



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Regional Clean Air Plan & Climate Protection Strategy

Public Workshop
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Today's Agenda

Thank you for being here!

- **Publically Kick off the Clean Air Plan Update**
- **Provide Overview of the Clean Air Plan Update**
 - **Why we are updating the Clean Air Plan**
 - **Report on progress implementing previous plan**
 - **What air pollutants will be covered**
 - **The health effects of these pollutants**
 - **Regional Climate Protection Strategy**
- **To Hear from You**



Email your Questions

Web participants, email your questions to:

climate@baaqmd.gov



The Bay Area Clean Air Plan

Purpose of the Clean Air Plan:

To provide the region with a comprehensive plan to improve Bay Area air quality and to protect public health.

Specifically, the Clean Air Plan will include a “control strategy” designed to:

- 1) reduce emissions and ambient concentrations of pollutants ;*
- 2) safeguard people’s health by reducing exposure to air pollutants that pose the greatest health risk; and*
- 3) reduce greenhouse gas emissions and protect the climate.*



What is in a Clean Air Plan?

- **Mandated State Ozone Plan**
 - Triennial update to previous (2010) Clean Air Plan
- **Identify All Feasible Control Measures**
 - Programs, strategies, etc. that reduce emissions, taking into account technological, social, environmental, energy and economic factors
- **Multi-Pollutant Plan**
 - Ozone, Ozone Precursors
 - Particulate Matter (including ultrafine PM)
 - Toxic Air Contaminants
 - Greenhouse Gases (including Methane and Black Carbon)



About Ozone

- **Ozone**

- Ground-level ozone is commonly known as smog.
- Ozone is not directly emitted into the air; it is formed when ozone precursors, including nitrogen oxides (NO_x) and volatile organic compounds (VOCs) react in the atmosphere in the presence of sunlight.
- NO_x and VOCs are emitted by motor vehicles, industrial facilities and consumer products.
- Ozone exposure can cause chest pain, coughing, and respiratory diseases.

Ground Level Ozone Formation



Pollutants "bake" together in direct sunlight forming ozone.



About Particulate Matter

- **Particulate Matter**

- PM consists of tiny particles or liquid droplets suspended in the air that can penetrate deep into our lungs.
- Health studies show that exposure to PM can cause respiratory diseases, lung damage and premature death.
- PM is emitted directly into the air and is also formed from reactions of gaseous pollutants.
- Sources of PM include diesel engines, automobiles, wood smoke, industrial facilities and construction.



About Toxic Air Contaminants

- **Toxic Air Contaminants**
 - TACs are pollutants that can cause serious health effects even in low concentrations.
 - Highly toxic TACs, like benzene and hexavalent chromium, can cause severe health problems including cancer, birth defects, and brain damage.
 - Diesel particulate matter (PM emitted from diesel engines) is the most prevalent TAC in the Bay Area and the state.

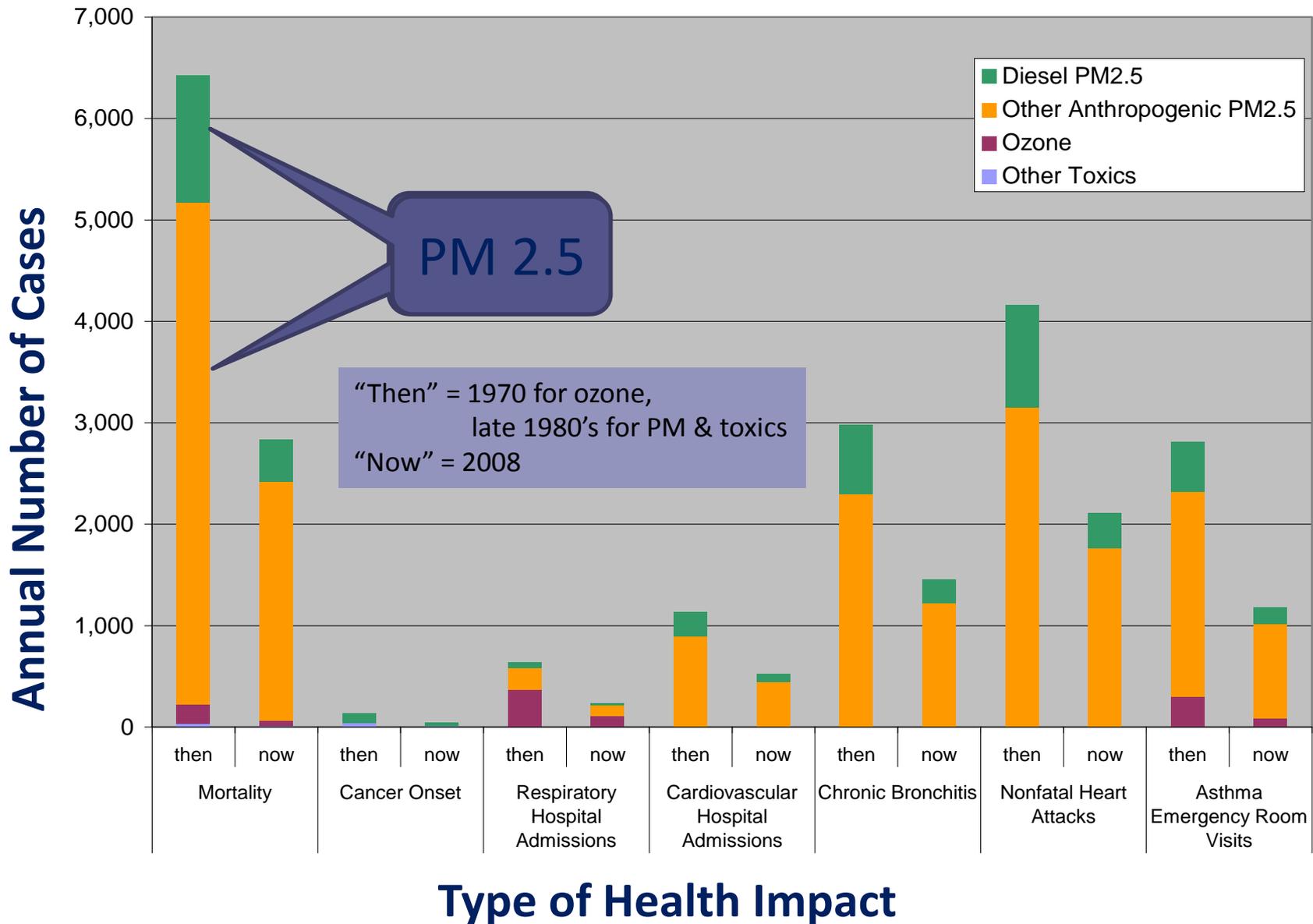


About Greenhouse Gases

- **Greenhouse Gases**

- Greenhouse gases (GHGs) trap heat in the earth's atmosphere and their build-up due to human activities causes climate change.
- Climate change will likely lead to more frequent, more severe, and longer heat waves in the summer.
- Extreme heat may result in increased demand for air conditioning, thus increasing air pollution and GHGs from power plants.
- Climate change may impact public health through ozone formation during extreme heat events, and increased PM as a result of more frequent and severe wildfires.

Health Effects of Air Pollution





Control Measures

- **Stationary Source**
 - *Rules to limit emissions from industrial and commercial sources*
 - *Industrial boilers, coatings, solvents, spray booths, refineries*
- **Mobile Source**
 - *Programs to promote clean fuels and vehicles*
 - *Alternative fuels, incentives for PEV and ZEV infrastructure*
- **Transportation**
 - *Programs to reduce vehicle use*
 - *Incentives for transit, pedestrian and bicycle improvements, model parking policies*
- **Land Use**
 - *Programs to support focused growth*
 - *Model ordinance, general plan guidelines*
- **Energy/Climate**
 - *Policies and approaches to reduce energy use in buildings*
 - *Renewable energy, model ordinances, outreach to local governments*



Let's Break!

Questions?

Web participants, email your questions to:

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Time to Expand Our Climate Protection Effort

- **Air District has been a leader in climate protection since 2005**
- **Justification for an expanded Climate Protection Strategy**
 - Local, regional impacts are worsening
 - Climate change will impact air quality
 - State is updating the Scoping Plan
 - *Plan Bay Area* + 50 local climate action plans
- **Air District Board adopts aggressive GHG reduction goal**
- **The *Clean Air Plan Update* provides a framework for a regional Climate Protection Strategy**



Air District's Climate Protection Program Framework

Major Elements of the Regional Climate Protection Strategy

- **Policy approaches**
- **Assistance to local governments**
- **Technical program**

A Regional Climate Protection Strategy

- **Fill policy gaps**
 - Identify what is best addressed at the regional level?
 - Complement state and local policies
- **Solicit input**
 - Public workshops, review and comment periods
 - Meet with experts in each GHG inventory sector
- **Work with stakeholders**
 - Regional agencies, local governments, special districts, business groups, environmental advocates, health officials, community-based organizations, research and academia...

Rule Development

- **Advance GHG reduction in sources subject to Air District regulatory authority**
- **Include short-lived climate pollutants**
- **Backstop federal requirements on power plants**
 - Expand on EPA regulations to include smaller facilities
- **Explore regional policy approaches to accelerate:**
 - Heat mitigation strategies (cool roofs, cool paving)
 - Energy efficiency and renewable energy in buildings and industry (requirements on existing buildings)
- **Additional potential regional approaches will be identified**



Policy Approaches

Climate Change & Public Health Initiative

- **Examine climate change impacts to air quality and public health, including disproportionate impacts**
- **Include impacts from wildfires, heat, black carbon**
- **Work with state and local health officials**
- **Identify strategies to assist the most vulnerable populations and impacted communities**



Policy Approaches

Explore the Bay Area's Energy Future

- **Air District Advisory Council will investigate technical issues:**
 - Trends in fossil fuel demand and production
 - The path to clean energy
- **Explore opportunities to develop clean energy options**
- **Identify potential actions for the Air District**



Assist Local Governments

Support and Enhance Local Action

- Increase local implementation of GHG-reducing policies and programs
- Provide technical assistance (data, tools, info, best practices)
- Focus on reducing fossil fuel use (EVs, energy efficiency, renewable energy)
- Provide CEQA assistance (thresholds, guidance, offsite mitigation)



Assist Local Governments

Report Progress to the Community

- **Select meaningful indicators of progress**
- **Monitor, track and report on progress to achieving the 2050 goal**
- **Regularly report on progress and indicators to the public**



Technical Program

- **Update Inventorying & Forecasting**
 - Expand inventory (include black carbon)
 - Forecast scenarios (add state, local plan impacts)
- **Implement GHG Emissions Monitoring**
 - Local monitoring of methane, CO₂
- **Expand Enforcement**
 - Enforce certain Scoping Plan measures



Clean Air Plan *Draft* Timeline

- Winter 2014: evaluate all feasible control measures, begin public outreach
- Winter/Spring 2014: review all feasible control measures, multi-pollutant analysis of measures
- Summer 2014: present multi-pollutant analysis of control measures; public workshops
- Fall/Winter 2014/15: draft Clean Air Plan; workshops and community meetings
- Winter/Spring 2015: EIR; adopt Clean Air Plan



Questions for You

- **What “gaps” are there in Bay Area climate protection activities?**
 - *What isn’t being done that the District can do*
 - *What is best addressed at the regional vs. local level?*
- **How can the District best use its authority to enact new climate initiatives?**
- **What regional metrics could be used to track and report progress?**

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Thank you!

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Clean Air Plan Update information:

<http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plan-Update.aspx>