contaminant emissions, which help improve air quality and provide health benefits to the communities where projects are located; reduced petroleum use; economic benefit by reducing vehicle purchase costs and fuel costs; and accelerated implementation of advanced technology.

Selected		Awarded	Implemented
$78.0M	2016	$130.0M	$107.3M
	Cumulative	$334.5M	$243.2M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

4,852,300 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$16.2M | 7%

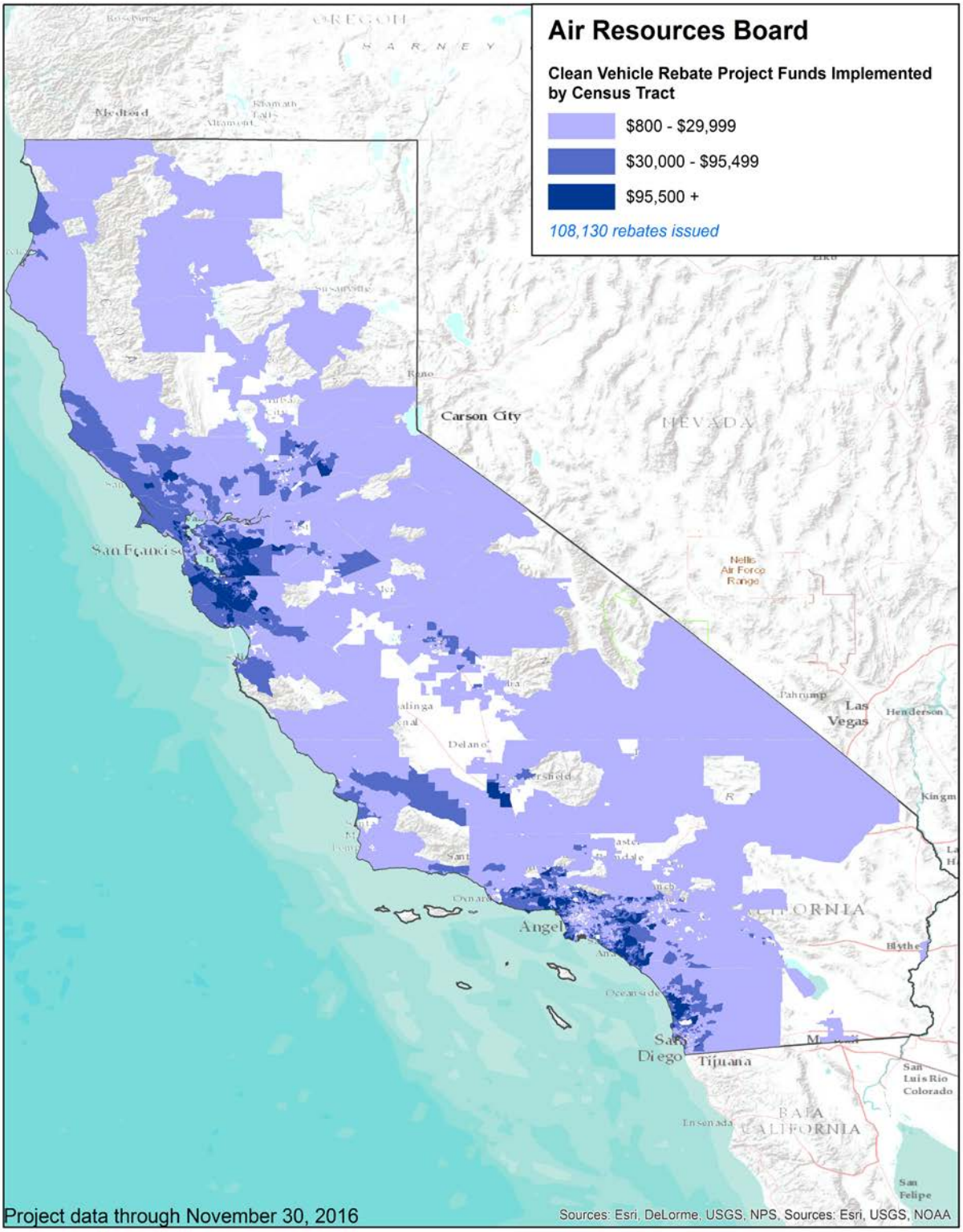
Benefiting

$92.8M | 38%

TIMEFRAME

2015 - 2031

Figure 15: Clean Vehicle Rebate Project Funds Implemented by Census Tract



Clean Vehicle Rebate Project

California is leading the nation in clean vehicle adoption with more than a quarter-million electric cars on its roadways as of December 2016. This shift away from gasoline- and diesel-fueled cars brings numerous environmental and economic benefits, including less air pollution and reduced GHG emissions.

The State's Clean Vehicle Rebate Project (CVRP), which is now 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, eligible zero-emission vehicles, including electric, plug-in hybrid electric and fuel cell vehicles. Eligible California residents can follow a simple process to apply for a CVRP rebate after purchasing or leasing an eligible vehicle. And many do.

Since 2010, CVRP has issued more than $377 million in rebates for more than 175,000 vehicles, according to the Center for Sustainable Energy, which administers CVRP for CARB.

Hector Coronel of San Diego, who leased a Nissan Leaf, was happy with the process. "It's a great program and I sincerely hope that it continues," he told the Center for Sustainable Energy. "It's great for the environment and we even got solar panels put on our house to help with powering our new Nissan Leaf. We all need to do our part in keeping our California air cleaner."

This statewide program is available on a first-come, first-served basis for new eligible clean cars. And to make clean vehicles more accessible to a greater number of California drivers 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 an increased rebate amount.

More than 11,000 rebates have been issued to individuals who live within a disadvantaged community. These investments are designed to help lower-income residents in areas of California affected most by air pollution afford the cleanest cars.

California Environmental Protection Agency
Air Resources Board

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

LOW CARBON TRANSPORTATION
CUMULATIVE APPROPRIATION: $72.0M
CUMULATIVE IMPLEMENTED FUNDS: $4.4M

Operates in conjunction with EFMP, the voluntary vehicle retirement and replacement program implemented by CARB and local air districts in coordination with the Bureau of Automotive Repair. EFMP Plus-Up provides additional incentives, above the base EFMP incentive, for lower-income consumers living in disadvantaged communities who retire older vehicles and replace them with cleaner used or new hybrid, plug-in hybrid, or zero-emission vehicles.

Program Benefits

Achieves GHG reductions by funding the purchase of new or used zero-emission vehicles, hybrids, or plug-in hybrid electric vehicles, which emit fewer GHGs than the vehicles being scrapped and conventionally fueled replacement vehicles.

Disadvantaged community benefits include: improved public health and reduced exposure to environmental contaminants by reducing emissions from vehicles operating in or near disadvantaged communities. Increased disadvantaged community residents' access to cleaner vehicles and transportation. Provides an economic benefit to lower-income Californians and disadvantaged community residents that receive funding. Funding is limited to lower-income consumers living in disadvantaged communities.

Co-benefits include: reduced NO_X, ROG, CO, PM, and toxic air contaminant emissions, which help improve air quality and provide health benefits to the communities where projects are located; reduced petroleum use; economic benefit by reducing vehicle purchase costs and fuel costs; and accelerated implementation of advanced technology.

Selected		Awarded	Implemented
$60.0M	2016	$10.0M	$3.5M
	Cumulative	$12.0M	$4.4M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

6,900 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$2.8M | 64%

Benefiting

$4.4M | 100%

TIMEFRAME

2015 - 2019

EFMP Plus-Up (Car Scrap and Replace)

SAN JOAQUIN VALLEY

Jerome Mayfield had an old pickup truck that failed smog, but thanks to a scrap-and-replace pilot program in the San Joaquin Valley he's now the proud owner of a zero-emission 2013 Nissan Leaf.

He hasn't bought gas in more than a year, and he goes everywhere in his battery-electric car–to church, to the grocery store–all while passing gas stations along the way.

"I pass the gas stations every day," he said. "By the time I get where I'm going I still have a lot of battery life left. Electric vehicles are really nice. They are really fast, too. It just takes off."

Jerome likes, too, that there's no need to check the oil – or pay for oil changes. He says the car "charges like a cell phone," and even though he plugs it in at home his PG&E bill is virtually unaffected.

Jerome qualified for the scrap-and-replace program because his car was old and polluting and his income is modest. The 54-year-old Stockton resident is on Social Security Income disability benefits because of a medical condition that prevents him from working. The program, which is administered by the San Joaquin Valley Air Pollution Control District, helps people of low-income replace old, polluting vehicles with cleaner, more fuel efficient vehicles.

Jerome learned about the program while attending an event hosted by nonprofit Valley CAN to reduce pollution from older vehicles still on the road. It was there he learned he qualified for $9,500 toward the down payment of an electric car. Once he found electric cars priced at $12,900, he figured out he'd owe just $3,400.

Jerome could not believe he was going to get a clean car until he was given a check for $9,500 with his name on it, he saw the silver Nissan Leaf he'd picked out with a bow on it and "they had the keys dangling real close to me," he says.

Jerome has had the car for more than a year now. He doesn't miss his old 1989 Chevy Silverado pickup and he loves his all-electric Nissan Leaf, which has just 30,000 miles on it. He says it's good for the environment, sure, but, more importantly for him: "I don't have to buy gas!" he says, with a wide smile.

"It's saving money and I don't get that much money. And then my payment is $60 (per month), and I can pick up enough cans to get that per month so yeah... yeah," he says, smiling.

"It's a beautiful thing that I got that car."

California Environmental Protection Agency
Air Resources Board

Financing Assistance Incentives Pilot Project

LOW CARBON TRANSPORTATION
CUMULATIVE ALLOCATION: $6.9M
CUMULATIVE IMPLEMENTED FUNDS: $0.1M

Provides financing mechanisms for lower-income consumers to buy or lease used or new hybrid, plug-in hybrid, or zero-emission vehicles. Financing assistance of various forms can be offered, including, but not limited to, loan loss guarantees for financial institutions, interest rate buy-downs, and vehicle price buy-downs.

Program Benefits

Achieves GHG reductions by funding the purchase of new or used zero-emission vehicles, hybrids, or plug-in hybrid electric vehicles which emit fewer GHGs than conventionally fueled vehicles.

Disadvantaged community benefits include: improved public health and reduced exposure to environmental contaminants by reducing emissions from vehicles operating in or near disadvantaged communities; increased access by disadvantaged community residents to cleaner vehicles and transportation; economic benefit to lower-income Californians and disadvantaged community residents that receive funding. For FY 2014-15, the pilot program was limited to lower-income consumers living in disadvantaged communities, with funding awarded to launch a project in the Bay Area. For FY 2016-17, eligibility will be expanded to lower-income consumers statewide.

Co-benefits include: reduced NO_X, ROG, CO, PM, and toxic air contaminant emissions, which help improve air quality and provide health benefits to the communities where projects are located; reduced petroleum use; economic benefit by reducing vehicle purchase costs and fuel costs; and accelerated implementation of advanced technology.

Selected		Awarded	Implemented
$6.0M	2016	$0.9M	$0.1M
	Cumulative	$0.9M	$0.1M

Cumulative Statistics for implemented funds

GHG BENEFITS

< 100 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

< $0.1M | 61%

Benefiting

$0.1M | 100%

TIMEFRAME

2016 - 2020

Pilot Financing Program for Zero to Near-Zero-Emission Vehicles

SAN FRANCISCO BAY AREA

Marie Deer, an Oakland resident, went from not having a car to acquiring a pre-owned 2015 Honda Insight, a hybrid vehicle that she was able to afford through a financing assistance program available to low-income Bay Area residents who live in disadvantaged communities most impacted by air pollution.

Not owning a car was challenging for Deer who faced a lengthy commute to work. Running simple errands like buying groceries, going to the laundromat, and taking her grandchildren on short road trips was also time consuming for the same reason. But, all those difficulties are now in the rearview mirror of her new clean car and she is thankful to be able to enjoy the many advantages of increased mobility.

"For me to have this car, first of all, is a blessing and only takes me now ten minutes to get to work and I am able to do more mobile things out especially with my grandkids," Deer said. "It is very inexpensive to buy gas. If you get low on money or anything, you can turn it over to electric and keeps the air clean."

Cleaner air is a particularly meaningful benefit that the hybrid provides to Deer. "I have two grandkids that have asthma and I have asthma, so by me driving (it) I don't pollute the air because it is a hybrid."

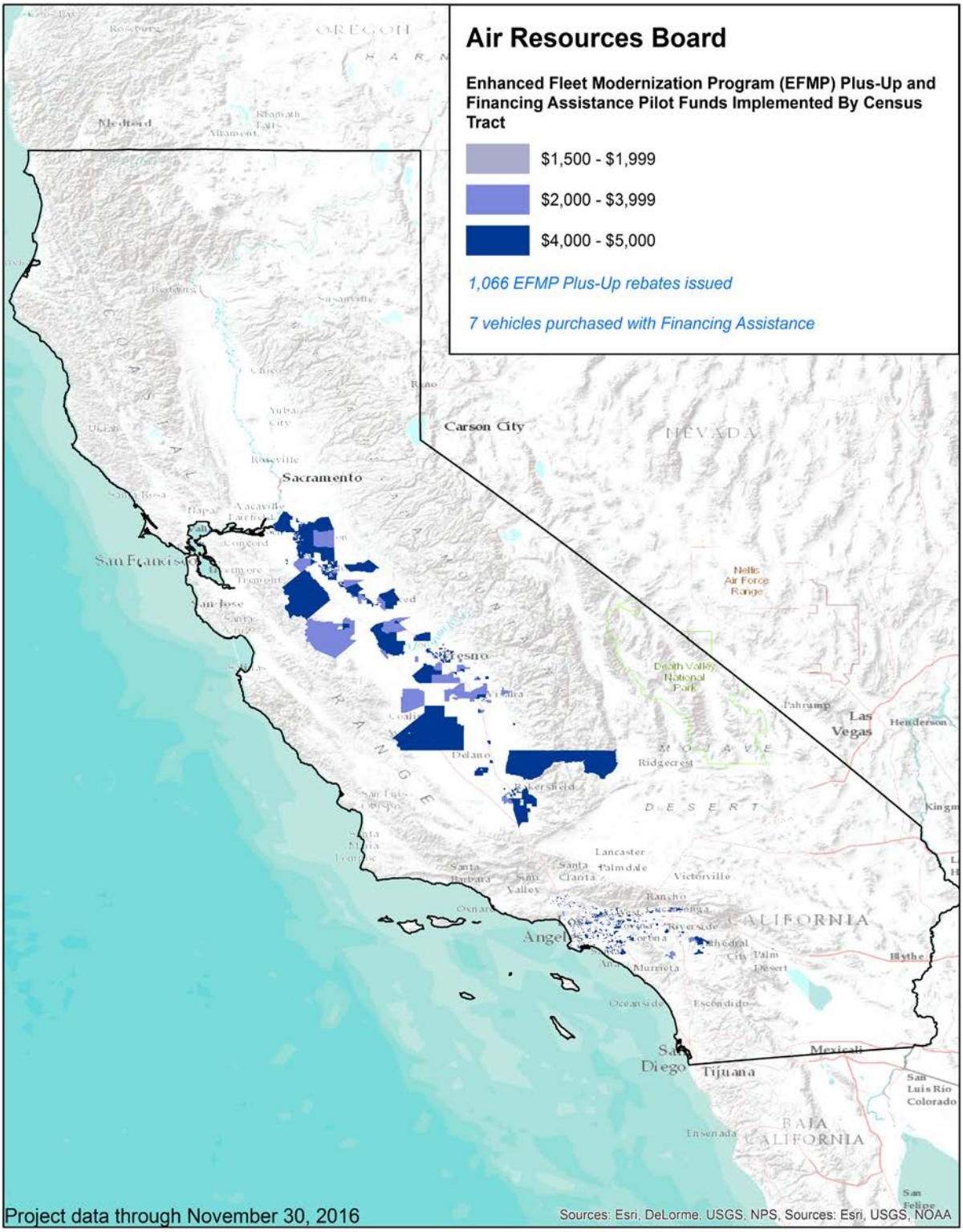
Marie's income level allowed her to qualify for $2,500 through a State grant and an additional $5,500 in financing assistance offered through the Community Housing Development Corporation in coordination with CARB.

Now Marie is one of the many Bay Area residents who have taken advantage of the financing assistance program in order to drive cleaner. And she is eager to share her experience with others.

"If I can reach out and touch anybody that is low-income family, a grandmother, a mother or a father that is struggling and trying to get from point A to point B, this is the best program to come to. They work with you, every step of the way," she emphasized.

California Environmental Protection Agency
Air Resources Board

Figure 16: Enhanced Fleet Modernization Plus-Up and Financing Assistance Pilot Funds Implemented by Census Tract



Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)

LOW CARBON TRANSPORTATION
CUMULATIVE ALLOCATION: $37.9M
CUMULATIVE IMPLEMENTED FUNDS: $25.1M

Provides vouchers, available on a first-come, first-served basis statewide, to help California fleets offset the higher up-front cost of purchasing hybrid and zero-emission trucks and buses. Additional incentives are provided for zero-emission vehicles that provide benefits to disadvantaged communities.

Program Benefits

Achieves GHG reductions by funding zero-emission and hybrid trucks and buses which emit fewer GHGs than conventionally fueled diesel vehicles.

Disadvantaged community benefits include: improved public health and reduced exposure to environmental contaminants by reducing emissions from vehicles operating in or near disadvantaged communities.

Co-benefits include: reduced NO_X, ROG, CO, PM, and toxic air contaminant emissions which helps improve air quality, and provides health benefits to the communities where projects are located; reduced petroleum use; economic benefit by reducing vehicle costs and fuel costs; and accelerated implementation of advanced technology.

Selected		Awarded	Implemented
$18.0M	2016	$10.0M	$14.1M
	Cumulative	$29.9M	$25.1M

Cumulative Statistics for implemented funds

GHG BENEFITS

76,100 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$10.7M | 43%

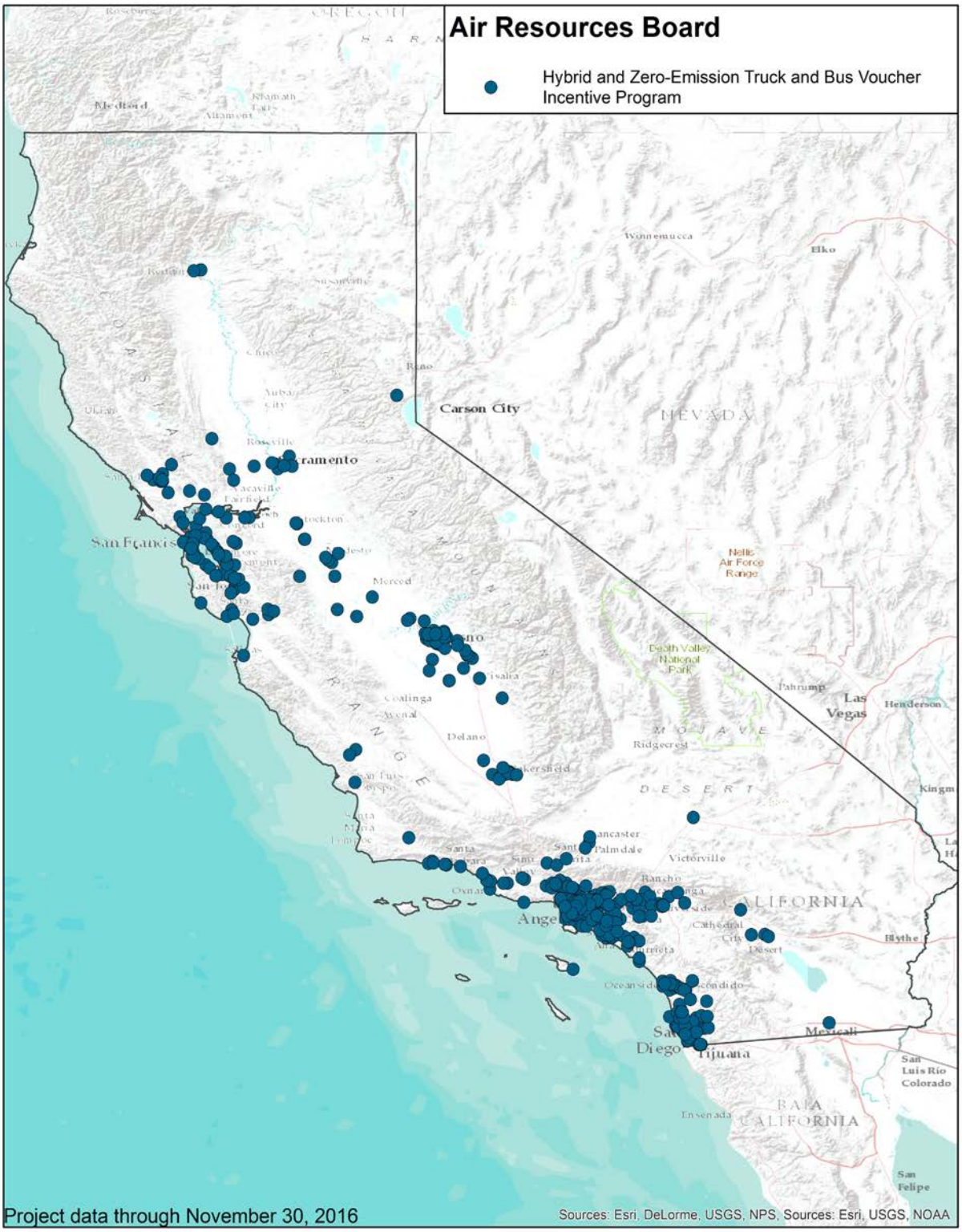
Benefiting

$15.6M | 62%

TIMEFRAME

2014 - 2031

Figure 17: Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program



Low NO_x Engine Incentives with Renewable Fuel

LOW CARBON TRANSPORTATION
CUMULATIVE APPROPRIATION: $23.0M
CUMULATIVE IMPLEMENTED FUNDS: $0

NEW PROGRAM

FY 2016-2017

This new program will provide incentives, available on a first-come, first-served basis statewide, to help California fleet owners purchase trucks and buses certified to CARB's optional low NO_x emission standards along with a requirement to use low carbon, renewable fuel to maximize GHG benefits; it will be implemented through HVIP.

Program Benefits

Projects will achieve GHG reductions by funding trucks and buses operating on low carbon, renewable fuel which emit fewer GHGs than conventionally fueled diesel vehicles.

Disadvantaged community benefits may include: improved public health and reduced exposure to environmental contaminants by reducing emissions from vehicles operating in or near disadvantaged communities.

Co-benefits may include: reduced NO_x, which helps improve air quality; increased use of renewable natural gas as a transportation fuel; economic benefits by reducing vehicle costs; and accelerated implementation of advanced technology.

Public Fleets Increased Incentives Pilot

LOW CARBON TRANSPORTATION
CUMULATIVE ALLOCATION: $5.9M
CUMULATIVE IMPLEMENTED FUNDS: $2.4M

Provides higher CVRP rebates for public fleet purchases of zero-emission and plug-in hybrid light-duty vehicles operating in disadvantaged communities.

Program Benefits

Achieves GHG reductions by funding the purchase of zero-emission vehicles or plug-in hybrid electric vehicles, which emit fewer GHGs than comparable conventionally fueled vehicles.

Disadvantaged community benefits include: improved public health and reduces exposure to environmental contaminants by reducing emissions from vehicles operating in or near disadvantaged communities. Participation is limited to public fleet vehicles operating in disadvantaged communities.

Co-benefits include: reduced NO_X, ROG, CO, PM, and toxic air contaminant emissions, which help improve air quality and provide health benefits to the communities where projects are located; reduced petroleum use; economic benefit by reducing vehicle purchase costs and fuel costs; and accelerated implementation of advanced technology.

	Awarded	Implemented
2016	$2.9M	$1.1M
Cumulative	$5.8M	$2.4M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

7,500 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$1.0M | 42%

Benefiting

$2.4M | 100%

TIMEFRAME

2015 - 2019

Rural School Bus Pilot Project

LOW CARBON TRANSPORTATION
CUMULATIVE ALLOCATION: $10.0M
CUMULATIVE IMPLEMENTED FUNDS: $0

NEW PROGRAM

FY 2016-2017

This new program will fund cleaner school buses including zero-emission school buses, near-zero-emission plug-in hybrid school buses, and school buses with internal combustion engines or hybrid school buses operating on renewable fuels that reduce GHG emissions. Priority will be given to funding buses used in small- and medium-size air districts.

Program Benefits

Projects will achieve GHG reductions by funding school buses that emit fewer GHGs than conventionally fueled diesel vehicles.

Disadvantaged community benefits may include: improved public health and reduced exposure to environmental contaminants by reducing emissions from vehicles operating in or near disadvantaged communities.

Co-benefits may include: reduced NO_X, ROG, CO, PM, and toxic air contaminant emissions, which improve air quality and provide health benefits to the communities where projects are located; reduced petroleum use; economic benefit by reducing vehicle costs and fuel costs, and accelerated implementation of advanced technology.

Zero-Emission Truck and Bus Pilot Projects

LOW CARBON TRANSPORTATION
CUMULATIVE ALLOCATION: $85.0M
CUMULATIVE IMPLEMENTED FUNDS: $13.4M

Designed to complement HVIP by supporting pilot deployment of concentrated clusters of zero-emission trucks, transit buses, or school buses, including potential funding for associated charging or fueling infrastructure, workforce training, and public outreach. These projects help to directly lower production costs by supporting efficiencies in supply chains and leveraging other funding sources.

Program Benefits

Achieves GHG reductions by funding zero-emission trucks and buses which emit fewer GHGs than conventionally fueled diesel vehicles.

Disadvantaged community benefits include: improved public health and reduced exposure to environmental contaminants by reducing emissions from vehicles operating in or near disadvantaged communities.

Co-benefits include: reduces NO_X, ROG, CO, PM, and toxic air contaminant emissions which helps improve air quality, and provides health benefits to the communities where projects are located; reduced petroleum use; economic benefit by reducing vehicle costs and fuel costs; and accelerated implementation of advanced technology.

	Awarded	Implemented
2016	$13.4M	$13.4M
Cumulative	$13.4M	$13.4M

Cumulative Statistics for implemented funds

GHG BENEFITS

16,900 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$13.4M | 100%

Benefiting

$13.4M | 100%

TIMEFRAME

2016 - 2019

Zero-Emission Truck and Bus Pilot Project

SAN JOAQUIN VALLEY

The San Joaquin Valley Transit Electrification Project has deployed 15 zero-emission battery electric transit buses, and 15 charging stations, in disadvantaged communities throughout the San Joaquin Valley.

The electric transit buses will be operated by five transit agencies, including two in Fresno (California State University, Fresno, and Fresno County Rural Transit Agency), one in Stockton (San Joaquin Regional Transit District), one in Modesto (City of Modesto Transit Services) and one in Visalia (City of Visalia Transit Division). The project will serve as a regional model for other areas of California.

The project benefits communities throughout this vast, 250-mile long air basin in a multitude of ways, by providing direct economic, environmental, and public health benefits. This investment supports the market for larger zero-emission vehicles, cuts GHGs, and delivers cleaner air where it is most needed: disadvantaged communities throughout the San Joaquin Valley.

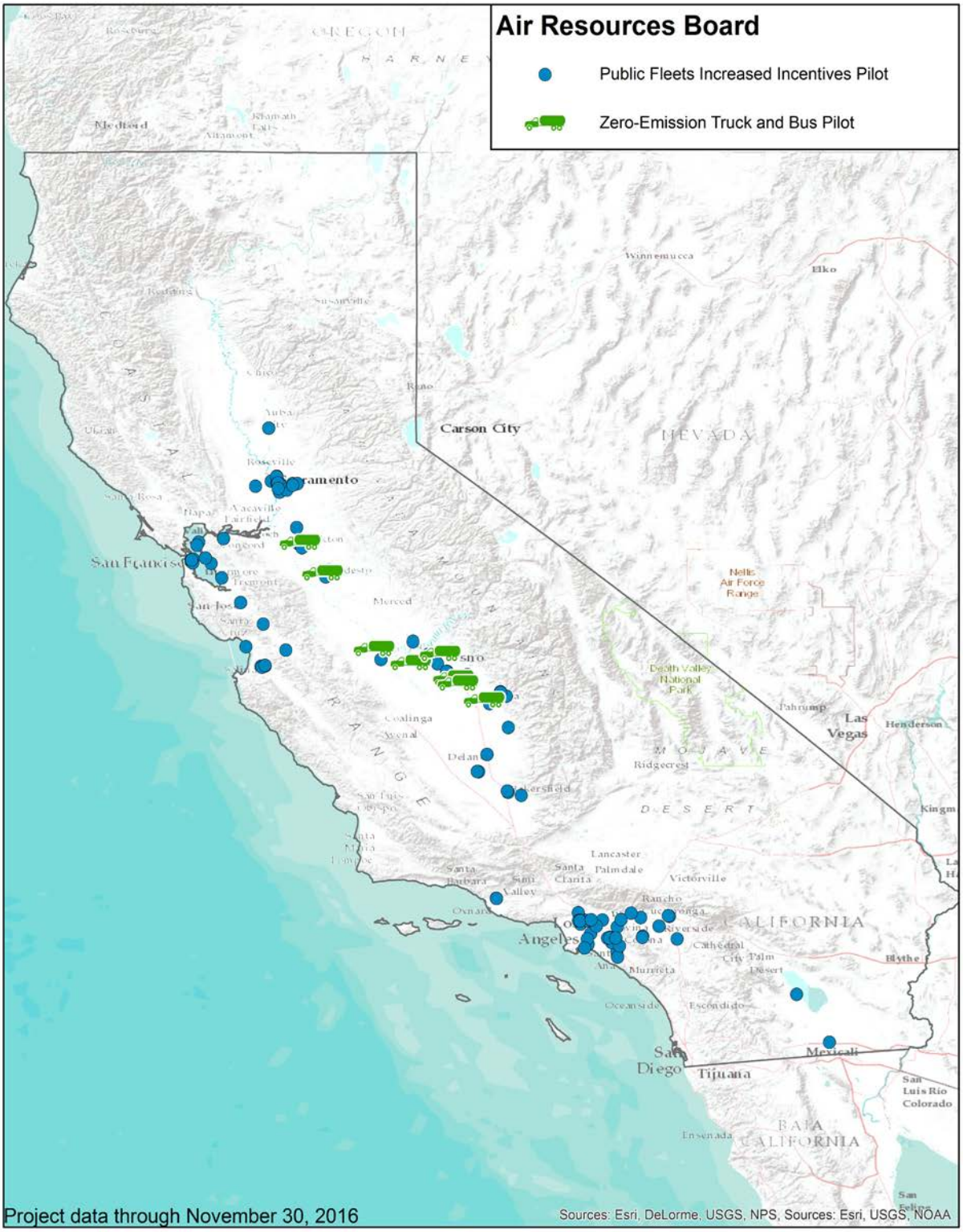
While air quality in the San Joaquin Valley has steadily improved over the past 15 –thanks to rules and plans designed to curb air pollution–the Valley remains one of the most polluted regions in the nation along with Southern California, still falling short of federal health-based standards for ozone and fine particles, and soot.

Emissions from mobile sources are one of the significant contributors to the air quality challenge facing the Valley. This project tackles that problem head-on by providing buses that have no tailpipe emissions at all. The new buses will reduce GHG emissions, and harmful particle pollutants. The project is expected to reduce nearly 1,700 $MTCO_2e$ per year.

The total $22 million project cost includes $13.4 million from Cap-and-Trade auction proceeds and $8.7 million in matching funds. Proterra will manufacture the buses and charging infrastructure in Southern California.

California Environmental Protection Agency
Air Resources Board

Figure 18: Public Fleets Increased Incentives Pilot and Zero-Emission Truck and Bus Pilot Projects



Zero-Emission Freight Equipment Pilot Commercial Deployment Project

LOW CARBON TRANSPORTATION
CUMULATIVE APPROPRIATION: $5.0M
CUMULATIVE IMPLEMENTED FUNDS: $0

NEW PROGRAM

FY 2016-2017

This new program will provide incentives for zero-emission off-road freight equipment in the early stages of commercialization to accelerate deployment and drive consumer acceptance. Eligible equipment includes zero-emission forklifts, cargo handling equipment, airport ground support equipment, and transportation refrigeration units, among others.

Program Benefits

Projects will achieve GHG reductions by funding zero-emission equipment, and systems which emit fewer GHGs than conventionally fueled vehicles.

Disadvantaged community benefits may include: improved public health and reduced exposure to environmental contaminants by reducing emissions from vehicles and equipment operating in or near disadvantaged communities.

Co-benefits may include: reduced NO_X, ROG, CO, PM, and toxic air contaminant emissions, which help improve air quality and provide health benefits to the communities where projects are located; reduced petroleum use; economic benefits by reduced equipment purchase costs and fuel costs; and accelerated implementation of advanced technology.

Active Transportation Program

CUMULATIVE APPROPRIATION: $10.0M
CUMULATIVE IMPLEMENTED FUNDS: $0

NEW PROGRAM

FY 2016-2017

This new program will fund new facilities and programs to promote increased use of active modes of transportation, such as biking and walking. This program supports new pedestrian facilities, new bike paths or lanes, and new or expanded bike share programs.

Program Benefits

The new program will achieve GHG emission reductions by funding pedestrian and bike facility construction projects and programs that displace auto trips with bicycle or walk trips to reduce vehicle miles traveled.

Investments in active transportation projects that benefit disadvantaged communities will provide better and safer access to jobs, shopping, schools, and other essential services. Additionally, these projects will reduce vehicle miles traveled and consequently reduce air pollution within disadvantaged communities.

Co-benefits include: Increased non-motorized user safety, improved public health, improved air quality, and improved active transportation facility connections, especially in disadvantaged communities.

Low Carbon Transit Operations Program

CUMULATIVE APPROPRIATION: $134.8M
CONTINUOUS APPROPRIATION: 5%
CUMULATIVE IMPLEMENTED FUNDS: $86.6M

Provides operating and capital assistance for transit agencies to reduce GHG emissions and improve mobility, with a priority on serving disadvantaged communities. Supports new or expanded bus, ferry, rail services, or transit facilities, and may include equipment acquisition, fueling, maintenance, fare reduction, voucher programs, ticket integration, bike rack additions, conversion of fleets to hybrid and/or zero-emission technology, and other costs to operate those services or facilities.

Program Benefits

Achieves GHG emission reductions by increasing ridership and reducing passenger vehicle miles traveled through expenditures that support new or expanded service or transit facilities (e.g., providing better bus connections to intercity rail, encouraging people to shift from cars to mass transit, using zero-emission or hybrid buses on new routes).

To maximize benefits to disadvantaged communities, transit agencies whose service areas include a disadvantaged community must expend at least 50 percent of the total funds received on projects or services that benefit the disadvantaged community. Expenditures support improved access to transit services which will improve public health and provide greater access to jobs, schools, and businesses for disadvantaged communities.

Co-benefits include: reduced vehicle miles traveled through projects that could reduce congestion, improved air quality, improved transit service and increased transit ridership; promotion of housing development and employment within a one-half mile walk of a transit or rail station through projects encouraging service and capital enhancements; improved and enhanced transit service to improve mobility and access to alternative transportation options; increased access and connectivity of public transportation modes to biking and pedestrian pathways during first/last mile of the trip; improved public health and air quality, especially for disadvantaged communities; increased public safety by funding projects that reduce vehicle miles traveled, reduce congestion, and reduce public exposure to varying climates thus decreasing risk of vehicle/pedestrian accidents; improved mobility and access to low cost transportation that connects them with education or job opportunities, especially for disadvantaged communities, thus providing an economic benefit to both the individual and the State; reduced transportation costs by funding capital projects that improve transit systems efficiency or reduce the fare to ride transit.

Cumulative Statistics for Implemented Funds

GHG BENEFITS

727,800 $MTCO_2e$[14]

DISADVANTAGED COMMUNITY BENEFITS

Located In

$58.0M | 67%

Benefiting

$81.3M | 94%

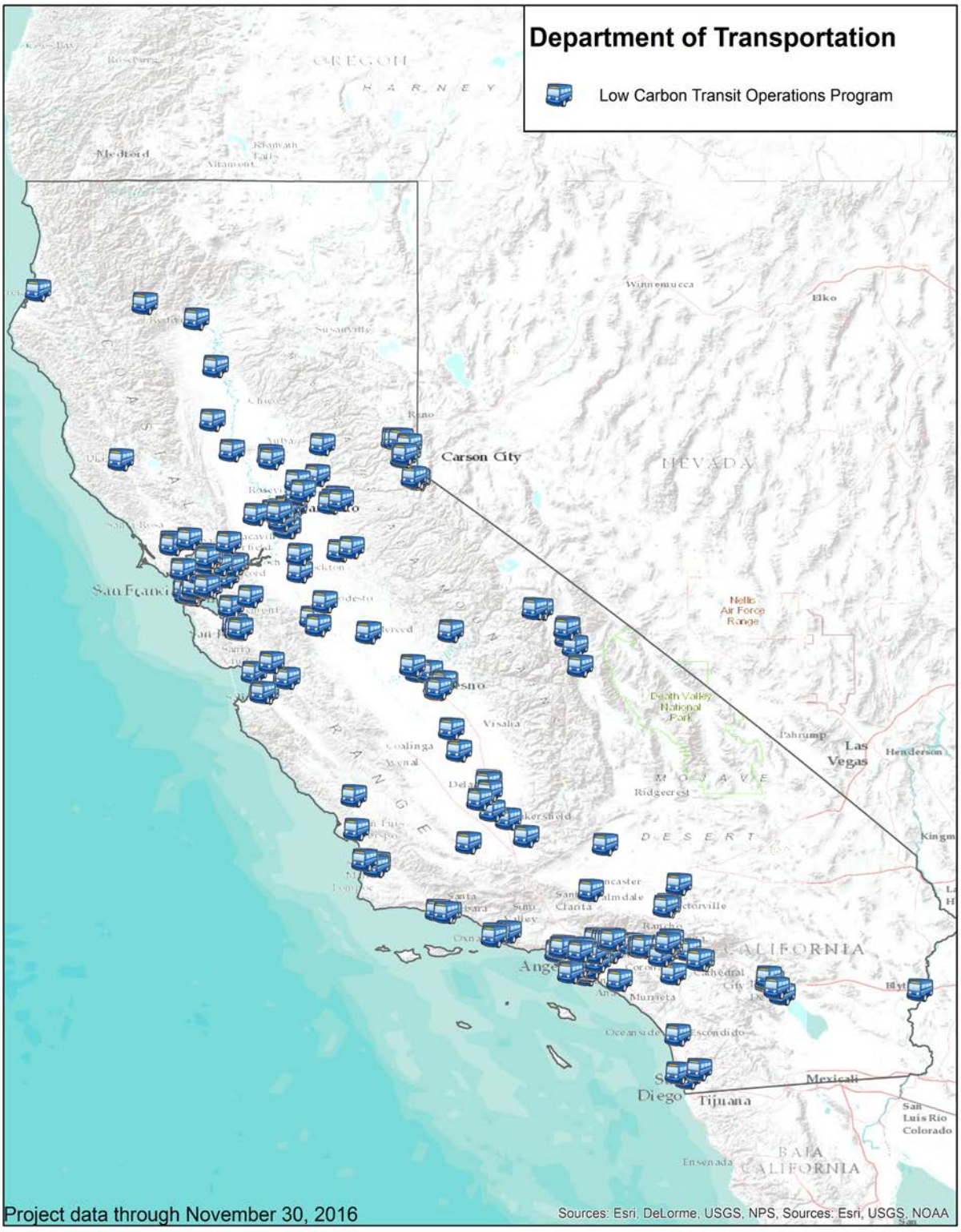
TIMEFRAME

2015 - 2066

Selected		Awarded	Implemented
$12.2M	2016	$62.5M	$62.5M
	Cumulative	$86.6M	$86.6M

14 For FY 2014-15, as an interim guide to comply with the GHG 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.

Figure 19: Low Carbon Transit Operations Program



Low Carbon Transit Operations Program

VISALIA-FRESNO SHUTTLE PROJECT

Deep in California's Central Valley, the small City of Visalia took a big step when it started its Visalia-Fresno Shuttle Project in November 2015. The five-stop "V-line," part of the Visalia Transit system, has a stop for everyone – students headed to Fresno State University, travelers bound for Fresno Yosemite International Airport, even visitors off to see Fresno's leafy Courthouse Park.

Operating six round trips daily, seven days a week, the CNG-powered shuttles provide disadvantaged communities and area residents with greater access to centralized employment, airports and education. Ridership jumped from less than two hundred during the first month to nearly 1,200 in April, with an estimated 13,300 climbing on board per year. Average trip length is 39 miles each way, equating to nearly 520,000 trip-miles annually.

Those who take advantage of the V-line will ride in style, since each 20-passenger shuttle features comfortable seats, free Wi-Fi, USB charging ports, storage racks, and can accommodate two wheelchairs per trip. The cost is $10 each way, $9 for students, seniors, the disabled, and veterans. During its first year, Fresno State University paid the cost of round trips for its students and employees.

When the V-line's ribbon was cut, and the Visalia Rawhide (minor league farm team to the Arizona Diamondbacks) sent their mascot, Tipper the Cow, to meet Fresno State's Bulldog mascot, TimeOut, it was the culmination of a vision of greater connectivity and accessibility.

"We are excited to finally see the V-Line shuttle route meet the needs of many students, airline passengers and others, while improving air quality, transportation choices, and overall quality of life for many here in the south San Joaquin Valley," said Monty Cox, Visalia's former transit manager. With the City projecting annual ridership to ultimately surpass 16,000 passengers per year, it looks like the vision is becoming reality.

Caltrans®

High-Speed Rail Project

CUMULATIVE APPROPRIATION: $800.5M
CONTINUOUS APPROPRIATION: 25%
CUMULATIVE IMPLEMENTED FUNDS: $348.0M

Planning, designing, and constructing rail service from San Francisco to the Los Angeles basin, via the Central Valley, with trains capable of exceeding 200 miles per hour. The High Speed Rail Authority has executed three major design-build contracts to date, covering 119 miles of the service line. These contracts provide the foundational infrastructure for Phase I of the high-speed rail service, which will connect San Francisco and the Los Angeles basin, via the Central Valley, by 2029. Cumulatively selected and implemented funds are committed for Phase I development/construction, and the continuous appropriation of auction proceeds are used to leverage additional financial support for the project.

Program Benefits

Projected reductions in GHG emissions will result from shifting passengers from fossil-fueled forms of transportation to electric and high-speed rail service powered by renewable energy. The projected reduction timeframe shows cumulative reductions for the first fifty years of operations and are based on ridership forecasts.

Cumulative Statistics for Implemented Funds

GHG BENEFITS

58,700,000 $MTCO_2e$

FOR FULL SYSTEM

OVER 50 YEARS

DISADVANTAGED COMMUNITY BENEFITS

Located In

1,300 JOB YEARS[15]

TIMEFRAME

2025 - 2075

Between 2006 and 2016, investment in the High-Speed Rail system delivered over $1 billion in outlay to disadvantaged communities. Currently, the high-speed rail program is providing jobs and jobs training by conducting workshops on contracting and certification for small businesses located in disadvantaged communities. Once in operation, stations will provide greater mobility and access within disadvantaged communities, as well as regional reductions in vehicle miles travelled, which will result in reduced health harms (e.g., asthma) and reduce exposure to local environmental contaminants. Permanent jobs will be created to operate and maintain the system.

Co-benefits include:

- Cumulative investments have resulted in 13,850 job-years over fiscal years 2014-15 to 2015-16; construction on the first segment is projected to create several thousand additional jobs over the next five years;
- Engagement with 305 certified small businesses in California;
- Executed a voluntary emission reductions agreement to offset 209 tons of lifetime criteria air pollutants;
- Investments in local transit and rail service result in additional criteria pollutant reduction;
- Implementation of grade separations, which will reduce idling and provide public safety benefits;
- Avoided over 180 pounds of black carbon and several thousand tons of GHG emissions not captured in project quantification by recycling over 62,000 tons of construction and demolition debris to date; and
- Urban and rural tree planting associated with the project are expected to result in additional GHG reductions that are not quantified as part of the project.

Selected		Awarded	Implemented
$618.3M	2016	$89.0M	$89.0M
	Cumulative	$348.0M	$348.0M

15 The High-Speed Rail Project has directly supported the equivalent of over 1,300 full-time jobs in disadvantaged communities in FY 2015-16. This figure includes full time equivalent (FTE) positions in construction/trades, planning, engineering, and other services. Construction/trades jobs, which provide an average hourly wage of $42 per hour, supported 1,528 FTEs; of these 893 FTEs were located in a disadvantaged community. Professional services jobs, which provide an average wage of $65 per hour, supported 494 FTEs; of these, 289 FTEs were located in a disadvantaged community. More information about these statistics is available in the February 2017 publication, The Economic Impact of California High-Speed Rail.

Pre-Apprenticeship Training Student Lands Job on High-Speed Rail

Students continue to flock to classes and training that can lead to jobs on California's High-Speed Rail project and other infrastructure projects. Two years ago, Yovani Moreno took Pre-Apprenticeship Training classes at the Construction and General Laborers' Local 294 union hall in Fresno.

"I had a felony in my past so it was hard to maintain a job," explained Moreno. "I worked in landscaping, manufacturing and food packing, but only made minimum wage – $8 an hour."

Construction training helped him join the Laborers' Union and make $17.50 an hour as an apprentice on the High-Speed Rail project. Currently, Yovani is making $24 an hour doing traffic control. His pay will jump to $28 an hour when he becomes a journeyman. The 34-year-old, who has a 5-year-old son and 8-year-old daughter, calls the job a blessing.

"I can pay my bills on time. And when my daughter's birthday comes up, I can throw her a birthday party and buy her a nice gift." Moreno hopes one day to become a job superintendent, foreman, or a business owner. He said, "It's hard, but I know if I just keep going, my family will get the benefits."

CALIFORNIA
High-Speed Rail Authority

Transit and Intercity Rail Capital Program (TIRCP)

CUMULATIVE APPROPRIATION: $380.6M
CONTINUOUS APPROPRIATION: 10%
CUMULATIVE IMPLEMENTED FUNDS: $224.3M

Funds transformative capital projects that modernize California's transit and rail systems and reduce emissions of GHGs, vehicle miles traveled, and congestion. This competitive program supports projects that integrate State and local transit systems, enhance network and system performance, optimize multi-modal connectivity, improve access within communities, and provide connectivity to the high-speed rail system.

Program Benefits

Achieves GHG reductions through technological improvements and increased transit and rail ridership.

Disadvantaged community benefits include: improved health, mobility, connectivity, and access for disadvantaged communities through investments that modernize intercity rail, bus, ferry, and rail transit systems in those communities. These benefits are primarily achieved through new or improved service to stations serving a disadvantaged community.

Co-benefits include: improved movement and access, connecting the community to important destinations such as housing, places of employment, educational centers, medical centers, and retail locations; improved integration of multiple modes of travel through improvements such as integration of schedules and ticketing as well as capital investments; improved reliability and reduced travel times; reduced vehicle miles traveled through shift in auto riders to transit and rail; improved air quality through implementing clean vehicle technology and increased ridership; increased health benefits resulting from improved air quality and non-motorized transportation trips, such as walking and biking, made as part of transit and rail connections; enhanced economic opportunities for transit served areas; reduced auto congestion for non-transit users; improved safety through improved transit infrastructure; and increased environmental and economic sustainability through support of a transportation network that integrates multiple modes of transportation and utilizes modernization of equipment and infrastructure.

Cumulative Statistics for Implemented Funds

GHG BENEFITS

869,100 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$182.4M | 81%

Benefiting

$213.3M | 95%

TIMEFRAME

2015 - 2036

Selected		Awarded	Implemented
$390.9M[16]	2016	$145.9M	$145.9M
	Cumulative	$224.3M	$224.3M

16 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.

Transit and Intercity Rail Capital Program

METROLINK PROJECT

In Southern California, it's not hard to find folks "railing" against lengthy work commutes. Sitting in traffic is not a popular pastime, so expanded and upgraded service on Metrolink is welcome news. With these improvements, more commuters can leave their cars at home, jump on a train, and enjoy a book or plug in their electronic devices to enjoy their ride to work.

Thanks to California Climate Investments, some commute times in Southern California may have just gotten a little shorter. Cap-and-Trade proceeds are contributing $41 million toward the purchase of 20 locomotives to replace and expand service on the Metrolink commuter rail.

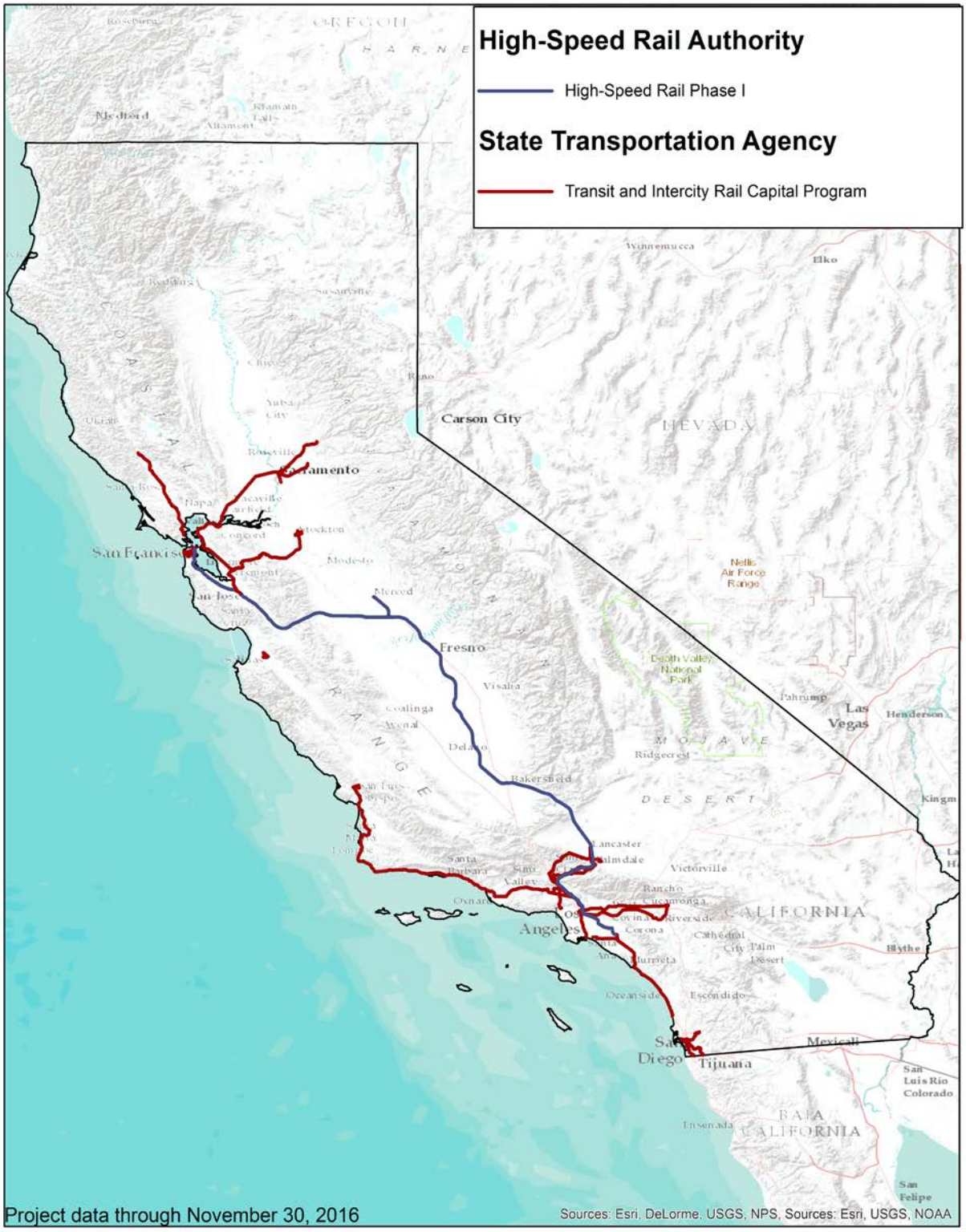
These state-of-the-art "Tier 4" locomotives will reduce GHG emissions while also reducing emissions of particulate matter and nitrous oxides by up to 85 percent. In addition to their environmental benefits, the new Tier 4 locomotives will have up to 57 percent more horsepower, allowing Metrolink to move passengers more quickly and increase service on the Antelope Valley and Ventura County lines. In fact, Metrolink is the first commuter rail agency in the country to purchase the Tier 4 trains.

This project is one of many Southern California projects funded through California Climate Investments that modernize rail and increase transit connectivity, including connectivity to High-Speed Rail.

Other grants include: funding for the Amtrak Surfliner service to reduce trip time by up to 25 minutes and increase service frequency; funding for the Los Angeles Metropolitan Authority Blue, Red, and Purple lines for service and capacity improvements, as well as a new station connecting Metro's rail system to LAX Airport; funding for Orange County Streetcar Project construction; and funding to expand San Diego Trolley Service.

CalSTA℠
CALIFORNIA STATE TRANSPORTATION AGENCY

Figure 20: High-Speed Rail Phase I and Transit and Intercity Rail Capital Program Projects



California Strategic Growth Council

AFFORDABLE HOUSING & SUSTAINABLE COMMUNITIES
CONTINUOUS APPROPRIATION: 20%

Funds land-use, housing, transportation, and land preservation projects to support infill and compact development that reduces GHG emissions through reduction of passenger vehicle miles traveled. The program is comprised of two sub-programs, the Affordable Housing and Sustainable Communities Program and the Sustainable Agricultural Lands Conservation Program.

APPROPRIATIONS TO DATE

$570M

Affordable Housing and Sustainable Communities

AFFORDABLE HOUSING & SUSTAINABLE COMMUNITIES
CUMULATIVE APPROPRIATION: $526.0M
CUMULATIVE IMPLEMENTED FUNDS: $71.0M

Invests in projects that reduce vehicle miles traveled by supporting compact, infill development patterns, encouraging active transportation and transit usage, and protecting agricultural land from sprawl development.

Program Benefits

Reduces GHG emissions by reducing vehicle miles traveled through projects that increase residential densities and improve access to transit and active transportation opportunities.

Disadvantaged community benefits include: providing affordable housing, transit, and active transportation opportunities and a variety of other co-benefits to disadvantaged communities. Enhances the livability of these communities and provides their residents with improved access to jobs, health care, and other key amenities.

Co-benefits include: reduced household housing costs through increased affordable housing supply; reduced household transportation costs through the coordinated development of affordable housing, jobs, and multi-modal transportation; increased access to healthier modes of transportation (e.g., walking, biking, rail, bus); improved air quality and health benefits; increased access to parks; and reduction of water use.

Selected		Awarded	Implemented
$416.3M	2016	$71.0M	$71.0M
	Cumulative	$71.0M	$71.0M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

529,000 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$36.2M | 51%

Benefiting

$47.3M | 67%

TIMEFRAME

2015 - 2046

Affordable Housing & Sustainable Communities Program

MACARTHUR PARK APARTMENTS (PHASE B) PROJECT

This second phase of the MacArthur Park Apartments increases affordable housing and access to transit for a high density neighborhood near downtown Los Angeles. The 82-unit mixed use affordable housing development also includes about 7,000 square feet of retail space.

The housing development is directly above the Westlake/MacArthur Park Station, serving the Los Angeles Metro Rail's Red and Purple lines, enhancing accessibility to the popular commuter trains that carry riders through the most heavily trafficked areas of Los Angeles including downtown, the Mid-Wilshire area, and the San Fernando Valley. As part of the project, an older pedestrian portal to the Metro will be demolished and a new one will be constructed to improve access to the subway station platform and provide a more efficient link to bus and commuter parking options along Westlake Avenue. The project includes an escalator that improves access from the east side of the neighborhood and shortens the pedestrian trip by two blocks, and includes a new elevator for ADA access.

The project's design includes a central common area with children's play space, seating, landscaping, barbecue facilities and picnic tables. The building itself, designed to meet LEED Silver rating certification, is five stories; the residential units are built above secure parking and ground floor retail space.

The project meets many of the objectives of the Affordable Housing and Sustainable Communities Program, including developing affordable housing close to transit, which gives people the option to forgo driving, thereby reducing greenhouse gas emissions. These type of developments are not only key to helping the State meet its greenhouse gas reduction goals, but they're helping families afford rent and still have enough money left over for basic necessities.

This construction phase of the mixed-use MacArthur Park Apartments will complete the development of this vital neighborhood hub, providing long term housing affordability and services for residents. The project exemplifies the AHSC mission of connecting people to vital destinations like health care, education and healthy food choices, while reducing automobile trips and encouraging transit use.

CALIFORNIA STRATEGIC GROWTH COUNCIL

Sustainable Agricultural Lands Conservation

AFFORDABLE HOUSING & SUSTAINABLE COMMUNITIES
CUMULATIVE APPROPRIATION: $44.0M
CUMULATIVE IMPLEMENTED FUNDS: $3.8M

A component of the Affordable Housing and Sustainable Communities Program, the Sustainable Agricultural Lands Conservation Program is tasked with making strategic investments that prevent agricultural lands from being converted to more GHG-intensive land uses, specifically by protecting at-risk agricultural lands from conversion to urban or rural residential development.

Program Benefits

GHG emission reductions are quantified from the estimated vehicle miles traveled avoided by protecting agricultural land and limiting opportunities for expansive, vehicle-dependent forms of development.

Disadvantaged community benefits include: providing public access to members of disadvantaged communities for specified recreational or educational programs and providing flood protection for downstream disadvantaged communities.

Co-benefits include: protection of open space and view shed, riparian corridors (including Coho salmon streams), oak woodland and special plant species, and seasonal migration routes for deer; sage grouse habitat; and high Sierra Nevada groundwater recharge. In many cases, adjacency to other protected lands enhances the zone of protection.

Selected		Awarded	Implemented
$37.4M	2016	$0	$0
	Cumulative	$3.8M	$3.8

Cumulative Statistics for implemented funds

GHG BENEFITS

69,000 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$0 | 0%

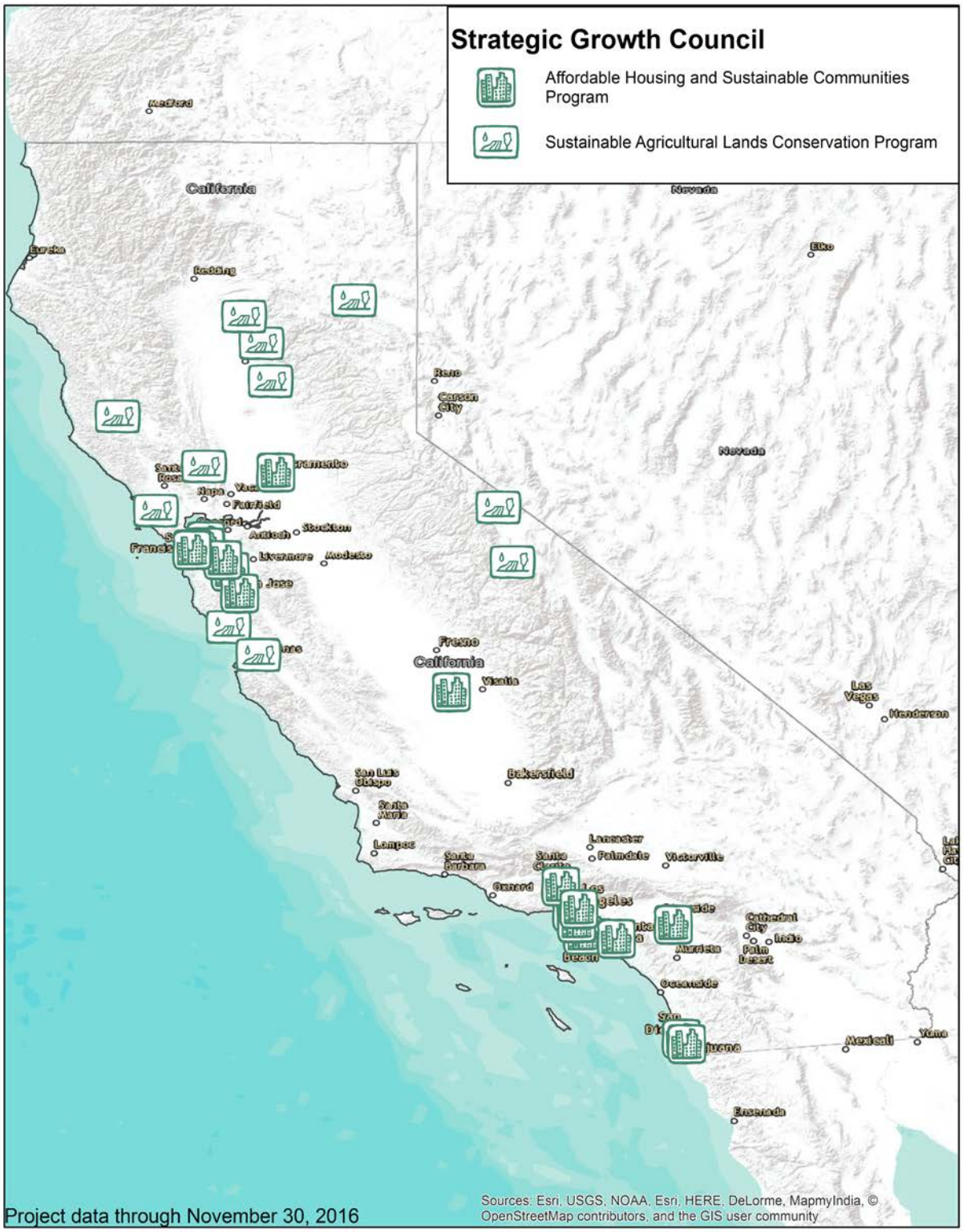
Benefiting

$0 | 0%

TIMEFRAME

2015 - 2046

Figure 21: Affordable Housing and Sustainable Communities Program and Sustainable Agricultural Lands Conservation Program Projects



Transformative Climate Communities (TCC)

CUMULATIVE APPROPRIATION: $140.0M
CUMULATIVE IMPLEMENTED FUNDS: $0

NEW PROGRAM

FY 2016-2017

This new program will fund the development and implementation of neighborhood-level transformative climate community plans that include multiple, coordinated GHG emission reduction projects that provide local economic, environmental, and health benefits to disadvantaged communities. Strong local engagement and cross-sector partnerships are critical to realizing each community's vision for TCC projects. The TCC Program will serve as a model for catalyzing local, multi-sector partnerships that leverage private and public funds to sustain community revitalization and equitable development, while helping to meet the State's climate goals.

Program Benefits

GHG emission reductions will be achieved through an integrated, community-based approach, identified through strategic investments in transportation, housing, energy, natural resources, and/or waste.

Focusing initial investments for this program on the communities where a substantial State investment can promote significant change, with 100 percent of the FY 2016-17 funds intended to benefit those within the top 5 percent of disadvantaged communities in the State.

Co-benefits may include: promotion of infill development; coordinated development of transportation and other infrastructure in existing urban boundaries; increased economic vitality; cleaner air and improved public health; decreased consumption of energy, water, and other natural resources; reduced conversion of farmland and natural habitat areas, which can provide carbon sequestration; and the opportunity for more efficient infrastructure investment and delivery of municipal services.

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.

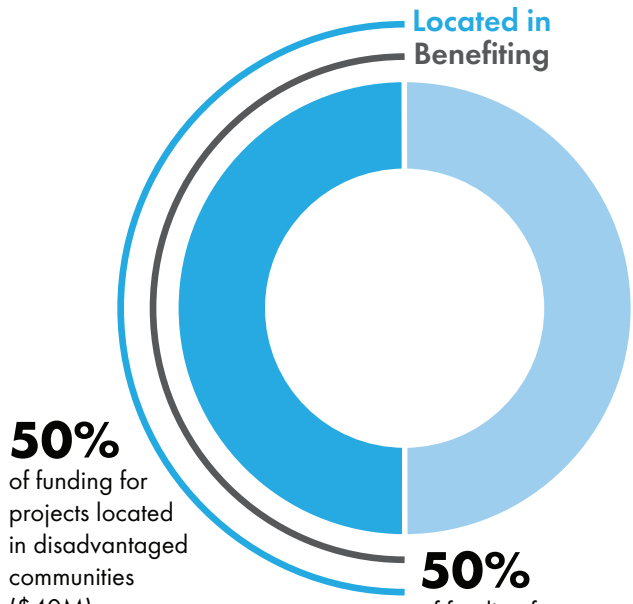
These investments provide a variety of benefits for communities, households, and individuals statewide. For example, in addition to providing jobs and job training, CSD's Low Income Weatherization Program and the Department of Water Resources' Water-Energy Grant Program are installing measures to increase residential energy and water efficiency, which results in cost-savings for individuals and families. CDFA's State Water Efficiency and Enhancement Program 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.

CLEAN ENERGY AND ENERGY EFFICIENCY

- $320M appropriated
- 4 agencies
- 0.8 MMTCO$_2$e GHG reductions

Agency investments are described below; in some cases these investments are allocated to multiple sub-programs. For more information about the details of a specific program or sub-program, please visit: www.arb.ca.gov/cc/capandtrade/auctionproceeds/ggrfprogrampage.htm.

Clean Energy and Energy Efficiency
$80M Implemented



50%
of funding for projects located in disadvantaged communities ($40M)

50%
of funding for projects benefiting disadvantaged communities ($40M)

Woodsmoke Reduction Program

CUMULATIVE APPROPRIATION: $5.0M
CUMULATIVE IMPLEMENTED FUNDS: $0

NEW PROGRAM

FY 2016-2017

This new program will replace existing, uncertified residential wood burning devices used to heat homes with cleaner burning, more efficient heating devices. CARB will administer the $5 million appropriation for the Woodsmoke Reduction Program through the California Air Pollution Control Officers Association (CAPCOA) and local air pollution control districts or air quality management districts.

Program Benefits

Projects will achieve GHG emission reductions by increasing efficiency and reducing emissions with new heating devices. The increased efficiency reduces the amount of wood consumed and consequently the amount of GHG emissions and air pollution generated.

Residents living in low income communities or low income households will benefit from this program. Those participating in the change-out program will experience multiple benefits, including potentially reducing the costs of home heating. Those living in the community, but not participating directly in the woodsmoke reduction program, will still benefit from the improvement in air quality and visibility.

Co-benefits may include: improvements in indoor and outdoor air quality due to reduction in PM2.5, black carbon, and toxic air contaminants; health benefits associated with a decrease in exposure to air pollutants; savings for residents through a reduction in the amount of wood burned; improvements in safety associated with using a professionally installed space heating device; increase in home value; and improvements in visibility due to reductions in airborne particulate matter.

LOW-INCOME WEATHERIZATION PROGRAM (LIWP)

APPROPRIATIONS TO DATE

$174M

The Department of Community Services and Development's (CSD) LIWP serves low-income households within disadvantaged communities in three subprograms: Single-Family/Small Multi-Family Energy Efficiency and Solar Water Heating; Single-Family Solar Photovoltaics (PV); and Large Multi-Family Energy Efficiency and Renewables.

Dwellings are assessed to determine the best package of retrofit measures to improve the energy efficiency performance of low-income residential housing. Measures may include insulation, caulking, water heater blankets, window repair or replacement, refrigerator replacement, water heater repair/replacement, and heating and cooling system repair/replacement. Renewable energy measures include installation of solar water heating systems and rooftop solar PV systems.

In total, CSD's three programs have funded more than 100,000 paid work hours, including more than 30,000 paid work hours performed by residents of disadvantaged communities; the overall weighted average salary was approximately $15 an hour for these jobs. In addition to paid jobs, CSD's programs also funded job training for more than 1,000 people, including more than 400 residents of disadvantaged communities. The jobs included many classifications, such as Weatherization Crewperson, Crew Assistant, Crew Leader/Supervisor, Assessor, Solar Installer, Inspector, Field Superintendent, Warehouse Clerk, and a variety of administrative jobs that support program implementation (e.g., Clerical/Marketing and Outreach; Data Entry/Intake; Secretarial). More than half of the paid work hours were funded by the Single Family/Small Multi-Family Energy Efficiency and Solar Water Heating program and more than 90 percent of the job training was provided under the Single-Family Solar PV program.

In 2016, AB 1613 amended the FY 2016-17 Budget Act to appropriate $20 million for the continuation of LIWP. With these funds, CSD plans to focus on multi-family dwellings and introduce a new pilot subprogram component to fund innovative projects such as community solar.

Large Multi-Family Energy Efficiency and Renewables

LOW-INCOME WEATHERIZATION PROGRAM
CUMULATIVE ALLOCATION: $24.0M
CUMULATIVE IMPLEMENTED FUNDS: $0

Provides multi-family, low-income properties with technical assistance and incentives for weatherization and energy efficiency measures that may include: weather-stripping, insulation, caulking, boiler replacements, window repair or replacement, refrigerator replacement, heating and cooling system repair/replacement, solar water heaters, and solar photovoltaic systems. These measures improve home comfort and allow for savings on energy costs. CSD has selected a service provider to administer the program throughout California.

Program Benefits

GHG emission reductions are achieved from the use of renewable energy over other energy sources, and by reducing energy consumption through the installation of energy-efficiency measures. GHG emissions reductions will be quantified as projects are implemented.

All projects will be located in disadvantaged communities and address the community need of providing energy savings for low-income households and properties through the installation of measures that improve overall efficiency and generate renewable energy. Disadvantaged community benefits will be quantified as awarded funds are implemented.

Co-benefits may include: energy savings, employment opportunities, job training, local economic benefits, and improved living conditions.

	Awarded	Implemented
2016	$0	$0
Cumulative	$24.0M	$0

Cumulative Statistics for Implemented Funds

GHG BENEFITS

TBD

DISADVANTAGED COMMUNITY BENEFITS

Located In

TBD

Benefiting

TBD

TIMEFRAME

2017 - 2048

Single-Family Solar Photovoltaics

LOW-INCOME WEATHERIZATION PROGRAM
CUMULATIVE APPROPRIATION: $71.8M
CUMULATIVE IMPLEMENTED FUNDS: $19.0M

Provides low-income, single-family homes with rooftop solar PV systems to expand access to renewable solar energy. CSD has awarded funds to a service provider to install systems throughout California, and to a pilot program serving nine counties.

In FY 2016-2017, CSD is transitioning to a new subprogram model for the Single-Family Energy Efficiency and Solar PV components through competitive procurements for regional administrators with allocations from CSD's FY 2015-16 funds.

Program Benefits

GHG emission reductions are achieved from the use of clean renewable energy instead of energy from fossil fuel sources.

Disadvantaged community benefits include: generation of renewable energy, and energy cost savings.

Co-benefits include: energy savings, employment opportunities, local economic benefits, and job training.

	Awarded	Implemented
2016	$26.5M	$12.7M
Cumulative	$48.8M	$19.0M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

60,000 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$19.0M | 100%

Benefiting

$19.0M | 100%

TIMEFRAME

2015 - 2046

Low-Income Weatherization and Solar PV Program

SACRAMENTO COUNTY

After facing increasingly unaffordable energy bills year-after-year, Milton, a Sacramento County resident, learned about the State's low-income solar program offered through the Sacramento Municipal Utility District (SMUD). He became interested in the program and was one of many residents that benefited from this assistance.

To stoke interest and get the word out, SMUD sent letters to thousands of customers enrolled in its Energy Assistance Program rate promoting the Low-Income Weatherization Program (LIWP) administered by Grid Alternatives. After some consideration, Milton decided to apply and was soon approved for a rooftop solar installation under the Cap-and-Trade-funded LIWP solar program.

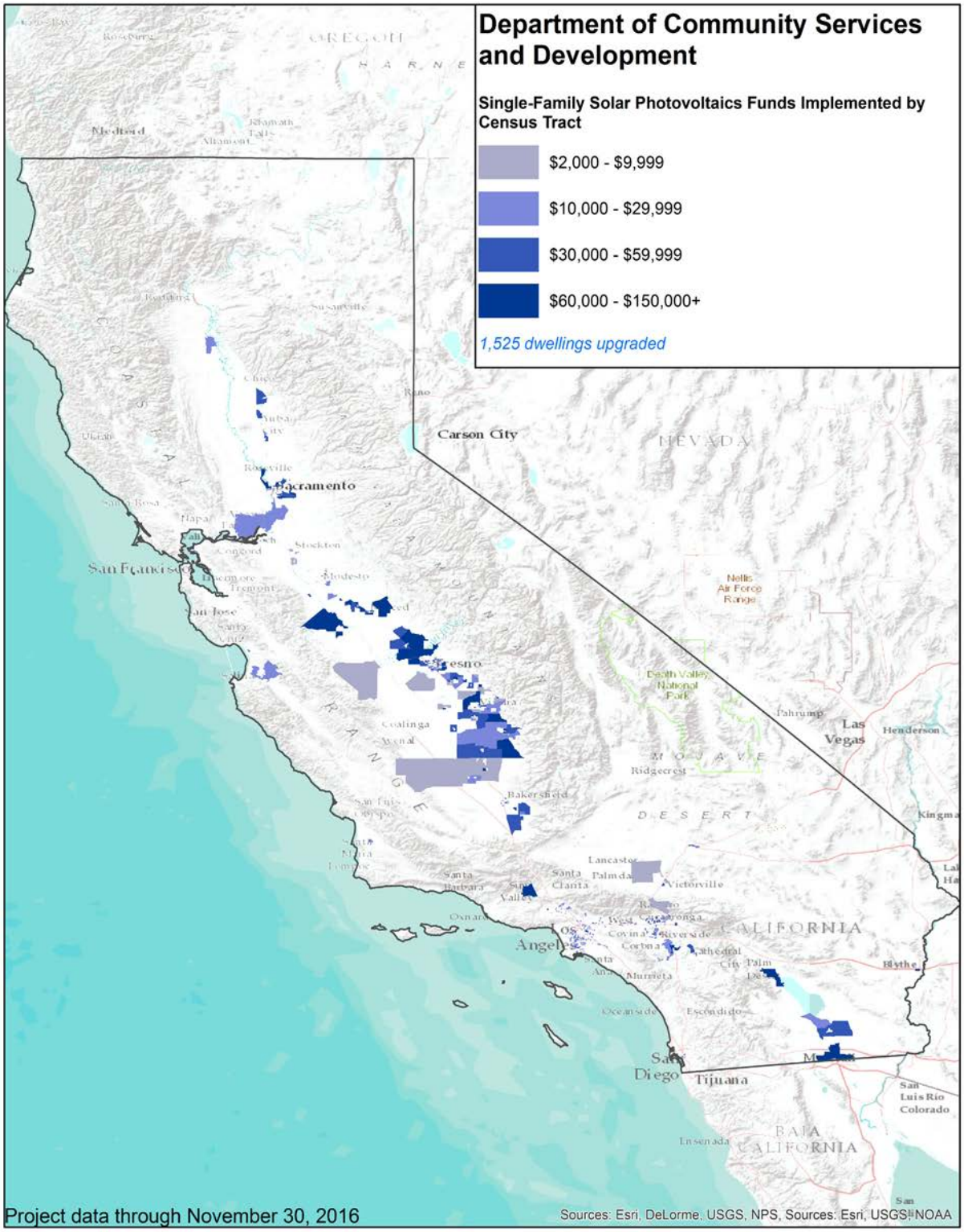
"I am very happy about the program," he said. "Being on a fixed income, all savings are good."

LIWP is an energy efficiency program administered by the State's Department of Community Services and Development that receives funding from the California Climate Investments to install a variety of energy efficiency measures, solar photovoltaics and solar water heater systems on low-income households located in disadvantaged communities.

Milton's solar system was installed in August of 2016 and will save him approximately $1,250 per year in energy costs. In addition to providing the rooftop solar system at his home, the installation provided a workforce development opportunity to five trainees.

"I am just grateful that I get to take advantage of this" he expressed. "It's going to help in a lot of different ways...and it will take a lot off my mind."

Figure 22: Single-Family Solar Photovoltaics Funds Implemented by Census Tract



Single-Family/Small Multi-Family Energy Efficiency and Solar Heating

LOW-INCOME WEATHERIZATION PROGRAM
CUMULATIVE ALLOCATION: $49.2M
CUMULATIVE IMPLEMENTED FUNDS: $5.5M

Provides single-family and small multi-family low-income homes with weatherization and energy efficiency measures that include: weather-stripping, insulation, caulking, water heater blankets, window repair or replacement, refrigerator replacement, water heater repair/replacement, heating and cooling system repair/replacement, and solar water heaters. These measures improve home comfort and allow for savings on energy costs.

In FY 2016-17, CSD is transitioning to a new subprogram model for the Single-Family Energy Efficiency and Solar PV components through competitive procurements for regional administrators with allocations from CSD's FY 2015-16 funds.

Program Benefits

GHG emission reductions are achieved from the use of renewable energy over other energy sources, and reduced energy consumption from more energy-efficient homes.

Disadvantaged community benefits include: energy efficiency improvements through the installation of measures that improve overall efficiency, renewable energy, and energy cost savings for disadvantaged community residents.

Co-benefits include: energy savings, employment opportunities, job training, local economic benefits, and improved living conditions.

	Awarded	Implemented
2016	$0	$4.3M
Cumulative	$14.5M	$5.5M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

44,300 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$5.5M | 100%

Benefiting

$5.5M | 100%

TIMEFRAME

2015 - 2041

Low-Income Weatherization Program (LIWP)

SINGLE-FAMILY/SMALL MULTI-FAMILY ENERGY EFFICIENCY AND SOLAR HEATING IN ORANGE COUNTY

Jose, a senior citizen whose home is located in Southern California, was having difficulties paying his electricity bill. The final straw came one day in April 2016 when he received a notice from Anaheim Public Utilities stating that his electricity service would be disconnected if he did not pay his overdue balance of $292.57 by close of business–a situation that led him to seek assistance.

He immediately visited the City of Anaheim as well as a local community center. Both places referred him to the Community Action Partnership of Orange County (CAPOC), where he was able to access the help he needed.

"I was struggling to pay my bills and I'm a senior," he said. "I am glad there are services available to help me."

CAPOC helped Jose take advantage of the Low-income Weatherization Program (LIWP) an energy efficiency program administered by the State's Department of Community Services and Development with funding from California Climate Investments to install a variety of energy efficiency measures, solar photovoltaics and solar water heater systems in low-income households located in disadvantaged communities.

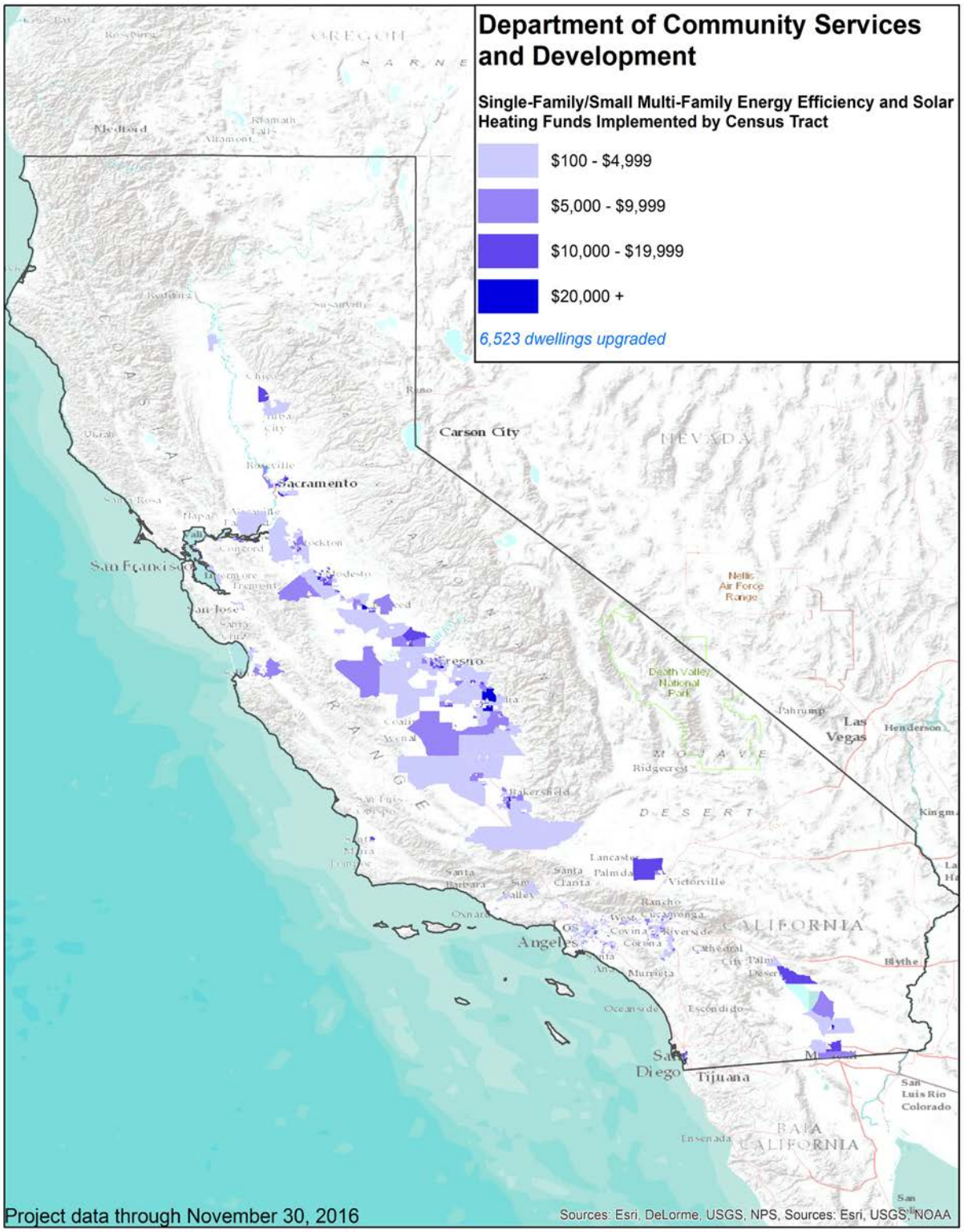
Through the LIWP program, Jose received a wide range of weatherization and energy efficiency measures including duct repair and replacement, LED night lights and replacement bulbs, power strips, a new refrigerator, door repair, door replacement, and weather stripping.

"I come home and my home is comfortable," he said. "The work done to my house makes me feel more secure."

Additionally, CAPOC supplemented LIWP measures and installed health and safety measures, including a carbon monoxide alarm, a smoke alarm, and replaced an aging window.

"The window replacement and all the work done were not expected! Everyone was really nice," he expressed with gratitude.

Figure 23: Single-Family/Small Multi-Family Energy Efficiency and Solar Heating Funds Implemented by Census Tract



State Water Efficiency and Enhancement Program (SWEEP)

CUMULATIVE ALLOCATION: $58.1M
CUMULATIVE IMPLEMENTED FUNDS: $34.0M

SWEEP provides financial assistance in the form of grants to implement crop irrigation systems that both reduce GHGs and save water on California agricultural operations. Project components that are eligible for funding include the use of sensors to improve irrigation scheduling, the use of micro-irrigation systems, pump improvements or retrofits, fuel conversion, use of low pressure irrigation systems, installation of variable frequency drives, and reduction of pumping.

Program Benefits

The program achieves GHG emission reductions through agricultural operations that make irrigation systems and pumps more efficient, including installing water-efficient irrigation systems that reduce energy use; and using renewable sources of energy for water pumping.

Disadvantaged community benefits include: reducing criteria pollutant emissions within those communities through projects that reduce diesel pumping, through either efficiency improvements or fuel conversion.

Co-benefits include: water conservation; water quality protection through improved nutrient management and reduced run-off; increased groundwater security; production of renewable energy; air quality benefits; improved fertigation practices through more precision in the rate of application and placement of fertilizers; improved irrigation management; cost savings for the farmer; and sustained crop production through efficiency improvements.

Selected		Awarded	Implemented
$22.0M	2016	$16.0M	$16.0M
	Cumulative	$34.0M	$34.0M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

609,100 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$12.3M | 36%

Benefiting

$12.3M | 36%

TIMEFRAME

2015 - 2027

State Water Efficiency and Enhancement Program (SWEEP)

NAVDIP BADHESHA FARM PROJECT, FRESNO COUNTY

The investment of $150,000 in Cap-and-Trade proceeds into climate-smart technology on Navdip Badhesha's 40-acres of grapes made a big difference in water use and carbon emissions for this farmer – and for California.

Mr. Badhesha's farm, located in a disadvantaged community in Fresno County, received $150,000 from the State Water Efficiency and Enhancement Program in 2015 allowing him to install a drip irrigation system, an energy-efficient electric well pump (to replace an existing inefficient diesel-powered pump), a 30-kilowatt solar array, and tools to improve irrigation water distribution and management.

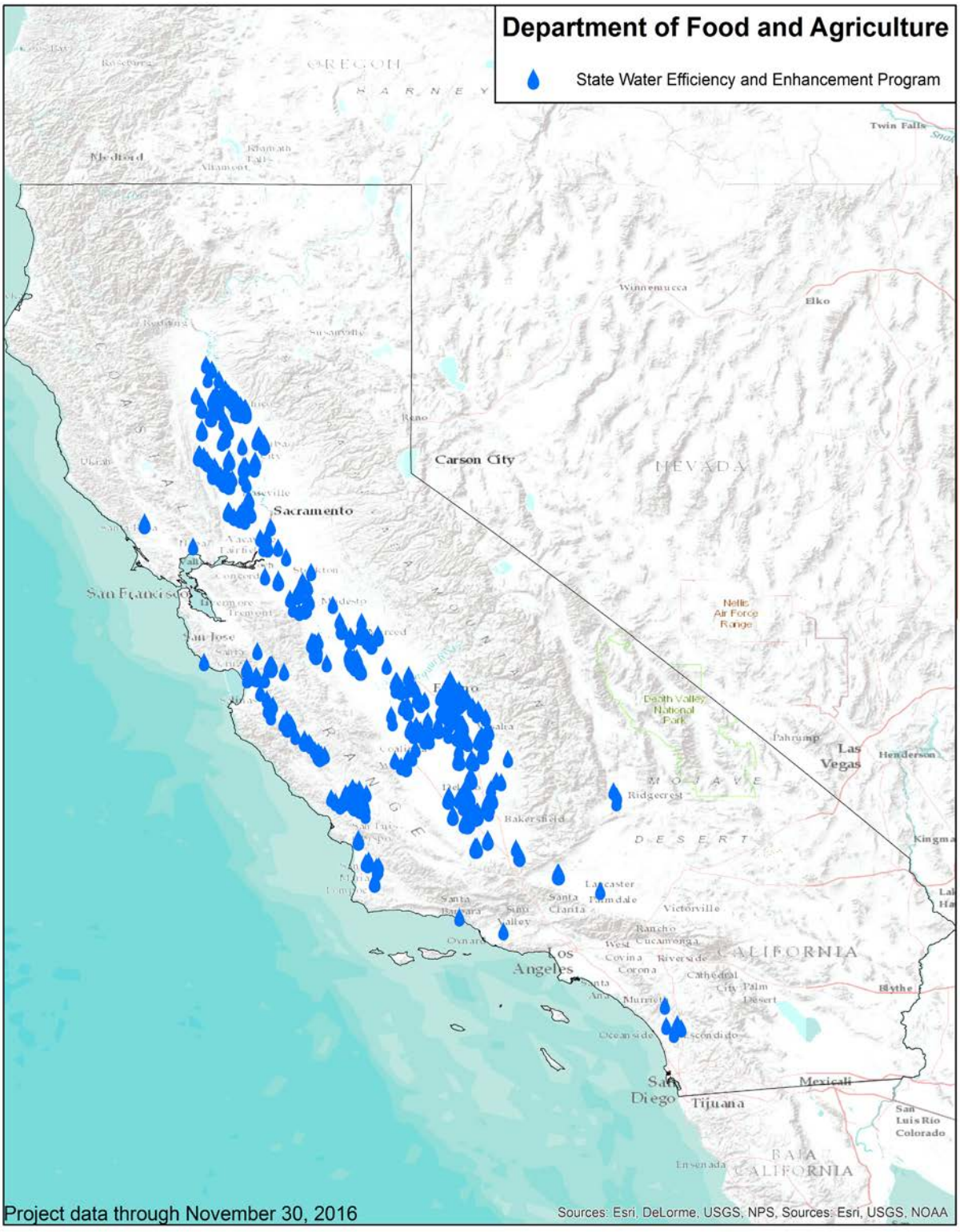
These tools included soil moisture sensors, a flow meter, and the use of weather data which made it possible for Mr. Badhesha to schedule irrigation water use in response to the specific needs of his grapevines.

The new irrigation system and irrigation management tools save almost 25 million gallons of water a year – enough water for about 150 households – compared to the flood irrigation system that was his previous method of irrigation.

Together, the improvements – converting to electricity, the installation of the solar power, and the reduction in water use – deliver a reduction of 57 tons of carbon dioxide equivalent per acre every year, for his 40-acre holding.

cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

Figure 24: State Water Efficiency and Enhancement Program Projects



State Water Project Turbines

CUMULATIVE ALLOCATION: $20.0M
CUMULATIVE IMPLEMENTED FUNDS: $11.8M

Provides replacement of two hydroelectric turbine runners (at the Hyatt Power Plant Unit 1 & Thermalito Hydro Plant Unit 1) on the State Water Project for increased energy generation efficiency and availability.

Program Benefits

Achieves GHG emission reductions through an increase in hydroelectricity generation and subsequent decrease in wholesale electricity procurement.

Turbines are not expected to provide benefits to disadvantaged communities due to the nature of the project.

Co-benefits include: water and energy savings, and improved overall efficiency and reliability of the State Water Project.

	Awarded	Implemented
2016	$0	$0
Cumulative	$20.0M	$11.8M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

36,900 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$0 | 0%

Benefiting

$0 | 0%

TIMEFRAME

2015 - 2045

Water-Energy Grant Program

CUMULATIVE ALLOCATION: $50.0M
CUMULATIVE IMPLEMENTED FUNDS: $6.7M

Provides funds to implement residential, commercial, or institutional water efficiency programs or projects that reduce GHG emissions, and reduce water and energy use.

Program Benefits

Achieves GHG reductions by funding projects that replace less efficient hot-water-using appliances and devices with more efficient ones.

Residential projects can benefit disadvantaged communities through lower water and energy bills, improved water conservation, and a more reliable water supply for residents. Commercial projects can result in reduced utility costs to disadvantaged community business owners. Institutional projects can result in lower utility costs for the institution.

Co-benefits include: increased water supply reliability through the installation of water saving devices that reduce water use in a community and energy savings through installation of measures that reduce hot water use which decreases the energy needed to heat the water.

	Awarded	Implemented
2016	$0	$6.7M
Cumulative	$27.8M	$6.7M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

66,700 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$3.4M | 51%

Benefiting

$3.4M | 51%

TIMEFRAME

2016 - 2042

Residential Water Efficiency

SEMCU FOUNDATION, INC. PROJECT

"For the community; by the community" is the motto of the South-East Madera County United (SEMCU), a non-profit mutual benefit organization in the heart of the San Joaquin Valley. In May 2015, with a $218,594 grant from the DWR, members set out to provide water efficiency devices for approximately 75 percent of homes and businesses within SEMCU's boundary, an area encompassing five disadvantaged community census tracts.

Water conservation is very important to residents of southeast Madera County. All are 100 percent reliant on groundwater for drinking. During the State's period of extreme drought, it was easy for SEMCU to get people's attention about the program. Even as California's water situation is improving, the program continues to be successful.

"We are grateful to our community members, who have distributed and installed almost 3,000 low-flow showerheads and faucet aerators to almost 500 residents and businesses in southeast Madera," said Igal Treibatch, current president and founding member of SEMCU Foundation, Inc.

The project is saving an estimated 160,500 gallons of water in the first year. It is also reducing greenhouse gas emissions by 76 $MTCO_2e$. The program is also saving 273,000 kWh of energy, which translates to an average savings of about $100 per home or business during the lifetime of the installed devices.

SEMCU members have held more than a dozen giveaway events since April 2016. They have been conducted at the local fire station, an annual parade and fair, local businesses, the senior center, and chamber of commerce.

But this isn't a typical one-size-fits-all giveaway. Various hardware types and styles are available and displayed so that participants can decide for themselves what works best for their home or business.

"The average participant picks up about $75 worth of retail value hardware that they go to the trouble to install themselves. This allows them to save water and energy every time they take a shower or turn on the bathroom or kitchen faucet in their house or business," said Karen Petryna, SEMCU member.

Figure 25: Turbine and Water-Energy Grant Program Projects

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.

These investments provide a variety of environmental and economic co-benefits statewide. For example, DFW's 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, and potentially reducing supply chain costs, and resulting in consumer cost-savings.

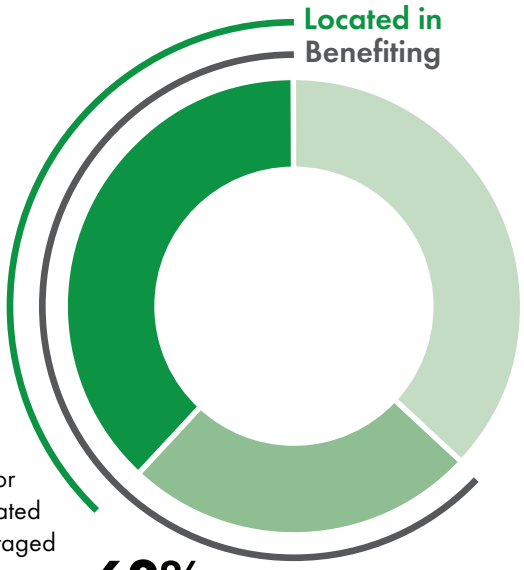
NATURAL RESOURCES AND WASTE DIVERSION

- $332M appropriated
- 5 agencies
- 7.2 MMTCO$_2$e GHG reductions

Agency investments are described below; in some cases these investments are allocated to multiple sub-programs. For more information about the details of a specific program or sub-program, please visit: www.arb.ca.gov/cc/capandtrade/auctionproceeds/ggrfprogrampage.htm.

Natural Resources and Waste Diversion

$85M Implemented



37%
of funding for projects located in disadvantaged communities ($31M)

62%
of funding for projects benefiting disadvantaged communities ($52M)

Mountain Meadow Ecosystem Restoration

WETLANDS AND WATERSHED RESTORATION
CUMULATIVE ALLOCATION: $5.9M
CUMULATIVE IMPLEMENTED FUNDS: $5.9M

Projects restore or enhance mountain meadow ecosystems and reduce GHG emissions through carbon sequestration and avoided emissions.

Program Benefits

Restores or enhances the meadow's ability to sequester carbon using various techniques such as pond and plug restoration, riparian fencing, and restoring natural dominant plant communities to enhance the carbon sequestration capacity of the restored meadows.

Due to the remote locations of these projects they do not provide benefits to disadvantaged communities.

Co-benefits include: habitat restoration and enhancement increased late season flows downstream of mountain meadows, reduction and delay of peak flows within and downstream of mountain meadows, increased water storage capacity in mountain meadows, and protection and provision of climate refugia.

	Awarded	Implemented
2016	$0	$0
Cumulative	$5.9M	$5.9M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

52,100 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$0 | 0%

Benefiting

$0 | 0%

TIMEFRAME

2018 - 2068

Sacramento-San Joaquin Delta and Coastal Wetlands

WETLANDS AND WATERSHED RESTORATION
CUMULATIVE ALLOCATION: $15.4M
CUMULATIVE IMPLEMENTED FUNDS: $15.4M

Projects restore or enhance Sacramento-San Joaquin Delta and coastal wetlands and achieve GHG emission reductions through carbon sequestration and avoided emissions.

Program Benefits

Increases carbon sequestration capacity and protects long-term carbon storage levels by restoring or enhancing Delta and coastal wetlands.

Disadvantaged community benefits include: increased access to open space, recreation and other community assets, improved air quality, socioeconomic benefits, and flood protection/safety.

Co-benefits include: habitat restoration and enhancement; improved habitat connectivity; improved flood protection for local communities; reduction or reversal of land subsidence; protection and improvement of water quality through filtration and pollution reduction; and enhanced climate readiness.

	Awarded	Implemented
2016	$0	$0
Cumulative	$15.4M	$15.4M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

518,800 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$13.4M | 87%

Benefiting

$13.4M | 87%

TIMEFRAME

2020 - 2070

Delta Wetlands Restoration

The San Joaquin-Sacramento River Delta is the cradle which nurtures the drinking water supply of more than 23 million Californians and much of the State's farm land. But measurements show land on Sherman Island has sunk as much as 28 feet below sea level as the State's population and demand for water have grown.

If that sounds like a serious problem, it is.

That's why California Climate Investments is providing more than $10 million to improve the situation. The Cap-and-Trade money is being used to restore up to 1,700 acres of permanent wetland on Sherman Island. The effort should help that area stop sinking and actually start to come back, bit by bit.

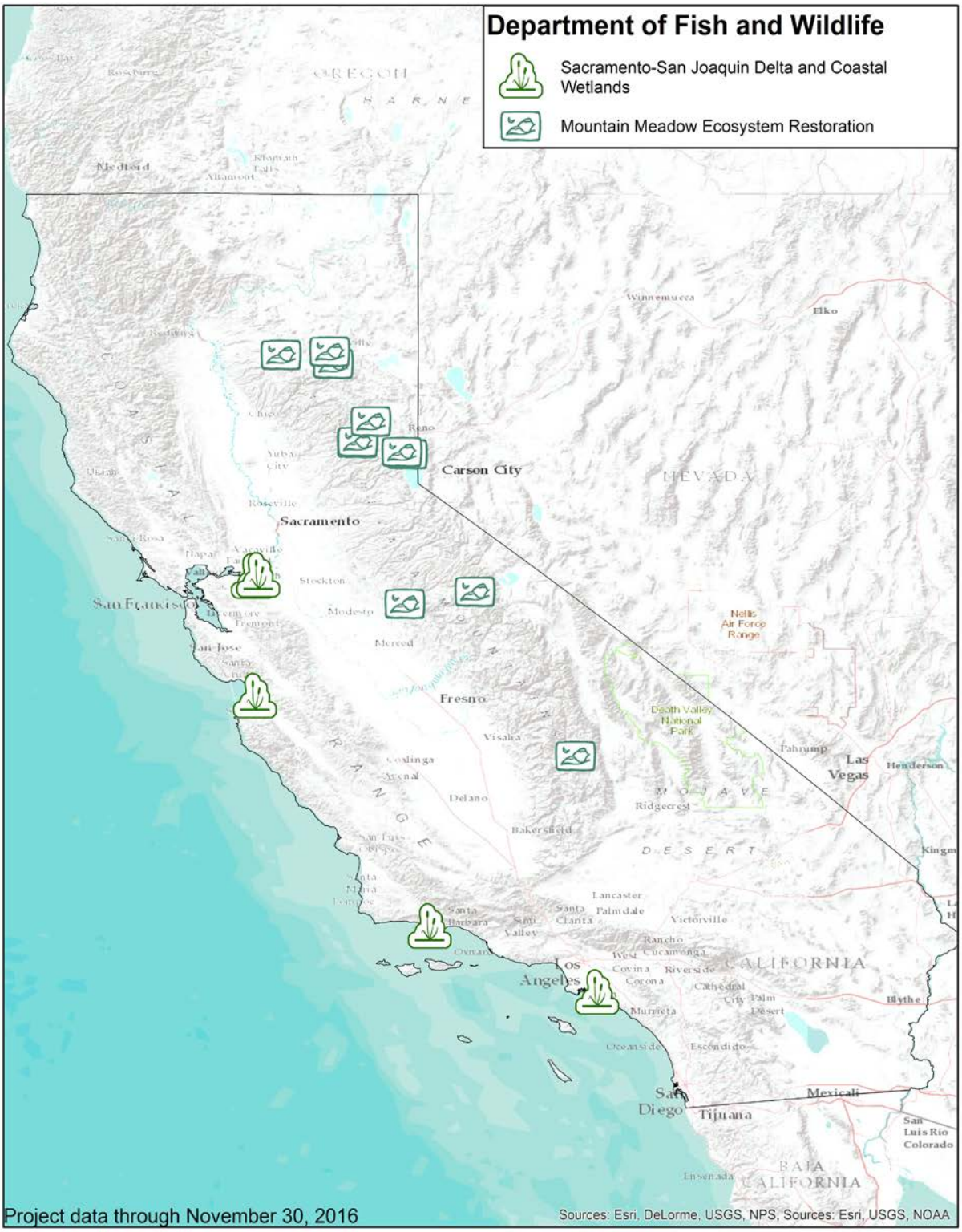
"I have been in a unique position to witness the ongoing research that has been conducted on Twitchell and Sherman Islands over the last 20 years," says Juan Mercado who watches over Sherman Island as President of the area's reclamation district. "That research has shown how wetlands constructed on peat soils can not only stop sinking, but also begin to rise again."

The California Department of Water Resources, University of California, Berkeley, US Department of Energy, and Ducks Unlimited are collaborating on this project. Restoring these wetlands will not only help stabilize an area that supplies millions of Californians with drinking water, it will also sequester as much as a half-million tons of carbon.

The restoration on Sherman Island will also improve flood protection, provide critical wildlife habitat, as well as provide recreational and economic opportunities for disadvantaged communities in south Sacramento County.

CALIFORNIA
DEPARTMENT OF
FISH & WILDLIFE

Figure 26: Sacramento-San Joaquin Delta and Coastal Wetland and Mountain Meadow Ecosystem Restoration Projects



Dairy Digester Research and Development Program

CUMULATIVE ALLOCATION: $61.1M
CUMULATIVE IMPLEMENTED FUNDS: $11.4M

The program was administered in two phases: Phase I provided $11.1 million for digester development grants to implement dairy digesters that reduce methane emissions from dairy manure in California; Phase II provided $225,000 for research and demonstration projects to study and facilitate changes in manure management practices at California dairies that will directly result in GHG emission reductions. Recipients of these funds were California dairy producers and dairy digester development and implementation businesses (Phase I) and California research universities and non-profit organizations (Phase II).

In 2016, AB 1613 amended the FY 2016-17 Budget Act to appropriate $50 million for methane emissions reductions from dairy and livestock operations. CDFA plans to allocate between 20-35 percent of the total appropriation to the Alternative Manure Management Program, a new program that will incentivize non-digester related manure management practices on dairy and livestock operations that reduce methane emissions. The remainder of the appropriated funds (65-80 percent) will be awarded through the existing Dairy Digester Research and Development Program for implementation of anaerobic digesters on California dairies.

Program Benefits

Reduced GHG emissions are achieved from dairies through installation of anaerobic digesters, which capture methane gas and use it to generate renewable energy.

The environmental improvements resulting from projects located in disadvantaged communities may benefit individuals living in those communities.

Co-benefits include: renewable energy generation; reduction of nitrate leaching to groundwater systems; odor reduction; enhanced nutrient management, such as the potential use of digested manure by-product as fertilizer, and stabilization of organic material; and creation of technical and non-technical jobs.

	Awarded	Implemented
2016	$3.3M	$3.3M
Cumulative	$11.4M	$11.4M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

1,538,700 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$8.1M | 71%

Benefiting

$8.1M | 71%

TIMEFRAME

2015 - 2025

Dairy Digester Research and Development Program

VERWEY-HANFORD DAIRY DIGESTER PROJECT, KINGS COUNTY

Phil Verwey knows that happy cows produce better and more milk, and recent California Climate Investments in his dairy have made both Mr. Verwey–and his cows–very happy. Thanks to a $3 million grant from the CDFA's Dairy Digester Research and Development Program in 2015, along with $4 million in matching funds, the animal manure from his operation is now being turned into high quality bedding for his herd and electricity.

Manure is separated and then channeled to a large covered lagoon–double-lined to prevent groundwater seepage–where it produces the methane (natural gas) to power generators that deliver 7.6 million kWh of electricity. That's enough power to completely offset the dairy's total electricity usage.

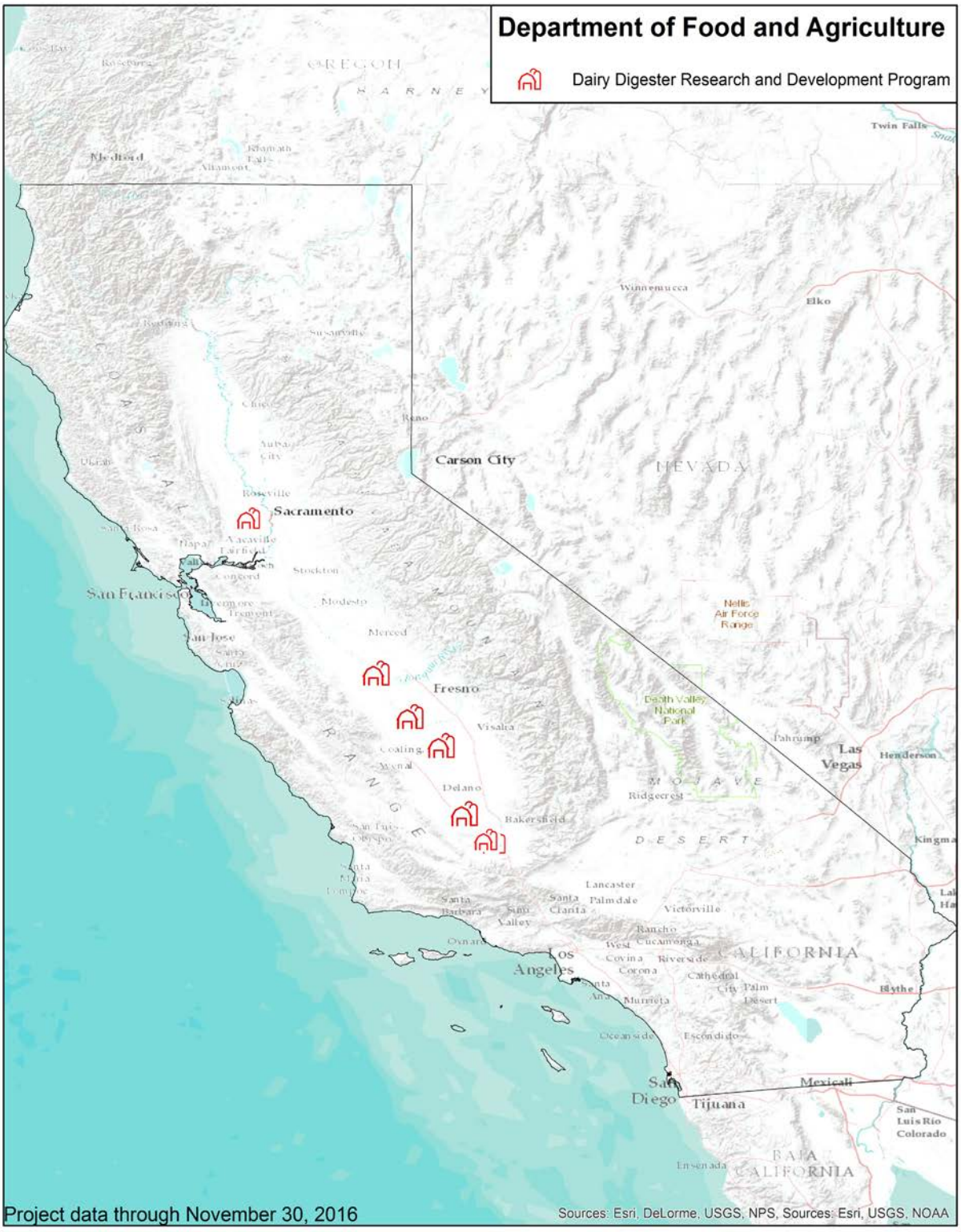
And, as more generators come online as planned, Mr. Verwey will be able to sell excess electricity into the grid. This ultra-modern dairy digester operation is estimated to reduce over 500,000 MTCO2e.

And with all that investment in a "free" electricity source, it made sense in 2015 for Mr. Verwey to convert his feed mixers, which run for many hours every day, from being powered by old, noisy and polluting diesel tractors to quiet and efficient modern electric motors. That alone saves 90,000 gallons of diesel, and it reduces an additional 648 MTCO2e, 22 tons of nitrogen oxide emissions and 2.2 tons of fine particulate matter from the Valley's air.

This project couples California Climate Investments with other funding from local partners to provide multiple benefits–reduced GHGs, cleaner the air, improved groundwater quality, and even reduced odors–and shows how Mr. Verwey is realizing the benefits of smart investments to fight climate change.

cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

Figure 27: Dairy Digester Research and Development Program Projects



Healthy Soils

CUMULATIVE ALLOCATION: $7.5M
CUMULATIVE IMPLEMENTED FUNDS: $0

NEW PROGRAM

FY 2016-2017

This new program will provide financial incentives to implement on-farm management practices that will build soil carbon and reduce agricultural GHG emissions, through direct incentives to farmers and ranchers, as well as through demonstration projects. Farmers and ranchers (incentives) and partnerships between agricultural operations/industry groups, academia, non-profit organizations and/or resource conservation districts (demonstration projects) will be eligible to apply for funds.

Program Benefits

Net GHG benefits are achieved through incentivizing specific management practices that will build soil organic matter and reduce GHG emissions, including compost application, cover crops, improved fertilizer management, and reduced/no-till.

The projects may provide environmental improvements for disadvantaged communities.

Co-benefits may include: increased soil organic matter, such as improved plant health and yields; increased water infiltration and retention; reduced sediment erosion and dust; and improved biological diversity and wildlife habitat.

SUSTAINABLE FORESTS

Funds forest health restoration and reforestation projects statewide and implements urban forestry projects to increase carbon sequestration and provide benefits to disadvantaged communities. The Sustainable Forests program is comprised of two subprograms: Forest Health and Urban and Community Forestry.

CUMULATIVE APPROPRIATION

$82M

Forest Health

SUSTAINABLE FORESTS
CUMULATIVE ALLOCATION: $49.2M
CUMULATIVE IMPLEMENTED FUNDS: $14.7M

CAL FIRE funds and implements projects to proactively restore forest health to reduce GHGs, protect upper watersheds where the State's water supply originates, promote the long-term storage of carbon in forests trees and soils, and contribute to the overall forest health. The Forest Health program is comprised of five project activities: reforestation, pest management, fuels reduction, forest conservation, and biomass utilization.

The FY 2016-17 program reflects a new program structure directing funds to fewer, larger landscape-level projects that will typically implement a collection of individual but complementary forest health management practices.

Program Benefits

GHG benefits are based on estimated increased carbon storage on reforested, treated, and protected lands; carbon stored long-term in wood products; and avoided emissions from renewable energy generation.

The program is not expected to provide direct benefits to disadvantaged communities due to the likeliness that projects will be located in rural areas.

Co-benefits include: protecting and improving water quality through natural filtration; providing quality fish and wildlife habitat; making forests more resistant to fire; decreasing the likelihood of pests and disease that may cause significant impacts; creating greater biological diversity; providing jobs for rural communities within the wood products industry; providing opportunities for public education on forest management and conservation practices; protecting and preserving archeological resources through forest management practices; providing increased recreational opportunities.

	Awarded	Implemented
2016	$3.0M	$3.0M
Cumulative	$14.7M	$14.7M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

2,482,000 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$0 | 0%

Benefiting

$0 | 0%

TIMEFRAME

2015 - 2096

Forest Health

KING FIRE-WATERSHED REHABILITATION AND RESTORATION PROJECT

On Saturday, September 13, 2014 a fire started in El Dorado County. By the next afternoon, the King Fire was roaring through the scenic hills and valleys that draw residents and visitors to the area.

By the time it was contained almost a month later, it had burned nearly 98-thousand acres of the Sierra Nevada, burned a dozen homes, and reduced to ashes millions of pine, fir, sequoia and oak trees.

Replanting and restoration are underway a few thousand acres at a time, and the California Climate Investment program is helping bring the King Fire area back to life. $1.9 million from the State's Cap-and-Trade auctions is being put to work on CAL FIRE's King Fire Rehabilitation and Reforestation Project.

El Dorado County resident Dave Doidge and family returned home to a devastated dream, but he says the project is being run the way he'd hoped.

"The restoration will be as close to the pre-fire conditions as humanly possible," Doidge says. "We're terribly grateful for all the assistance. This has been awfully emotional for us because this property has been in my family for more than 50 years, and it's like Shangri-La to us."

The King Fire Watershed Rehabilitation and Reforestation Project will plant approximately 390,000 trees and sequester nearly 170,000 tons of GHGs over the next 60 years.

And it will do a lot more. CAL FIRE says the project will remove accumulated debris and dead trees, identify measures that may be required to protect water quality, and provide an educational opportunity for informing others about community response to wildfire.

Urban and Community Forestry

SUSTAINABLE FORESTS
CUMULATIVE ALLOCATION: $32.8M
CUMULATIVE IMPLEMENTED FUNDS: $15.6M

The Urban and Community Forestry program is comprised of multiple project types that support urban tree site improvement, tree planting, and maintenance, urban wood and biomass utilization, and improved long-term urban forest management.

Program Benefits

GHG benefits are based on estimated carbon sequestration of planted trees, building energy savings from tree shade, carbon stored long-term in wood products, and avoided emissions from renewable energy generation.

Projects provide environmental improvements for disadvantaged community residents. Once fully implemented, 100 percent of these projects are expected to be considered as "located in" disadvantaged communities, which requires a majority of the project (trees planted) to be publicly accessible in a disadvantaged community. Because projects cannot be evaluated against this criterion until all trees are planted, disadvantaged community benefits for ongoing Urban Forestry projects are currently listed as TBD.

Co-benefits include: improved air, soil, and water quality; improved public health outcomes; improved urban forest management; reduced storm water runoff; reduced urban heat island effect; and employment opportunities.

	Awarded	Implemented
2016	$15.6M	$15.6M
Cumulative	$15.6M	$15.6M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

133,700 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

TBD | TBD

Benefiting

$15.6M | 100%

TIMEFRAME

2016-2057

Urban and Community Forestry

NEIGHBORHOOD GROW PROJECT

Spreading the green has a whole new meaning in part of Southern California. That's because the Incredible Edible Community Garden (IECG) and CAL FIRE are using a $615,000 grant to plant shade trees throughout communities in south San Bernardino County.

Abigail Srader is the CAL FIRE Urban Forester on the project.

"My desire was to see more Urban Forestry for my area," Srader says. "I've seen many try, and most of the time it was a "plant a tree and go" situation where they would plant a tree and leave it without working with the community to maintain it."

The "Neighborhood Grow" project is planting 850 drought-tolerant shade trees and 150 fruit trees in and around disadvantaged communities in the area. Those trees will sequester at least 1,630 tons of GHGs over the next 40 years. And all those fruit trees will provide a source of fresh produce for the area.

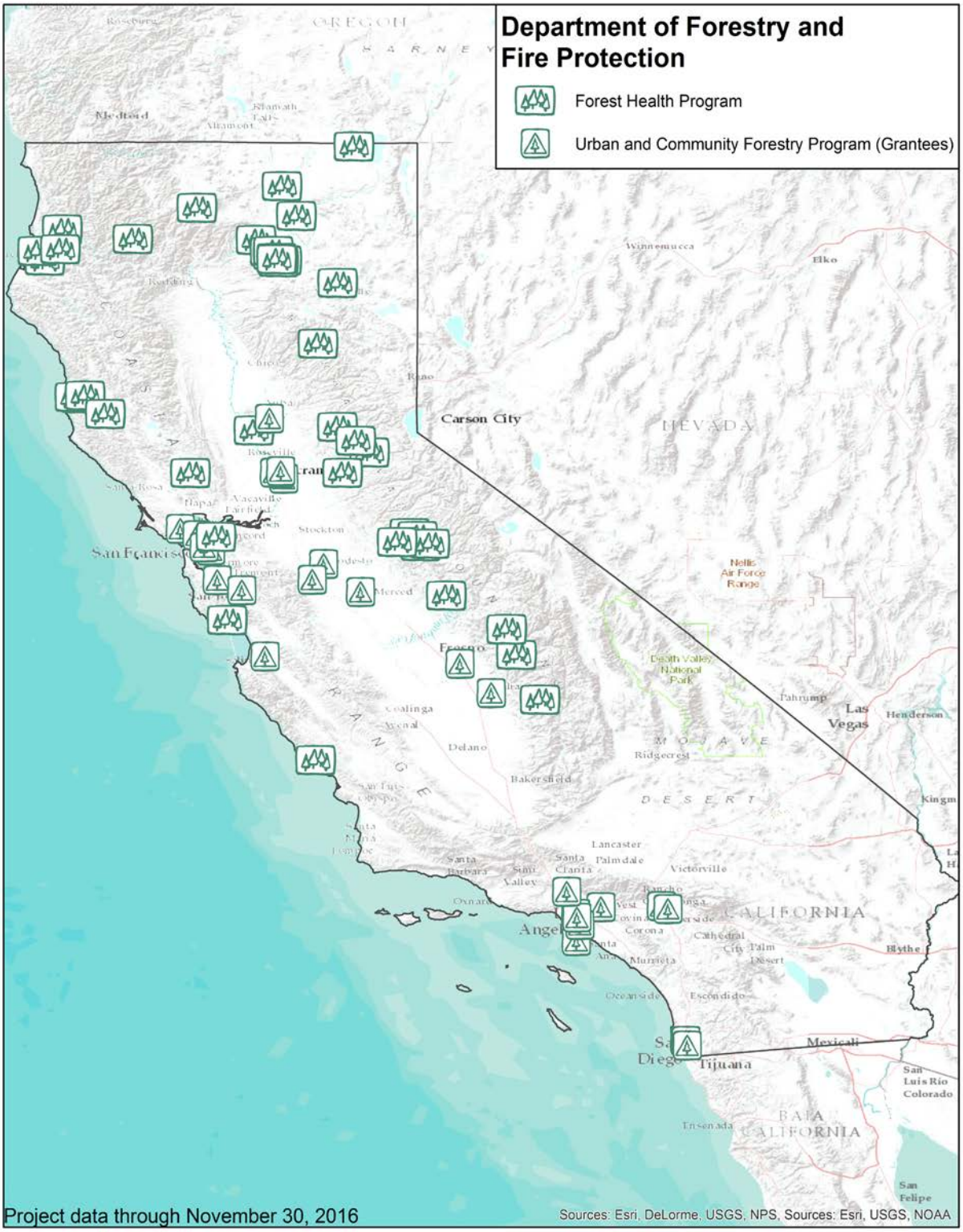
With funding from California Climate Investments, Abigail Srader finally has the right partners.

"The reason IECG has been so successful is, they spend time in the communities, and find out what they want and need, instead of just handing them a tree," she says. "They have given jobs to people without jobs and without homes, who are currently working for them with this project."

Through Neighborhood Grow, IECG is providing job training in urban planting and maintenance for at least 20 people from disadvantaged communities in the area. By carrying out this project, the communities involved will be better prepared for climate change (reduction of urban heat island effect), carbon will be stored in the trees, the community will have better places to rest and play on hot days, and air quality will be improved.

Throughout the project, Abigail is providing technical assistance, education, and advocacy for the project with local leaders to see that the project follows the best practices and is successful long term, but also helps to build appreciation for this kind of work and maintenance in the communities where the trees are planted.

Figure 28: Forest Health Program and Urban and Community Forestry Program Projects



CalRecycle

WASTE DIVERSION

Offers funding to assist public and private entities in the safe and effective management of the waste stream. Investments support financial incentives for capital investments in composting/anaerobic digestion infrastructure and recycling manufacturing facilities that divert waste from landfills. The program is comprised of four subprograms: Food Waste Prevention and Rescue Grants (new in FY 2016-17), Organics and Recycling Manufacturing Loans, Organics Grants, and Recycling Manufacturing Grants.

APPROPRIATIONS TO DATE

$71M

Food Waste Prevention and Rescue Grants

WASTE DIVERSION
CUMULATIVE ALLOCATION: $5.0M
CUMULATIVE IMPLEMENTED FUNDS: $0

NEW PROGRAM

FY 2016-2017

Funds projects that divert edible food from landfills by reducing the amount of food waste that is generated through equipment or technology improvements or rescuing edible food from the waste stream. Food rescue projects will result in the diverted food being distributed to people, with any food waste residuals from the project being sent to composting or digestion facilities when available within their service area.

Program Benefits

GHG emissions will be avoided from the production, transportation, and packaging of food. Lowers overall GHG emissions by rescuing edible food from landfills.

Disadvantaged communities may include: increasing food access, providing employment training and hiring people from disadvantaged communities, and reducing waste being landfilled in disadvantaged communities.

Co-benefits may include: improved access to edible food at local foodbanks and shelters, increased diversion from landfills, and potential employment opportunities.

Organics and Recycling Manufacturing Loans

WASTE DIVERSION
CUMULATIVE ALLOCATION: $11.1M
CUMULATIVE IMPLEMENTED FUNDS: $2.6M

Expands existing capacity or establishes new facilities to reduce the amount of California-generated green materials, food materials, and/or alternative daily cover sent to landfills; or to use California-generated post-consumer recycled fiber (paper, textiles, carpet, or wood), plastic, or glass to manufacture products.

Program Benefits

GHG reductions are achieved from avoided landfill methane emissions, generation of renewable energy, and avoided emissions associated with the use of recycled materials in place of virgin materials in the production of new products.

Disadvantaged community benefits include: increased food access, training and hiring of residents from disadvantaged communities, reduced waste being landfilled in disadvantaged communities, and improved water and air quality.

Co-benefits include: reduced air pollutants and odors, improved water quality, production of compost,[17] improved soil health, decreased soil erosion, increased water conservation, decreased synthetic fertilizer use, biofuels production, and employment opportunities.

	Awarded	Implemented
2016	$0.8M	$0.8M
Cumulative	$2.6M	$2.6M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

483,900 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$0.8M | 32%

Benefiting

$0.8M | 32%

TIMEFRAME

2015 - 2026

17 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 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.

Waste Diversion

MID VALLEY DISPOSAL COMPOST PROJECT

One of the most advanced composting operations in California is scaling up its operations in Fresno County. Early in 2017, Mid Valley Disposal is opening its new 10-acre, 68,000 square foot composting facility in Kerman, California. In addition to creating 47 new jobs in California's agricultural heartland, the project serves as a model of sustainability in California's innovative fight against climate change.

The infrastructure project got off the ground with the help of a $3 million grant thanks to California Climate Investments. Mid Valley expects its new facility to divert 290,000 tons of organic waste from Central Valley landfills over the next decade and reduce GHG emissions by over 137,000 $MTCO_2e$ in the process.

Compost produced through this project provides multiple benefits for both the environment and the economy. When sent to landfills, organic waste decomposes and generates methane, a greenhouse gas twenty-three times more powerful than carbon dioxide. Compost use provides a simple, proven way to build carbon content and hold more water in soils, which is essential for building climate resilience in our communities and to protect California agriculture from a hotter, drier future.

Much of the food and green waste needed to supply the new facility comes through Mid Valley's new commercial organics recycling program in Fresno and Madera counties.

"On a traditional windrow system, composting takes 90 days. [With the new facility,] we can get finished compost in eight weeks," Joseph Kalpakoff, General Manager of Mid Valley Disposal, told the Fresno Business Journal.

Mid Valley's new composting facility uses GORE composting technology to cover the site's 16 composting bunkers. The Gore-Tex material allows the piles to breathe but does not allow larger, potentially polluting organic molecules to escape.

This technologically-advanced facility meets all emission requirements established by the San Joaquin Valley Air Pollution Control District and exceeds requirements by the State Water Board to capture storm water.

CalRecycle

Organics Grants

WASTE DIVERSION
CUMULATIVE ALLOCATION: $38.5M
CUMULATIVE IMPLEMENTED FUNDS: $14.5M

Expands existing capacity or establishes new facilities to reduce the amount of California-generated green materials, food materials, and/or alternative daily cover sent to landfills.

Program Benefits

GHG emission reductions are achieved from avoided landfill methane emissions and renewable energy generation.

Disadvantaged community benefits include: providing employment training and hiring people from disadvantaged communities, reducing waste being landfilled in disadvantaged communities, and improving water and air quality.

Co-benefits include: reduction in air pollutants and odors, improved water quality, production of compost,[18] improved soil health, decreased soil erosion, improved water quality, increased water conservation, decreased synthetic fertilizer use, biofuels production, and employment opportunities.

	Awarded	Implemented
2016	$0	$14.5M
Cumulative	$14.5M	$14.5M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

1,657,800 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$8.9M | 61%

Benefiting

$14.5M | 100%

TIMEFRAME

2016 - 2025

18 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 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.

Recycling Manufacturing Grants

WASTE DIVERSION
CUMULATIVE ALLOCATION: $14.0M
CUMULATIVE IMPLEMENTED FUNDS: $5.0M

Expands existing capacity or establishes new facilities that use California-generated post-consumer recycled fiber (paper, textiles, carpet, or wood), plastic, or glass to manufacture products.

Program Benefits

GHG emission reductions are achieved through avoiding the use of virgin materials to create new products by using recycled materials.

Disadvantaged community benefits may include: job training and hiring people from disadvantaged communities, reduced waste being landfilled in disadvantaged communities, and improved water and air quality. All projects are located in disadvantaged communities but are still in the implementation phase and have not yet reported benefits.

Co-benefits include: reduced air pollution, avoided impacts from virgin material extraction, and employment opportunities.

	Awarded	Implemented
2016	$0	$0
Cumulative	$5.0M	$5.0M

Cumulative Statistics for Implemented Funds

GHG BENEFITS

322,700 $MTCO_2e$

DISADVANTAGED COMMUNITY BENEFITS

Located In

$0 | 0%

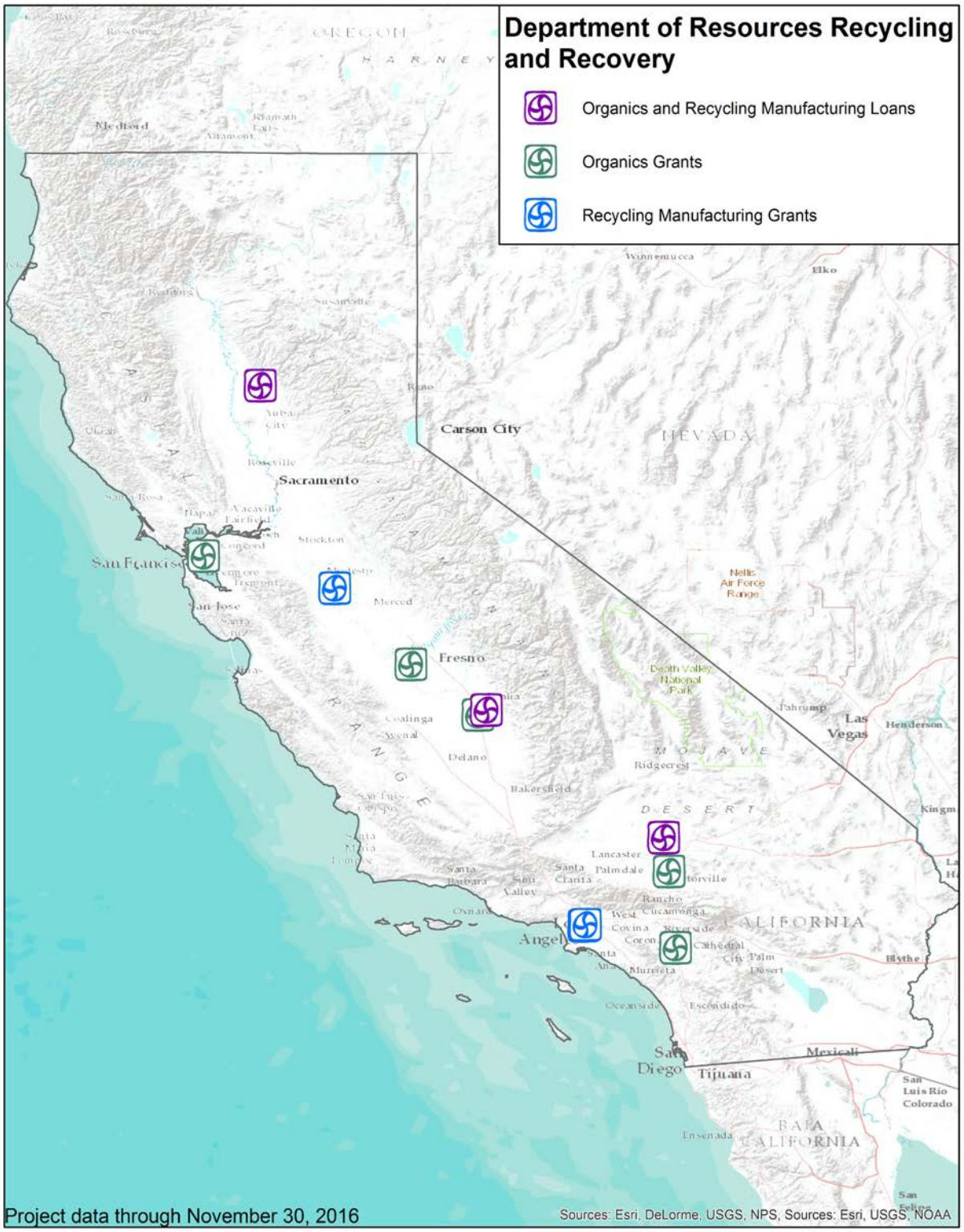
Benefiting

$0 | 0%

TIMEFRAME

2016 - 2025

Figure 29: Organics and Recycling Manufacturing Loans, Organics Grants, and Organics and Recycling Manufacturing Grants Projects



Urban Greening Program

CUMULATIVE ALLOCATION: $80.0M
CUMULATIVE IMPLEMENTED FUNDS: $0

NEW PROGRAM

FY 2016-2017

This new competitive grant program will fund projects that reduce GHG emissions by enhancing and expanding neighborhood parks; provide greening of public lands and structures; mitigate urban heat islands; establish green streets and alleyways; and develop non-motorized urban trails that provide safe routes for travel between residences, workplaces, commercial centers, and schools. In 2016, CNRA held two public meetings statewide, and facilitated a public comment process to inform program design.

Program Benefits

Net GHG benefits are expected to be achieved through carbon sequestration and storage by planting trees; reduced building energy use from strategically planted trees that shade buildings; and reduced vehicle miles traveled by constructing bicycle paths, bicycle lanes, or pedestrian facilities.

Disadvantaged community benefits may include: creating more walkable and bike-able trails; and improving open spaces, parks, greenbelts in disadvantaged communities.

Additional benefits may include increasing economic opportunities or improving air and water quality.

Co-benefits may include groundwater recharge and water treatment by creating green streets that capture both urban and stormwater runoff; climate resilience and adaptation of urban areas that reduce vulnerability to climate impacts and improve the ability of natural systems to buffer the impacts of climate change; economic, social, and health benefits, including, but not limited to, recreational opportunities by activating new community space, workforce education and training by employing youth labor and residents of disadvantaged communities; improved air quality resulting from reduced vehicle miles traveled; ecosystem services (e.g., wildlife habitat, pollination, and natural food web adaptation); open space values; healthy communities; safe routes to schools; and parks/recreational access.

APPENDIX A

2016 Public Meetings on California Climate Investments

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
CARB	Low Carbon Transportation	Workshop: Funding Plan Development – CVRP Long-Term Plan	12/8/2015	Sacramento	50	No
CARB	Low Carbon Transportation	Workshop: Funding Plan Development	1/27/2016	Sacramento	75	Yes
CARB	Low Carbon Transportation	Work group: CVRP Long-Term Plan - 3 Year Forecast	2/5/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: Light-Duty DC Pilots	2/5/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: Heavy-Duty & Off-Road Projects	2/11/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: Low Carbon Fuels	2/11/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: CVRP Long-Term Plan - Technology/Market Assessment	2/12/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: HVIP	2/18/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: CVRP Long-Term Plan - Market Sustainability	2/19/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: CVRP Project Structure	2/23/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: Light-Duty DC Pilots	2/25/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: Low Carbon Fuels	3/3/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: CVRP Project Structure	3/9/2016	Sacramento	25	Yes

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
CARB	Low Carbon Transportation	Work group: Light-Duty Financing Assistance	3/10/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: EFMP Plus-up	3/11/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work group: CVRP Project Structure	3/18/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at Gateway Cities COG Regional Assistance Workshop for Cap-and-Trade	3/23/2016	Downey	50	No
CARB	Low Carbon Transportation	SB 350 Clean Transportation Access Barriers Study Meeting	3/30/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at UCLA Luskin Center for Innovation Workshop on Ensuring Climate Equity for Low Income Californians	4/1/2016	Los Angeles	50	Yes
CARB	Low Carbon Transportation	Workshop: Funding Plan Development	4/4/2016	Sacramento	75	Yes
CARB	Low Carbon Transportation	Work group: Low Carbon Fuels	4/19/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at High-Speed Rail Station Area Cities Conference	4/27/2016	Sacramento	50	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at Community Conversation on Air Pollution and Health Workshop by South Coast AQMD's Environmental Justice Community Partnership	5/5/2016	Los Angeles	250	No
CARB	Low Carbon Transportation	Low Carbon Transportation Outreach in Disadvantaged Communities in Partnership with SGC, Caltrans, CSD and SJVAPCD	5/12/2016	Stockton	10	No
CARB	Low Carbon Transportation	SB 350 Clean Transportation Access Barriers Study Meeting	6/1/2016	Huntington Park	25	No
CARB	Low Carbon Transportation	Work group: HVIP – 15/16 Implementation	6/14/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Board Meeting on Proposed Funding Plan	6/23/2016	Sacramento	100	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at Environmental Justice Advisory Committee (EJAC) Scoping Plan Local Community Meeting	7/11/2016	San Bernardino	100	No
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at EJAC Scoping Plan Local Community Meeting	7/14/2016	San Diego	100	No
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at EJAC Scoping Plan Local Community Meeting	7/19/2016	Oakland	50	No

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at EJAC Scoping Plan Local Community Meeting	7/25/2016	Wilmington	100	No
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at EJAC Scoping Plan Local Community Meeting	7/26/2016	Los Angeles	100	No
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at EJAC Scoping Plan Local Community Meeting	7/28/2016	Modesto	20	Yes
CARB	Low Carbon Transportation	Environmental Justice Committee Meeting, including CARB Low Carbon Transportation	7/29/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at EJAC Scoping Plan Local Community Meeting	7/29/2016	Sacramento	50	No
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at Greenlining the hood in Partnership with Greenlining and Father and Families of Stockton	8/2/2016	Stockton	100	No
CARB	Low Carbon Transportation	SB 350 Clean Transportation Access Barriers Study Meeting	8/11/2016	Huron	25	No
CARB	Low Carbon Transportation	Car Sharing and SB 350 Clean Transportation Access Barriers Study Meeting	8/23/2016	Los Angeles	10	No
CARB	Low Carbon Transportation	Environmental Justice Committee Meeting, including CARB Low Carbon Transportation	8/23/2016	Los Angeles	25	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at Charge Ready Workshop in Partnership with Southern California Edison	8/30/2016	Irwindale	50	Yes
CARB	Low Carbon Transportation	SB 350 Clean Transportation Access Barriers Study Meeting	8/31/2016	Redwood Valley	25	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach on Radio Catolica Unidos Por Cristo Y Maria Radio Show	9/9/2016	Hughson	2000	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at Malaga Elementary School	9/27/2016	Fresno	50	No
CARB	Low Carbon Transportation	Work group: CVRP SB 859 Implementation	9/30/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Work Group: EFMP and EFMP Plus-up	10/5/2016	Sacramento	25	Yes

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at 1st Annual San Joaquin Valley Clean Transportation Summit	10/19/2016	Clovis	150	No
CARB	Low Carbon Transportation	Board Meeting on Proposed Modifications to 2016-17 Funding Plan	10/20/2016	Fresno	100	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at 7th Annual Imperial County Environmental Health Leadership Summit	10/22/2016	Brawley	350	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at Supplemental Environmental Project Policy Workshop	10/24/2016	Oakland	20	No
CARB	Low Carbon Transportation	Work Group: HVIP 16-17 Implementation	10/27/2016	Sacramento	25	Yes
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at Supplemental Environmental Project Policy Workshop	11/2/2016	Fresno	20	No
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at EJAC Scoping Plan Local Community Meeting	11/4/2016	Orleans	50	No
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at Green Business Benefit Workshop	11/10/2016	Pacoima	25	No
CARB	Low Carbon Transportation	Low Carbon Transport Outreach at South Coast AQMD Environmental Justice Summit	11/16/2016	Los Angeles	450	No
Caltrans	Low Carbon Transit Operations Program	Low Carbon Transit Operations Program	10/12/2016	Irvine	10	No
Caltrans	Low Carbon Transit Operations Program	Low Carbon Transit Operations Program	10/13/2016	Fresno	30	No
Caltrans	Low Carbon Transit Operations Program	Low Carbon Transit Operations Program	10/18/2016	Sacramento	35	Yes
Caltrans	Low Carbon Transit Operations Program	Low Carbon Transit Operations Program	10/20/2016	Oakland	40	No
CalSTA	Transit and Intercity Rail Capital Program	Transit Intercity Rail Capital Program	11/16/2015	Sacramento County	32	No
HSRA	High-Speed Rail Project	Construction Package 2z-3 (CP 2-3) Open House Meeting Notice	12/1/2015	Corcoran	16	No

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
HSRA	High-Speed Rail Project	Pre-Bid Conference for Request for Qualifications for the Vision Plan for High-Speed Rail Stations	12/1/2015	Sacramento	38	No
HSRA	High-Speed Rail Project	Construction Package 2-3 (CP 2-3) Open House Meeting Notice: Fresno to Tulare	12/3/2015	Allensworth	12	No
HSRA	High-Speed Rail Project	Outreach Meeting Notice: Construction Package 1: Demolition & Construction Project Tuolumne Street Bridge	1/13/2016	Fresno	10	No
HSRA	High-Speed Rail Project	Free Small Business and Certification Workshop	1/15/2016	Pacoima	14	No
HSRA	High-Speed Rail Project	Pre-Bid Conference for Request for Qualifications for As-Needed Environmental Services	1/21/2016	Fresno	63	No
HSRA	High-Speed Rail Project	Free Small Business and Certification Workshop	1/21/2016	Los Angeles	41	No
HSRA	High-Speed Rail Project	Free Small Business and Certification Workshop	1/22/2016	Lancaster	18	No
HSRA	High-Speed Rail Project	Free Small Business and Certification Workshop	1/25/2016	Fresno	6	No
HSRA	High-Speed Rail Project	Free Small Business and Certification Workshop	1/28/2016	San Jose	7	No
HSRA	High-Speed Rail Project	Lancaster	2/26/2016	Lancaster	250	No
HSRA	High-Speed Rail Project	Crossing Stakeholder Working Group Meeting	3/22/2016	Tehachapi	3	No
HSRA	High-Speed Rail Project	Lancaster Stakeholder Working Group Meeting	3/24/2016	Lancaster	15	No
HSRA	High-Speed Rail Project	Community Working Group - Buena Vista Branch Library	4/5/2016	Burbank	19	No
HSRA	High-Speed Rail Project	Community Working Group -Sun Valley Library	4/6/2016	Sun Valley	14	No
HSRA	High-Speed Rail Project	LA-A Stakeholder Working Group (Orange County)	4/6/2016	Los Angeles	20	No
HSRA	High-Speed Rail Project	Stakeholder Working Group	4/8/2016	Palmdale	13	No
HSRA	High-Speed Rail Project	San Jose to Merced Open House	5/16/2016	Los Banos	34	No
HSRA	High-Speed Rail Project	San Jose to Merced Open House	5/17/2016	San Jose	43	No
HSRA	High-Speed Rail Project	San Jose to Merced Open House	5/19/2016	Gilroy	30	No
HSRA	High-Speed Rail Project	Public Scoping Meeting Notice San Francisco to San Jose Project Section	5/23/2016	San Francisco	42	No
HSRA	High-Speed Rail Project	Public Scoping Meeting Notice San Francisco to San Jose Project Section	5/24/2016	San Mateo	60	No

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
HSRA	High-Speed Rail Project	Public Scoping Meeting Notice San Francisco to San Jose Project Section	5/25/2016	Mountain View	48	No
HSRA	High-Speed Rail Project	San Jose to Merced Project Section Gardner Community Open House	6/6/2016	San Jose	53	No
HSRA	High-Speed Rail Project	Locally Generated Alternative – Oildale Community Meeting	6/22/2016	Bakersfield	20	No
HSRA	High-Speed Rail Project	Pre-Bid Conference for Request for Qualifications for Geotechnical Site Investigation Services for the Silicon Valley to Central Valley Line	6/29/2016	Sacramento	60	No
HSRA	High-Speed Rail Project	Bakersfield to Palmdale Project Section Community Open House Meetings	7/19/2016	Bakersfield	54	No
HSRA	High-Speed Rail Project	Bakersfield to Palmdale Project Section Community Open House Meetings	7/20/2016	Tehachapi	55	No
HSRA	High-Speed Rail Project	Bakersfield to Palmdale Project Section Community Open House Meetings	7/21/2016	Lancaster	46	No
HSRA	High-Speed Rail Project	Bakersfield to Palmdale Project Section Community Open House Meetings	7/26/2016	Rosamond	55	No
HSRA	High-Speed Rail Project	Northern California, SPUR	8/25/2016	San Francisco	19	No
HSRA	High-Speed Rail Project	San Jose to Merced	8/25/2016	San Jose	40	No
HSRA	High-Speed Rail Project	Fresno to Bakersfield Project Section Potential Vertical Alignment Refinement in Shafter Area	8/25/2016	Shafter	60	No
HSRA	High-Speed Rail Project	San Francisco to San Jose, North Fair Oaks Community Council Meeting	8/25/2016	Redwood City	30	No
HSRA	High-Speed Rail Project	Free Small and Disadvantaged Business Workshop	8/23/2016	Menlo Park	75	No
HSRA	High-Speed Rail Project	Palmdale to Burbank, Community/Stakeholder Working Group #3: Acton/Agua Dulce	8/30/2016	Acton	17	No
HSRA	High-Speed Rail Project	Palmdale to Burbank, Community/Stakeholder Working Group	8/31/2016	Lake View Terrace	19	No

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
HSRA	High-Speed Rail Project	Open House Meeting Notice: Construction Package 1: Madera to Fresno	9/7/2016	Fresno	17	No
HSRA	High-Speed Rail Project	San Francisco to San Jose, City/County Staff Coordinating Group	9/14/2016	Millbrae	19	No
HSRA	High-Speed Rail Project	Palmdale to Burbank, Community Open House Meeting	9/14/2016	Palmdale	54	No
HSRA	High-Speed Rail Project	San Jose to Merced	9/18/2016	San Jose	30	No
HSRA	High-Speed Rail Project	San Francisco to San Jose, Local Policy Maker Group	9/22/2016	San Carlos	5	No
HSRA	High-Speed Rail Project	Palmdale to Burbank, Community Open House Meeting #3: Northeast San Fernando Valley	9/22/2016	Sun Valley	92	No
HSRA	High-Speed Rail Project	Open House Meeting Notice: Construction Package 2-3: Fresno to Tulare County	9/22/2016	Selma	45	No
HSRA	High-Speed Rail Project	San Francisco to San Jose, Santa Clara County Community Working Group	10/13/2016	Mountain View	14	No
HSRA	High-Speed Rail Project	Open House Meeting Notice: Construction Package 4: Tulare County to Kern County	10/25/2016	Wasco	60	No
HSRA	High-Speed Rail Project	San Francisco to San Jose, San Francisco County Community Working Group (CWG)	10/26/2016	San Francisco	13	No
HSRA	High-Speed Rail Project	Open House Meeting Notice: Construction Package 1: Madera to Fresno	10/26/2016	Madera	40	No
HSRA	High-Speed Rail Project	San Francisco to San Jose, City/County Staff Coordinating Group (CSCG)	11/17/2016	Millbrae	17	No
HSRA	High-Speed Rail Project	Construction Package 4: Tulare County to Kern County	11/17/2016	Wasco	62	No
HSRA	High-Speed Rail Project	Burbank to Los Angeles, Open House Meeting	11/29/2016	Burbank	71	No
CalSTA	Transit and Intercity Rail Capital Program	Transit Intercity Rail Capital Program	11/20/2015	Los Angeles County	33	No
CalSTA	Transit and Intercity Rail Capital Program	Transit Intercity Rail Capital Program	1/19/2016	Sacramento County	35	No
CalSTA	Transit and Intercity Rail Capital Program	Transit Intercity Rail Capital Program	1/20/2016	Los Angeles County	36	No

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
CalSTA	Transit and Intercity Rail Capital Program	Transit Intercity Rail Capital Program	1/21/2016	Sacramento	80	Yes
CalSTA	Transit and Intercity Rail Capital Program	Transit Intercity Rail Capital Program	10/19/2016	San Jose	80	Yes
SGC	Affordable Housing and Sustainable Communities	AHSC Application Workshop	2/2/2016	Fresno	50	No
SGC	Affordable Housing and Sustainable Communities	AHSC Application Workshop	2/3/2016	Sacramento	60	No
SGC	Affordable Housing and Sustainable Communities	AHSC Application Workshop	2/4/2016	Oakland	100	No
SGC	Affordable Housing and Sustainable Communities	AHSC Application Workshop	2/8/2016	Riverside	30	No
SGC	Affordable Housing and Sustainable Communities	AHSC Application Workshop	2/9/2016	Los Angeles	75	Yes
SGC	Affordable Housing and Sustainable Communities	AHSC Application Workshop	2/18/2016	San Diego	50	No
SGC	Affordable Housing and Sustainable Communities	Gateway Cities Council of Governments GGRF Workshop	3/23/2016	Paramount	100	No
SGC	Affordable Housing and Sustainable Communities	UCLA Luskin School of Public Affairs: Cap-and-Trade Benefits for Low Income Communities	4/1/2016	Los Angeles	100	No
SGC	Affordable Housing and Sustainable Communities	LA County AHSC Capacity Building Initiative Kick-Off Workshop	4/25/2016	Alhambra	40	No
SGC	Affordable Housing and Sustainable Communities	High-Speed Rail Station Area Cities Conference	4/27/2016	Sacramento	50	No
SGC	Affordable Housing and Sustainable Communities	San Joaquin Valley AHSC Technical Assistance Workshop	5/3/2016	Visalia	40	No
SGC	Affordable Housing and Sustainable Communities	San Joaquin Valley AHSC Technical Assistance Workshop	5/4/2016	Atwater	40	No

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
SGC	Affordable Housing and Sustainable Communities	Housing, Transportation, Energy Efficiency Tribal Roundtable	8/31/2016	Ukiah	30	No
SGC	Affordable Housing and Sustainable Communities	Riverside County AHSC Capacity Building Workshop	9/22/2016	Riverside	30	No
SGC	Affordable Housing and Sustainable Communities	Ventura County AHSC Capacity	10/4/2016	Camarillo	25	No
SGC	Affordable Housing and Sustainable Communities	San Joaquin Valley AHSC Capacity Building Workshop	10/18/2016	Fresno	50	No
SGC	Affordable Housing and Sustainable Communities	Tribal Housing Roundtable	10/26/2016	Pacific Grove	35	No
SGC	Sustainable Agricultural Lands Conservation	Sustainable Agricultural Lands Conservation	2/5/2016	Webinar only	26	Yes
SGC	Sustainable Agricultural Lands Conservation	Sustainable Agricultural Lands Conservation	2/18/2016	Tulare	30	No
SGC	Sustainable Agricultural Lands Conservation	Sustainable Agricultural Lands Conservation	2/22/2016	Webinar only	24	Yes
SGC	Sustainable Agricultural Lands Conservation	Sustainable Agricultural Lands Conservation	3/10/2016	Webinar only	19	Yes
SGC	Sustainable Agricultural Lands Conservation	Sustainable Agricultural Lands Conservation	10/26/2016	Sacramento	28	Yes
SGC	Sustainable Agricultural Lands Conservation	Sustainable Agricultural Lands Conservation	11/2/2016	Fairfield	14	Yes
CSD	Low-Income Weatherization Program	Single-Family Energy Efficiency and Solar PV (Regional Administrators)	6/2/2016	Sacramento	89	Yes
CSD	Low-Income Weatherization Program	Single-Family Energy Efficiency and Solar PV (Regional Administrators)	10/7/2016	Sacramento	74	Yes
CSD	Low-Income Weatherization Program	Single-Family Energy Efficiency and Solar PV (Regional Administrators)	11/15/2016	Sacramento	43	Yes
CDFA	State Water Efficiency and Enhancement Program	Environmental Farming Act, Science Advisory Panel Meeting	1/15/2016	Sacramento	30	Yes

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
CDFA	State Water Efficiency and Enhancement Program	Environmental Farming Act, Science Advisory Panel Meeting	2/23/2016	Modesto	20	Yes
CDFA	State Water Efficiency and Enhancement Program	Environmental Farming Act, Science Advisory Panel Meeting	5/18/2016	Sacramento	20	Yes
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II – Application workshop	6/22/2016	Woodland	19	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	6/22/2016	Fresno	16	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II – Application workshop	6/23/2016	El Centro	16	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	6/24/2016	Selma	2	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II – Application workshop	6/27/2016	San Luis Obispo	17	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II – Application workshop	6/29/2016	Fresno	54	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	6/29/2016	Red Bluff	6	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/5/2016	Elk Grove	11	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/6/2016	Gridley	6	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/6/2016	Kings City	2	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/7/2016	Oroville	5	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/7/2016	Santa Maria	14	No

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/9/2016	Goleta	6	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/12/2016	Biola	18	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/13/2016	Orange Cove	9	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/14/2016	Fresno	11	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/14/2016	Salinas	6	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/15/2016	Watsonville	11	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/16/2016	Riverside	4	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/20/2016	Morgan Hill	10	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/21/2016	Hood	10	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/28/2016	El Centro	33	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/30/2016	San Jacinto	4	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	7/30/2016	Red Bluff	7	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	8/3/2016	Corning	0	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	8/3/2016	Orange Cove	6	No
CDFA	State Water Efficiency and Enhancement Program	2016 SWEEP Round II - Technical Assistance Workshop	8/4/2016	Elk Grove	12	No

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
CDFA	State Water Efficiency and Enhancement Program	Environmental Farming Act, Science Advisory Panel Meeting	8/26/2016	Salinas	10	Yes
CDFA	State Water Efficiency and Enhancement Program	Environmental Farming Act, Science Advisory Panel Meeting	11/18/2016	Modesto	15	Yes
DWR	Water-Energy Grant Program	Water-Energy Grant Program	5/11/2016	Sacramento	45	Yes
DWR	Water-Energy Grant Program	Water-Energy Grant Program	5/16/2016	Riverside	5	No
DWR	Water-Energy Grant Program	Water-Energy Grant Program	5/17/2016	Salida	3	No
DWR	Water-Energy Grant Program	Water-Energy Grant Program	9/29/2016	Sacramento	56	Yes
DWR	Water-Energy Grant Program	Water-Energy Grant Program	10/3/2016	Riverside	7	No
CDFA	Dairy Digester Research and Development Program	DDRDP 2016-17 – Community Conversation (DAC/Environmental Justice Outreach)	11/9/2016	Tulare	9	No
CDFA	Dairy Digester Research and Development Program	DDRDP 2016-17 – Public Listening Session (Stakeholder Input)	11/17/2016	Clovis	23	No
CDFA	Dairy Digester Research and Development Program	DDRDP 2016-17 – Public Listening Session (Stakeholder Input)	11/21/2016	Sacramento	13	Yes
CDFA	Dairy Digester Research and Development Program	DDRDP 2016-17 – Public Listening Session (Stakeholder Input)	11/22/2016	Modesto	10	No
CDFA	Dairy Digester Research and Development Program	DDRDP 2016-17 – Public Listening Session (Stakeholder Input)	11/30/2016	Webinar	40	Yes
CDFA	Healthy Soils Program	Healthy Soils Program	18-May-16	Sacramento	Unavailable	Yes
CDFA	Healthy Soils Program	Healthy Soils Program	26-Aug-16	Salinas	Unavailable	Yes
CDFA	Healthy Soils Program	Healthy Soils Program	18-Nov-16	Modesto	Unavailable	Yes
CAL FIRE	Urban and Community Forestry	Urban and Community Forestry	11/14/2016	Tracy	25	No
CAL FIRE	Urban and Community Forestry	Urban and Community Forestry	11/15/2016	Somis	17	No

Agency	Program	Title	Event Date	City	Estimated Number of Attendees	Remote Participation
CAL FIRE	Urban and Community Forestry	Urban and Community Forestry	11/16/2016	Oakland, San Diego, Riverside	68	No
CAL FIRE	Urban and Community Forestry	Urban and Community Forestry	11/17/2016	Compton, Indio, Fresno	81	No
CAL FIRE	Urban and Community Forestry	Urban and Community Forestry	11/22/2016	Victorville, West Sacramento	34	No
CAL FIRE	Urban and Community Forestry	Urban and Community Forestry	11/29/2016	Webinar	221	Yes
CalRecycle	Waste Diversion	FY 2016-17 Food Waste Prevention and Rescue Grant Program (workshop)	4/4/2016	San Diego	120	No
CalRecycle	Waste Diversion	FY 2016-17 Organics Grant Program (CalRecycle Public Meeting)	4/19/2016	Sacramento	60	Yes
CalRecycle	Waste Diversion	FY 2016-17 Recycled Fiber, Plastic, and Glass Grant Program (CalRecycle Public Meeting)	5/17/2016	Sacramento	60	Yes
CalRecycle	Waste Diversion	FY 2016-17 Food Waste Prevention and Rescue Grant Program (workshop)	5/24/2016	Sacramento	50	Yes
CalRecycle	Waste Diversion	FY 2016-17 Greenhouse Gas Grant Programs (Disadvantaged Community workshop)	10/20/2016	Sacramento	30	Yes
CalRecycle	Waste Diversion	FY 2016-17 Greenhouse Gas Grant Programs (Disadvantaged Community workshop)	10/26/2016	Fresno	30	No
CalRecycle	Waste Diversion	FY 2016-17 Organics Grant Program and Recycled Fiber, Plastic, and Glass Grant Program (CalRecycle Public Meeting)	11/15/2016	Sacramento	60	Yes

APPENDIX B

Cumulative GGRF Budgetary Expenditures (as of November 30, 2016)

Administering Agency	Program	Cumulative Appropriation ($M)	Cumulative Budgetary Expenditures ($M)			
			State Operations	Local Assistance	Capital Outlay	Total[19]
Air Resources Board	Low Carbon Transportation Program	$694.6	$43.1	$334.0	$0.0	$377.1
Department of Transportation	Active Transportation Program	$10.0	$0.0	$0.0	$0.0	$0.0
State Transit Assistance / Department of Transportation	Low Carbon Transit Operations Program	$134.6	$0.0	$98.8	$0.0	$98.8
High-Speed Rail Authority	High-Speed Rail Project	$800.5	$0.0	$0.0	$348.0	$348.0
State Transportation Agency	Transit and Intercity Rail Capital Program	$380.6	$1.1	$14.4	$0.0	$15.5
Strategic Growth Council	Affordable Housing and Sustainable Communities	$570.2	$8.9	$158.3	$0.0	$167.2
Strategic Growth Council	Technical Assistance	$2.0	$0.0	$0.0	$0.0	$0.0
Strategic Growth Council	Transformative Climate Communities	$140.0	$0.0	$0.0	$0.0	$0.0
Air Resources Board	Woodsmoke Reduction Program	$5.0	$0.0	$0.0	$0.0	$0.0
Department of Community Services and Development	Low-Income Weatherization Program	$173.8	$7.8	$87.4	$0.0	$95.1

Administering Agency	Program	Cumulative Appropriation ($M)	Cumulative Budgetary Expenditures ($M)			
			State Operations	Local Assistance	Capital Outlay	Total[19]
Department of Food and Agriculture	Biofuels; State Water Efficiency and Enhancement Program; Dairy Digester Research and Development Program; Healthy Soils	$140.0	$52.4	$0.0	$0.0	$52.4
Department of Water Resources	State Water Project Turbines; Water-Energy Grant Program	$70.0	$1.0	$27.8	$11.8	$40.6
Department of Fish and Wildlife	Wetlands and Watershed Restoration	$29.9	$2.7	$21.3	$0.0	$24.0
Department of Forestry and Fire Protection	Sustainable Forests	$82.0	$11.6	$23.1	$0.0	$34.8
Department of Resources Recycling and Recovery	Waste Diversion	$71.3	$10.8	$19.5	$0.0	$30.4
Natural Resources Agency	Urban Greening Program	$80.0	$0.0	$0.0	$0.0	$0.0
	Total for Programs	**$3,384.5**	**$139.4**	**$784.7**	**$359.8**	**$1,283.9**
Air Resources Board	Fund Administration and Management	$34.3	$22.1	$0.0	$0.0	$22.1
Office of Environmental Health Hazard Assessment	Identification of Disadvantaged Communities	$2.4	$2.0	$0.0	$0.0	$2.0
Fund Controller Agencies	Controller's Fees	$2.0	$1.5	$0.0	$0.0	$1.5
	Total for Programs Including Program Support	**$3,423.2**	**$165.0**	**$784.7**	**$359.8**	**$1,309.4**

19 Totals may not sum due to rounding.

APPENDIX C

2016 Statistics on Competitive Project Proposals Received

Administering Agency	Program	Response to Solicitation				Percent of Available Funds Requested
		Proposals Received		Projects Selected		
		#	Amount Requested ($)	#	Amount Selected ($)	
Air Resources Board	Advanced Technology Freight Demonstration Projects	10	$140,054,103	3	$47,269,700	296%
	Car Sharing and Mobility Options Pilot Project	13	$16,153,343	3	$3,043,032	531%
	Financing Assistance Incentives Pilot Project	2	$2,432,457	1	$900,000	270%
	Zero-Emission Truck and Bus Pilot Projects	38	$290,024,181	9	$83,658,000	347%
Department of Transportation	Low Carbon Transit Operations Program	136	$74,879,916	131	$74,676,661	100%
State Transportation Agency	Transit and Intercity Rail Capital Program	41	$3,100,975,061	14	$390,893,000	793%
Strategic Growth Council	Affordable Housing and Sustainable Communities	130	$1,100,000,000	25	$289,439,831	380%
	Sustainable Agricultural Lands Conservation	27	$50,512,852	21	$37,417,000	135%
Department of Community Services and Development	Single-Family Energy Efficiency and Solar Photovoltaics	15	$57,636,000	TBD	TBD	TBD

Administering Agency	Program	Response to Solicitation				Percent of Available Funds Requested
		Proposals Received		Projects Selected		
		#	Amount Requested ($)	#	Amount Selected ($)	
Department of Food and Agriculture	State Water Efficiency and Enhancement Program	568	$69,100,000	296	$38,000,000	182%
Department of Water Resources	Water-Energy Grant Program[20]	24	$23,000,000	N/A	N/A	N/A
Department of Food and Agriculture	Dairy Digester Research and Development Program	5	$225,909	1	$225,909	100%
Department of Resources Recycling and Recovery	Organics and Recycling Manufacturing Loans	1	$833,000	1	$833,000	100%
	Total	**986**	**$4,902,826,822**	**505**	**$1,000,256,133**	**490%**

20 Totals do not include DWR's Water-Energy Grant Program as projects have not been selected.

APPENDIX D

Cumulative Leveraged Funds for Implemented Projects

Administering Agency	Program[21]	Total GGRF Implemented ($M)	Total Project Cost ($M)	Funds from Additional Sources ($M)	Leveraged Ratio (Funds from Additional Sources / GGRF Implemented)
Air Resources Board	Advanced Technology Freight Demonstration Projects: Drayage Trucks	$47.3	$73.9	$26.7	0.56
	Car Sharing and Mobility Options Pilot Project	$3.0	$9.8	$6.8	2.23
	Clean Vehicle Rebate Project	$243.2	$2,725.1	$2,481.9	10.21
	Zero-Emission Truck and Bus Pilot Projects	$13.4	$22.2	$8.8	0.65
Department of Transportation	Low Carbon Transit Operations Program	$86.6	$658.9	$572.3	6.61
High-Speed Rail Authority	High-Speed Rail Project	$348.0	$64,000.0	TBD	TBD
State Transportation Agency	Transit and Intercity Rail Capital Program	$224.3	$753.9	$529.6	2.36
Strategic Growth Council	Affordable Housing and Sustainable Communities	$71.0	$826.0	$755.1	10.64
	Sustainable Agricultural Lands Conservation	$3.8	$11.9	$8.1	2.14
Department of Community Services and Development	Single-Family Solar Photovoltaics	$19.0	$30.6	$11.6	0.61
	Single-Family/Small Multi Family Energy Efficiency and Solar Heating	$5.5	$16.3	$10.8	1.98

Administering Agency	Program[21]	Total GGRF Implemented ($M)	Total Project Cost ($M)	Funds from Additional Sources ($M)	Leveraged Ratio (Funds from Additional Sources / GGRF Implemented)
Department of Food and Agriculture	State Water Efficiency and Enhancement Program	$34.0	$54.2	$20.2	0.59
Department of Water Resources	State Water Project Turbines	$11.8	$34.9	$23.1	1.96
	Water-Energy Grant Program	$6.7	$7.8	$1.1	0.16
Department of Fish and Wildlife	Mountain Meadow Ecosystem Restoration	$5.9	$8.6	$2.7	0.46
	Sacramento-San Joaquin Delta and Coastal Wetlands	$15.4	$27.8	$12.4	0.80
Department of Food and Agriculture	Dairy Digester Research and Development Program	$11.4	$48.4	$37.1	3.26
Department of Forestry and Fire Protection	Forest Health	$14.7	$26.9	$12.1	0.82
	Urban and Community Forestry	$15.6	$22.0	$6.4	0.41
Department of Resources Recycling and Recovery	Organics and Recycling Manufacturing Loans	$2.6	$14.0	$11.4	4.43
	Organics Grants	$14.5	$55.9	$41.4	2.85
	Recycling Manufacturing Grants	$5.0	$19.0	$14.0	2.80
	TOTAL	**$1,237.6[22]**	**$69,480.0**	**$4,590.4**	**5.16[23]**

21 Does not include programs with GGRF contribution equal to total project cost.
22 Total implemented dollars represent all programs, include those without leveraged funds not listed here.
23 Total cost-effectiveness does not include High-Speed Rail as total GGRF contribution to the project has yet to be determined.

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