



# **Bay Area Air Quality Management District Climate Protection Committee**

September 15, 2016

## **Climate Legislation Update**

**Tom Addison  
Senior Policy Advisor**

# Background

- The California Legislature concluded the 2015-2016 legislative session on August 31, 2016.
- Bills addressing climate topics were some of the most heavily-lobbied and closely-watched measures of the year.
- The Air District had positions on a number of controversial measures that were in play in the final days of the session.

# Climate Bills

- **SB 32 (Pavley; D-Agoura Hills):** Extends California's climate goals beyond 2020, by setting targets for 2030 of 40% reductions below 1990 levels.
- **AB 197 (E. Garcia; D-Coachella):** Increases legislative oversight of California Air Resources Board
- **SB 1383 (Lara; D- Long Beach):** Specifies percentage reductions in short-lived climate pollutants by 2030, with late amendments addressing landfill and dairy emissions.
- **AB 1613 and SB 859 (Committee on Budget):** Appropriation of cap-and-trade revenues of \$900 million and accompanying trailer bill.

# Climate Bills (continued)

- **AB 1550 (Gomez; D-Los Angeles):** Increases emphasis on disadvantaged communities (as defined using CalEnviroscreen) when allocating cap-and-trade revenues.
- **AB 2292 (Gordon; D-Menlo Park):** Would have made reforms to CalEnviroscreen, incorporating such factors as rent burden, poverty, and cost-of-living.
- **SB 1441 (Leno; D-San Francisco):** Would have prevented utilities from charging rate-payers for natural gas leaks.
- **AB 2722 (Burke; D-Inglewood):** Creates the Transformative Climate Communities Program for disadvantaged communities (as defined using CalEnviroscreen).

# Climate Forward Bay Area: A Leadership Forum -Update-

Climate Protection Committee  
September 15, 2016

Lisa Fasano, Communications Officer



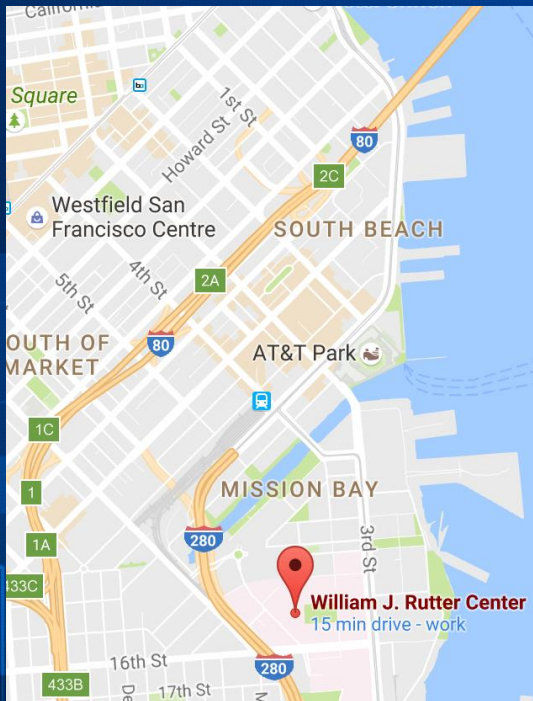
# Conference Planning

- Board approved funding for a Climate Summit in 2015
- Actively pursuing speakers and sponsors
- Reached out to:
  - ✓ NGO's
  - ✓ Local and state government
  - ✓ High tech community

# Date & Location

## Climate Forward Bay Area

- Thursday & Friday
- October 13-14, 2016
- Mission Bay Conference Center @UCSF



# Speakers



**ALEXIS STRAUSS**

Acting Regional  
Administrator of the US EPA  
Region 9



**VAN JONES**

*The New York Times*  
Best-selling Author and  
CNN Political Commentator



**CHRISTOPHER FIELD, PhD**

Director of the Stanford  
Woods Institute for the  
Environment



**FRAN PAVLEY**

Senator of California State  
Senate 27<sup>th</sup> District



**STEVE HEMINGER**

Executive Director of the  
Metropolitan Transportation  
Commission



**MARY NICHOLS**

Chair of the California Air  
Resources Board



**BRENDON HARRINGTON**

Director of Transportation at  
Google



**CISCO DEVRIES**

Founder and CEO of Renew  
Financial



**VIEN TRUONG**

Director of Green For All



**WADE CROWFOOT**

CEO of the Water  
Foundation



# Agenda

## THURSDAY, OCTOBER 13

9 a.m. - 10 a.m.

REGISTRATION

10 a.m. - 10:15 a.m.

WELCOME



10:30 a.m. - 11:45 a.m.

SET THE STAGE PLENARY: EMERGING OPPORTUNITIES

Noon - 1 p.m.

LUNCH



1:15 p.m. - 2:45 p.m.

FORUM FACILITATED DISCUSSIONS



3:00 p.m. - 4:30 p.m.

TECHNOLOGY AND TRANSPORTATION PLENARY

4:30 p.m. - 6:00 p.m.

NETWORKING

6:30 p.m.

SHUTTLE DEPARTS FOR MARRIOTT MARQUIS

# Agenda

## FRIDAY, OCTOBER 14

8:30 a.m. - 9 a.m.

REGISTRATION AND BREAKFAST BUFFET

9 a.m. - 10:15 a.m.

WELCOME AND KEYNOTE



10:30 a.m. - Noon

TECHNOLOGY AND ENERGY, WATER & WASTE PLENARY

12:15 p.m. - 1:15 p.m.

LUNCH

1:30 p.m. - 3:00 p.m.

KEYNOTE WITH VAN JONES AND CLOSING

3:15 p.m.

SHUTTLE DEPARTS

# Registration

**FULL CONFERENCE PASS**  
**\$250**

**SINGLE DAY THURSDAY**  
**\$150**

**SINGLE DAY FRIDAY**  
**\$150**

[climateleadershipforum.org/register.html](http://climateleadershipforum.org/register.html)

# Sponsors

WE'D LIKE TO THANK OUR SPONSORS AND PARTNERS:



METROPOLITAN  
TRANSPORTATION  
COMMISSION





**Bay Area Air Quality Management District  
Climate Protection Committee**

September 15, 2016

**State Cap and Trade Funding Update**

**Damian Breen  
Deputy Air Pollution Control Officer**

# Background

- CA State Legislature passed AB 32, Global Warming Solutions Act of 2006, requiring emissions to return to 1990 levels by 2020
- Requires California Air Resources Board (CARB) to establish a comprehensive program to reduce greenhouse gas emissions:
  - Adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reduction
  - Establish “Cap and Trade” market-based mechanism which came into effect on January 1, 2013
- August 31, 2016, Governor Brown and state legislature reach an agreement on the FY 2016/2017 investment plan for Cap-and-Trade auction proceeds

# FY 2016/2017 Cap-and-Trade Expenditure Plan: \$900 Million (M)

<b>Project Category</b>	<b>Funding</b>
CARB for low-carbon transportation projects	<b>\$368 M</b>
Office of Planning & Research (OPR) for Strategic Growth Council (SGC) to provide transformative climate communities grants	<b>\$140 M</b>
Transportation Agency for the Transit and Intercity Rail Program	<b>\$135 M</b>
Natural Resources Agency for the Urban Greening program	<b>\$80 M</b>
Dept. of Food and Agriculture	<b>\$65 M</b>
Dept. Forestry and Fire Protection:	<b>\$40 M</b>
Dept. Resources Recycling & Recovery: waste diversion and GHG reduction financial assistance	<b>\$40 M</b>
Dept. Community Services and Development: weatherization and renewable energy projects	<b>\$20 M</b>
Dept. Transportation for the Active Transportation Program	<b>\$10 M</b>
OPR for SGC to provide technical assistance to disadvantaged communities	<b>\$2 M</b>

# FY 2016/2017 Cap-and-Trade Expenditure Plan: \$900 Million (M)

Project Category	Funding
Clean Vehicle Rebate Project (CVRP)	\$133 M
Light Duty Pilot projects:	\$80 M
<ul style="list-style-type: none"> <li>• Up to \$20 M for Carshare, Ag worker vanpool, Public fleet CVRP, Financing</li> <li>• At least \$60 M for Enhanced Fleet Modernization Program (EFMP) &amp; Plus-Up</li> </ul>	
Advanced Technology Demonstration Projects and HVIP:	\$150 M
<ul style="list-style-type: none"> <li>• \$18M - Hybrid and Zero-Emission Truck &amp; Bus Voucher Incentive Project (HVIP)</li> </ul>	
<ul style="list-style-type: none"> <li>• Zero-Emission Freight Equipment Pilot Commercial Deployment Project</li> </ul>	
<ul style="list-style-type: none"> <li>• Zero-Emission Truck Pilot Commercial Deployment Project</li> </ul>	
<ul style="list-style-type: none"> <li>• Zero-Emission Bus Pilot Commercial Deployment Project</li> </ul>	
<ul style="list-style-type: none"> <li>• Rural School Bus Pilot Project</li> <li>• Low NOx Engine Incentives with Renewable Fuel</li> </ul>	
State Operations	\$5M
	<b>Total \$368 M</b>
Wood Smoke / SLCP program	\$5 M

ARB 8/31/16 Press release - <https://www.gov.ca.gov/news.php?id=19515>



# Recent Awards to Bay Area

- FYE 2015/2016 Advanced Technology Demonstration Projects:
  - \$23,658,500 - Air District partners with South Coast Air Quality Management District on Zero-Emission Drayage Truck Demonstration Project
  - \$22,347,502 - Air District partners with AC Transit and Fuel Cell Electric Bus Commercialization Consortium/Center for Transportation and the Environment
  - \$2,738,557 - Air District partners with Goodwill Industries on Electric Vehicle Delivery Project
- \$131,329,422 in CVRP funding (39.14%)

# Future Opportunities for Air District in FYE 2016/2017

- Advanced Technology Demonstration Projects
  - Zero-Emission Freight Equip. Pilot Commercial Deployment Project
  - Zero-Emission Truck Pilot Commercial Deployment Project
  - Zero-Emission Bus Pilot Commercial Deployment Project
- Enhanced Fleet Modernization Program(EFMP)  
& Plus-Up (*New*)
- Wood Smoke (*New*)

# Future for Cap and Trade Funding

- SB 32 – requires 40% reduction in GHG emissions below 1990 levels by 2030
- ARB updating targets for 2016 revision of Scoping Plan
- Auctions for emissions credits have been down:
  - May 2016 – 11% of credits available purchased
  - August 2016 – 35% of credits available purchased
- Litigation – California Chamber of Commerce
- Legislature still to allocate \$462 million in additional fund



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

# 2016 Clean Air Plan/Regional Climate Protection Strategy Update

## Climate Protection Committee Meeting

September 15, 2016

Henry Hilken  
Director of Planning and Climate Protection



# Clean Air Plan/Regional Climate Protection Strategy (CAP/RCPS)

Multi-pollutant plan to update 2010 Clean Air Plan

- reduce ozone precursor emissions
- reduce PM and toxics in impacted communities
- reduce GHGs toward long-range target
  - per Air District Board Climate Protection Resolution (2013)
  - reduce Bay Area GHG emissions 80% below 1990 levels by 2050



# State and Regional Climate Planning

## State of California:

- SB32 establishes 2030 State GHG target (40% below 1990 levels)
- Climate Change Scoping Plan
  - Second update (draft) to be released late September 2016
- Mobile Source Strategy (May 2016)
- 2016 State SIP Strategy (May 2016)
- Scoping Plan Update Concept Paper (June 2016)
- Short-Lived Climate Pollutant Strategy (April 2016)
- Sustainable Freight Action Plan (July 2016)

## Bay Area Regional Government:

- Plan Bay Area (housing & transportation planning)
  - Update underway; final in 2017

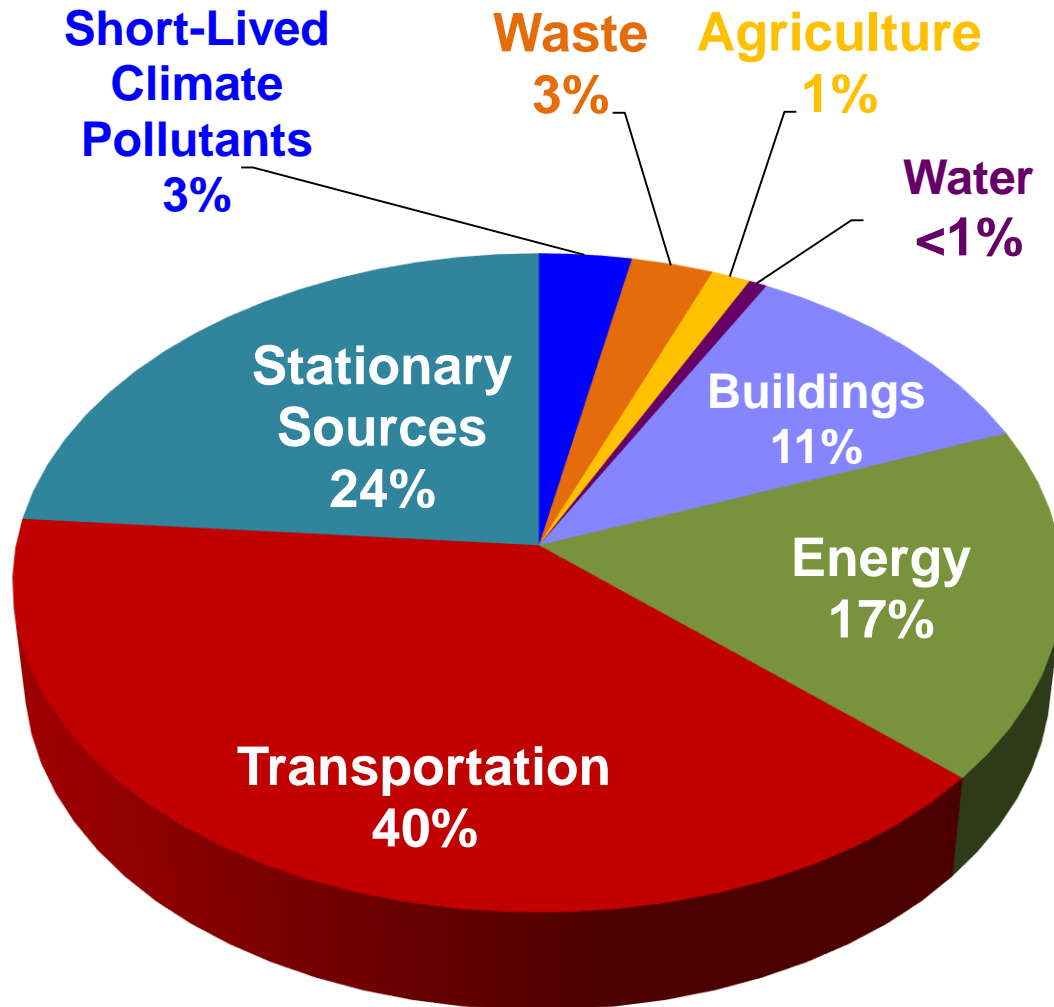


# Recent Work

- Consider key State documents and programs
- Posted draft control measures for public review and comment (Summer 2016)
- Consider Plan Bay Area land-use and transportation strategies
- Refine control strategy to reduce emissions of all pollutants with emphasis on near-term actions ( $\pm 5$  years)
- Develop long-range vision for deeper emission reductions to 2050

41.3

# Bay Area GHG Emissions



**2015 GHG Emissions  
by Economic Sector**  
Total = 88 MMT CO<sub>2</sub>e

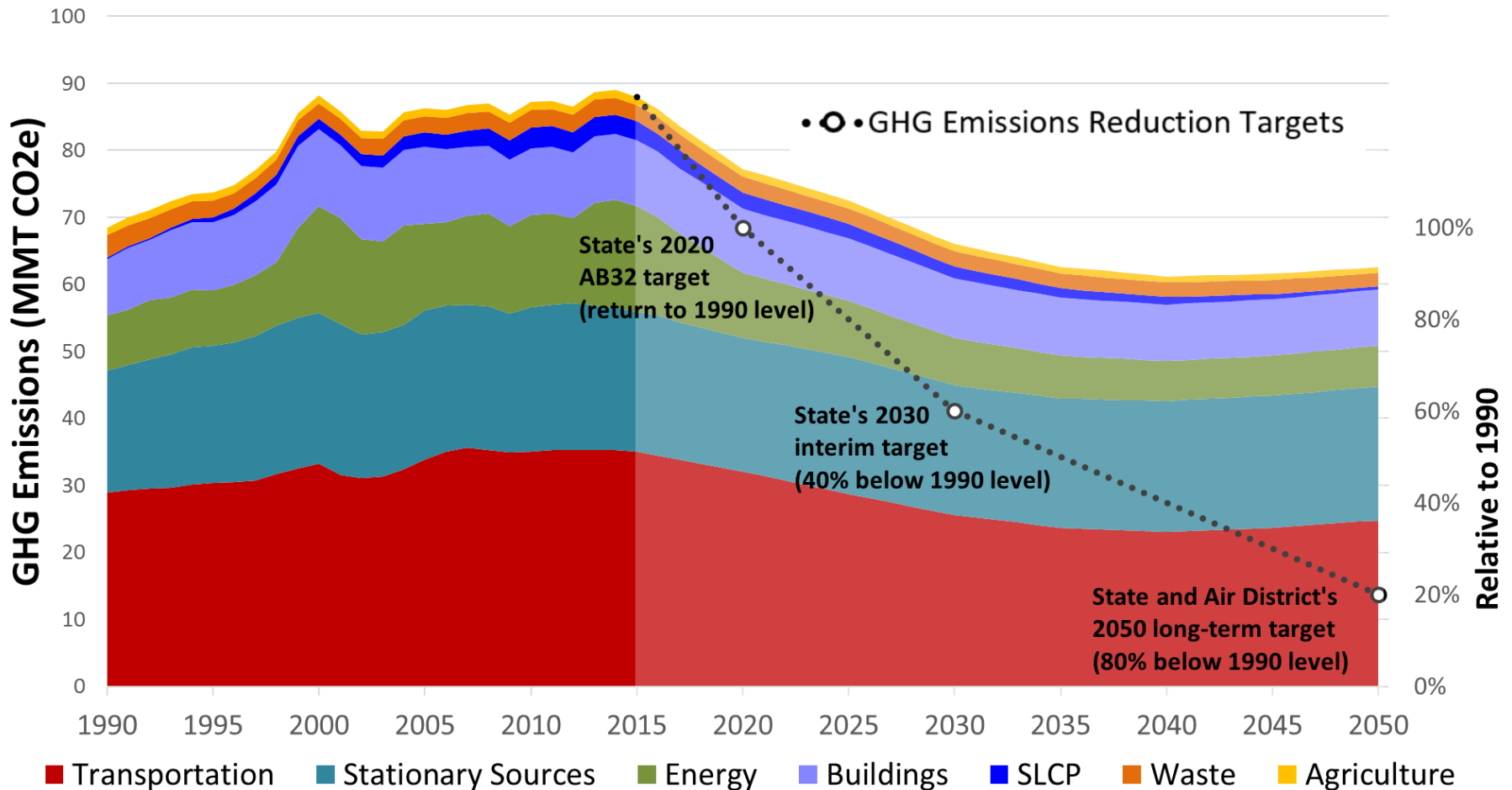
*Using 100-yr global warming potentials (GWPs)*





# Bay Area GHG Projection to 2050 with Key State Programs

## Committed and Expected Policies (100-yr GWPs)



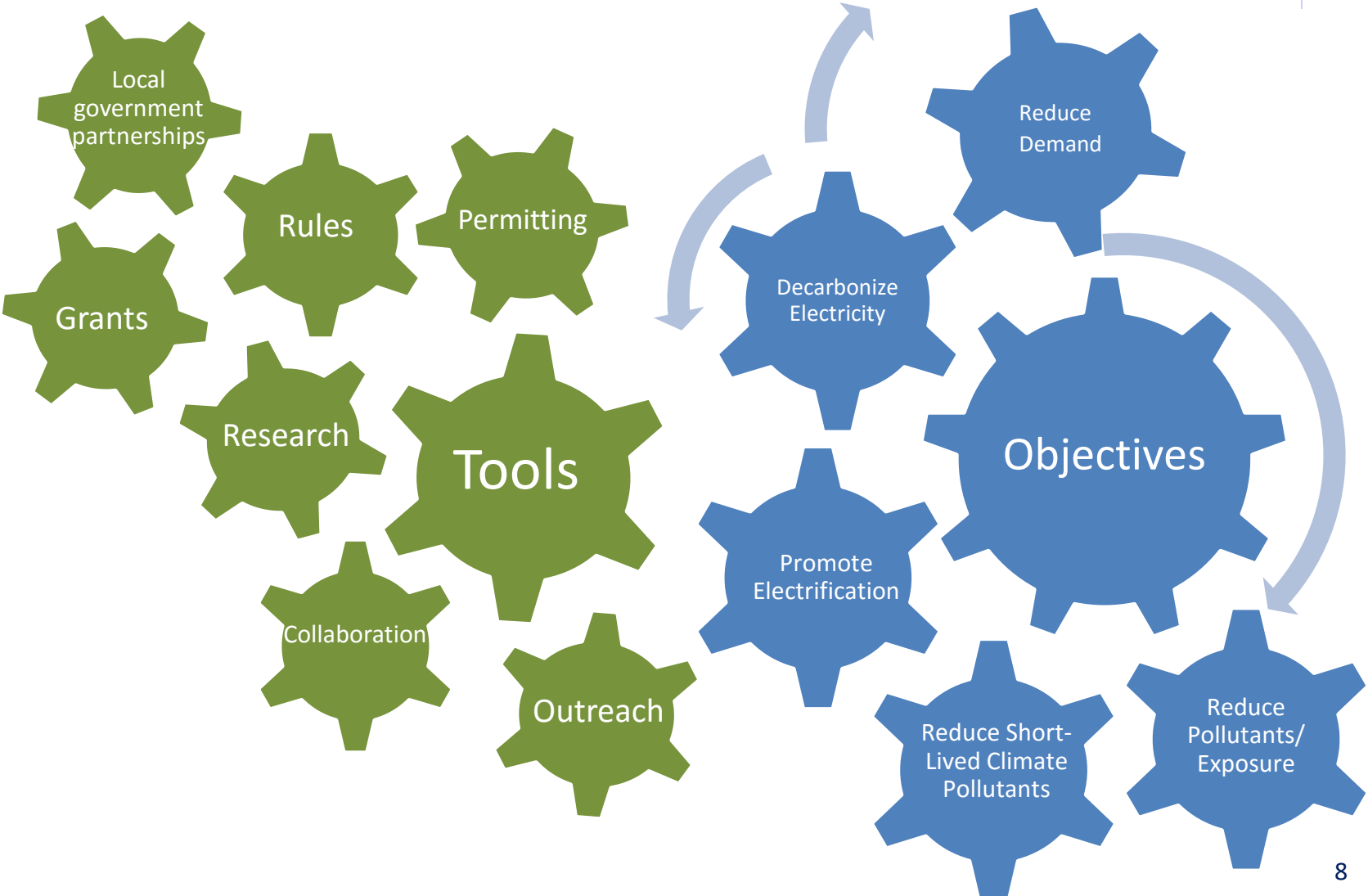


# Bay Area in 2050

- Control measures lay out near-term actions by the Air District to reduce GHGs (and other pollutants)
- Long-range vision charts a course for long-term actions for deeper reductions to 2050 goals
- Factors in closing the “gap”:
  - Technological advances
  - Policy interventions
  - Cultural and behavioral change
  - Financial investments
- Visioning the Bay Area in 2050:
  - What will our buildings be like?
  - What sources of energy will we use?
  - How will we travel?
  - What will we consume and what will we waste?
  - What will we produce and how?



# Tools & Objectives



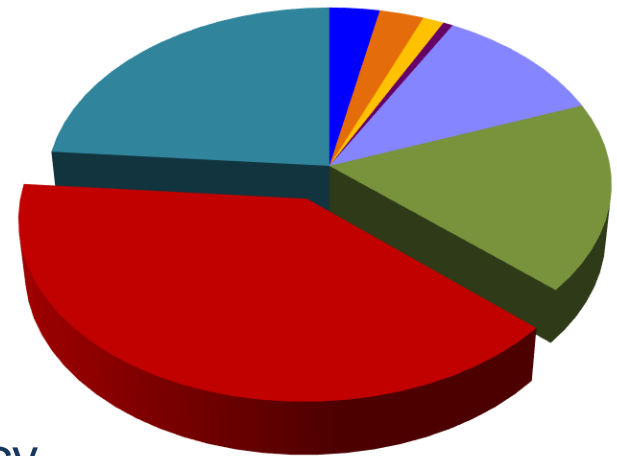
# Transportation

## Promote Electrification

- Fund electric vehicles (EVs) & charging stations
- Promote EV readiness in new development
- Fund low-carbon freight movement
  - hybrid drive trains for trucks
  - electric shore power for ships
- Electrify Caltrain regional commuter rail

## Reduce Travel Demand & Promote Efficiency

- Fund and promote public transit
- Expand ride-sharing, car-sharing, bike-sharing
- Require large employers to offer “commuter benefits”
- Fund bicycle and pedestrian facilities
- Fund Safe Routes to Schools and Safe Routes to Transit
- Promote parking and pricing strategies that reduce travel demand
- Direct future development to “Priority Development Areas”



40%



# Stationary Sources

## Reduce GHGs via Permitting (*New Source Review*)

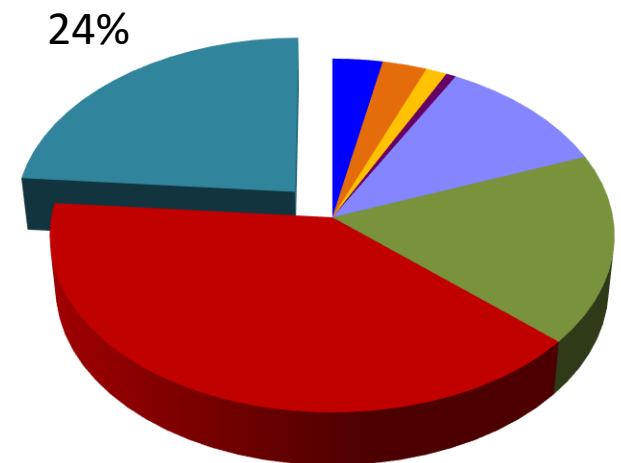
- Limit GHG emissions in permits

## Reduce GHG Emissions from Oil Refineries

- Complement State Cap & Trade regulation for large sources
- Petroleum Refinery Carbon Intensity Limits
- Adopt source specific rules

## Reduce GHG Emissions from Other Sources

- Natural gas and crude oil wells
- Natural gas transmission and distribution
- Residential space and water heating
- Basin-wide methane strategy
- Basin-wide combustion strategy



# Energy

## Promote Energy Efficiency & Conservation

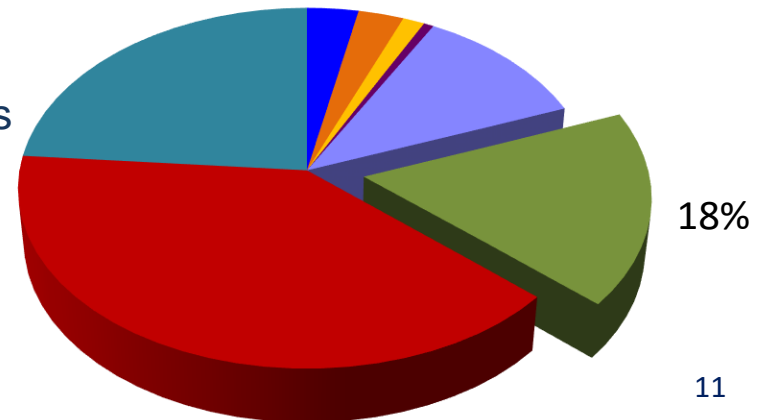
- Increase consumer awareness about energy efficiency through education and outreach
- Promote best practices, model ordinances

## Decarbonize Electricity Production

- Collaborate with community choice aggregation programs and public utilities to expand renewable energy portfolio
- Collaborate with energy providers to increase use of low carbon alternatives and combined heat and power
- Identify funding opportunities for new technologies and applications

## Expand Electrification

- Electrify space heating and water heating in buildings
- Electrify motor vehicle fleet





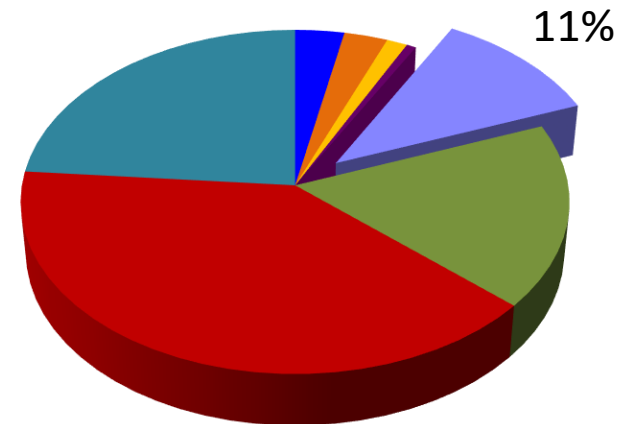
# Buildings

## Increase Energy Efficiency in Buildings

- Develop model ordinances requiring energy assessments and/or upgrades at time of sale
- Help local governments and school districts obtain funding for energy efficiency programs
- Help property owners identify funding for efficiency upgrades
- Promote measures such as cool roofs, cool parking, and shade trees to reduce urban heat island effects

## Decarbonize Building Energy Use

- Provide best practices, model ordinances, and incentives to promote low carbon technologies such as rooftop solar, solar water heating, and electric heat pumps
- Facilitate on-site renewable energy at schools





# Waste & Water

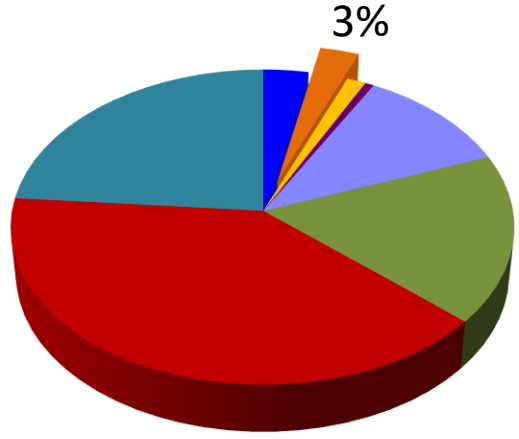
## Waste

### Decrease Emissions from Landfills/Composting

- Develop rule to reduce methane from composting facilities
- Revise existing landfill rule to tighten standards for gas collection and fugitive leaks

### Divert Waste and Recycle

- Develop model ordinances/best practices on zero waste and diversion



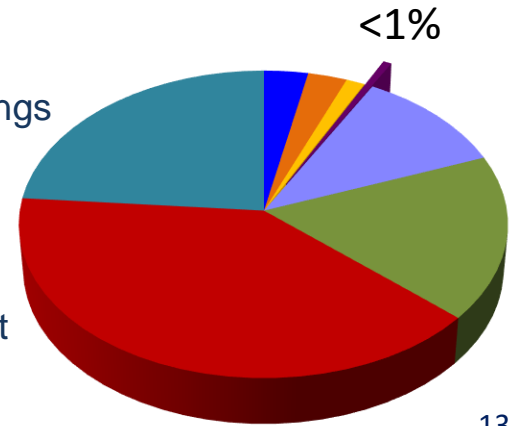
## Water

### Reduce Water Use

- Disseminate best practices for water recycling in new and existing buildings
- Work with local governments to develop water conservation ordinances

### Reduce Emissions from Water Treatment Plants

- Consider new rule to reduce GHG emissions from waste water treatment plants





# Agriculture & Natural & Working Lands

## Increase Carbon Sequestration

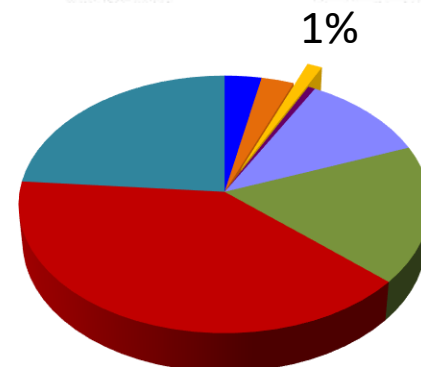
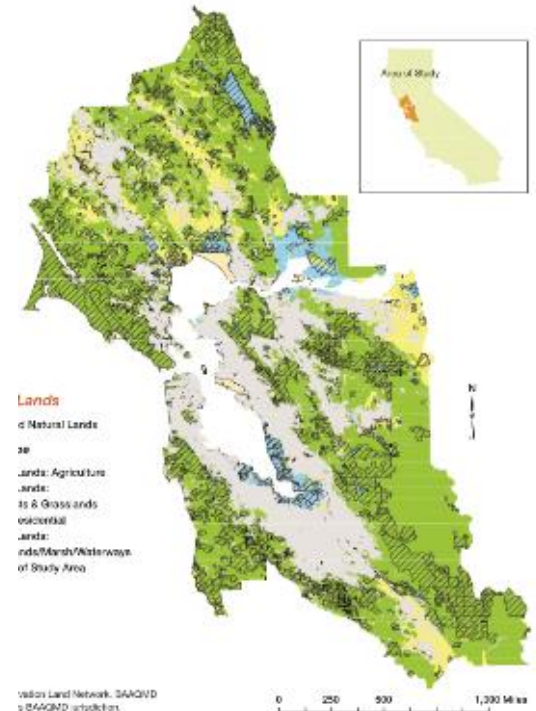
- Develop best practices on low carbon soil management
- Work with local farms/ranches, resource conservation districts and others to apply compost on rangelands

## Reduce Emissions from Agriculture Waste

- Support biogas recovery/anaerobic digester systems
- Disseminate best practices for dairy digesters and animal dietary changes

## Plant Trees

- Support local government efforts to expand tree canopy





# Short-lived Climate Pollutants

## Reduce Methane

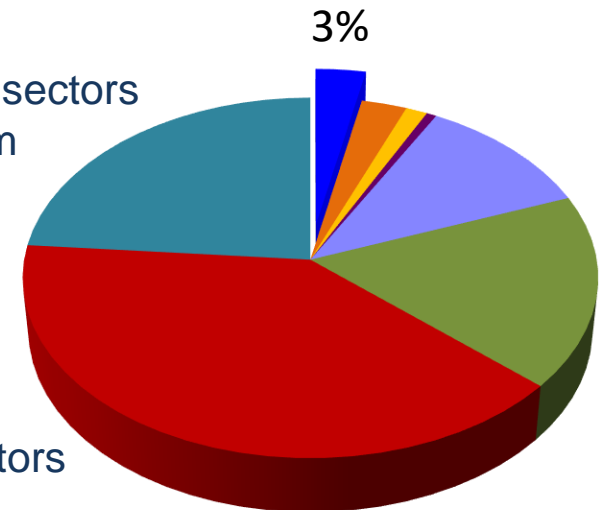
- Measures in the stationary source, agriculture and waste sectors
  - leaks at oil refineries and natural gas distribution system
  - landfill gas collection control requirements
  - waste diversion
  - biogas recovery

## Reduce Black Carbon

- Measures in the stationary source and transportation sectors
  - residential wood burning
  - cleaner engines to reduce diesel emissions
  - back-up generators

## Reduce Hydrofluorocarbons (HFCs)

- Enforce regulations on leaks from refrigerants systems
- Enforce regulations on the servicing of auto air conditioning units
- Support more stringent HFC standards





# Progress Underway

## Recent activities/results:

- Developed tool with MTC to assist local governments in tracking VMT for local climate action plans
- Completed fixed-site network of GHG monitors; building GHG monitoring research van
- Rule development underway for Oil & Gas Well and Natural Gas Distribution, in collaboration with ARB & CPUC
- Awarded ~\$5.6 million to EV charging infrastructure projects
- Partnership with ABAG/BayREN, BARC & CEC to launch Solar Ordinance Project with local governments
- Through grant to KyotoUSA, have developed solar master plans for 68 Bay Area school districts



# Next Steps

- Discuss RCPS and long-range vision with Air District Advisory Council
- Schedule
  - Late 2016: Release of Draft 2016 Plan and DEIR
  - January 2017: Public meetings
  - Q1 2017: 2016 Plan to Board for consideration