



Annual Report to the Legislature on Investments of Cap-and-Trade Auction Proceeds

(Greenhouse Gas Reduction Fund Monies)

March 2015



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Investments of Cap-and-Trade Auction Proceeds
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PROGRAM WEBPAGE

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<http://www.arb.ca.gov/auctionproceeds>

DOCUMENT AVAILABILITY

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I. Introduction

The State proceeds from the Cap-and-Trade Program provide an opportunity for the State to invest in climate action, with an emphasis on our most disadvantaged communities. These investments are financing programs and projects that further the objectives of the California Global Warming Solutions Act of 2006 (Assembly Bill 32 (AB 32); Núñez, Chapter 488, Statutes of 2006) by reducing greenhouse gas emissions in the State; delivering benefits to disadvantaged communities; and maximizing, where feasible, economic, health, and environmental co-benefits. The first two years of funding concentrate on programs and projects that achieve near-term greenhouse gas reductions, result in net carbon sequestration, or enable long-term sector transformation.

The State's portion of the Cap-and-Trade auction proceeds are deposited in the Greenhouse Gas Reduction Fund (GGRF). The first two appropriations of auction proceeds in Fiscal Year 2013-14 and 2014-15 totaled over \$900M, and set in motion a significant expansion of existing climate mitigation programs, as well as the creation of new programs, housed across 12 different State agencies¹. From low-income home weatherization to wetlands restoration to transit improvements, the GGRF appropriations are funding a diverse set of climate investments that are delivering near and long-term greenhouse gas emission reductions, as well as community benefits through improved air quality, job creation, and enhanced sustainability.

Each agency appropriated GGRF monies has been actively developing the administrative structure of its program and defining eligible projects. To seek public input on program design, the agencies held over 100 public meetings throughout the State, with over 6,000 participants engaged. Events focused on low carbon transportation and transit, affordable housing and sustainable communities, forestry, waste diversion, and disadvantaged communities drew the highest numbers of attendees. Many agencies began recruiting for projects in 2014 as a part of a competitive process, with project selection completed or expected in the first half of 2015. Demand for funding has been two to seven times greater than the available monies. Projects to build the Initial Operating Segment of the High Speed Rail system; incentivize zero-emission cars, buses, and trucks; enhance water efficiency; and divert waste from landfills began in 2014. In addition, the Air Resources Board (ARB), in conjunction with implementing agencies, has developed initial program guidance and tools to aid agencies in meeting the overall objectives of the program.

State agencies have committed nearly 50 percent of the total funds to specific projects, with the remaining projects to be selected in 2015. This investment represents over 40,000 individual rebates with 15,000 of these benefitting disadvantaged communities, and almost 100 grants. As agencies fully implement the GGRF programs, the benefits to disadvantaged communities and estimated greenhouse gas emission reductions shown in this report will increase.

¹ In this report, "agency" is used as a general term to refer to agencies, boards, commissions, departments, offices, and other units of State government, as well as local transit agencies, that have been appropriated GGRF monies

Assembly Bill 1532 (Pérez, Chapter 807, Statutes of 2012) requires the Department of Finance (Finance) to submit an annual report to the Legislature on the status and outcomes of projects funded from the GGRF. This 2015 Annual Report describes the status of the programs, including major implementation milestones. The report provides program accomplishments through January 31, 2015, and fiscal data through December 31, 2014.

II. Background

In 2006, the Legislature passed and the Governor signed AB 32, which created a comprehensive, multi-year program to reduce greenhouse gas emissions in California. AB 32 requires California to reduce greenhouse gases to 1990 levels by 2020, and to maintain and continue reductions beyond 2020. The California Air Resources Board (ARB) has updated the original Scoping Plan and, together with other State and local agencies, has developed and implemented numerous regulations and programs to reduce emissions to meet these goals.

A. Cap-and-Trade: Source of Auction Proceeds

The Cap-and-Trade Program (title 17, California Code of Regulations, section 95800 et seq.) is a key element of the Scoping Plan. It creates a limit on the emissions from sources responsible for 85 percent of California's greenhouse gas emissions, establishes the price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy, and gives covered entities flexibility to implement the lowest-cost options to reduce emissions. The program also complements and supports California's existing efforts to reduce criteria and toxic air pollutants.

In the Cap-and-Trade Program, ARB places a cap on greenhouse gas emissions by issuing a limited number of tradable permits (called allowances) equal to the cap. Over time, the cap will steadily decline. The cap is enforced by requiring each source that operates under the cap to turn in one allowance or offset credit for every metric ton of carbon dioxide equivalent (MTCO₂e) that it emits.

The Cap-and-Trade Program does not set specific emission limits on individual emitters. By establishing a limit for the program overall, rather than for individual sources, the Cap-and-Trade Program gives sources flexibility to make the most cost-effective choices about when and how to reduce emissions. The price of allowances is established by the marketplace based on supply and demand.

Since the beginning of the Cap-and-Trade Program, a portion of the allowances have been distributed for free, a portion placed in a cost-containment reserve, and the remainder auctioned. ARB conducts quarterly auctions where California State- and Québec provincial-owned allowances, as well as allowances consigned by electrical distribution utilities, can be purchased. The funds raised by the sale of allowances consigned by utilities are to be returned to ratepayers in accordance with rules set by the California Public Utilities Commission or, in the case of publicly owned utilities, their governing boards. The funds received for the sale of California State-owned allowances are deposited into the GGRF, and are available for appropriation.

The first Cap-and-Trade auction was held on November 14, 2012, and subsequent auctions have been conducted quarterly. Table 1 lists the auctions held and proceeds deposited in the GGRF through December 31, 2014. The latest auction was held February 18, 2015, and the proceeds will be deposited in the GGRF in mid-March 2015.

**Table 1. Proceeds from the Sale of State-Owned Allowances
Deposited in the GGRF (as of December 31, 2014)**

Auction	Proceeds
November 2012 Cap-and-Trade auction 1	\$55,760,000
February 2013 Cap-and-Trade auction 2	\$83,923,548
May 2013 Cap-and-Trade auction 3	\$117,580,484
August 2013 Cap-and-Trade auction 4	\$138,494,503
November 2013 Cap-and-Trade auction 5	\$136,799,446
February 2014 Cap-and-Trade auction 6	\$130,706,470
May 2014 Cap-and-Trade auction 7	\$71,140,023
August 2014 Cap-and-Trade auction 8	\$98,741,583
November 2014 Cap-and-Trade joint auction 1	\$135,983,387
State Auction Proceeds Total	\$969,129,444

B. Implementing Legislation for the Expenditure of Auction Proceeds

In 2012, the Legislature passed and Governor Brown signed into law three bills – AB 1532, SB 535 (De León, Chapter 830), and SB 1018 (Budget and Fiscal Review Committee, Chapter 39) – that establish the GGRF to receive proceeds from the distribution of State allowances via auction and provide the framework for how those auction proceeds will 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 in the GGRF and used to facilitate the achievement of greenhouse gas emission reductions and, where applicable and to the extent feasible, to further additional goals of AB 32 and the Legislature. Expenditures must comply with the requirements contained in Senate Bill 862 (SB 862; Chapter 836, Statutes of 2014), the trailer bill that establishes requirements for agencies that were appropriated 2014-15 GGRF monies.

1. AB 1532 Goals and SB 535 Requirements

The suite of implementing legislation offers strong direction for a portion of the auction proceeds to be invested to benefit disadvantaged communities. AB 1532 established several goals for the investment of auction proceeds:

- Reduce greenhouse gas emissions;
- Maximize economic, environmental, and public health benefits to the State;

- Foster job creation by promoting in-State greenhouse gas 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 greenhouse gas emissions; and
- Lessen the impacts and effects of climate change on the State's communities, economy, and environment.

SB 535 specifically directed the Secretary for Environmental Protection to identify disadvantaged communities and the three-year investment plan to do the following:

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

2. Investment Plan and Expenditure Plan

The implementing legislation establishes a two-step process for allocating funding to State agencies.

- Three-Year Investment Plan: The Administration, led by the Department of Finance (Finance) in consultation with ARB and other State agencies, develops and submits to the Legislature a three-year Investment Plan for auction proceeds. The Investment Plan identifies greenhouse gas reduction goals and targets; analyzes gaps in current State strategies for meeting greenhouse gas reduction goals; and describes priority investments that facilitate greenhouse gas reductions and long-term carbon sequestration.

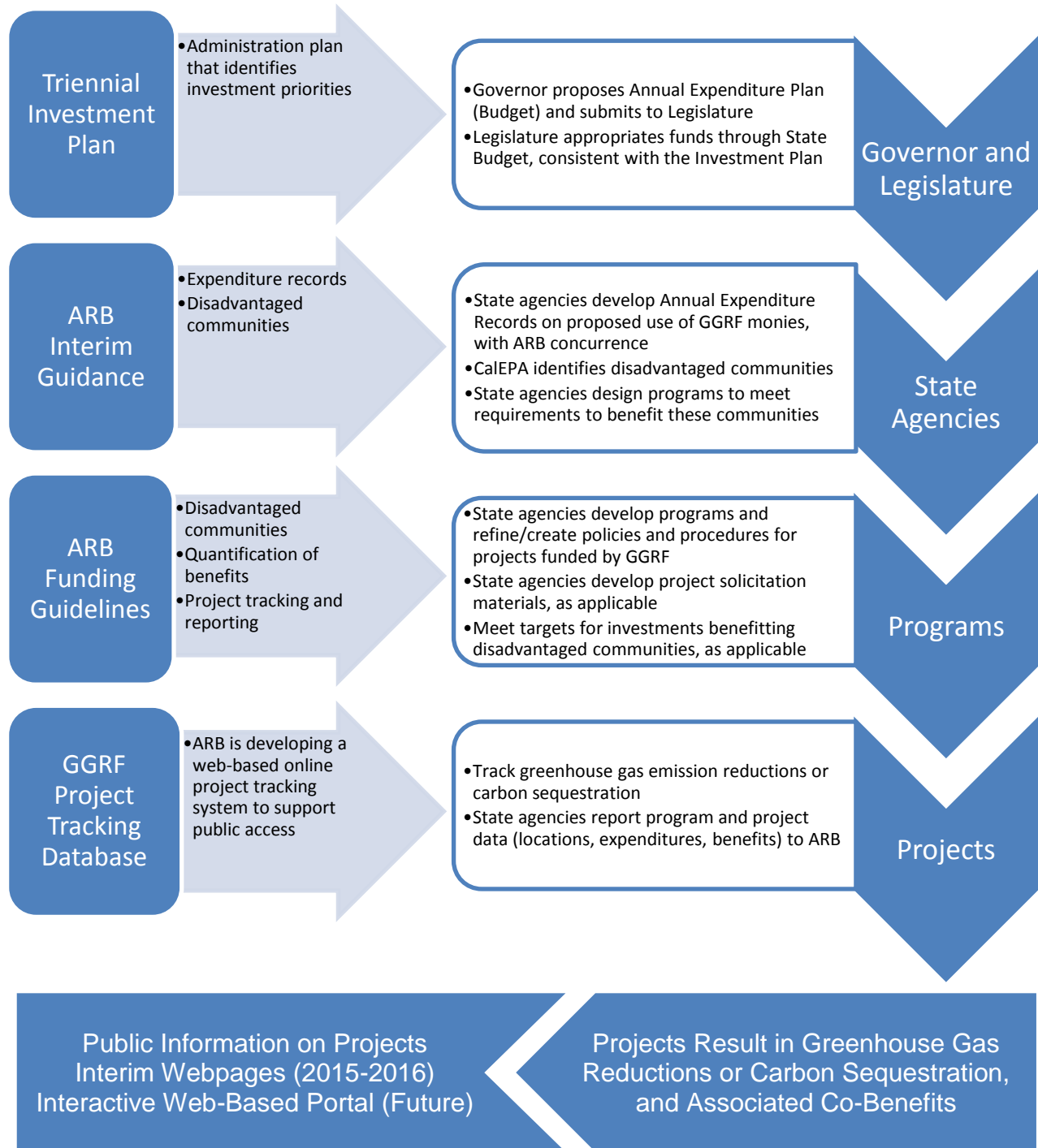
Finance submitted the first Investment Plan to the Legislature in May 2013, which encompassed auction proceeds generated for 2013-14, 2014-15, and 2015-16. The Administration is beginning the process of updating the Investment Plan for 2016-17, 2017-18, and 2018-19, which is due in January 2016. An initial round of public workshops will be held in spring 2015 to discuss draft concepts for the Investment Plan, and a second round of public workshops will follow the release of the draft Investment Plan in Fall 2015.

- Annual Expenditure Plan (State Budget): Funding is appropriated to State agencies by the Legislature and Governor through the annual Budget Act, consistent with the three-year Investment Plan. In addition, SB 862 continuously appropriates 60 percent of the annual proceeds, beginning in 2015-16, to the Transit, Affordable Housing, and Sustainable Communities Program and the high-speed rail project.

C. Administrative Process

Figure 1 details the process for GGRF funding, including administrative activities aimed at guiding State agencies' program development.

Figure 1. GGRF Funding Process



D. 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 near-zero and zero emission vehicles, the designation of disadvantaged communities, and administrative funds for GGRF management. In addition, the 2013 Budget Act loaned \$500 million from the GGRF to the General Fund, to be repaid with interest when required to meet the needs of the GGRF.

The 2014 Budget Act includes \$842 million in appropriations from the GGRF to administering agencies to invest in projects, consistent with the Investment Plan, and administrative funds for GGRF management. It also includes repayment of \$100 million of the loan to the General Fund. SB 862 provided that the remaining \$400 million of the loan was appropriated to the High Speed Rail program, to be paid as needed by that program. This budget trailer bill also established continuing appropriations totaling 60 percent of the GGRF monies beginning in 2015-16 to benefit High Speed Rail, affordable housing and sustainable communities, transit capital, and transit operations.

Table 2 shows the individual program appropriations for 2013-14 and 2014-15, along with a brief description of each program.

Table 2. GGRF Appropriations

Agency	Program	Appropriations		Project Categories	Agency Allocation by Project Type (\$M)	Type of Award Process
		2013-14 (\$M)	2014-15 (\$M)			
High Speed Rail Authority	High Speed Rail Construction of the initial operating segment in the Central Valley and further environmental and design work on the statewide system.	\$0	\$59	Planning/design	\$59	State Implemented
			\$191	Right-of-way acquisition and construction of Initial Operating Segment	\$191	
California State Transportation Agency	Transit and Intercity Rail Capital Program Competitive grant program for rail and bus transit operators for capital improvements to integrate State and local rail and other transit systems, and provide connectivity to the high-speed rail system.	\$0	\$25	Connectivity to existing/future rail and transit systems; increased service and reliability of rail and transit, and integration of transit and rail systems	\$25	Competitive
Department of Transportation	Low Carbon Transit Operations Program Support new or expanded bus and rail services to increase transit ridership and decrease greenhouse gas emissions.	\$0	\$25	New/expanded bus or rail services or expanded intermodal transit facilities; service or facility improvements	\$25	Distribution to local transit agencies based on statutory formula
Strategic Growth Council	Affordable Housing and Sustainable Communities Program Implementation of SB 375 sustainable communities strategies and similar strategies in other areas with greenhouse gas reduction policies. Projects will reduce greenhouse gas emissions by increasing transit ridership, active transportation (walking/biking), affordable housing near transit stations, preservation of agricultural lands, and local planning that promotes infill development.	\$0	\$130	Affordable Housing and Sustainable Communities Program	\$125	Competitive
				Sustainable Agricultural Lands Conservation Program	\$5	Competitive

Table 2. GGRF Appropriations

Agency	Program	Appropriations		Project Categories	Agency Allocation by Project Type (\$M)	Type of Award Process
		2013-14 (\$M)	2014-15 (\$M)			
Air Resources Board	Low Carbon Transportation Accelerate the transition to low carbon freight and passenger transportation. Support the Administration’s goal to deploy 1.5 million zero-emission vehicles in California by 2025. Respond to increasing demand for rebates for zero-emission cars and vouchers for hybrid and zero-emission trucks and buses, as well as provide incentives for the pre-commercial demonstration of advanced freight technology to move cargo in California.	\$30	\$200	Clean Vehicle Rebate Project	\$20 (2013-14) \$111 (2014-15)	First-Come First-Served
				Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project	\$10 (2013-14) \$5 (2014-15)	First-Come First-Served
		\$0		Advanced Technology Freight Demonstration Projects in Disadvantaged Communities	\$50	Competitive
				Light Duty Pilot Projects in Disadvantaged Communities	\$9	Competitive
				Zero-Emission Truck and Bus Pilot Projects in Disadvantaged Communities	\$25	Competitive
Department of Community Services and Development	Low-Income Weatherization Program/Renewable Energy Installation of energy efficiency and renewable energy projects in single and multifamily low-income housing units within disadvantaged communities. Weatherization measures typically include weather-stripping, insulation, caulking, water heater blankets, windows, refrigerators, energy efficient light bulbs, electric water heaters and heating and cooling systems. Renewable energy measures include installation of solar water heater systems and photovoltaic systems.	\$0	\$75	Single-Family Weatherization and Solar Hot Water Heating	\$75	Existing Service Providers
				Multi-Family Weatherization		Existing Service Providers / Competitive
				Solar Photovoltaic		Competitive

Table 2. GGRF Appropriations

Agency	Program	Appropriations		Project Categories	Agency Allocation by Project Type (\$M)	Type of Award Process
		2013-14 (\$M)	2014-15 (\$M)			
California Energy Commission	Energy Efficiency in Public Buildings Energy efficiency and energy generation projects in public buildings owned and operated by a state agency or entity, including, without limitation, the University of California and California State University. Examples of fundable projects include, but not limited to, lighting systems, heating, ventilation and air conditioning equipment, interior and exterior lights, energy management systems and equipment controls, pumps and motors, building insulation, renewable energy (e.g. PV) and combined heat and power projects using renewable fuel, and load shifting projects, such as thermal energy storage.	\$0	\$20	Building retrofits for energy efficiency	\$20	First-Come First-Served
				Energy generation		
Department of Food and Agriculture	Agricultural Energy and Operational Efficiency Projects that reduce greenhouse gas emissions from the agriculture sector by capturing greenhouse gases, harnessing greenhouse gases as a renewable bioenergy source, improving agricultural practices and promoting low carbon fuels, agricultural energy, and operational efficiency.	\$10	\$15	State Water Efficiency and Enhancement Program	\$10	Competitive
				Dairy Digesters and Research Development Program	\$12	Competitive
				Alternative and Renewable Fuels Program	\$3	State Implemented
Department of Water Resources	Water Action Plan - Water-Energy Efficiency Funding for grants that support water use efficiency and conservation projects, and leak detection and repair projects, that reduce the need for energy to move water. Support State Water Project facilities.	\$30	\$0	Water-Energy Efficiency Projects: <i>Hyatt Power Plant Unit 1 and Thermalito Power Plant Unit 1 Turbine Replacement</i>	\$10	State Implemented
				Water-Energy Grant Program	\$20	Competitive
Department of Fish and Wildlife	Water Action Plan - Wetlands and Watershed Restoration Implement projects that provide carbon sequestration benefits, through restoration of wetlands (including those in the Delta), coastal watersheds and mountain meadows.	\$0	\$25	Delta and Coastal Wetlands	\$25	Competitive
				Mountain Meadows Habitat		
				Wetlands and Water Efficiency on Department of Fish and Wildlife Lands		

Table 2. GGRF Appropriations

Agency	Program	Appropriations		Project Categories	Agency Allocation by Project Type (\$M)	Type of Award Process
		2013-14 (\$M)	2014-15 (\$M)			
Department of Forestry and Fire Protection	Sustainable Forests Urban forests in disadvantaged communities and forest health restoration and reforestation projects that increase carbon sequestration and reduce wildfire risk. Enhance forest health and reduce fuel loads in light of climate change increasing wildfire intensity and damage.	\$0	\$24	Forest Legacy Program	\$24	Competitive
				Forest Pest Control		Competitive
				Fuels Reduction		Competitive
				Forest Practice Program		To be determined
				Reforestation Services		Competitive
				Demonstration State Forests Research		Competitive
		\$18	Urban and Community Forestry	\$18	Competitive	
Department of Resources Recycling and Recovery	Waste Diversion Financial incentives for capital investments in composting/anaerobic digestion infrastructure and recycling manufacturing facilities to divert waste from landfills.	\$0	\$25	Organics Grant Program	\$15	Competitive
				Recycled Fiber, Plastic, and Glass Grant Program	\$5	
				Organics and Recycled Fiber, Plastic, and Glass Loan Program	\$5	
Total Appropriations for Programs ¹		\$70	\$832			
Air Resources Board	Fund Administration and Management	\$1.3	\$9.2	N/A		
Office of Environmental Health Hazard Assessment	Identification of Disadvantaged Communities	\$0.6	\$0.6	N/A		
Total GGRF Appropriations		\$71.9	\$841.8			

¹ Appropriation is for State agencies to administer programs and fund projects.

III. ARB Funding Guidance for GGRF Investments

SB 1018 and SB 862 establish ARB as the GGRF administrator and require that ARB develop overarching funding guidelines for agencies receiving GGRF appropriations. In statute, these recipient agencies are referred to as “administering agencies.” It is the responsibility of each administering agency to develop and implement its own program, including project eligibility and selection. ARB is providing guidance and tools for the administering agencies to support program implementation.

Key accomplishments to date include:

- ARB created a central GGRF website, which provides overall program information and links to each agency’s activities.
- ARB, in consultation with Finance, developed Interim Guidance on Expenditure Records and Fiscal Procedures.
- The California Environmental Protection Agency identified disadvantaged communities using the CalEnviroScreen 2.0 tool developed by the Office of Environmental Health Hazard Assessment. ARB, in consultation with California Environmental Protection Agency and the administering agencies, developed Interim Guidance on Investments to Benefit Disadvantaged Communities in a public process.
- ARB, in consultation with administering agencies, is developing greenhouse gas quantification methodologies to estimate project greenhouse gas reductions and co-benefits.
- ARB is developing funding guidelines for administering agencies, including project tracking and reporting information, as well as the subjects of the interim guidance documents.

A. Public Access to Information

To provide the public access to information on the various GGRF programs, ARB hosts a central website, which provides overall budget and program information, upcoming milestones and activities for all programs, ARB guidance, Expenditure Records, program status tables, and links to additional agency webpages. In the future, ARB anticipates continuing to expand this website to allow communities and organizations to more easily search for funding opportunities. The intent is to increase opportunities to access GGRF programs. The current website is available at: <http://www.arb.ca.gov/auctionproceeds>

ARB also is beginning the process of developing an online project reporting and tracking system that will provide a centralized website for State agencies to enter project information. It will include an online website for the public to access information on projects funded, such as the type of project, location and estimated benefits. The mapping function will display projects located within and benefitting disadvantaged communities, as defined by ARB guidance. Until this online project reporting and tracking system is developed ARB will post these Annual Reports and periodically make available other GGRF project data on the website listed above.

B. Funding Guidelines

1. Interim Guidance

In August and November 2014, ARB approved two installments of interim guidance: Interim Guidance for the Expenditure Record and Fiscal Procedures, and Interim Guidance on Investments to Benefit Disadvantaged Communities, respectively. This guidance was prepared in consultation with CalEPA, Finance, and the administering agencies. These two interim guidance documents allowed agencies to quickly move forward in program planning and project selection, while ensuring the funds are used consistent with statutory requirements.

The Interim Guidance for the Expenditure Record and Fiscal Procedures provides administering agencies with guidance on the scope, preparation, and transmittal of an annual Expenditure Record, in accordance with the requirements of SB 1018, to document the proposed use of monies from the GGRF. The document also provides guidance on fiscal procedures that ARB, as the Fund administrator, asks the administering agencies to follow. The Interim Guidance for the Expenditure Record and Fiscal Procedures is available on ARB's website at:

<http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/arb-interim-guidance-expenditure-record-fiscal-procedures-8-6-14.pdf>

The Interim Guidance on Investments to Benefit Disadvantaged Communities provides preliminary guidance on approaches that agencies can use to maximize the benefits of investments to disadvantaged communities pursuant to the requirements of SB 535. This guidance also provides information on how administering agencies will determine whether their potential GGRF investments are: (1) located within and benefiting disadvantaged communities, or (2) benefitting disadvantaged communities. The Guidance requires that all projects counted as "located within" a disadvantaged community must also satisfy the benefit criteria. ARB developed this Guidance in a public process, culminating in a public hearing where the ARB Board approved the document with some revisions. The Interim Guidance on Investments to Benefit Disadvantaged Communities is available on ARB's website at: <http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/final535-interim-guidance-11-3-2014.pdf>

2. Interim Quantification Methodologies

ARB, in coordination with administering agencies, has developed quantification methodologies that will be used to demonstrate greenhouse gas reductions achieved by several programs funded with 2013-14 and 2014-15 monies. This work will continue in 2015 to cover additional project types. As the GGRF program develops, these quantification methodologies will be improved to allow for a more sophisticated and consistent approach across programs. In addition, quantification methods will be expanded to include the co-benefits of funded projects. In particular, future years will allow for a more comprehensive benefit assessment to inform project evaluation based on greenhouse gas reduction potential and the ability to maximize project-driven health, economic, and environmental co-benefits. As they are completed, ARB is posting the

Calculation Methodologies to Estimate Project Benefits at:
<http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm>

3. *Funding Guidelines*

SB 862 charges ARB with developing funding guidelines for administering agencies. The two Interim Guidance documents described will be integrated into ARB's funding guidelines. The funding guidelines will provide direction on the administration of GGRF expenditures, such as ongoing project tracking and reporting pursuant to statutory requirements.

ARB is coordinating with administering agencies and stakeholders to obtain input on the funding guidelines. ARB plans to hold public workshops on the draft funding guidelines in the spring of 2015 and to bring the final guidelines to its Board for consideration and approval in mid-2015.

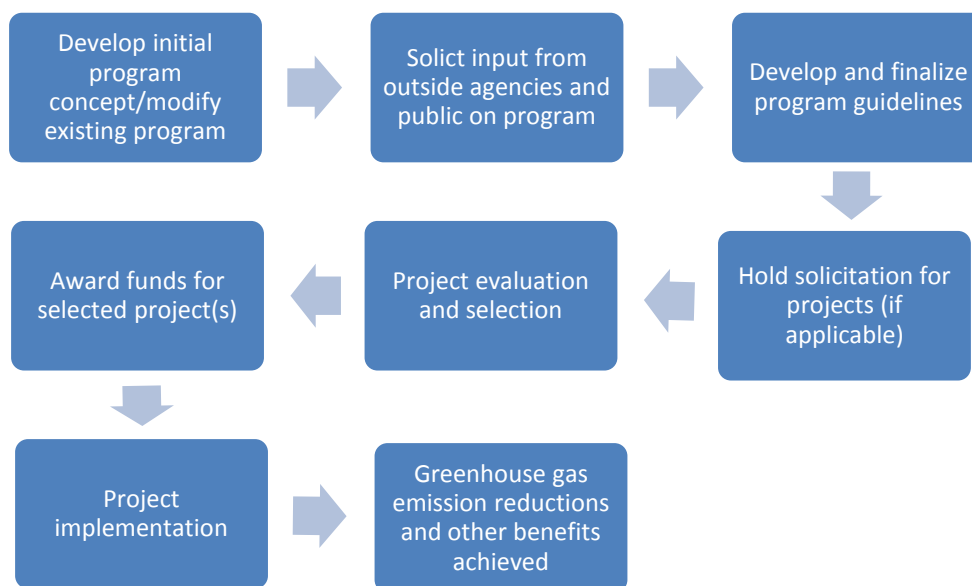
IV. Program Implementation

A. Overview

Given that some of these programs are new, or newly expanded to prioritize greenhouse gas reductions, administering agencies are at different stages in the program development process. Agencies have begun implementation of a subset of projects as of the issuance of this 2015 Annual Report.

Figure 2 below presents a general overview of the program development process typically being used by GGRF administering agencies running competitive programs. Other administering agencies, such as the High Speed Rail Authority and the Department of Water Resources, are already directly investing in capital projects like High Speed Rail and the replacement of turbines at hydroelectric facilities in the State Water Project.

Figure 2. Example Development Process for Competitive Program



B. Program Status

Figure 3 highlights the progress of each program according to the typical milestones from design to project selection and implementation, as of January 31, 2015, for programs receiving 2013-14 and 2014-15 monies. “N/A” in the table below indicates that the milestone is not applicable to the specific program or project category.

Figure 3. GGRF Program Status (as of January 31, 2015)

Agency	Program or Program Category	Expenditure Record Status	Program Guidelines Released	Solicitation Release	Proposal Deadline	Project Selection Complete	Award of Funding	Project Implementation
High Speed Rail Authority	High Speed Rail	Completed	N/A	N/A	N/A	N/A	N/A	Ongoing
California State Transportation Agency	Transit and Intercity Rail Capital Program	Pending.						
Department of Transportation	Low Carbon Transit Operations Program	Submitted	Dec 2014	Dec 2014	Feb and Apr 2015			
Strategic Growth Council	Affordable House and Sustainable Communities Program		Jan 2015	Jan 2015	Feb 2015			
	Sustainable Agriculture Lands Conservation Program		Jan 2015	Jan 2015	Mar 2015			
Air Resources Board	Clean Vehicle Rebate Project (2013-14)	Completed	Jul 2013	Aug 2013	Aug 2013	Feb 2014	Awarded to Grantee	Complete
	Hybrid and Zero-Emission Truck and Voucher Incentive Project (2013-14)	Completed	Jul 2013	Dec 2013	Jan 2014	Mar 2014	Awarded to Grantee	Ongoing
	Clean Vehicle Rebate Project	Completed	Jun 2014	Jul 2014	Aug 2014	Oct 2014	Awarded to Grantee	Ongoing
	Hybrid and Zero-Emission Truck and Voucher Incentive Project	Completed	Jun 2014					

Figure 3. GGRF Program Status (as of January 31, 2015)

Agency	Program or Program Category	Expenditure Record Status	Program Guidelines Released	Solicitation Release	Proposal Deadline	Project Selection Complete	Award of Funding	Project Implementation
Air Resources Board (cont.)	Advanced Technology Freight Demonstration Projects in Disadvantaged Communities: <i>Zero Emission Drayage Trucks</i>	Completed	Jun 2014					
	<i>Multi-Source Facility Projects</i>	Completed	Jun 2014					
	Light Duty Pilot Projects: <i>Car Sharing and Mobility Options in Disadvantaged Communities</i>	Completed	Jun 2014					
	<i>Vehicle Retirement and Replacement Plus-Up</i>	Completed	Jun 2014					
	<i>Light-Duty Financing Assistance Programs</i>	Completed	Jun 2014					
	<i>Increased Incentives for Public Fleets in Disadvantaged Communities</i>	Completed	Jun 2014	Jul 2014	Aug 2014	Oct 2014	Awarded to Grantee	Ongoing
	Zero-Emission Truck and Bus Pilot Projects in Disadvantaged Communities	Completed	Jun 2014					

Figure 3. GGRF Program Status (as of January 31, 2015)

Agency	Program or Program Category	Expenditure Record Status	Program Guidelines Released	Solicitation Release	Proposal Deadline	Project Selection Complete	Award of Funding	Project Implementation
Department of Community Services and Development	Single-Family Weatherization and Solar Hot Water Heating							
	Multi-Family Weatherization:							
	<i>Small Multi-Family Weatherization, Solar Hot Water Heating and Solar Photovoltaic</i>							
	<i>Large Multi-Family Weatherization, Solar Hot Water Heating and Solar Photovoltaic</i>							
	Single-Family Solar Photovoltaic							
California Energy Commission	Energy Efficiency in Public Buildings	Pending.						

Figure 3. GGRF Program Status (as of January 31, 2015)






Agency	Program or Program Category	Expenditure Record Status	Program Guidelines Released	Solicitation Release	Proposal Deadline	Project Selection Complete	Award of Funding	Project Implementation
Department of Food and Agriculture	State Water Efficiency and Enhancement Program (2013-14): <i>1st Solicitation</i>							
	<i>2nd Solicitation</i>							
	Dairy Digesters and Research Development Program: <i>Phase (I) - Development</i>							
	<i>Phase (II) - Research</i>							
	Alternative and Renewable Fuels Program							

Figure 3. GGRF Program Status (as of January 31, 2015)

Agency	Program or Program Category	Expenditure Record Status	Program Guidelines Released	Solicitation Release	Proposal Deadline	Project Selection Complete	Award of Funding	Project Implementation
Department of Water Resources	Water-Energy Efficiency Projects: <i>Hyatt Power Plant Unit 1 Turbine Replacement (2013-14)</i>							
	<i>Thermalito Power Plant Unit 1 Turbine Replacement (2013-14)</i>							
	Water-Energy Grant Program (2013-14)							
Department of Fish and Wildlife	Delta and Coastal Wetlands							
	Mountain Meadow Habitat							
	Wetlands and Water Efficiency on DFW Lands							

Figure 3. GGRF Program Status (as of January 31, 2015)

Agency	Program or Program Category	Expenditure Record Status	Program Guidelines Released	Solicitation Release	Proposal Deadline	Project Selection Complete	Award of Funding	Project Implementation
Department of Forestry and Fire Protection	Forest Legacy Program	Submitted	Oct 2014	Sep 2014	Sep 2014			
	Forest Pest Control	Submitted	Oct 2014	Oct 2014	Mar 2015			
	Fuels Reduction	Submitted	Oct 2014	Oct 2014	Mar 2015			
	Program Environmental Impact Reports	Submitted						
	Reforestation	Submitted	Oct 2014	Oct 2014	Mar 2015			
	Demonstration State Forest Research	Submitted	Oct 2014	Oct 2014	Mar 2015			
	Urban and Community Forestry	Submitted	Oct 2014	Sep 2014	Mar 2015			

Figure 3. GGRF Program Status (as of January 31, 2015)

Agency	Program or Program Category	Expenditure Record Status	Program Guidelines Released	Solicitation Release	Proposal Deadline	Project Selection Complete	Award of Funding	Project Implementation
Department of Resources Recycling and Recovery	Organics Grant Program	Completed	Mar 2014	May 2014	Jul 2014	Nov 2014	Nov 2014	In Progress
	Recycled Fiber, Plastic, and Glass Grant Program	Completed	Mar 2014	Jun 2014	Jul 2014	Nov 2014	Nov 2014	In Progress
	Organics and Recycled Fiber, Plastic, and Glass Loan Program	Completed	Mar 2014	Nov 2014	Dec 2014			

C. Public Process and Outreach

Administering agencies held individual program workshops and other public meetings at various locations throughout the State, and some also held webinars and teleconferences. To-date, State agencies convened over 100 public meetings, with over 6,000 participants. Appendix A includes a complete list of public meetings.

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

D. Financial Status of Programs

The total allocation and budgetary expenditures as of December 31, 2014, for each program are detailed in Table 3 below. "Budgetary expenditures" represent the amount of GGRF monies that were expended, including any remaining encumbrances. Any monies that are included in signed agreements/contracts or spent by an agency (e.g., monies signed into grant agreements, issued to an end user for a voucher, or spent by the agency for administrative costs), are listed as budgetary expenditures.

As indicated in Figure 3 above, administering agencies have been in the process of developing their programs over the last several months, and some are still in the process of finalizing program guidelines, soliciting project proposals, or evaluating those proposals. As a result, Table 3 does not include anticipated budgetary expenditures of 2013-14 and 2014-15 funds expected in the second half of this fiscal year as additional agencies begin awarding funds to specific projects.

Table 3. GGRF Budgetary Expenditures (as of December 31, 2014)

Agency	Program	Appropriations (\$M)		Budgetary Expenditures ¹ (\$M)			
		2013-14	2014-15	State Operations	Local Assistance	Capital Outlay	Total ²
High-Speed Rail Authority	High-Speed Rail	\$0	\$250	N/A	N/A	\$221.4	\$221.4
California State Transportation Agency	Transit and Intercity Rail Capital Program	\$0	\$25	\$0	\$0	N/A	\$0
Department of Transportation	Low Carbon Transit Operations Program	\$0	\$25	\$0.03	\$0	\$0	\$0.03
Strategic Growth Council	Affordable Housing and Sustainable Communities Program	\$0	\$130	\$0.3	\$0	N/A	\$0.3
Air Resources Board	Low Carbon Transportation	\$30	\$200	\$1.2	\$142.4	N/A	\$143.6
Department of Community Services and Development	Low Income Weatherization Program/Renewable Energy	\$0	\$75	\$1.2	\$0	N/A	\$1.2
California Energy Commission	Energy Efficiency in Public Buildings	\$0	\$20	\$0	\$0	N/A	\$0
Department of Food and Agriculture	Agricultural Energy and Operational Efficiency	\$10	\$15	\$4.7 ³	\$0	N/A	\$4.7
Department of Water Resources	Water Action Plan – Water-Energy Efficiency	\$30	\$0	\$0.2	\$0	\$0	\$0.2

Table 3. GGRF Budgetary Expenditures (as of December 31, 2014)

Agency	Program	Appropriations (\$M)		Budgetary Expenditures ¹ (\$M)			
		2013-14	2014-15	State Operations	Local Assistance	Capital Outlay	Total ²
Department of Fish and Wildlife	Water Action Plan – Wetlands and Watershed Restoration	\$0	\$25	\$0.02	\$0	N/A	\$0.02
Department of Forestry and Fire Protection	Sustainable Forests	\$0	\$42	\$0.2	\$0	N/A	\$0.2
Department of Resources Recycling and Recovery	Waste Diversion	\$0	\$25	\$0.04	\$5	N/A	\$5.04
Total Appropriations for Programs ⁴		\$70	\$832	\$7.9	\$147.4	\$221.4	\$376.7
Air Resources Board	Fund Administration and Management	\$1.3	\$9.2	\$2.6	N/A	N/A	\$2.6
Office of Environmental Health Hazard Assessment	Identification of Disadvantaged Communities	\$0.6	\$0.6	\$0.7	N/A	N/A	\$0.7
Total GGRF Appropriations and Budgetary Expenditures		\$71.9	\$841.8	\$11.2	\$147.4	\$221.4	\$380.0

¹ Budgetary expenditure reflects funds expended and remaining encumbrances.

² Totals may not sum due to rounding.

³ Appropriated monies from State Operations, a portion of this money is being spent on GGRF projects (\$2.9M for grants/contracts) rather than support (\$1.8M).

⁴ Appropriation is for State agencies to administer programs and fund projects.

E. Response to Competitive Solicitations

For agencies conducting competitive solicitations, interest in obtaining GGRF monies exceeded available funds. This level of demand is encouraging, as it highlights significant opportunities for future greenhouse gas reductions.

Table 4 shows solicitation response for those programs that already completed an initial competitive solicitation process for projects. These programs represent a subset of total programs, as many programs have not yet entered the project solicitation stage. Projects administered directly by agencies, such as High Speed Rail, or awarded on a first-come, first-served basis, such as vehicle rebates through the Low Carbon Transportation program, do not appear in this table.

Table 4. Competitive Project Proposals Received (as of January 31, 2015)

Agency	Program or Program Category	Total Funding Appropriated (\$M)	Total Amount of Submitted Proposals (\$M)	Percent Oversubscribed (%)
Department of Food and Agriculture	State Water Efficiency and Enhancement Program	\$10	\$33.3	333%
Department of Water Resources	Water-Energy Grant Program	\$20	\$142	710%
Department of Fish and Wildlife	Water Action Plan – Wetlands and Watershed Restoration	\$25	\$49.1	196%
Department of Forestry and Fire Protection	Sustainable Forests	\$24	\$134.4	560%
	Urban and Community Forestry	\$18	\$107.4	597%
Department of Resources Recycling and Recovery	Organics Grant Program	\$15	\$118.7	791%
	Recycled Fiber, Plastic, and Glass Grant Program	\$5	\$38.9	778%

F. Project Numbers and Locations

Table 5 below lists the projects that were selected for funding through January 31, 2015 which represent a subset of the total projects that will be implemented with 2013-14 and 2014-15 GGRF monies.

Table 5. Number of Projects Selected for Funding (as of January 31, 2015)

Agency	Program or Program Category	Projects Selected for Funding	
		Number	Dollar Amount (\$M)
High Speed Rail Authority	High Speed Rail	N/A	\$250
Air Resources Board	Clean Vehicle Rebate Project	9,699 rebates (2013-14) 30,792 rebates (2014-15)	\$19.5 \$63.9
	Hybrid & Zero-Emission Truck and Bus Voucher Incentive Project	158 vouchers (2013-14)	\$4.3
Department of Food and Agriculture	State Water Efficiency and Enhancement Program	84 grants	\$3.2
Department of Water Resources	Water-Energy Efficiency Projects	Hyatt Power Plant Unit 1 Turbine Replacement	\$5.0
		Thermalito Power Plant Unit 1 Turbine Replacement	\$5.0
Department of Resources Recycling and Recovery	Organics Grant Program	5 grants	\$14.5
	Recycled Fiber, Plastic, and Glass Grant Program	3 grants	\$5.0
Total Dollar (\$M) Amount Selected for Funding			\$370.4

Figures 4 through 9 below show the locations of these projects.

Figure 4: Initial High Speed Rail Segment Location (\$250M)

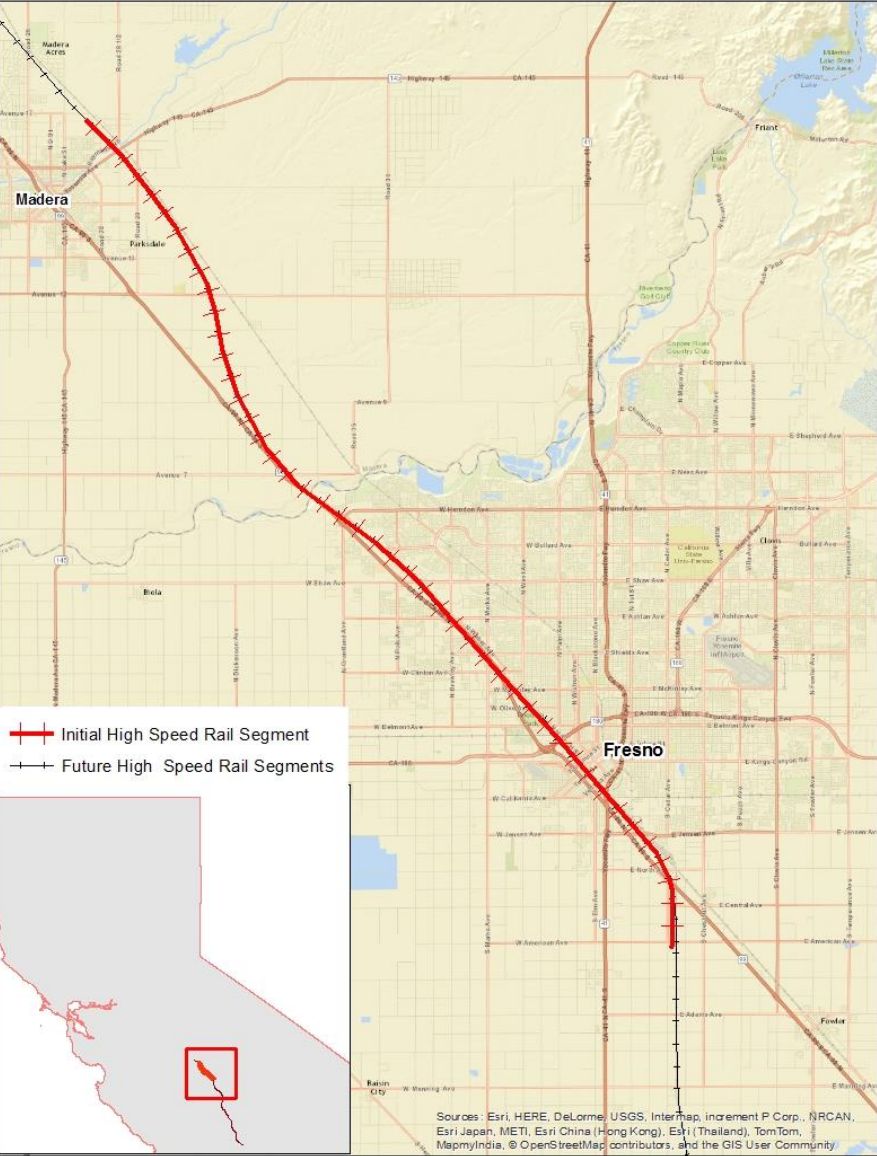


Figure 5: Department of Water Resources Thermalito and Hyatt Power Plant Locations (\$10M)

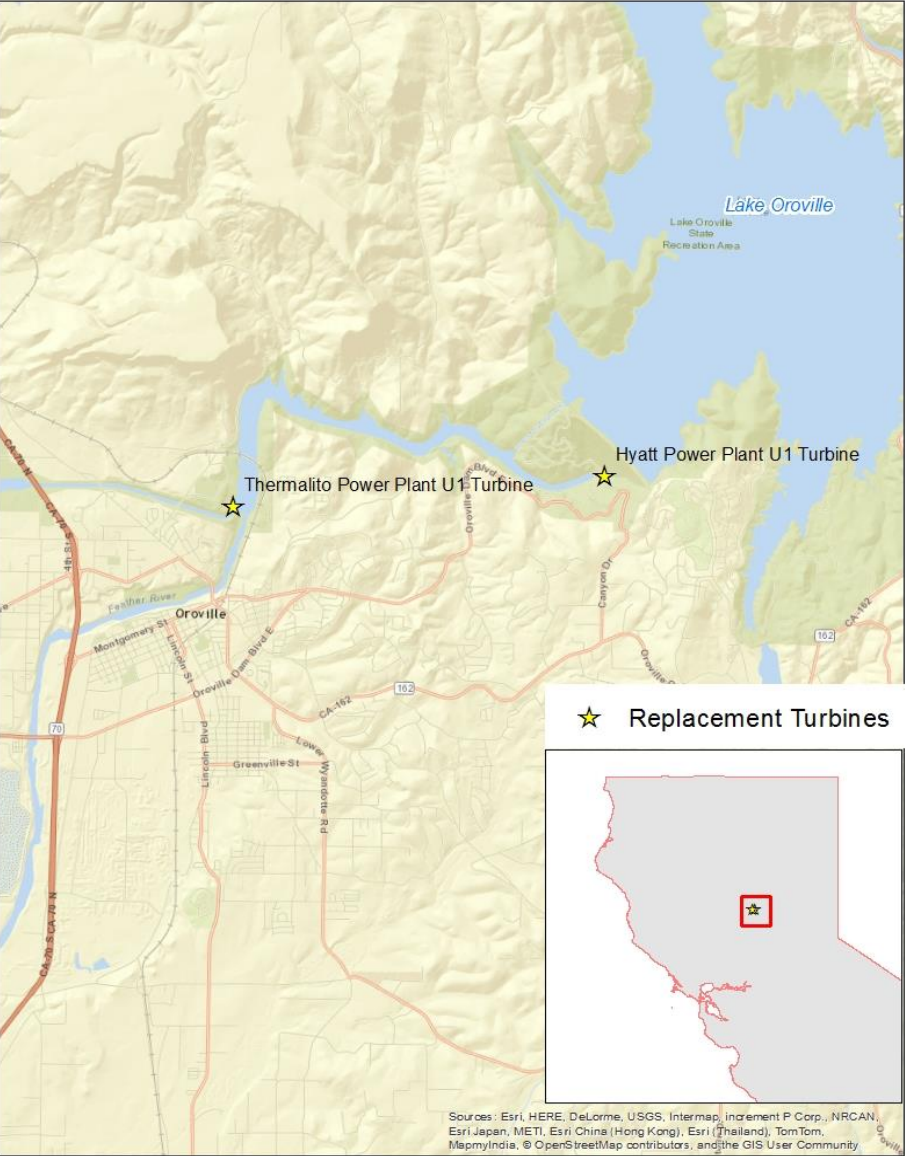


Figure 6. ARB Clean Vehicle Rebate Project Recipients by Census Tract as of January 31, 2015 (\$83.4M)

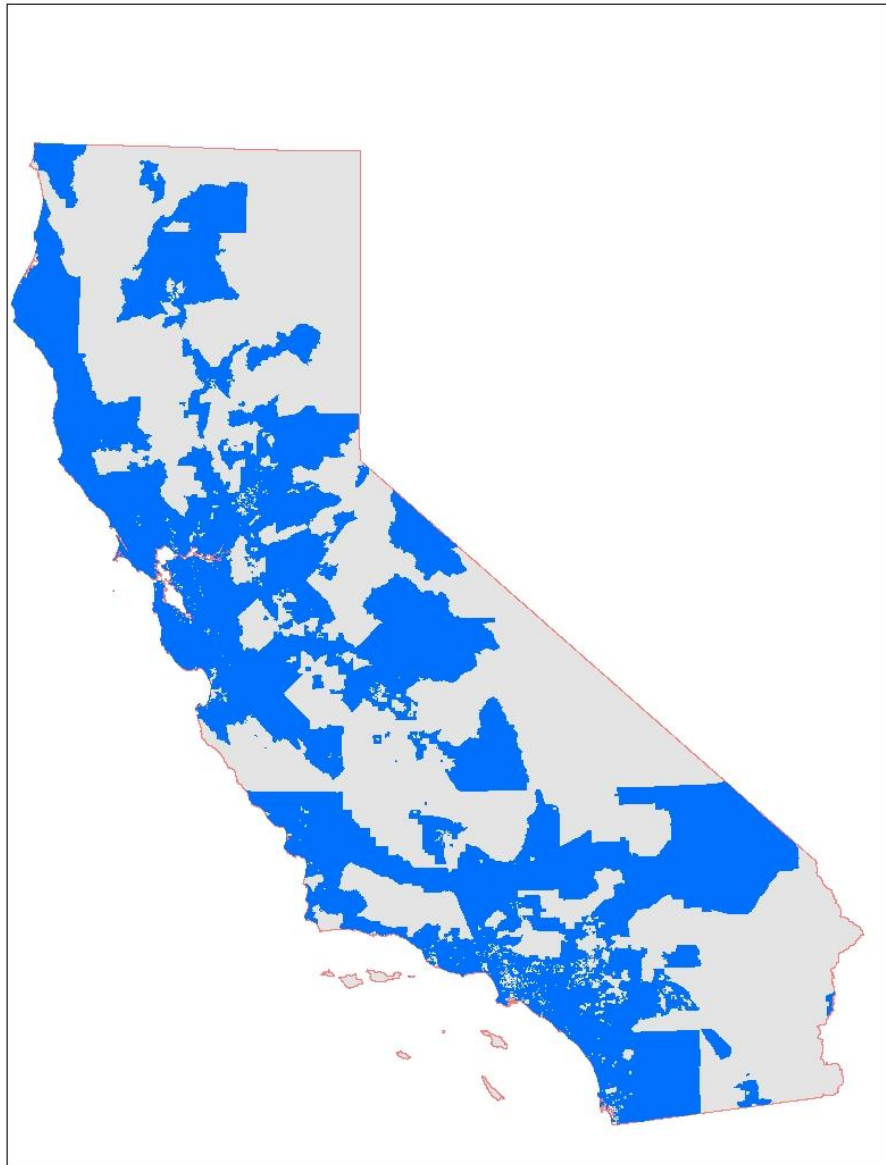


Figure 7. ARB Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project Recipients as of January 31, 2015 (\$4.3M)

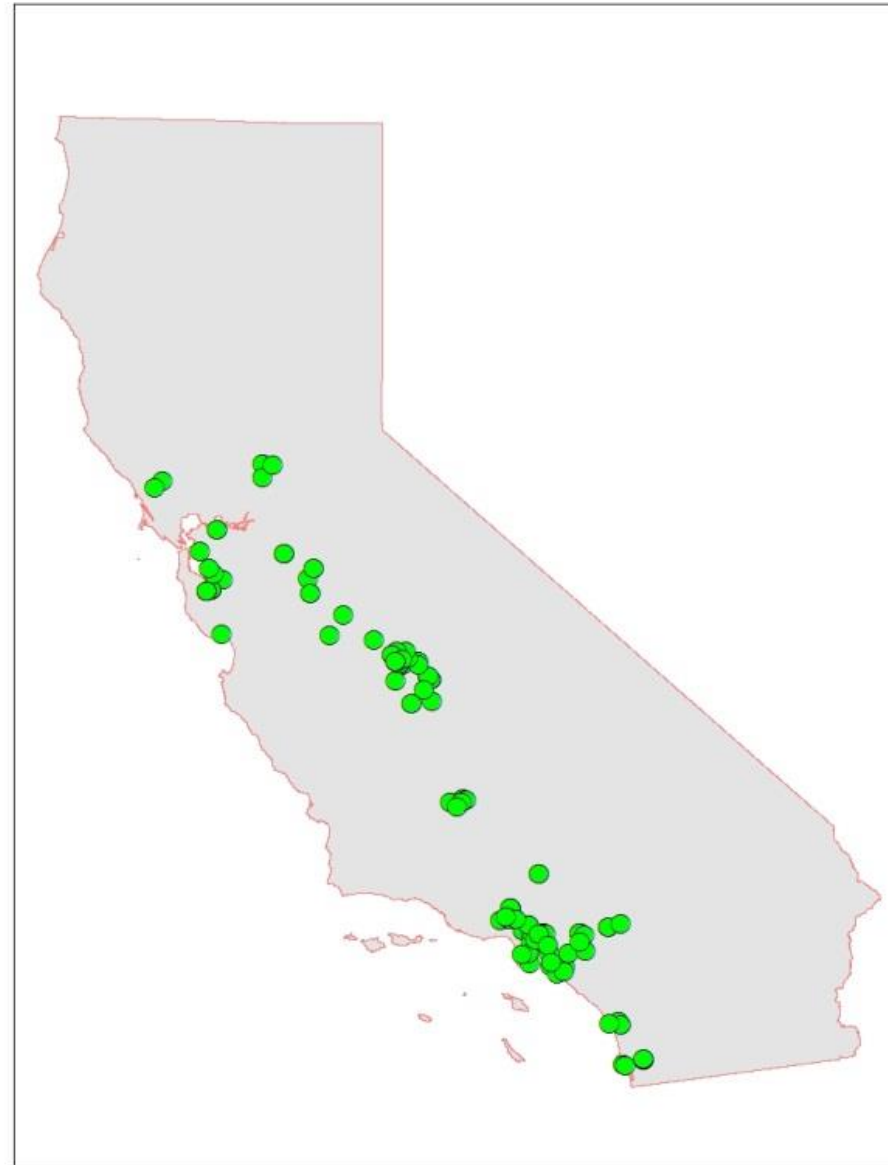


Figure 8: Department of Food and Agriculture State Water Efficiency and Enhancement Program Recipients (\$3.2M)

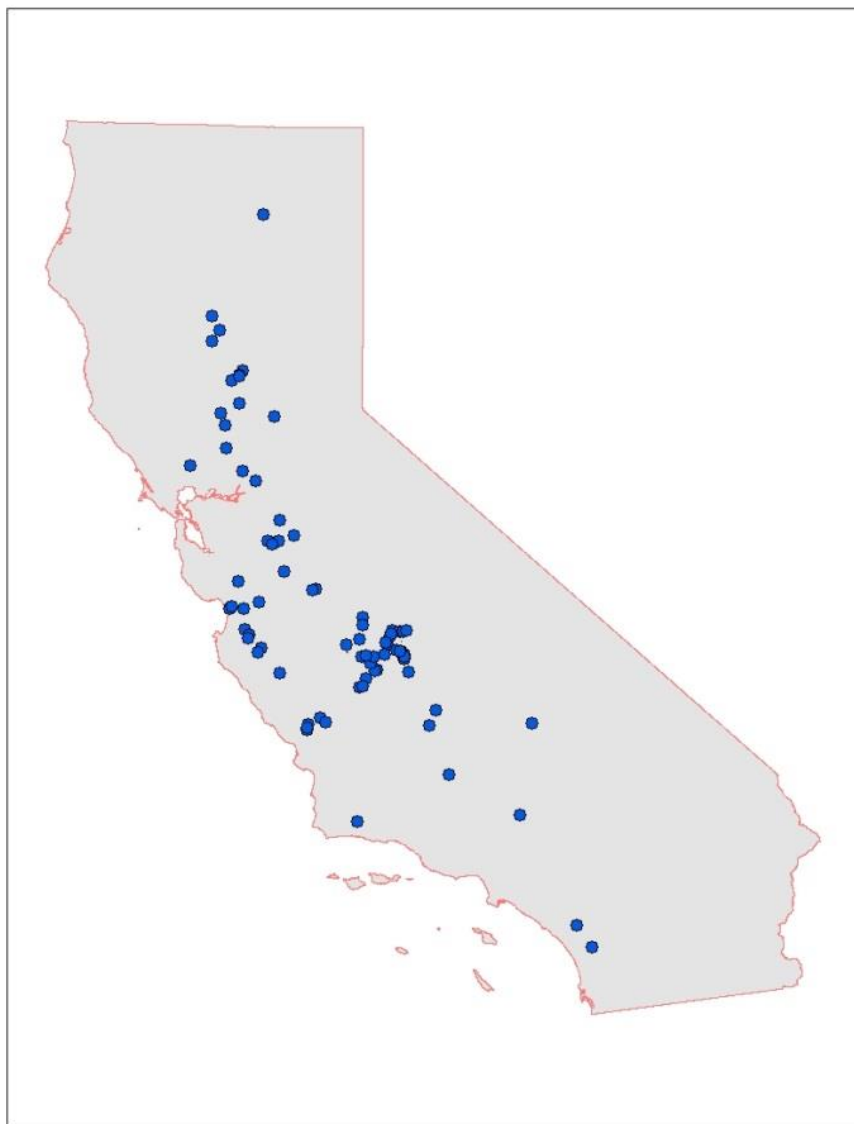
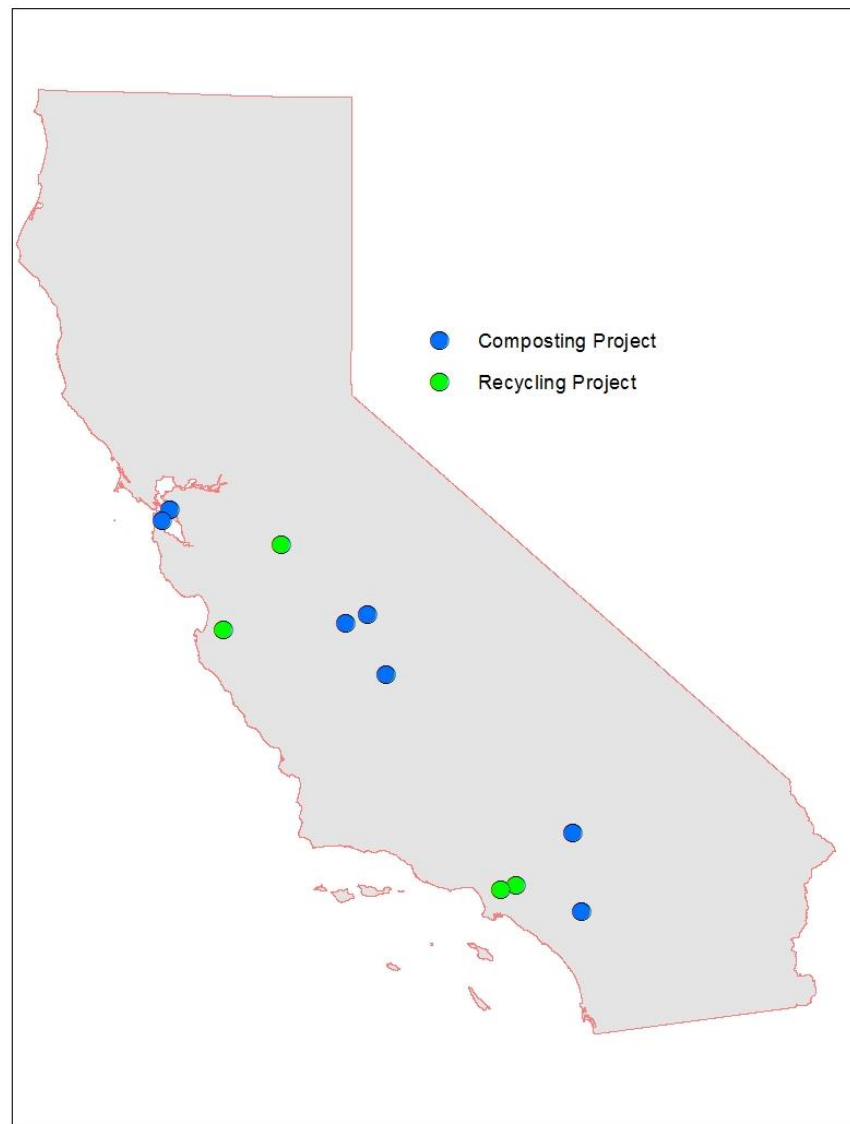


Figure 9. Department of Resources Recycling and Recovery Organics Grant Program and Recycled Fiber, Plastic, and Glass Grant Program Recipients as of January 31, 2015 (\$19.5M)
(Note: some grant awards include multiple sites)



G. Disadvantaged Communities

SB 535 directs the State and administering agencies to make significant investments that benefit California's most vulnerable communities. It requires that the Investment Plan allocate a minimum of 25 percent of the available moneys in the GGRF to projects that provide benefits to disadvantaged communities and a minimum of 10 percent to projects located within disadvantaged communities. ARB's Interim Guidance on Investments to Benefit Disadvantaged Communities established two types of screening criteria to determine whether a specific project qualifies to be counted towards the SB 535 requirements because it either:

- 1) Is located within a census tract identified as a disadvantaged community and provides benefits to one or more disadvantaged communities; or
- 2) Provides benefits to one or more disadvantaged communities.

GGRF monies invested in all projects meeting criterion 1 count towards the SB 535 requirements for both investments "within" disadvantaged communities and investments "benefiting" disadvantaged communities. The result is that the investments in all projects credited under criterion 1 are a subset of criterion 2.

For the purpose of tracking and determining 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 is consistent with the Proposed 2014-15 State Budget, which anticipated that some agencies would expend more than 25 percent to benefit disadvantaged communities, while others would expend less, based on the nature of the programs and likely project locations.

Based on the statutory requirements in SB 862 and estimates provided by agencies, it is expected that over 60 percent of the overall 2014-15 GGRF appropriations will support projects that benefit disadvantaged communities. There were no specific provisions intended to benefit disadvantaged communities in the 2013-14 appropriations, although some of the low carbon transportation, water energy efficiency, and agricultural efficiency projects do meet the criteria developed after those projects were initiated. Table 6 shows the funding targets for benefits to disadvantaged communities by program.

Table 6. Program Funding Targets for Disadvantaged Communities

Agency	Program	Total Appropriations (\$M)	Total Percent Targeted to Benefit Disadvantaged Communities	Potential Funds to Benefit Disadvantaged Communities (\$M)	
				Located Within & Benefitting Disadvantaged Communities	Total Benefitting Disadvantaged Communities
High Speed Rail Authority	High Speed Rail ¹	\$250	100%	\$250	\$250
California State Transportation Agency	Transit and Intercity Rail Capital Program ²	\$25	25%	TBD ³	\$6
Department of Transportation	Low Carbon Transit Operations Program ²	\$25	32% ⁴	TBD	\$8 ⁴
Strategic Growth Council	Affordable Housing and Sustainable Communities Program ²	\$130	50%	TBD	\$65
Air Resources Board	Low Carbon Transportation	\$230	50%	TBD	\$115
Department of Community Services and Development	Low-Income Weatherization Program / Renewable Energy	\$75	100%	\$75	\$75
California Energy Commission	Energy Efficiency in Public Buildings	\$20	0-25%	TBD	TBD
Department of Food and Agriculture	Agricultural Energy and Operational Efficiency	\$25	0-25%	TBD	TBD
Department of Water Resources	Water Action Plan – Water Energy Efficiency	\$30	0%	TBD	TBD
Department of Fish and Wildlife	Water Action Plan - Wetlands and Watershed Restoration	\$25	0-25%	TBD	TBD
Department of Forestry and Fire Protection	Sustainable Forests	\$24	0-25%	TBD	TBD
	Urban and Community Forestry	\$18	100%	\$10	\$18
Department of Resources Recycling and Recovery	Waste Diversion	\$25	10%	TBD	\$3
Total Appropriations to Benefit Disadvantaged Communities		\$902	60%	\$335	\$554
				>37%	>60%

¹ The current appropriations will meet the SB 535 disadvantaged community targets without including the \$250M High Speed Rail appropriation; however, the High Speed Rail project is expected to benefit disadvantaged communities throughout the State and was included in the table for completeness.

² For these agencies, the percentages are a statutory requirement in SB 862.

³ TBD indicates that the likely investments within disadvantaged communities are “to be determined” in the program development and project selection process.

⁴ The statute requires transit agencies with disadvantaged communities in their service areas to direct at least 50 percent of their funding to benefit disadvantaged communities.

Table 7 shows the projects selected as of January 31, 2015, for 2013-14 and 2014-15 funds, that the administering agencies report meet the criteria in ARB's Interim Guidance for located within and benefitting disadvantaged communities.

Table 7. Running Tally of Specific Projects Selected for Funding that Benefit Disadvantaged Communities (as of January 31, 2015)

Agency	Program or Program Category	A. ¹ Located Within & Benefitting Disadvantaged Communities		B. ¹ Total Benefitting Disadvantaged Communities	
		Proposals/Projects Selected for Funding		Proposals/Projects Selected for Funding	
		Number	Dollar Amount (\$M)	Number	Dollar Amount (\$M)
High Speed Rail Authority	High Speed Rail	N/A	\$250	N/A	\$250
Air Resources Board	Clean Vehicle Rebate Project	2,579 rebates	\$5.1	15,517 rebates	\$31.2
	Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project	85 vouchers	\$2.0	129 vouchers	\$3.3
Department of Food and Agriculture	State Water Efficiency and Enhancement Program	46 grants ²	\$1.8	46 grants ²	\$1.8
Department of Resources Recycling and Recovery	Organics Grant Program	3 grants	\$6.9	5 grants	\$10.1
	Recycled Fiber, Plastic, and Glass Grant Program	3 grants	\$4.0	3 grants	\$5.0

¹ A. is a subset of B. in this table.

² Accounts for the first solicitation only; second solicitation calculations currently in progress.

Like the other tables and graphics in this Report, the benefits to disadvantaged communities in Table 7 represent a snapshot in time, prior to full implementation of the funded programs. There are major programs that will achieve significant benefits to disadvantaged communities not yet reflected. These include:

- The Department of Community Services and Development's Low-Income Weatherization and Renewable Energy Program that will exclusively fund projects located within disadvantaged communities.
- The Department of Forestry and Fire Protection's Urban and Community Forestry Program that will exclusively fund projects benefitting disadvantaged communities.
- ARB's Low Carbon Transportation investments that specifically target disadvantaged communities -- pilot projects for cars, buses, and trucks, as well as the advanced technology demonstrations for freight operations.

- The Strategic Growth Council's Affordable Housing and Sustainable Communities Program that will allocate at least half of the funding to projects that benefit disadvantaged communities.

H. Greenhouse Gas Emissions Reductions

Under statute, GGRF monies must be used to further the purposes of AB 32 by reducing greenhouse gas emissions in the State. For GGRF investments, greenhouse gas reductions consider both net reductions of the greenhouse gases identified in AB 32, as well as net carbon sequestration achieved through long-term management practices on natural and working lands. There is scientific evidence establishing the causal relationship between each investment program area supported by the GGRF and greenhouse gas emission reductions.

1. Development of Quantification Methodologies

ARB and the administering agencies are developing greenhouse gas quantification methods for the project types covered by 2013-14 and 2014-15 investments. Agencies concurrently began staffing up following passage of the 2014-15 State Budget. As a result, administering agencies have developed guidelines and begun implementing programs while the process to draft and complete quantification methods is underway. ARB prioritized the project types for quantification based on program timelines, with an initial focus on the programs using greenhouse gas reductions as part of the criteria to score projects in a competitive process. ARB is also making the quantification of greenhouse gas reductions the priority, with quantification methods for co-benefits to follow.

There are two important aspects of quantification development that are being addressed in different programs. First, for programs where greenhouse gas emission reductions are a factor in project selection, interim methodologies are focused on comparing the relative reductions from proposed projects. Second, for all programs, methods are being developed for quantifying reductions resulting from project implementation. As ARB completes quantification methods, staff posts them on ARB's auction proceeds webpage at: <http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm>

2. Greenhouse Gas Emission Reduction Estimates

Robust, consistent calculations of greenhouse gas and co-benefits from GGRF investments are important for budget development and for implementing each program.

As noted above, ARB and the administering agencies are developing the needed methodologies to achieve this objective. Since that process is underway, we present a hybrid approach to greenhouse gas reductions in this 2015 Annual Report. The approach relies on (1) preliminary work done for the Legislature in Spring 2014, and (2) improved calculation methodologies for a subset of programs that have already identified specific projects. In the 2016 Annual Report, we will have updated numbers for all programs.

Table 8 shows the current estimates for programs with specific projects that have been selected for funding, based on interim quantification methods or the administering agency's technical evaluation. The remaining program estimates will be updated as projects are selected, funded, and implemented.

In 2014, the Legislature asked each administering agency proposed to receive auction proceeds to provide the following information:

1. The likely range of greenhouse gas emission reductions expected to be achieved by the projects that would be funded under the Governor's proposed 2014-15 State Budget;
2. The timeframe when these reductions are likely to be achieved; and
3. The resources or research available to support these estimates and the key underlying assumptions.

On April 30, 2014, the Administration provided preliminary information to respond to the Legislature's request for items 1 and 2 above, including a summary table that presented the best estimates on the potential benefits in each investment area, *prior to* identification of the specific projects to be funded in most cases. The table included an additional level of detail to indicate the potential allocation of the funding by project type, if this information was included in agency budget documentation or presented in public forums.

On May 20, 2014, the Administration provided an updated version of the table (shown in Appendix B), as well as the supporting documentation for the emission reductions. Please note that since these numbers were initially developed, several of the agencies, programs, appropriation amounts, and quantification methods have changed.

Table 8: Estimates of Greenhouse Gas Emission Reductions and Co-Benefits for Projects Selected for Funding
(as of January 31, 2015, includes 2013-14 and 2014-15)

Agency	Program or Program Category	Projects Selected for Funding		Annual Reductions Attributable to Investment (MTCO ₂ e/Yr)	Reductions Expected to Begin (Year)	Project Life (Years)	Estimated Reductions over Project Life (MTCO ₂ e) ¹	Qualitative Co-Benefits
		Number	Dollar Amount (\$M)					
High Speed Rail Authority	High Speed Rail	N/A	\$250	N/A ²	2022	50	44,000,000 ²	Reduces criteria pollutants, creates jobs, incentivizes infill development
Air Resources Board	Clean Vehicle Rebate Project	9,699 rebates (2013-14)	\$19.5	36,000	2014	15	540,000	Reduces criteria pollutants, reduces petroleum usage, enables market transformation of advanced technologies
		30,792 rebates (2014-15)	\$63.9	113,333	2014	15	1,700,000	
	Hybrid & Zero-Emission Truck and Bus Voucher Incentive Project	158 vouchers	\$4.3	2,067	2014	15	31,000	Reduces criteria pollutants, reduces petroleum usage
Department of Food and Agriculture	State Water Efficiency and Enhancement Program	84 grants	\$3.2	2,546	2015	15	38,184	Saves water (approximately 9,048 acre-ft. per year), improves water quality, reduces chemical usage, sustains agricultural production
Department of Water Resources	Water-Energy Efficiency Projects	Thermalito Power Plant Unit 1 Turbine Replacement	\$5	2,069	2018	30	62,070	Improves energy reliability
		Hyatt Power Plant Unit 1 Turbine Replacement	\$5	6,420	2017	30	192,600	
Department of Resources Recycling and Recovery	Organics Grant Program	5 grants	\$14.5	165,780	2015	15-20	1,657,800 ³	Reduces criteria pollutants, creates jobs, benefits associated with compost use: improves soil health, improves water quality, decreases soil erosion, decreases synthetic fertilizer use
	Recycled Fiber, Plastic, and Glass Grant Program	3 grants	\$5.0	46,890	2015	15-20	468,900 ³	Reduces criteria pollutants, creates jobs, improves water quality from use of recycled materials instead of virgin materials

¹ Annual reductions multiplied by project life may not equal the cumulative total due to ramp up of greenhouse gas reductions over the project life and as a result of rounding.

² The annual reductions for the first year of operation of the Initial Operating Segment in 2022 are based on multiple years of funding, rather than the current fiscal year only used for other projects. Cumulative reductions reflect completion and operation of the entire High Speed Rail system from 2022 to 2072.

³ The total anticipated reductions for the first 10 years of project implementation beginning in 2015.

**Appendix A: List of Public Meetings Held
(January 2013 through February 2015)**

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Agencies administering GGRF monies held numerous public meetings in various locations across the State and by webinar to solicit public input and inform potential grant or loan recipients of funding requirements. The following is a list of meetings held by each administering agency and program.

GGRF Public Meetings by Agency and Program

Agency	Program or Program Category	Meeting Date	Location	Estimated Number of Attendees
High-Speed Rail Authority	High Speed Rail	Monthly	Board meetings	200+
		Varies	Stakeholder meetings	100+
California State Transportation Agency	Transit and Intercity Rail Capital Program	August 21, 2014	San Jose	55
		August 22, 2014	Sacramento	50
		August 27, 2014	Los Angeles	60
		October 10, 2014	Webinar/ Conference Call	65
		December 10, 2014	San Bernardino	50
		December 17, 2014	Sacramento	55
		January 20, 2015	Los Angeles	20
		January 20, 2014	Sacramento	75
		January 21, 2015	Sacramento	30
		January 22, 2014	Sacramento	50
Department of Transportation	Low Carbon Transit Operations Program	August 22, 2014	Sacramento	50
		August 27, 2014	Los Angeles	60
		October 10, 2014	Webinar/ Conference Call	65
		December 10, 2014	San Bernardino	50
		December 17, 2014	Sacramento	55
Strategic Growth Council	Affordable Housing and Sustainable Communities Program	July 10, 2014	Sacramento	75
		October 6, 2014	Sacramento	95
		October 23, 2014	Merced	20
		October 24, 2014	Oakland	165
		October 27, 2014	Los Angeles	210
		October 28, 2014	Sacramento	110
		January 20, 2015	Sacramento	120
		February 4, 2015	San Diego	45
		February 5, 2015	San Bernardino	36
		February 6, 2015	Los Angeles	113
		February 9, 2015	Bakersfield	21
		February 10, 2015	Stockton	47
		February 12, 2015	Oakland	129
	Sustainable Agricultural Lands Conservation Program	October 24, 2014	Oroville	50
		October 29, 2014	Kern County	65
		October 30, 2014	Watsonville	45

GGRF Public Meetings by Agency and Program

Agency	Program or Program Category	Meeting Date	Location	Estimated Number of Attendees
Air Resources Board	Low Carbon Transportation	January 23, 2013	Sacramento	50 in person + web cast
		April 3, 2013	Sacramento	50 in person + web cast
		July 25, 2013	Sacramento	50 in person + webcast
	Air Quality Improvement Program Long-Term Planning Work Group Meeting 2014-15	February 12, 2014	Sacramento	25
		February 19, 2014	Sacramento	25
	Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project 2013-14 and 2014-15	March 14, 2013	Teleconference	20
		April 22, 2013	Teleconference	20
		October 14, 2013	Teleconference	20
		February 19, 2014	Sacramento	20
		July 22, 2014	Sacramento	20
	Clean Vehicle Rebate Project	2013-14 Funds		
		February 13, 2014	Sacramento	65
		February 24, 2014	Sacramento	65
		April 24 and 25, 2014	Sacramento	65
		December 11, 2014	Sacramento	75
		January 28, 2014	Sacramento	50 in person + webcast
		April 3, 2014	Sacramento	50 in person + webcast
		June 26, 2014	Sacramento	50 in person + webcast
		2014-15 Funds		
		August 6, 2014	Teleconference Only	25
		October 28, 2014	Teleconference Only	25
	Advanced Technology Freight Demonstration Projects in Disadvantaged Communities <i>Multi-Source Facility Projects</i> <i>Zero-Emission Drayage Truck</i>	February 18, 2014	Sacramento	30
		November 18, 2014	Sacramento	100
		December 11, 2014	Sacramento	75
		October 27, 2014	Sacramento	90
		November 20, 2014	Sacramento	70

GGRF Public Meetings by Agency and Program

Agency	Program or Program Category	Meeting Date	Location	Estimated Number of Attendees
Air Resources Board (cont.)	Light Duty Pilot Projects	October 16, 2014	Sacramento	45
		November 14, 2014	Sacramento	35
	<i>Car Sharing and Mobility Options in Disadvantaged Communities</i>	November 5, 2014	Sacramento	25
		December 17, 2014	Sacramento	30
	<i>Vehicle Retirement and Replacement Plus-Up</i>	October 28, 2014	Sacramento	45
		December 4, 2014	Sacramento	30
	<i>Light-Duty Financing Assistance Programs</i>	October 30, 2014	Sacramento	25
Department of Community Services and Development	<i>Increased Incentives for Public Fleets in Disadvantaged Communities</i>	September 17, 2014	Sacramento	10
		September 24, 2014	Fresno	6
		September 25, 2014	Los Angeles	10
		September 29, 2014	Sacramento	50
		December 15, 2014	Sacramento	12
California Department of Food and Agriculture	State Water Efficiency and Enhancement Program	April 11, 2014	Sacramento	30
		April 18, 2014	Modesto	25
		May 8, 2014	Tulare	15
		June 18, 2014	Modesto	8
		June 19, 2014	Salinas	4
		June 25, 2014	Ventura	6
		June 26, 2014	Tulare	17
		June 30, 2014	Oroville	5
		July 9, 2014	Webinar	
		October 6, 2014	Fresno	14
		October 8, 2014	San Luis Obispo	8
		October 13, 2014	Sacramento	15
		October 16, 2014	Webinar	20
	Dairy Digesters Research and Development Program	November 6, 2014	Modesto	12
		November 10, 2014	Tulare	7
		November 13, 2014	Sacramento	14
		January 21, 2015	Tulare	13
		January 27, 2015	Webinar	26
Department of Water Resources	Water Action Plan - Water-Energy Efficiency	January 28, 2015	Sacramento	12
		May 9, 2014	Fresno	30
		May 12, 2014	Sacramento	30
		August 19, 2014	Chino	30
		August 21, 2014	Fresno	10
		August 25, 2014	Sacramento	25
		October 28, 2014	Sacramento	30
		October 30, 2014	Riverside	35
		November 5, 2014	Fresno	25

GGRF Public Meetings by Agency and Program

Agency	Program or Program Category	Meeting Date	Location	Estimated Number of Attendees
Department of Fish and Wildlife	Water Action Plan - Wetlands and Watershed Restoration	September 11, 2014	Sacramento	105
Department of Forestry and Fire Protection	Sustainable Forests	August 2014	Sacramento	15
		August 2014	Sacramento	15
		October 14, 2014	Dublin	40
		October 15, 2014	Sacramento	30
		October 16, 2014	San Marcos	40
		October 21, 2014	Ukiah	40
		October 22, 2014	Auburn	40
		October, 23, 2014	Redding	40
		October 28, 2014	Riverside	40
		October 29, 2014	Fresno	30
		November 3, 2014	Sutter Creek	30
		November 4, 2014	Eureka	30
		November 6, 2014	Sonoma	30
	Urban and Community Forestry	September 24, 2014	Webinar	150
		September 29, 2014	San Diego	30
		September 30, 2014	Fresno	30
		October 1, 2014	Los Angeles	30
		October 1, 2014	Stockton	30
		October 2, 2014	San Bernardino	30
		October 2, 2014	Oakland	30
		October 22, 2014	Modesto	30
		October 20, 2014	Webinar	150
		October 23, 2014	Webinar	150
Department of Resources Recycling and Recovery	Waste Diversion	February 6, 2014	Sacramento	57 in person; 275 webinar
		March 18, 2014	Sacramento	100+
California Environmental Protection Agency and Air Resources Board, with Office of Environmental Health Hazard Assessment	SB 535 Workshops	August 25, 2014	Fresno	50
		August 26, 2014	Los Angeles	115
		September 3, 2014	Oakland	200
	SB 535 Public Briefing	September 10, 2014	Mecca	60
Air Resources Board	SB 535 Interim Guidance Board Hearing	September 18, 2014	Sacramento	125 in person + webcast

**Appendix B: Spring 2014 Preliminary Estimates of
Potential Benefits of Proposed 2014-15
Greenhouse Gas Reduction Fund Appropriations**

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Prior Spring 2014 Preliminary Estimates of Potential Benefits for Proposed 2014-15 GGRF Appropriations

(from "Proposed Investment of Auction Proceeds: Preliminary Estimates of Benefits," submitted to the Legislature May 2014)

Agency	Program (Proposed 2014-15 Investment in Million \$)	Project Type	Proposed Proceeds 2014-15 (Million \$)	Expected Leveraging (Proceeds \$: Match \$)	Annual Reductions Attributable to 2014-15 Investment (MTCO ₂ e/Yr)	Reductions Expected to Begin (Yr)	Project Life Used for Calculations (Yrs)	Cumulative Reductions Attributable to 2014-15 Investment (MTCO ₂ e) ⁱ	Driver for 2014-15 Investment
High Speed Rail	High Speed Rail Initial Section (\$250)	Project planning	\$250.0 +ongoing	Associated with future funding	140,000 ⁱⁱ	2022	50	44,000,000 ⁱⁱ	Enabling
		Construction/right of way acquisition							Direct GHG reductions
Department of Transportation	Rail Modernization (\$50)	Capital projects (intercity and commuter rail)	\$30.0	1:4 to 4:1	10,000 - 16,000	2015-2017	10-50+	100,000 - 570,000	Direct GHG reductions
		Network integration	\$20.0	1:4 to 4:1	3,000 -11,000	2015	20	60,000 - 220,000	Enabling
Strategic Growth Council	Sustainable Communities (\$100)	Increased access to transit	\$100.0	1:5	15,000 - 5,000 ⁱⁱⁱ	2015-2019	30	500,000 - 750,000 ⁱⁱ	Direct GHG reductions
		Active transportation							
		Affordable housing near transit							
		Mixed use development							
		Agricultural land preservation							
Air Resources Board	Low Carbon Transportation (\$200)	Zero-emission and plug-in hybrid vehicle rebates	\$111.0	1:20	330,000	2014	15	4,950,000	Direct GHG reductions
		Hybrid and zero-emission truck / bus vouchers	\$5.0	1:3 to 1:4	1,500	2014	15	22,500	Direct GHG reductions
		Advanced freight technology demonstrations	\$50.0	3:1	9,500	2016	5-15	47,500 - 142,500	Enabling
		Zero-emission truck / bus pilots	\$25.0	2:1 to 3:1	4,000	2015	15	60,000	Enabling
		Low-income passenger vehicle pilots	\$9.0	New Program - Not Yet Determined					Enabling
The Department of Community Services and Development	Weatherization Upgrades/ Renewable Energy (\$80)	Single-family weatherization	\$15.5	None	8,000 - 15,000	2015	10-20	80,000 - 300,000	Direct GHG reductions
		Multi-family weatherization	\$23.8	5:1	10,000 - 20,000	2015	10-20	100,000 - 400,000	Direct GHG reductions
		Photovoltaic solar	\$28.1	1:1	3,500 - 5,000	2015	25	87,500 - 125,000	Direct GHG reductions
		Solar water heating	\$12.6	1:1	1,000 - 1,500	2015	10-20	10,000 - 30,000	Direct GHG reductions

Prior Spring 2014 Preliminary Estimates of Potential Benefits for Proposed 2014-15 GGRF Appropriations

(from "Proposed Investment of Auction Proceeds: Preliminary Estimates of Benefits," submitted to the Legislature May 2014)

Agency	Program (Proposed 2014-15 Investment in Million \$)	Project Type	Proposed Proceeds 2014-15 (Million \$)	Expected Leveraging (Proceeds \$: Match \$)	Annual Reductions Attributable to 2014-15 Investment (MTCO ₂ e/Yr)	Reductions Expected to Begin (Yr)	Project Life Used for Calcu- lations (Yrs)	Cumulative Reductions Attributable to 2014-15 Investment (MTCO ₂ e) ⁱ	Driver for 2014-15 Investment
Department of General Services	Green State Buildings (\$20)	State buildings: retrofits	\$7.5	None	2,400	2015	10-20	24,000 - 48,000	Direct GHG reductions
		State buildings: renewable energy	\$0.5 ^{iv}	No State project \$	12,000	2015	20	240,000	Direct GHG reductions
		State buildings: zero net energy	\$12.0	None	2,000	2015	20	40,000	Direct GHG reductions
Department of Food and Agriculture	Agricultural Energy and Operational Efficiency (\$20)	Dairy digesters	\$12.0	Unknown	15,000 - 22,000	2016	10	150,000 - 220,000	Direct GHG reductions
		Nitrogen/fertilizer research	\$5.0	None	Not Applicable				Enabling
		Biofuels standards	\$3.0	None	Not Applicable				Enabling
Department of Fish and Wildlife	Wetlands Restoration ^v (\$30)	Wetlands - tidal (Delta)	\$30.0	None to 1:1	43,000 - 64,000	2017	25-50	1,100,000 - 3,200,000	Sequestration
		Wetlands - mountain meadows							
		Water conservation/efficiency							
Department of Forestry and Fire Protection	Forests (\$50)	Urban forests	\$17.2	3:1	1,800 - 4,500	2016	30	53,000 - 135,000	Sequestration
		Reforestation	\$5.0	4:1 to 10:1	900 - 9,600	2040	50	45,000 - 480,000	Sequestration
		Demonstration forests	\$2.5	None	600 - 7,000	2040	50	32,000 - 349,000	Sequestration
		Fuels reduction	\$13.5	None to 1:1	7,200 - 20,700	2045	25	180,000 - 517,000	Sequestration
		Forest conservation via Forest Legacy Program	\$8.9	3:1	12,800 - 49,200	2016-2022	25	320,000 - 1,231,000	Sequestration
		Forest pest control	\$1.3	None	400 - 3,000	2016-2022	25	19,000 - 154,000	Sequestration
		Forest practice program	\$1.6	None	Not Applicable				Enabling
Department of Resources Recycling and Recovery	Waste Diversion (\$30)	Grants for organics diversion	\$30.0	1:1 to 1:3	500,000 -750,000 ^{vi}	2015	10	5,000,000 - 7,500,000	Direct GHG reductions
		Loans for organics and recycling infrastructure							
		Grants to increase recycled material use in CA manufacturing							
Total			\$830.0		13 – 66 M				

ⁱ Annual reductions multiplied by project life may not equal the cumulative total due to ramp up of GHG reductions over the project life and as a result of rounding.

ⁱⁱ The annual reductions are for the first year of operation of the Initial Operating Segment in 2022. Cumulative reductions reflect completion and operation of the entire HSR system from 2022 to 2072.

ⁱⁱⁱ These are not projections for \$100M in SGC funding, but rather representative of CO2 reductions from transit oriented development projects based on the results of the Boarnet et. al Expo Line study.

^{iv} State staffing only; presumes third parties (e.g. solar providers) fund capital costs to be recovered via power purchase agreements with the State.

^v These projects will require ongoing maintenance for their duration to achieve estimated reductions, which are based on results from Delta wetlands only.

^{vi} CalRecycle emission reductions based on lifecycle analysis, which includes avoided landfill emissions, water conservation, energy savings, transportation emissions, and other factors