

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

The logo features a circular design with a blue and white wavy pattern on the left, a sunburst in the center, and a light blue crescent shape on the right. The text "Bay Area 2009 Clean Air Plan" is overlaid in a bold, dark blue font.

**Bay Area 2009  
Clean Air Plan**

David Burch, Principal Planner, BAAQMD

Joint Policy Committee

September 18, 2009



# Presentation Overview

- Purpose & goals of 2009 CAP
- Multi-pollutant planning
- Progress to date
- Draft Control Strategy
- Future steps and timeline





# Purpose of 2009 Clean Air Plan

---

---

Develop integrated **multi-pollutant** plan to:

- **Improve air quality**
- **Protect public health** both at regional scale & in impacted communities
- **Protect our climate & ecosystems**

Update state ozone plan (2005 Ozone Strategy) -  
include all feasible control measures  
- reduce transport to neighboring air basins



# Multi-Pollutant Planning

---

---

- More holistic approach / voluntary effort
- Conceptual groundwork:  
National Research Council & US EPA
- EPA pilot efforts under way in 4 states / areas
- MP planning makes sense, but is more complex
- Presents both technical & policy challenges
- No guidelines available as yet:
  - we're on the cutting edge



# Benefits of Multi-Pollutant Planning

---

---

- Better integrate efforts to reduce ozone, PM, air toxics, and greenhouse gases
- Optimize co-benefits / minimize trade-offs as we define control measures
- Identify control measures that provide greatest health & climate protection benefit
- Key issue: How to compare benefits of reducing (or increasing) the various pollutants ?



# Multi-Pollutant Evaluation Method (MPEM)

---

---

Developed MPEM using best available tools & data to help analyze control measures:

- Capture benefits across all pollutants
- Help evaluate trade-offs
- Evaluate impacts on public health
- Express health & climate protection benefits in \$ terms
- MPEM tells us that **reducing PM** provides by far the greatest public health benefit

MPEM may have applications beyond CAP



# Broader Objectives

---

---

- Rely on best science / open mind / transparency
- Reflect & reinforce new initiatives & directions
- Help define where to focus District efforts
- Identify emerging challenges & opportunities
- Engrain MP perspective in District culture
- Help to better integrate land use, transportation & AQ planning
- Demonstrate leadership



# Process to Develop CAP

---

---

- Strong effort to identify potential measures
- Extensive public outreach: workshops, etc.
- Coordination with regional agency partners

Progress to date:

- Documentation of control measure review process
- Development of the MPEM
- Draft control strategy



# Approach to Control Strategy

---

---

- Use all tools & resources at our disposal: rule-making, permitting, enforcement, grants, partnerships, public outreach, AQ monitoring
- Consider how measures can best protect health
- Enhance traditional types of control measures:
  - maximize co-benefits across pollutants
- Develop new measures to address today's challenges



# Overview of Control Strategy

---

---

57 control measures:

- Stationary sources measures (19)
- Mobile sources measures (10)
- Transportation control measures (18)
- Land use & local impacts measures (6)
- Energy & climate measures (4)

Further study measures (14)

Leadership Platform



# Stationary Source Measures

SSM 1: Foundries and Metal Melting (*PM, odor, TAC*)

SSM 2: Composting (*PM, ROG, GHG*)

SSM 3: Digital Printing (*ROG*)

SSM 4: General Particulate Matter (*PM*)

SSM 5: GHG in Permits – Energy Efficiency (*GHG*)

SSM 6: Livestock Waste (*PM, ROG, GHG*)

SSM 7: Nat. Gas Process & Dist. (*ROG, GHG*)

SSM 8: Vacuum Trucks (*ROG*)

SSM 9: Cement Kilns (*NO<sub>x</sub>, SO<sub>x</sub>*)



# Stationary Source Measures

---

---

SSM 10: Coke Calcining (*SO<sub>x</sub>*)

SSM 11: Open Burning (*PM*)

SSM 12: Refinery Heaters (*NO<sub>x</sub>*)

SSM 13: Residential Furnaces (*NO<sub>x</sub>*)

SSM 14: Space Heating (*NO<sub>x</sub>*)

SSM 15: Dryers, Ovens, Kilns (*NO<sub>x</sub>*)

SSM 16: Glass Furnaces (*NO<sub>x</sub>*)

SSM 17, 18: NSR and Toxics NSR/CARE (*all, TAC*)

SSM 19: Air Toxics Hot Spots/CARE (*TAC*)



# Mobile Source Measures

Promote clean vehicles & fuels

Replace /repair high-emitters; accelerate turnover

Reduce emissions in advance of regulations

Via incentives & partnerships

10 MSMs proposed:

- 4 light & medium duty MSMs
- 3 heavy duty MSMs
- 3 off-road MSMs





# Transportation Control Measures

Reduce vehicle travel & emissions

TCMs grouped into 5 categories:

- Improve transit services
- Improve system efficiency
- Encourage sustainable travel behavior
- Support focused growth
- Implement pricing strategies





# Land Use & Local Impacts

- Promote focused growth
- Protect public health
- Multi-faceted effort that draws on wide range of tools & policies

LUM 1: Goods Movement

LUM 2: Indirect Source Review Rule

LUM 3: Enhanced CEQA

LUM 4: Land Use Guidelines

LUM 5: Track cumulative risk in impacted communities

LUM 6: Enhanced AQ monitoring





# Energy & Climate Measures

- ECM 1: Energy Efficiency
  - promote green building codes & practices
- ECM 2: Renewable Energy
  - promote solar power & other renewables
- ECM 3: Urban heat islands
  - cool roofing & cool paving
- ECM 4: Tree-Planting
  - promote planting of low VOC emitting





# Next Steps

- Consider comments submitted on draft control strategy / refine strategy
- Issue by end of October:
  - draft CAP
  - draft programmatic CEQA doc
  - draft Socio-Economic Analysis
- Hold public workshops
- Final plan to District Board: by end of CY 2009



# Closing Thoughts

---

---

**We find broad support for the MP concept**

MP planning presents challenges:

- Where to draw the line?
- Be ambitious, but manage expectations
- Finding emission reductions to match CAP goals
- Implementing plan will require resources

**CAP will break new ground**



---

**Bay Area 2009 Clean Air Plan website:**  
**<http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plans.aspx>**

**David Burch: [DBurch@BAAQMD.gov](mailto:DBurch@BAAQMD.gov)**

Bay Area  
2009 Clean Air Plan  
**DRAFT Control Strategy**

Stationary Source Measures

SSM1:  
Ferrous & Nonferrous Foundries

SSM2:  
Composting Operations

SSM3:  
Digital Printing

SSM4:  
General Particulate Matter Weight Rate Limitation

SSM5:  
Greenhouse Gases in Permitting - Energy Efficiency

SSM6:  
Livestock Waste

SSM7:  
Natural Gas Processing & Distribution

SSM8:  
Vacuum Trucks

SSM9:  
Cement Kilns

SSM10:  
Coke Calcining

SSM11:  
Open Burning

SSM12:  
Refinery Boilers and Heaters

SSM13:  
Residential Fan Type Furnaces

SSM14:  
Space Heating

SSM15:  
Dryers, Ovens, Kilns

SSM16:  
Glass Furnaces

Mobile Source Measures

MSM A-1:  
Promote Clean, Fuel Efficient Vehicles

MSM A-2:  
Zero Emission Vehicles and Plug-In Hybrids

MSM A-3: Green Fleets

MSM A-4:  
Enhancements to Programs to Reduce High-Emitting Vehicles

MSM B-1: HDV Fleet Modernization

MSM B-2: Low NOx Software / Catalytic Convertors

MSM B-3: Efficient Drive Trains

MSM C-1:  
Construction & Farming Equipment

MSM C-2:  
Lawn & Garden Equipment

MSM C-3:  
Recreational Vessels

SSM17  
Revise Reg 2, Rule 2 New Source Review

SSM18  
Revise Reg 2 Rule 5 New Source Review for Air Toxics

SSM19  
Revise Air Toxics "Hot Spots" Program

Transportation Control Measures

TCM A – Improve Transit Services  
A-1 Improve Local & Area-wide Bus Service  
A-2 Improve Local & Regional Rail Service  
A-3 Improve Ferry Service

TCM B – Improve System Efficiency  
B-1 Implement Freeway Performance Initiative  
B-2 Improve Transit Efficiency & Use  
B-3 Bay Area Express Lane Network  
B-4 Goods Movement Improvements & Emissions Reduction Strategies

TCM C - Encourage Sustainable Travel Behavior  
C-1 Support Voluntary Employer-based Trip Reduction Program  
C-2 Implement Safe Routes to Schools & Safe Routes to Transit  
C-3 Promote Rideshare Services  
C-4 Conduct Public Outreach and Education  
C-5 Conduct Public Outreach focused on Smart Driving/Speed Moderation

TCM D – Support Focused Growth  
D-1 Improve Bicycle Access & Facilities  
D-2 Improve Pedestrian Access & Facilities  
D-3 Support Local Land Use Strategies

TCM E – Implement Pricing Strategies  
E-1 Value Pricing Strategies  
E-2 Parking Pricing & Management Strategies  
E-3 Implement Transportation Pricing Reform

Land Use & Local Impact Measures

LUM1:  
Goods Movement

LUM2:  
Indirect Source Review Rule

LUM3:  
Enhanced CEQA Program

LUM4:  
Land Use Guidelines

LUM5:  
Reduce Risk from Stationary Sources in Impacted Communities

LUM6:  
Enhanced Air Quality Monitoring

Energy & Climate Measures

ECM1:  
Energy Efficiency

ECM2:  
Renewable Energy

ECM3:  
Urban Heat Island Mitigation

ECM4:  
Tree Planting

FSM1:  
Adhesives and  
Sealants

FSM2:  
Reactivity in  
Coatings and  
Solvents

FSM3:  
Solvent Cleaning  
and Degreasing

FSM4:  
Cooling Towers

FSM5:  
Equipment Leaks

FSM6:  
Wastewater from  
Coke-cutting

FSM7:  
SO<sub>2</sub> from Refinery  
Processes

FSM8:  
LPG, Propane &  
Butane

FSM9:  
GHGs in Permitting  
- BACT

FSM10:  
Cooking

FSM11:  
Magnet Source  
Measure

FSM12:  
Wood Smoke

FSM13:  
Energy Efficiency

FSM14:  
Lubricants

### 1. Cleaner vehicles & equipment

- Advocate at the State level for revisions to the Smog Check program to expand the pool of vehicles checked annually, including diagnostics and remote sensing technology, and to end an exemption for motorcycles.
- Advocacy to phase out off-road two stroke engines
- Advocate to broaden the reach of ARB's Public Agency Green Fleets regulation.
- Increase ARB regulatory presence in the Bay Area to enforce diesel ATCMs.

### 2. Land Use/Building Standards

- Expand and enforce "parking cash-out,"
- Support legislation to require un-bundling of parking and energy use in leases.
- Work with local governments to ensure local building codes to exceed Title 24 requirements for "cool roof" standards (urban heat island).
- Work with local governments to develop local zoning ordinances for "cool paving" and shade tree standards to be met when existing parking lots undergo re-surfacing; also require shade trees in new lots. (UHI)
- Encourage ARB to provide credits for local government land use actions that can be used in GHG cap & trade system.

### 3. Pricing & Tax Policy

- Work with regional partners to support congestion pricing.
- Support a regional parking fee for privately owned lots.
- Support mileage-based vehicle registration and/or license fees.
- Support floor price for gasoline & diesel.
- Advocate for "pay as you drive" insurance.
- Support "feebates."
- Support container fees at Ports

### 4. Trip Reduction / Alternative Modes

- Support legislation to empower air districts and local governments to adopt employer-based trip reduction requirements.
- Support legislation to expand incentives for employer-based trip reduction programs, such as tax deductions and credits.
- Encourage local governments to replicate San Francisco Commute Benefits Ordinance.
- Advocate for more diverse ways to measure Level of Service (LOS) other than vehicle service volume to capacity ratios.

### 5. Other

- Advocate with Caltrans and CHP for better enforcement of speed limits on freeways.