

BAY AREA AIR QUALITY MANAGEMENT DISTRICT



Public Workshop

July 15, 2008

MetroCenter

# Workshop Overview

- Current air quality status and trends
- Legal and regulatory context
- Purpose of plan
- Multi-pollutant planning
- Pollutants to be addressed
- Plan schedule & process
- Key milestones in CAP process
- Outreach and future workshops





# Air Quality Status & Trends

## Progress in improving air quality overall

- Attained NAAQS for CO, SO<sub>2</sub>, NO<sub>2</sub>, lead
- Reduced frequency & severity of ozone & particulate matter (PM) exceedances
- More stringent AQ standards pending:
  - ozone and PM
- Major reduction in air toxics & cancer risk
- Reducing public exposure is a key priority



# Ozone:

## Regulatory Environment

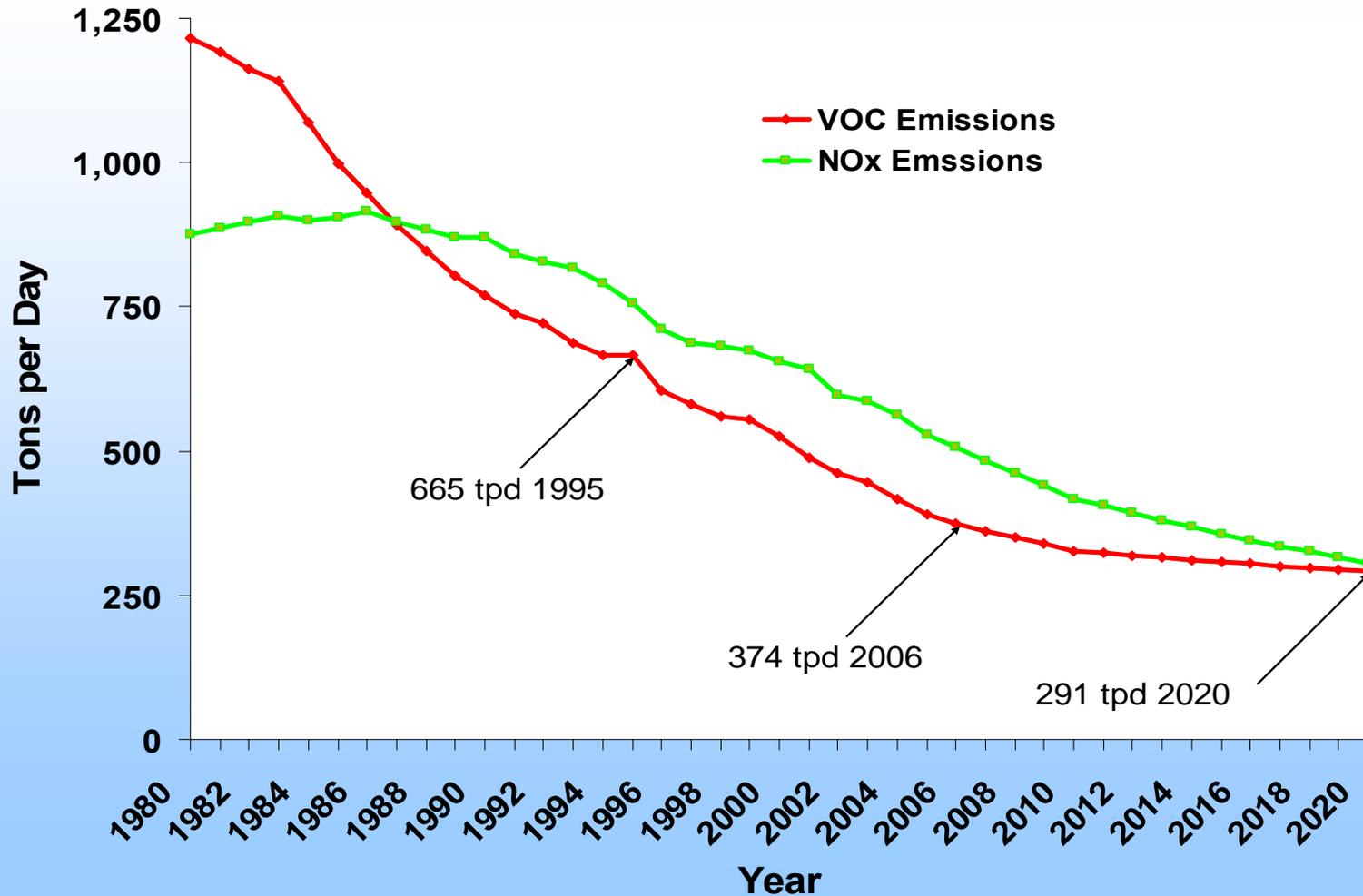
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- Bay Area is non-attainment for state standards
- Marginal non-attainment for 80 ppb nat'l standard
- EPA adopted lower 75 ppb 8-hr standard March 08
- EPA will issue designations for newly adopted 75 ppb 8-hr standard by March 2010
- No State Implementation Plan (SIP) submittal required at this time
- Ozone SIP would be due within 3 years (by 2013) if BA designated as non-attainment



# Ozone Precursors: VOC & NO<sub>x</sub> Emission Trends

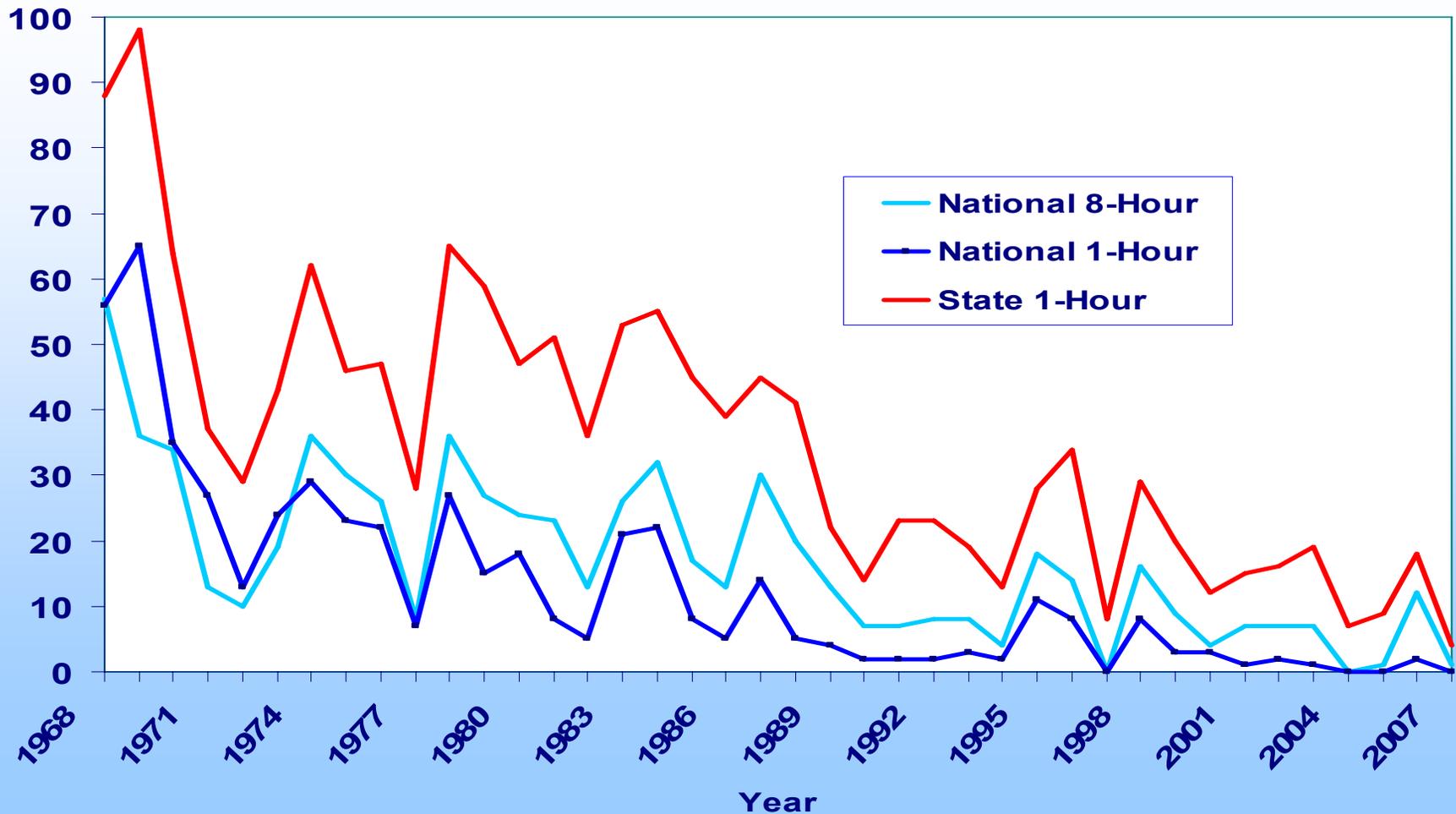
## Bay Area VOC and NO<sub>x</sub> Emission Inventory Trends, 1980-2020





# Air Quality Status and Trends

Number of Days of Bay Area Ozone Exceedances Through 2007





# Particulate Matter: Regulatory Environment

- Non-attainment for California  $PM_{2.5}$  &  $PM_{10}$  standards
  - SB 656: Nov. 2005 PM Implementation Schedule
  - Wood-burning rule adopted 7/9/08 completes measures in PM Implementation Schedule
- BA attains the national annual average  $PM_{2.5}$  standard
- EPA tightened 24-hr  $PM_{2.5}$  standard in 2006
- EPA will issue attainment designations for new 24-hr  $PM_{2.5}$  standard by Dec 2008
- No PM SIP submittal required at this time
- PM SIP would be due within 3 years if non-attainment (which appears to be very likely)



# Bay Area 2009 Clean Air Plan

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- Update Bay Area 2005 Ozone Strategy
- Comply with CA Clean Air Act requirements
- Develop an integrated plan that addresses multiple pollutants
- Develop control strategy to maximize reduction in health risks



# CA Clean Air Act requirements

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- Achieve state standards by earliest practicable date
- Update control measure strategy, include “all feasible control measures”
- Reduce transport to neighboring air basins
- Report on progress, update baseline & trends



# Control Strategy

- Will focus on measures within our purview
- Stationary and Area Source Control Measures
  - factories, refineries, dry cleaners, etc.
- Transportation Control Measures (TCM)
  - promote alternative modes to reduce vehicle travel (VMT) & emissions
- Mobile Source Control Measures
  - promote use of cleaner vehicles & fuels



# A Collaborative Effort

## Regional agency partners:

- ABAG, BCDC, MTC
- Work with MTC & other regional partners to develop TCMs
- Work with Joint Policy Committee to coordinate transportation, land use, air quality
- Coordinate key regional plans: Transportation 2035, ABAG Projections, FOCUS, 2009 CAP





***Questions / Comments***



# New Direction: Multi-pollutant Planning

- Existing paradigm for air quality planning
  - single pollutant, address each pollutant separately
- Why multi-pollutant planning?
  - Pollutants share same atmosphere, chemistry, meteorology
  - Some precursors (e.g. NO<sub>x</sub>) contribute to multiple pollutants
  - Control measures can reduce multiple pollutants
  - Optimize co-benefits & synergies
  - Identify / minimize trade-offs between pollutants
  - Prioritize control measures based on health risks / benefits
  - Greater certainty for regulated community



# Current Multi-Pollutant Planning Initiatives

- January 2004 - National Research Council recommendations
- June 2007 - EPA Air Quality Management Subcommittee Report
- May 2007 - EPA call for pilot projects
  - New York State
  - St. Louis, MO/IL
  - North Carolina
- 2007 - South Coast 2007 AQMP addressed both ozone & PM



# Key Recommendations

Reports cited call for AQ planning based upon:

- One-atmosphere modeling
- Integrated, multi-pollutant planning
- Include air toxics
- Maximize reduction in health risk
- Address ecosystem effects
- Integrate land use, transportation, energy and climate



# Pollutants in 2009 CAP

Develop control strategy for 2009 CAP to reduce emissions & concentrations of:

- Ozone
- PM
- Air Toxics
- Greenhouse gases: CO<sub>2</sub>, etc.

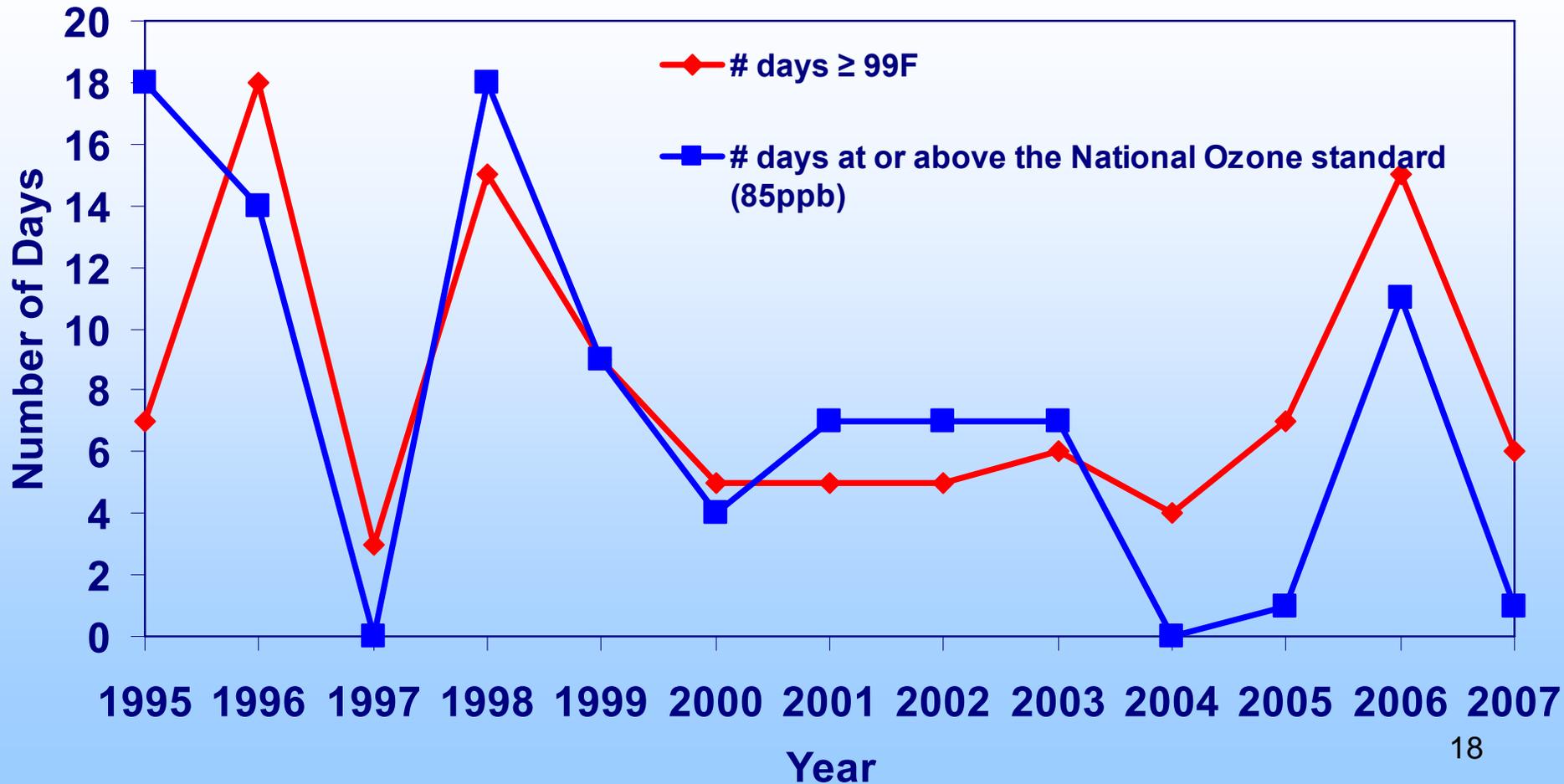


# Climate Change & Criteria Pollutants

- Higher temperatures increase emissions of ozone precursors: biogenic & anthropogenic VOCs
- Higher temperatures will increase ozone formation: more robust photochemistry
- Correlation between # of high heat days and # of ozone exceedances
- Increased wildfires can impact ozone & PM

# Bay Area Ozone and Maximum Temp Trends

Days at or above 99° F and Days Exceeding National 8hr Ozone Standard



# Climate Change Increase in Extreme Heat

Number of Extreme Heat days per Year  
San Francisco Bay Area, 2070-2099

140  
120  
100  
80  
60  
40  
20  
0



Currently

Low Warming  
Scenario

Mid Warming  
Scenario

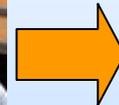
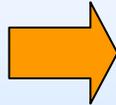
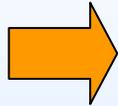
Higher Warming  
Scenario



## Steps underway

- Reviewing control measures in other AQ plans to inform “all feasible measures” analysis
- Evaluating further study measures in ‘05 plan
- Exploring methodologies to evaluate control measures on a multi-pollutant basis

# One Potential Approach to Evaluate Control Measures



Emissions

Concentrations

Chronicle/Kurt Rog

Exposure

Health  
Effects

Costs



***Questions / Comments***



# Public Outreach & Public Input

## Outreach Goals:

- **Inform** public & stakeholders as to scope and schedule
- **Solicit input** to help guide our efforts
- **Explain** potential benefits of integrated air quality planning
- **Emphasize** connection between AQ and public health

## Outreach mechanisms include:

- Website: 2009 CAP notices & documents
- Public Meetings:
  - Daytime Workshops
  - Evening Community Meetings
  - Other venues & opportunities



# CEQA Review

- Air District will be lead agency for CEQA review of 2009 CAP
- CEQA review evaluates potential adverse impacts of new control measures
- District will determine appropriate level of CEQA review after analyzing whether new control measures would create any potential significant adverse impacts



# Planning Schedule and Public Input

Future workshops correspond to key milestones:

- **Fall 2008**
  - Present draft control measure evaluation methodology
  - Solicit input on potential control measures
- **Early 2009**
  - Present draft control strategy for comment
  - CEQA Notice of Preparation
- **Spring 2009**
  - Issue draft Plan & draft CEQA doc
- **Fall 2009**
  - Adopt final Plan & final CEQA doc



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## ***Questions / Comments***

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