

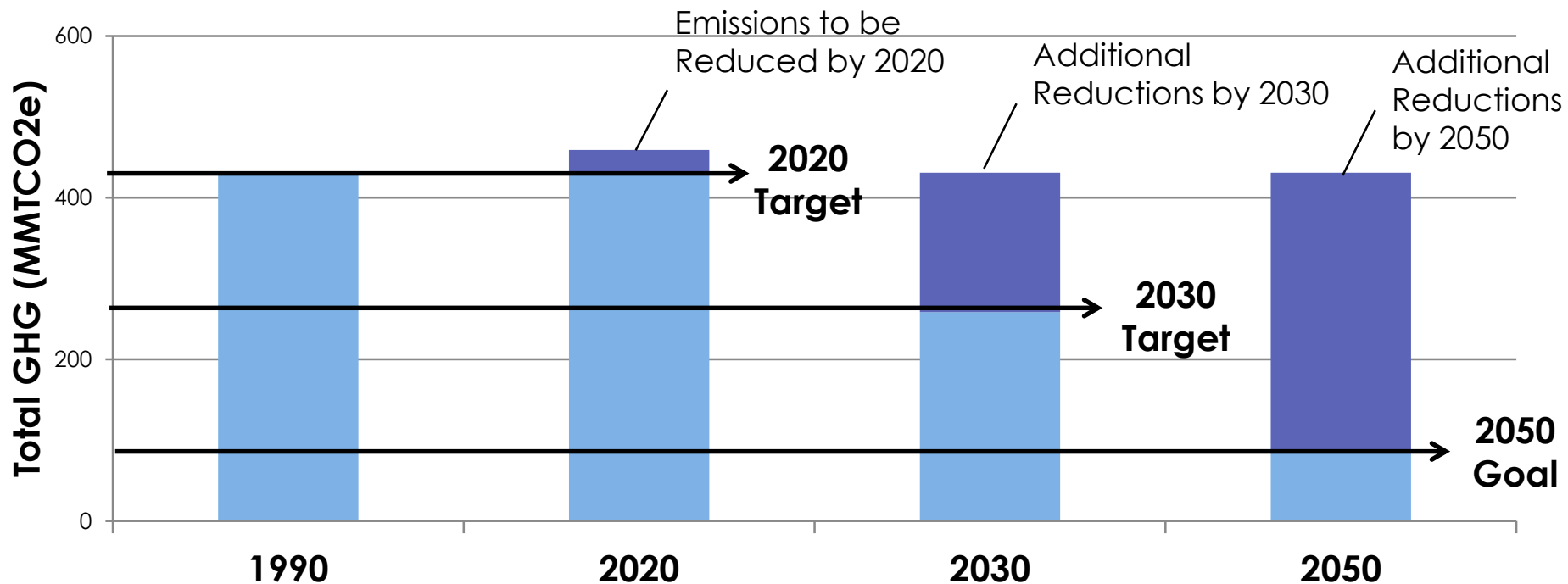


California's Cap-and-Trade Program

September 2017



Greenhouse Gas Emission Reduction Targets



Note: MMT = Million Metric Tons

What Is the Cap-and-Trade Program?

- Emissions trading system
- Economy-wide cap on annual greenhouse gas emissions
- Cap set by number of allowances CARB issues each year
 - Cap declines each year
- Covered entities obtain and surrender 1 allowance or offset credit for each ton of greenhouse gas emissions
- Entities are allowed to trade allowances and offset credits

Cap-and-Trade Program Goals

- ▣ Reduce greenhouse gas emissions
- ▣ Motivate the most cost-effective emission reductions
- ▣ Spur innovation
- ▣ Complement traditional command-and-control measures
- ▣ Facilitate integration of regional, national, and international greenhouse gas emission reduction programs

Who Is Covered by the Program?

- Stationary sources with greenhouse gas emissions at or above 25,000 metric tons of CO₂e per year and imports of electricity:
 - Large industrial sources
 - Electricity generation
 - Electricity imports
- Supplied fuels:
 - Transportation fuels
 - Natural gas and propane
- These sources cover 80% of California's greenhouse gas emissions

Requirements of Covered Entities

- Register with the California Air Resources Board (CARB)
- Report greenhouse gas emissions annually
- Surrender allowances and offsets to match emissions at the end of each compliance period
- Comply with recordkeeping, market rules, verification, and other requirements in the regulation

How Are Allowances Distributed?

- ▣ Free allocation to industry
 - ▣ Transition assistance
 - ▣ Minimize emissions leakage
- ▣ Free allocation to electric utilities and natural gas suppliers on behalf of ratepayers
- ▣ Allocation to a 'reserve' to contain prices
- ▣ Sold at auction

Offset Credits

- Credits that represent verified greenhouse gas emission reductions from outside of the Cap-and-Trade Program
- Issued directly by CARB or a linked jurisdiction and must result from Board-adopted protocols
- Reductions must meet AB 32 criteria:
 - Real, permanent, quantifiable, verifiable, enforceable, and additional (beyond regulation or what would otherwise occur)
- Offset credits may satisfy up to 8% of a covered entity's compliance obligation

Market Integrity

- ▣ Purchase and holding limits are established to prevent market manipulation
- ▣ Corporate associations must be disclosed so that CARB may monitor potential collusion
- ▣ All participants must register in the Cap-and-Trade tracking system
- ▣ The tracking system provides a chain of custody for allowances and offsets
- ▣ Financial penalties and account restrictions deter violations

Auction Update

- ▣ Quarterly allowance auctions
- ▣ 20 auctions to date
- ▣ 2017 auction reserve price: \$13.57
- ▣ August 2017 auction settlement prices:
 - ▣ Current Auction = \$14.75
 - ▣ Advance Auction (2020 vintage allowances) = \$14.55
- ▣ ~ \$5.6 billion placed into the Greenhouse Gas Reduction Fund to date

California Climate Investments



Rotary Club of Berkeley
September 27, 2017

Overview

Goals and Objectives



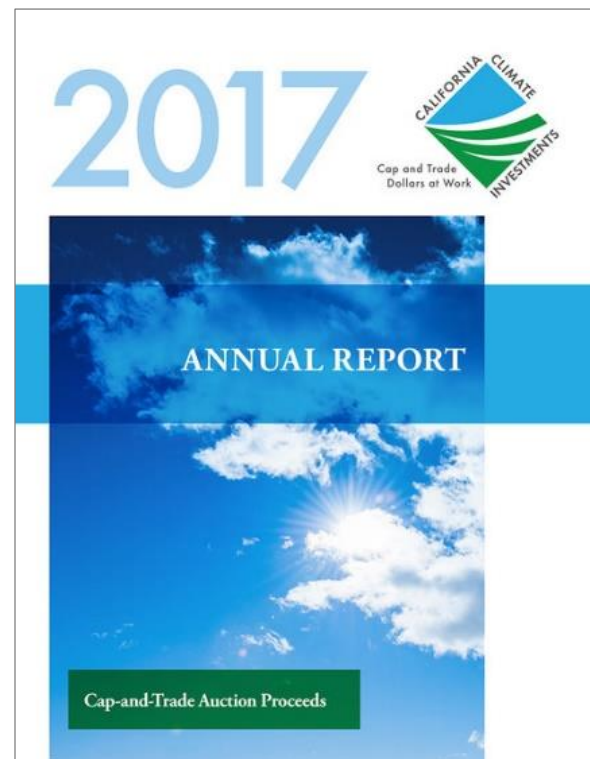
- Part of California's overall climate strategy to reduce GHG emissions
 - 1990 level by 2020
 - 40% below the 1990 level by 2030
- Over \$5 billion raised from Cap-and-Trade auctions since 2012
- Requirements for investments
 - Facilitate GHG emission reductions
 - Maximize economic, environmental, and public health benefits
 - Invest a minimum to benefit disadvantaged communities, low-income communities, and low-income households

Overview

How California Climate Investments are Administered



- Administration develops Three Year Investment Plan to identify potential investment priorities (*AB 1532*)
- Legislature appropriates funds
 - Continuous appropriations (60%)
 - Budget Acts
- Finance submits Annual Report on California Climate Investments (*AB 1532*)

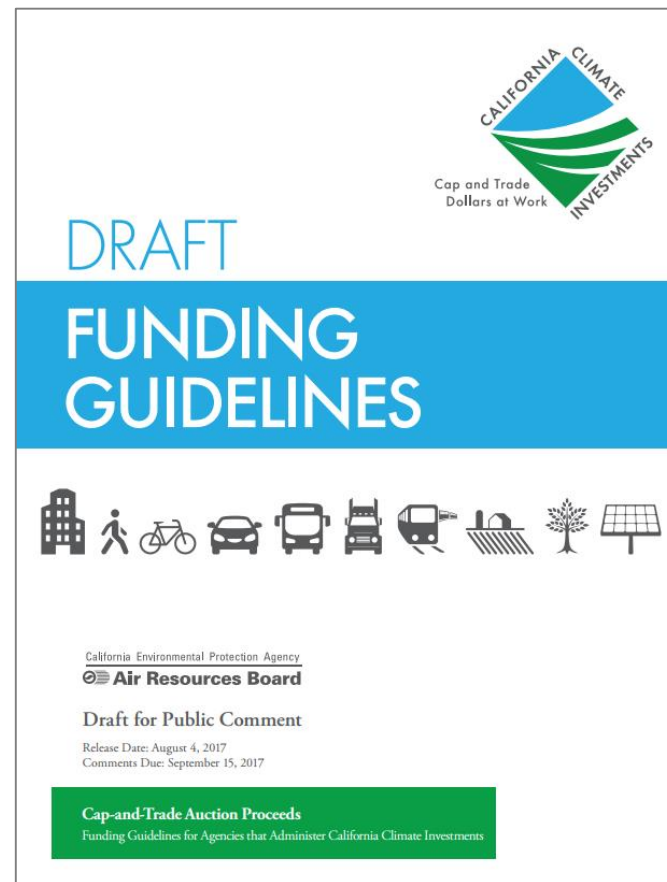


Overview

How California Climate Investments are Administered

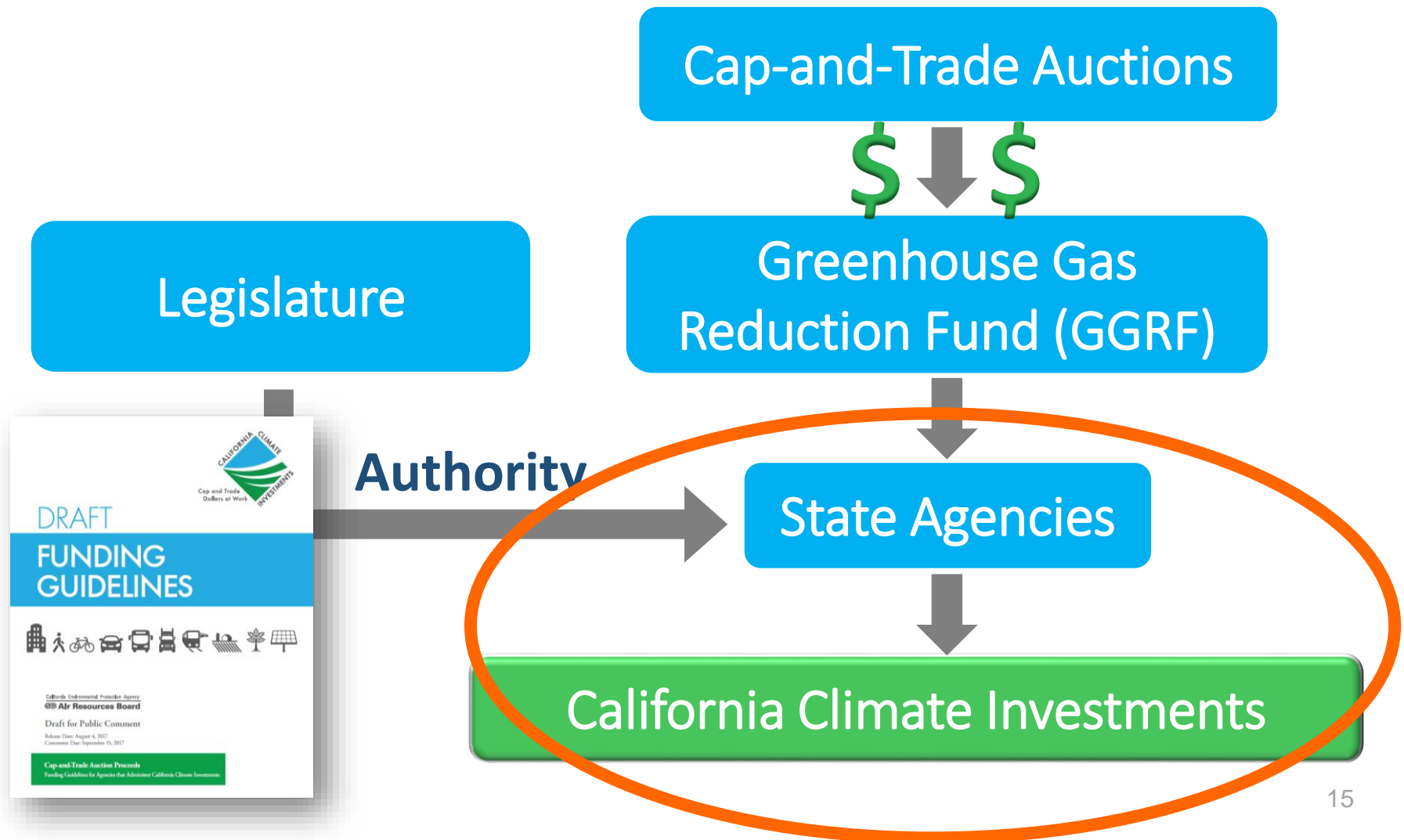


- CARB develops guidance for administering agencies (SB 862)
 - GHG Quantification Methodologies
 - Methods for assessing co-benefits
- CARBs Funding Guidelines for Agencies that Administer California Climate Investments
 - Volume 1: *General Guidance*
 - Volume 2: *Investments to Benefit Target Populations*
 - Volume 3: *Reporting*



Overview

How Programs are Funded



Overview

Administering Agencies



CALIFORNIA STRATEGIC
GROWTH COUNCIL

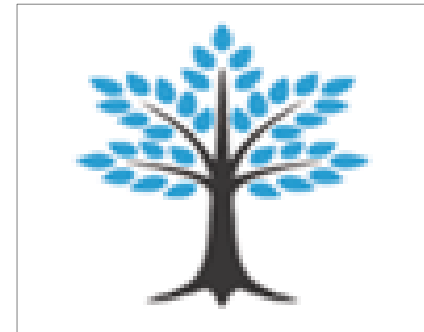
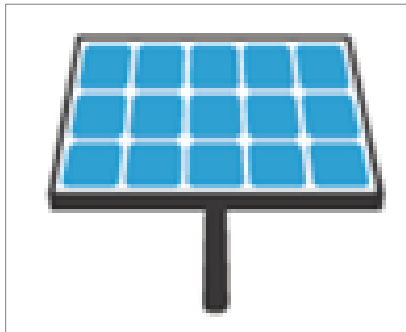


Status of Programs

Investment Sectors



- Funds appropriated consistent with Second Investment Plan: FYs 2016-17 through 2018-19
- Three investment priority areas:



Status of Programs

Appropriations to Date*



TRANSPORTATION AND SUSTAINABLE COMMUNITIES

- \$2.7B appropriated
- 5 agencies

ARB - Low Carbon Transportation	\$ 695M
Caltrans - Active Transportation	\$ 10M
Caltrans - Low Carbon Transit Operations (5% continuous appropriation)	\$ 135M
HSRA - High Speed Rail (25% continuous appropriation)	\$ 800M
CalSTA - Transit and Intercity Rail Capital (10% continuous appropriation)	\$ 381M
SGC – Affordable Housing & Sustainable Communities (20% continuous appropriation)	\$ 570M
SGC – Transformative Climate Communities	\$ 140M

***As of 2017 Annual Report**

Status of Programs

Appropriations to Date*



CLEAN ENERGY AND ENERGY EFFICIENCY

- \$320M appropriated
- 4 agencies

ARB – Woodsmoke Reduction	\$ 5M
CSD – Low Income Weatherization	\$ 174M
CDFA – State Water Efficiency and Enhancement Program	\$ 68M
CDFA – Alternative and Renewable Fuels	\$ 3M
DWR – Water-Energy Efficiency	\$ 50M
DWR – State Water Project	\$ 20M

***As of 2017 Annual Report**

Status of Programs

Appropriations to Date*



NATURAL RESOURCES AND WASTE DIVERSION

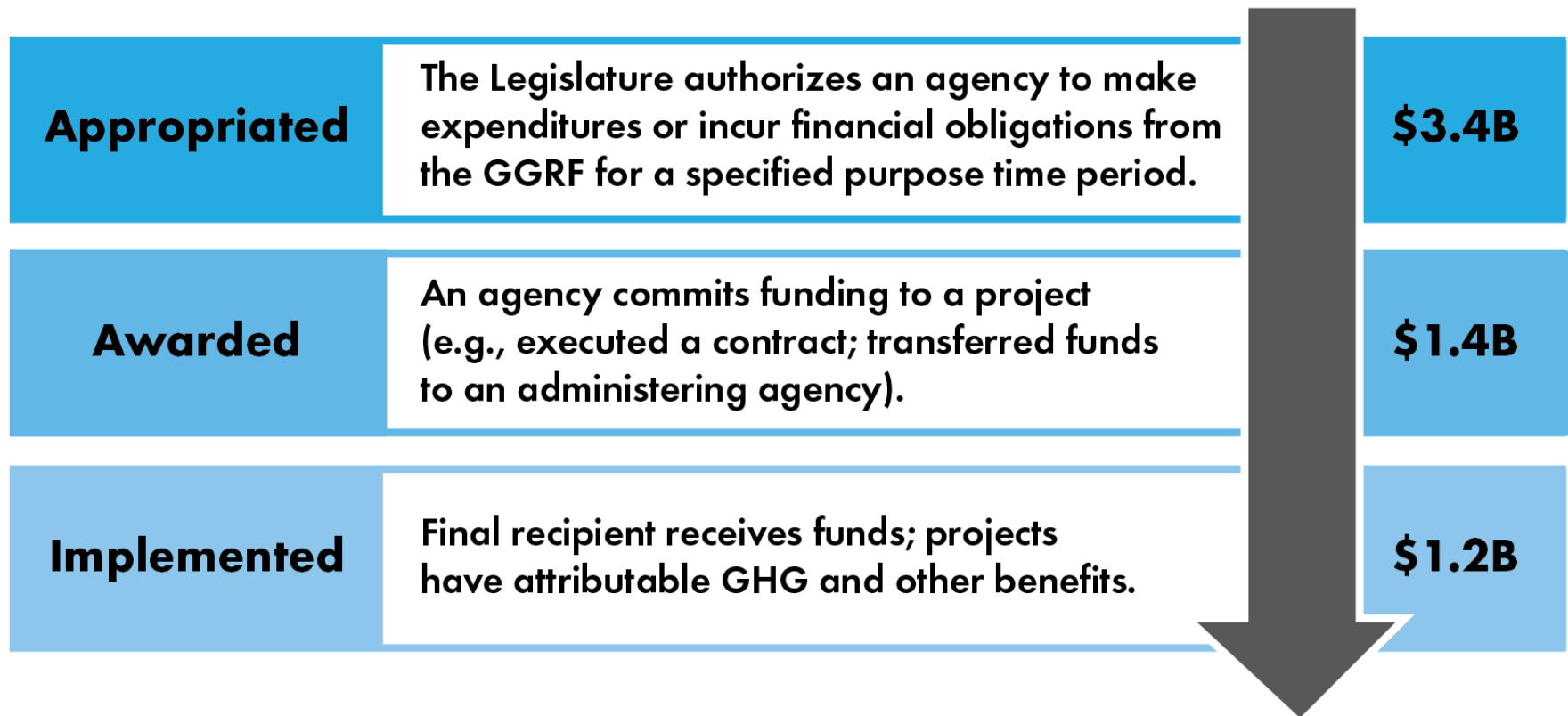
- \$332M appropriated
- 5 agencies

CDFW - Wetlands and Watershed Restoration	\$ 30M
CDFA – Dairy Digester Research and Development Program	\$ 62M
CDFA – Healthy Soils	\$ 8M
CAL FIRE – Forest Health	\$ 49M
CAL FIRE – Urban and Community Forestry	\$ 33M
CalRecycle - Waste Diversion	\$ 71M
CNRA – Urban Greening	\$ 80M

*As of 2017 Annual Report

Status of Programs

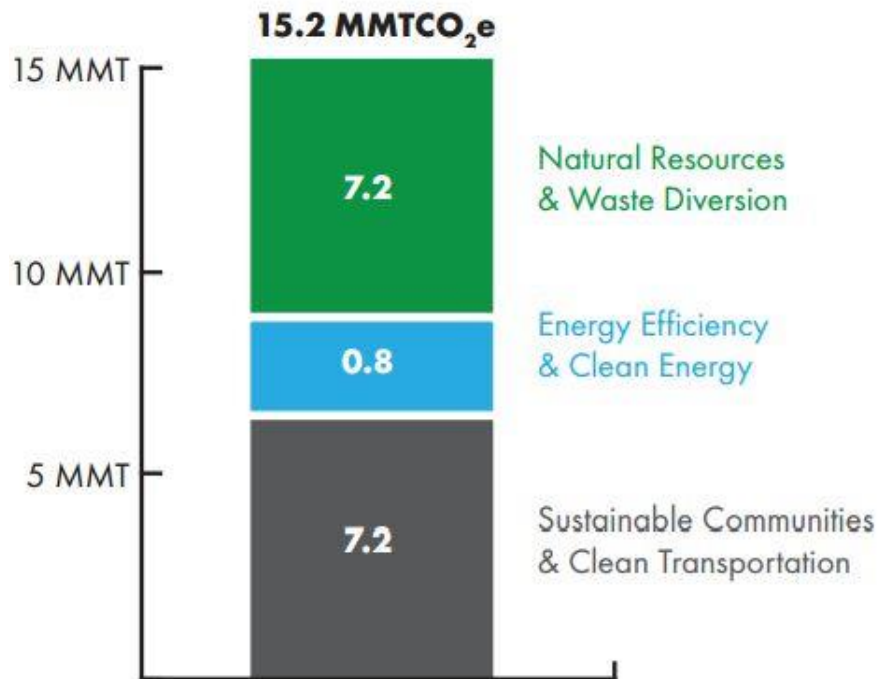
Cumulative Funding To Date*



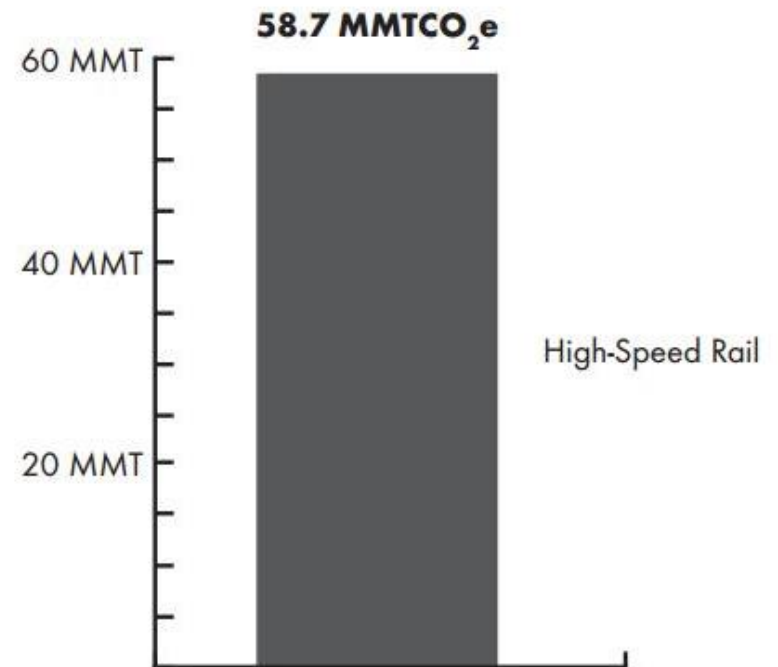
*As of 2017 Annual Report

Outcomes

GHG Emissions Reductions*



\$1.2 billion in implemented projects



\$348 million in implemented projects

*As of 2017 Annual Report

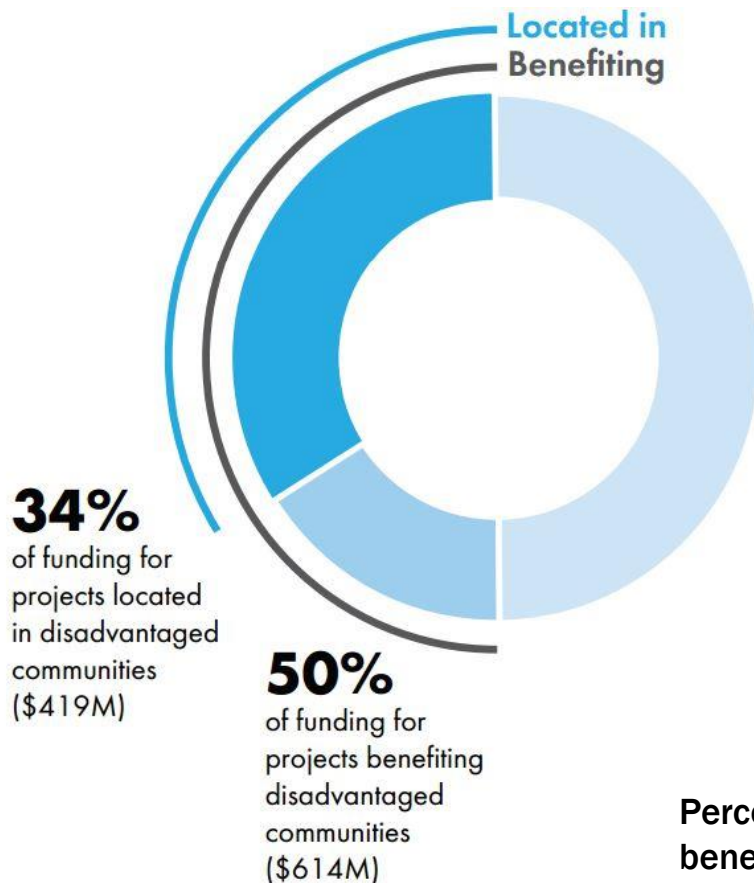
Outcomes Co-Benefits

- Job creation and job training
- Reductions in criteria and toxic air pollutants
- Reductions in vehicle miles traveled
- Fuel and energy cost savings



Outcomes

Investments Benefiting Disadvantaged communities (SB 535)*



Investments are exceeding SB 535 targets for disadvantaged communities (10% located in; 25% benefiting)

Percentages presented in diagram do not include benefits attributable to the High-Speed Rail Project

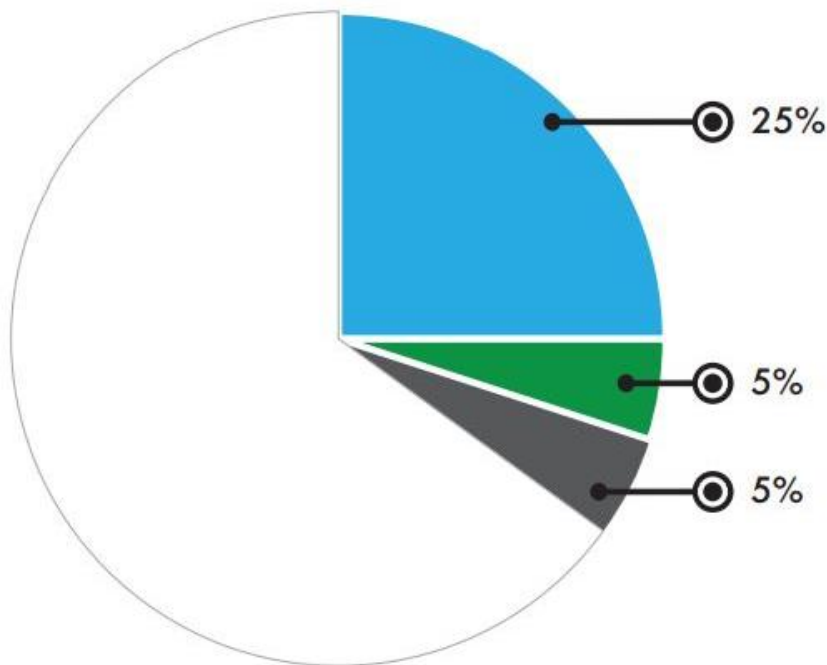
*As of 2017 Annual Report

Outcomes

Looking Ahead - Updates to Providing Benefits to Target Populations



- Legislation modifying disadvantaged community investments
- Agencies are transitioning to full implementation for FY 2017-18



A minimum of 25% of proceeds to be invested in projects located within and benefitting individuals living in disadvantaged communities

An additional minimum of 5% to be invested in projects located within and benefitting individuals living in low-income communities or benefiting low-income households

An additional minimum of 5% to be invested in projects located within and benefitting individuals living in low-income communities or benefiting low-income households that are within a 1/2 mile of a disadvantaged community

Outcomes Regional



Region	Total Regional Funding Implemented	% of Implemented Funding (\$1.23B)	Regional Funds Benefiting Disadvantaged Communities	% of Regional Funds Benefiting Disadvantaged Communities
Bay Area	\$255,638,577	20.66%	\$131,368,915	51.39%
San Joaquin Valley	\$467,647,405*	37.79%	\$104,271,974	22.30%
Los Angeles / Inland Empire	\$365,587,150	29.54%	\$309,141,011	84.56%
San Diego / Imperial	\$146,520,846	11.84%	\$128,368,400	87.61%
Other Regions	\$115,090,248	9.30%	\$54,459,709	47.32%

*Includes \$348,024,894 for the High-Speed Rail (HSR) project. HSR is also expected to benefit disadvantaged communities with direct jobs and improved access to work centers, but is not counted as a benefit here.

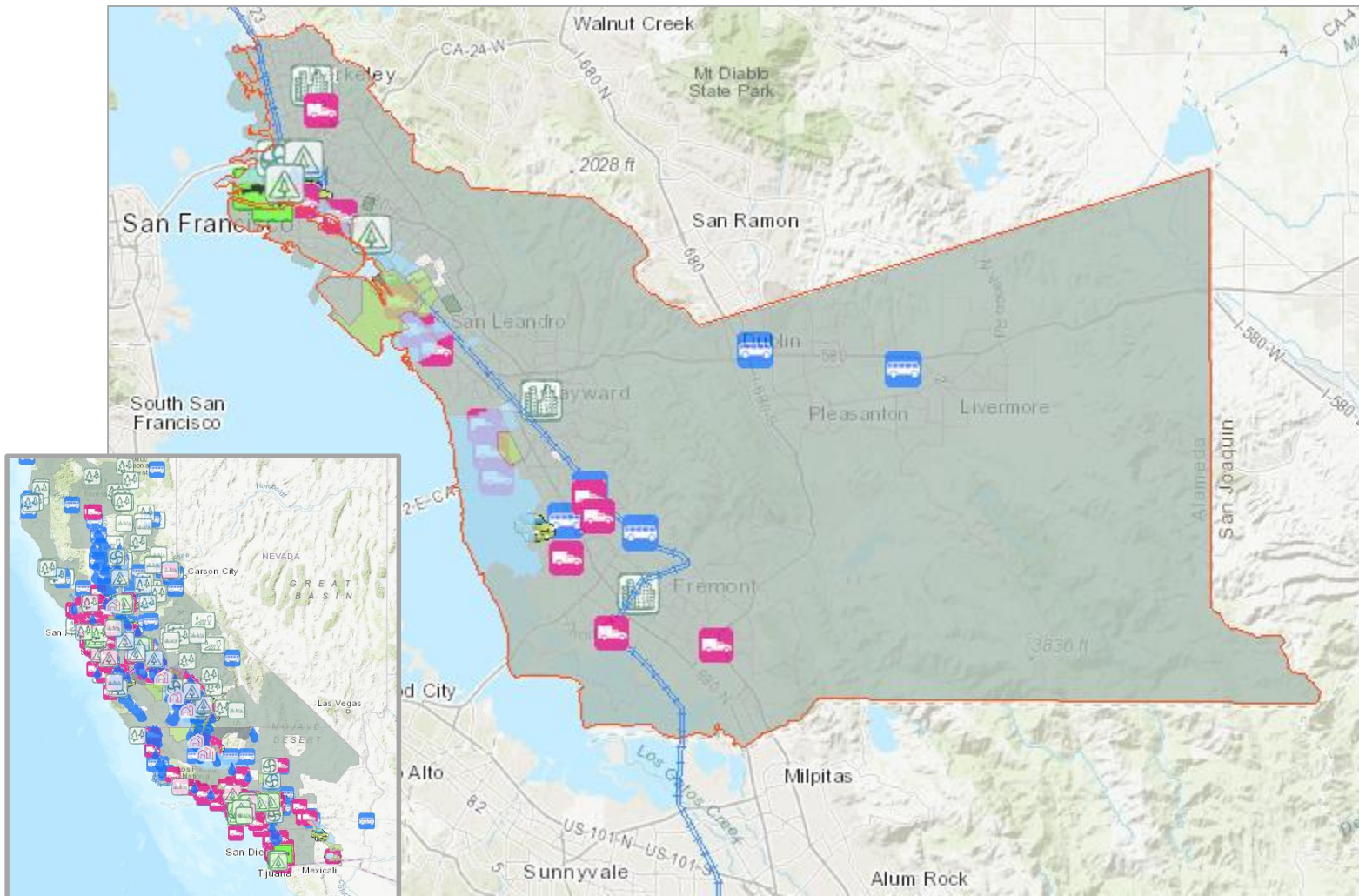
Outcomes

Local



Outcomes

Local



Thank you

Find more information at:

California Cap-and-Trade Program

Webpage: www.arb.ca.gov/cc/capandtrade/capandtrade.htm

Contact: cseidler@arb.ca.gov

California Climate Investments

Webpage: www.caclimateinvestments.ca.gov

Contact: GGRFProgram@arb.ca.gov