



AGENDA: 11

Bay Area Air Quality Management District Board of Directors

May 6, 2015

Bay Area Bike Share Update

Damian Breen

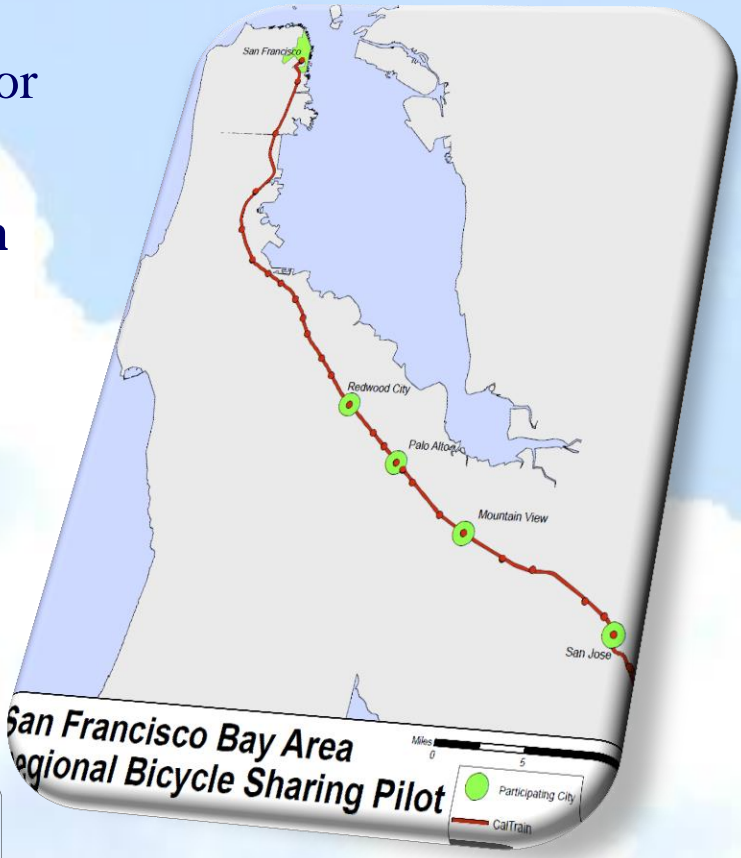
Deputy Air Pollution Control Officer



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Pilot Project

- **Purpose:** To determine successful conditions for region-wide deployment
- **Launched 700 bikes, 70 stations in 5 cities on August 29, 2013**
- **Funding:** \$11.34 million (M)
 - \$2.8 M – Air District
 - \$7.09 M – MTC
 - \$1.45 M – Local Funding
- **Partners:**



System Results

Trips by Community Area

8/29/13 – 3/31/15

Area	Trips	% of Total Trips	Trips per bike per day	# Stations	# Bikes
San Francisco	461,763	90%	2.28	35	350
San Jose	30,046	6%	0.32	16	160
Mountain View	13,447	3%	0.33	7	70
Palo Alto	5,231	1%	0.18	5	50
Redwood City	<u>2,279</u>	<u>0%</u>	<u>0.06</u>	<u>7</u>	<u>70</u>
Total	512,766	100%	1.27	70	700

Motivate Proposal – System Properties

System size

- 7,000+ bikes

Bikes by city:

- Berkeley – 400
- Emeryville – 100
- Oakland – 850
- San Francisco – 4,500
- San Jose – 1,000
- 50 additional bikes TBD in East Bay
- Up to 155 additional bikes TBD in current pilot cities, pending individual city decisions



Motivate Proposal – Pilot and Emerging Cities

Updated term sheet based on Committee input

- Added specific pricing following the Air District contract model with discounts based on ridership levels
- Opportunities for sponsorship

Existing pilot cities (other than SF, SJ)

- Systems to be extended through Dec. 31 at no cost
- Decision to continue by Nov. 30

Emerging cities

- Following 7,000-bike expansion



Motivate Proposal – Performance Requirements

Key Performance Indicators

- Five KPIs for best rider experience
- Liquidated damages in case of failure
- Option to declare default in event of consistent KPI breach

Security Fund

- \$250,000 to serve as security for the faithful performance by Motivate of all obligations under the contract



Motivate Proposal – Sponsorship/Revenue

Sponsorship and advertising

- Motivate will pursue opportunities
- MTC in consultation with cities for approval

Revenue share

- Potential for revenue sharing at a later date



Low Income Communities

Motivate-sponsored discount membership

- 40% of annual membership price; monthly installments
- PG&E CARE enrollment

Station siting

- 20% of stations in Communities of Concern

MTC-led efforts

- Separate funding for regional outreach



Image: Instagram user Green Philly Blog: [instagram.com/greenphillyblog](https://www.instagram.com/greenphillyblog)

Sole Source Justification

- **No public cost for capital**
 - \$15M+ available for redirection for Commission priorities
- **No public cost for ongoing O&M of up to \$4M/year**
- **Lower public cost for program administration**
- **Large, dense system completely installed by 2017**
- **New public-private partnership model for transportation system delivery**



Next Steps

- Determine Caltrans Federal obligations and project close-out requirements
- Coordinate with partners on project close-out
- Work with Motivate (Alta) to close-out contract

Recommend the Board of Directors:

1. Authorize the Executive Officer/APCO to execute agreements and take the necessary actions to close out the Regional Bay Area Bikeshare pilot project and to transition project assets in accordance with Caltrans' requirements; and
2. Request that the Metropolitan Transportation Commission allocate \$4.5 million to supplement public funding contributions for system buy-in that would be available to emerging agencies and pilot project cities that are not included in the no-cost system expansion proposed by Motivate International, Inc.



ARB Climate Program

Presentation to BAAQMD Board of Directors

May 6, 2015

California Environmental Protection Agency

 **Air Resources Board**

Agenda

- AB 32 History, Requirements, and Program Objectives
- Climate Change Actions Needed at All Levels
- Cap and Trade
- California Oil Refineries
- Next Steps for AB 32 Program
- Opportunities for Additional District Leadership

AB 32 History and Requirements

- AB 32 signed into law 2006
- Achieve 1990 emissions level by 2020
- Continue greenhouse gas (GHG) reductions beyond 2020
- Adopt GHG emission reporting regulation
- Adopt discrete early action measures
- Develop Scoping Plan and update it every five years
- Authority to adopt schedule of fees

AB 32 Program Objectives

- Achieve the 1990 GHG emission level by 2020 and continue reductions beyond 2020
- Further reduce GHG emissions by 80 percent by 2050
- Develop a plan that details the main strategies California will use to reduce the greenhouse gases (GHG) that cause climate change
- Provide a GHG emission reduction program that can be used as a template for other states and countries world wide
- Implement a range of complementary GHG reduction actions
 - direct regulations
 - alternative compliance mechanism
 - monetary and non-monetary incentives
 - voluntary actions
 - market-based mechanisms such as a cap-and-trade system

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Climate Change Actions Needed at All Levels

- GHG emissions contribute to a global problem
- International: State collaborations with other nations & subnationals (Quebec, British Columbia, Mexico, China)
- National: Proposed Clean Power Plan Rule
- Regional: Pacific Coast Collaborative, Western Climate Initiative
- State: Scoping Plan Measures, Short-Lived Climate Pollutants Plan (under development)
- Local: Sustainable Communities Strategies, BAAQMD Stationary Source Regulations, Other Local Agency Measures

California's Existing Statewide Climate Change Programs

- Advanced Clean Cars
- SB 375 (Sustainable Communities Strategy)
- Low Carbon Fuel Standard
- 33% Renewable Portfolio Standard
- Building and Appliance Energy Efficiency Standards
- Refrigerant Management Program
- Mandatory Commercial Recycling
- Cap-and-Trade Program

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Mandatory GHG Reporting Program

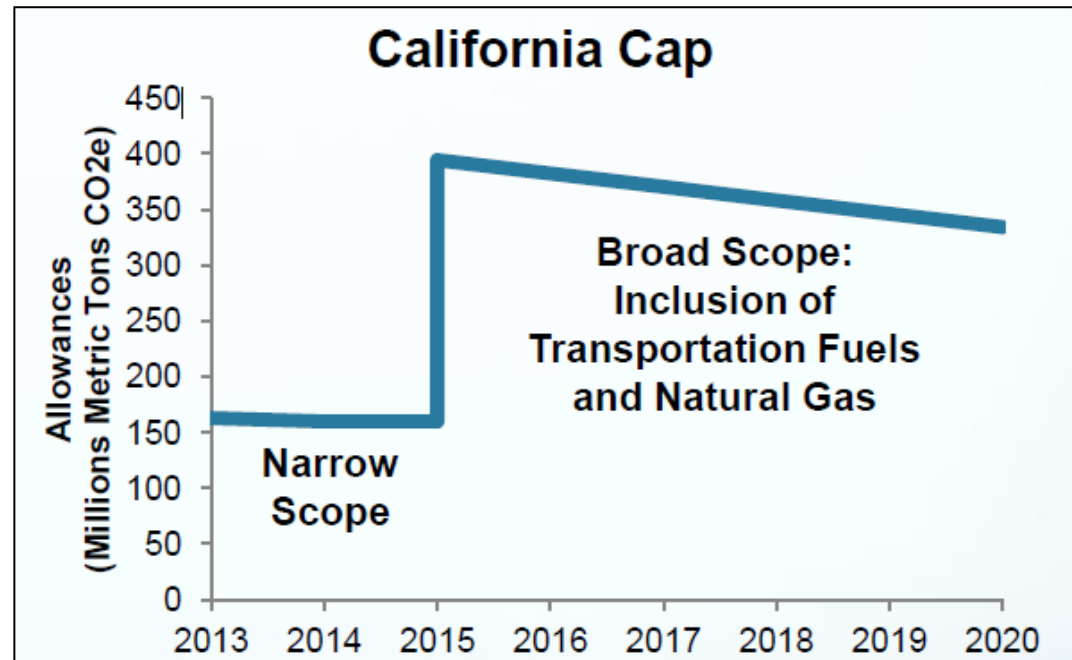
- GHG Reporting Regulation adopted in 2007
- California's largest emitters annually report process, combustion, and fugitive GHGs
- Approximately 750 reporting entities
 - Facilities with $\geq 10,000$ MT CO₂e emissions
 - All Electricity Importers and Retail Providers
 - Fuel and Natural Gas Suppliers
- Regulation includes requirements for third-party verification of reported data
- Informs Cap-and-Trade Program

Cap-and-Trade Program

- Cap-and-Trade Program is designed to complement direct measures and regulations
- Annually declining and limited quantity of GHG permits and offsets ensures GHG emissions decrease over time
- Facilities must have enough GHG allowances (permits) to cover their annual process and combustion greenhouse gas emissions
- Ensures that overall 2020 goal is met in the most cost effective manner regardless of the effectiveness of the other measures
- Recognizes the “Global” nature of GHGs and encourages reductions to occur most efficiently independent of location, benefiting entire planet

Declining Cap on GHG Emissions

- Cap covers 85% of California's GHG emissions
- Large industrial sources
- Electricity generation and imports
- Transportation fuels (beginning in 2015)
- Residential and commercial use of natural gas (beginning in 2015)
- The “cap” limits total GHG emissions from all regulated sources



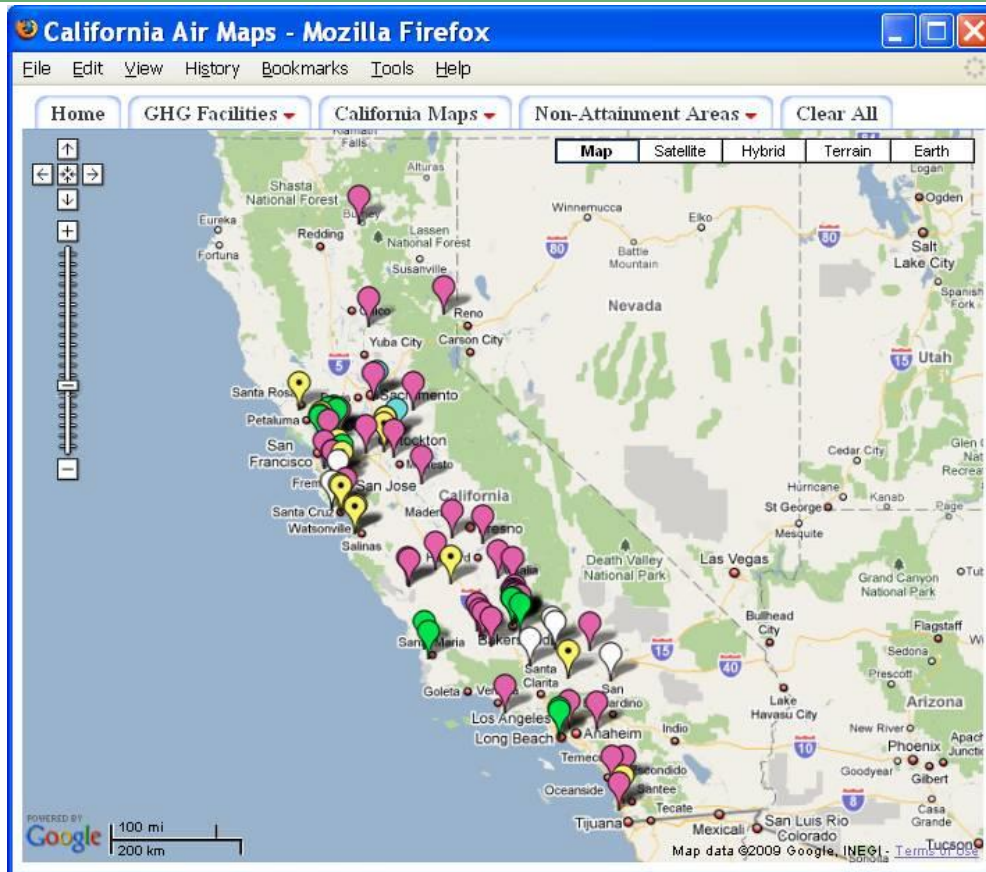
Cap-and-Trade Program: Principles

- Cap-and-Trade Program:
 - Large industrial GHG emitters, electricity imports, natural gas and transportation fuels
 - Minimize emissions leakage to extent feasible
- Cap-and-Trade Program does not change existing local permit requirements
- Existing, expanded, and new facilities
 - **Must continue** to meet local criteria and toxic pollutant requirements of district air permits
 - If over 25,000 metric tons CO₂e, also subject to the Cap-and-Trade Program

Cap-and-Trade Program: Communities

- Cap-and-Trade Program Adaptive Management
 - Coordinated effort between ARB and air districts
 - Monitoring of changes to criteria and toxic air pollutants at Cap-and-Trade regulated facilities
 - Evaluation of any changes and potential relationship to the Cap-and-Trade Program
- Senate Bill 535 – Use of Cap-and-Trade Auction Proceeds
 - 25 percent of auction proceeds for GHG reduction projects to benefit EJ Communities
 - Minimum of 10 percent for GHG reductions projects in EJ Communities

Interactive GHG Emissions Map



- View facilities and their annually reported GHG emissions
- Filter by industrial sector
- Display County or Air District boundaries

<http://www.arb.ca.gov/ei/tools/ghgfacilities/>

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California Oil Refineries

- California Oil Refinery Modifications
- Bay Area Refinery Crude Imports
- Refinery Assessment Plan
- Low Carbon Fuel Standard

California Oil Refinery Modifications

- Six of the ten major refinery projects in progress related to processing new crude sources
- Of the six projects:
 - Five appear aimed at bringing in lighter/sweeter North American crude, resulting in less refinery process emissions
 - One project appears aimed at processing wider range of crudes, which could include heavy/sour crudes

Bay Area Refinery Crude Imports

- Approximately sixty percent of crude supplied to Bay Area refineries is imported
- From 2011 to 2013, average properties of imports remained steady (API gravity, sulfur content)
- ARB to continue monitoring parameters of crude supplied to California refineries

Refinery Assessment Plan

- Inventories existing assets and resources
- Evaluates capabilities and proposes enhancements
- Develops statewide guidance on best practices
- Improves coordination, training, and preparedness
- Real-Time Fence-line and Community Monitoring Data Available Online:

www.arb.ca.gov/fuels/carefinery/crseam/crseam.htm



**Air Monitoring for Accidental Refinery Releases:
Assessment of Existing Capabilities and Potential
Improvements**

Prepared by:

ARB Monitoring and Laboratory Division
Office of Emergency Response

California Air Pollution Control Officers
Association Air Monitoring Committee

California Environmental Protection Agency
 **Air Resources Board**



Low Carbon Fuel Standard

- Carbon intensity values are assigned to CA transportation fuels
- Producers must meet progressively more stringent carbon intensity standards
- Disincentive for heavier crudes
 - Incremental Deficit Provision: assigns additional LCFS deficits if California crude slate becomes more carbon intensive
- Incentives (proposed) for refinery GHG reduction projects
 - Refinery Investments: credits for major refinery modifications resulting in significant GHG reductions
 - Renewable Hydrogen: credits for replacing fossil hydrogen with renewable hydrogen in the production of gasoline or diesel

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Governor Announces 2030 Target

- 40 percent reduction below 1990 levels by 2030 in California's greenhouse gas (GHG) emissions
- 2030 target: Mid-term milestone ensures on track to 2050
 - 20% reduction by 2020 (on target)
 - 40% reduction by 2030
 - 80% reduction by 2050
- 2030 target supported by latest science
- FAQs on 2030 Target and Climate Adaption available on www.arb.ca.gov

Next Steps for the 2030 Target

- Executive Order B-30-15: State agencies to take measures within existing authority to reduce GHGs
- ARB: Initiate public process in summer 2015 to update State's Climate Change Scoping Plan
 - Framework for achieving 2030 target
 - Adopt in 2016
 - Discuss new and existing approaches for sector-based emission reductions
- Concurrent GHG reduction efforts from all economic sectors to inform updated Scoping Plan
- Governor's Executive Order supports current Legislative action on climate change

ARB 2015 Major Activities

- Short Lived Climate Pollutant Plan
- Cap and Trade Auction Proceeds (Greenhouse Gas Reduction Fund) Three Year Investment Plan
- Governor's May Budget Revise
- State Implementation Plan Update
- Freight Plan

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High-GWP Mitigation

- High global warming potential (high-GWP) gases are thousands of times more potent than carbon dioxide
- Fastest growing sector of GHG emissions
 - Fluorinated gases used as refrigerants account for majority of high-GWP emissions
- ARB adopted several AB32 measures
- Additional measures needed to meet 2030 target

High-GWP Mitigation

- Opportunities for Action
 - Assist with implementation of Refrigerant Management Program
 - Major AB32 regulation that affects large commercial and industrial refrigeration systems
 - Approximately 20 percent of affected facilities are in the district
 - District inspectors recently began inspecting facilities identified by ARB
 - Offer financial incentives to facilities to retrofit/retire old leaky systems and install low-GWP refrigerant systems
 - Immediate and significant reductions
 - Assist ARB in the development of regulatory measures to require low-GWP alternatives where feasible and cost effective
 - Work with industry to identify and develop programs to address training needs

Additional Local Action

- Support actions that advance:
 - Energy efficiency measures
 - Low emitting fleets
 - Green buildings
 - Water use reduction
 - Urban forestry
 - Enhanced recycling and waste reduction
 - Smart urban planning

Local GHG Limits on C&T Covered Facilities

- Considerations for local GHG limits on Cap-and-Trade covered facilities:
 - Efficiency: May not ensure most efficient GHG emission reductions
 - Production Shift: May shift business activity to outside of air basin
 - Emissions Leakage: May result in increases of GHG emissions in other parts of the State
 - Overall: May not affect overall global level of GHG emissions

Contact Information

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