



**BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT**

*Committed to Achieving Clean Air to Protect  
the Public's Health and the Environment*

# **Draft Revised Priority Communities**

**Phil Martien, Ph.D.**

**Bay Area Air Quality Management District**

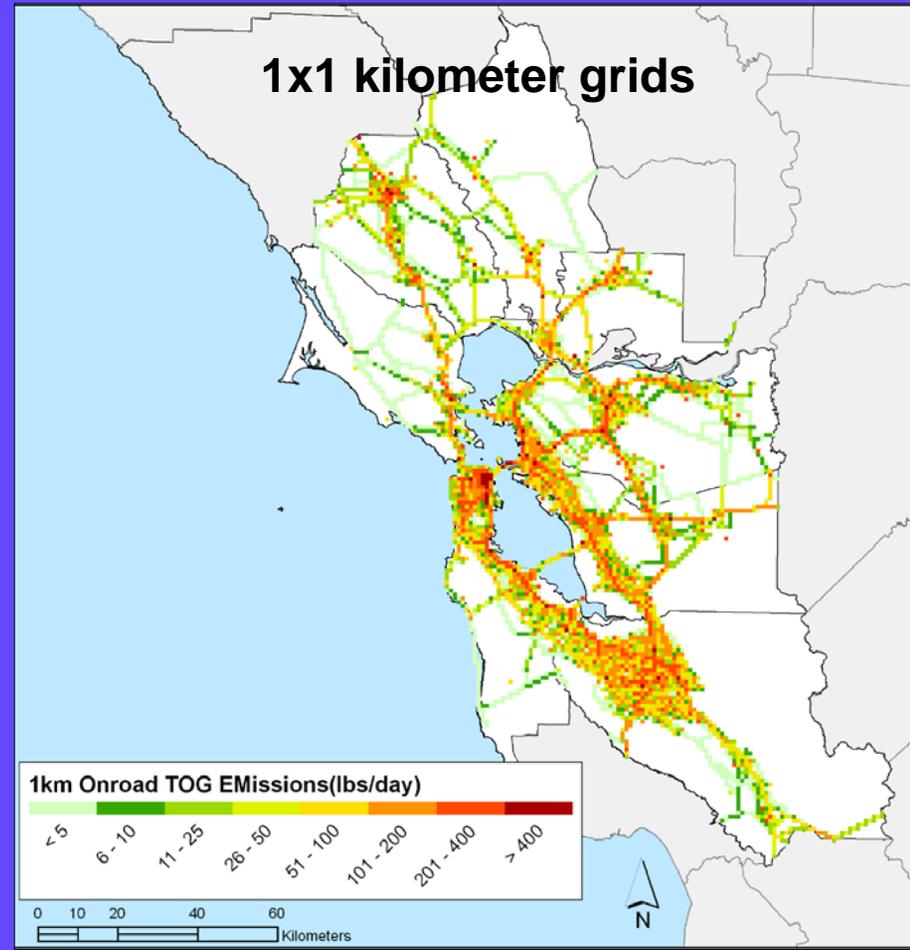
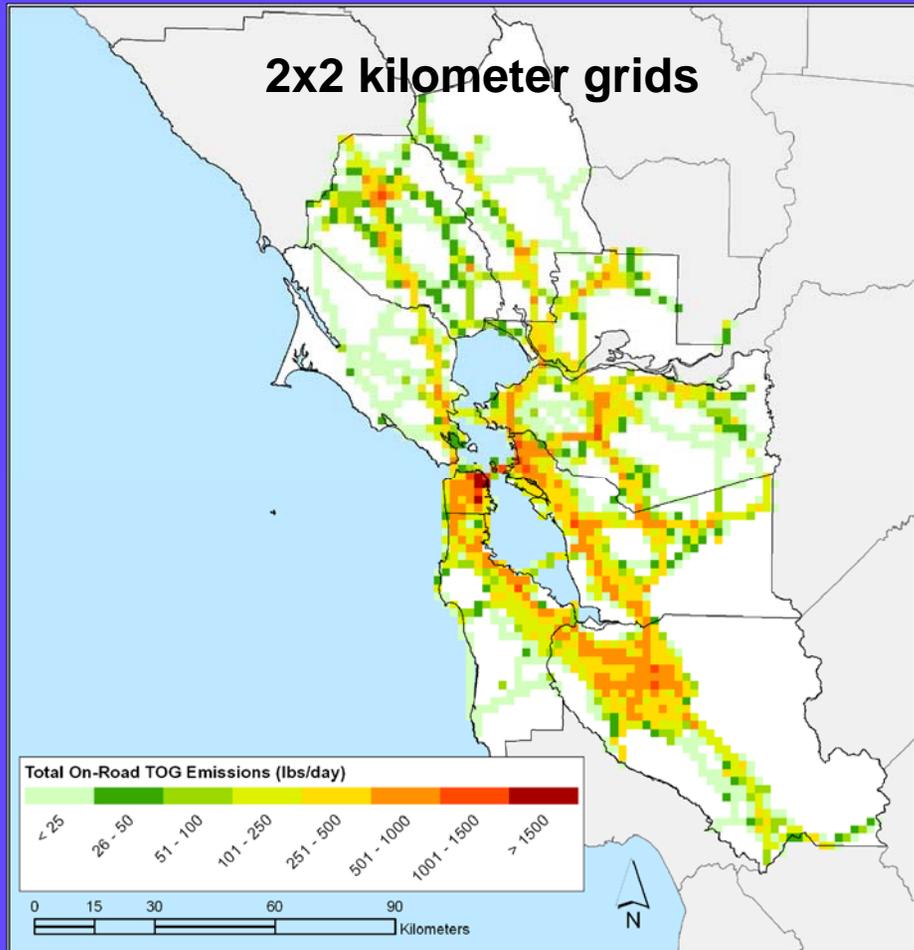
**CARE Task Force Meeting**

**April 21, 2009**

# Overview

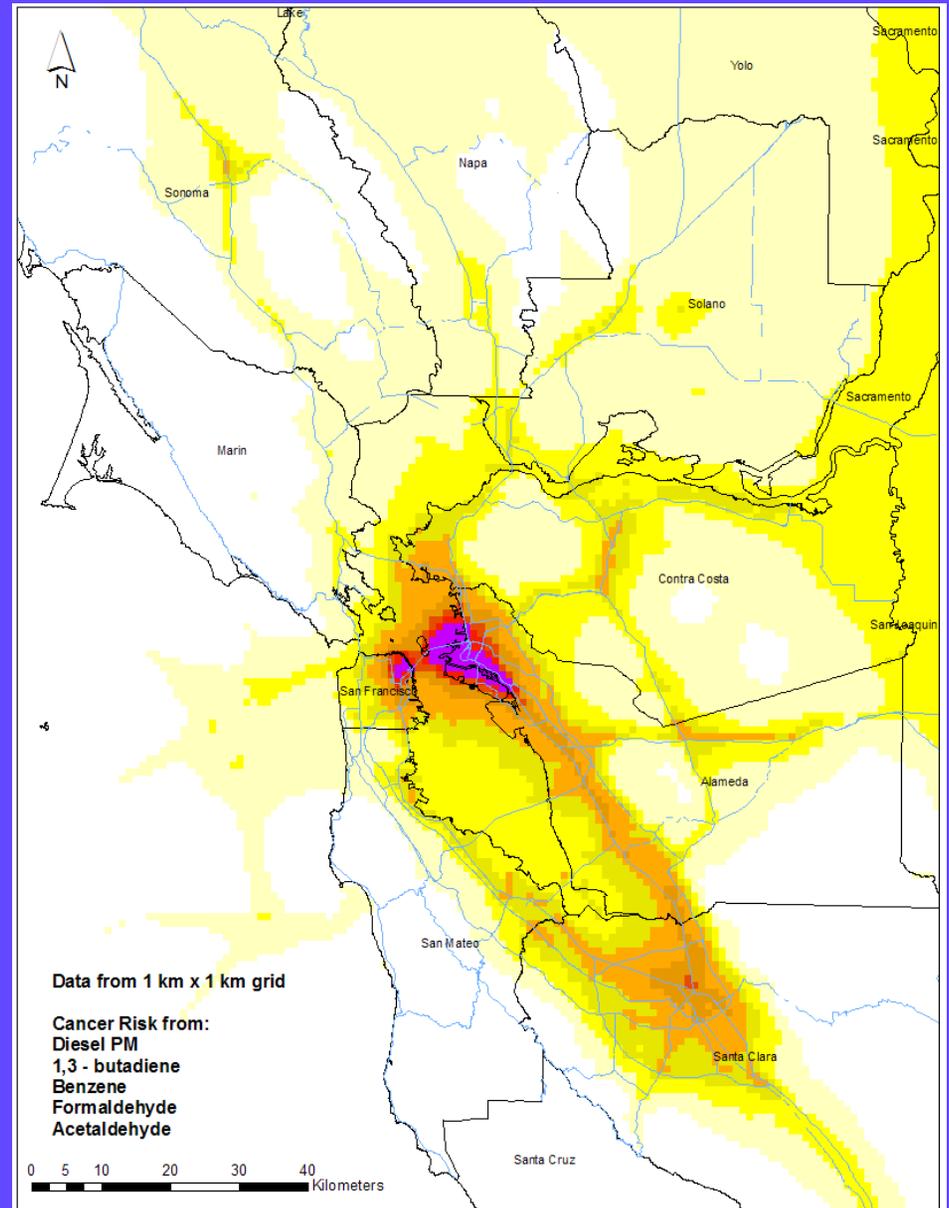
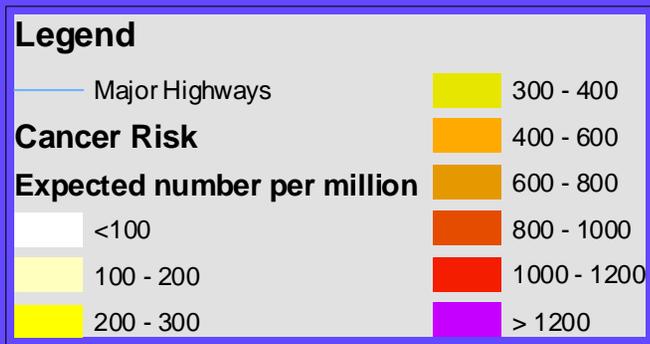
- Updated regional toxics modeling
- Revised methodology for developing priority communities maps
- Updated maps for year 11 Carl Moyer grants program
- Other applications and considerations

# Update Emissions Estimates



# Updated Toxics Modeling

- Expected cancer incidents per million people—70 year exposure
- Modeled concentrations weighted by health risk of each compound

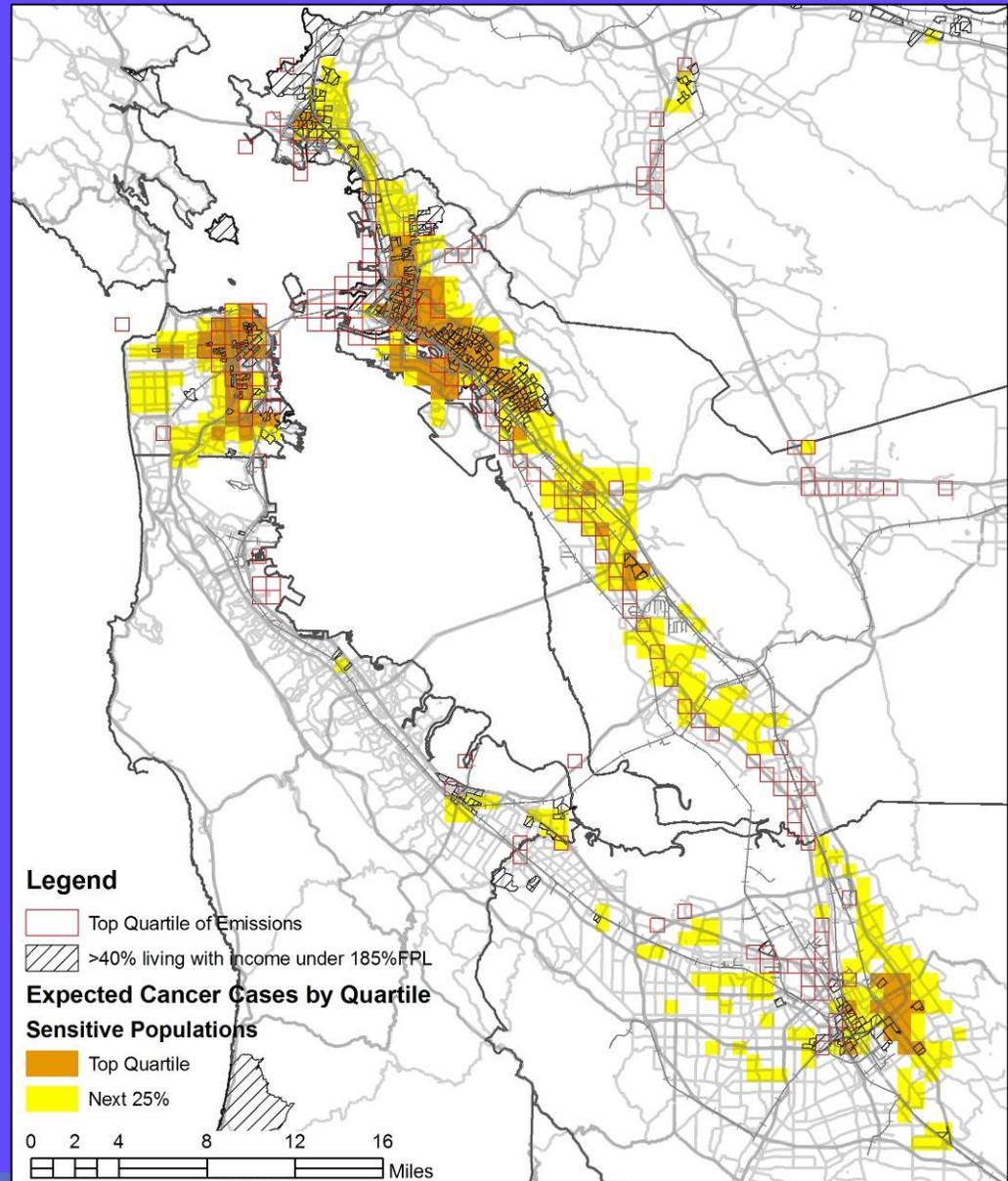


April 21, 2009

# Revised Mapping Inputs

- Factors to consider

- Modeling results for sensitive population (youth & senior) exposure to major cancer-causing compounds (top 50%)
- Cancer-risk-weighted emissions (top 25%)
- Family income (more than 40% of population under 185% FPL)
- Specific boundaries may vary
  - Purpose
  - Community Input



April 21, 2009

# Revised Mapping Methods

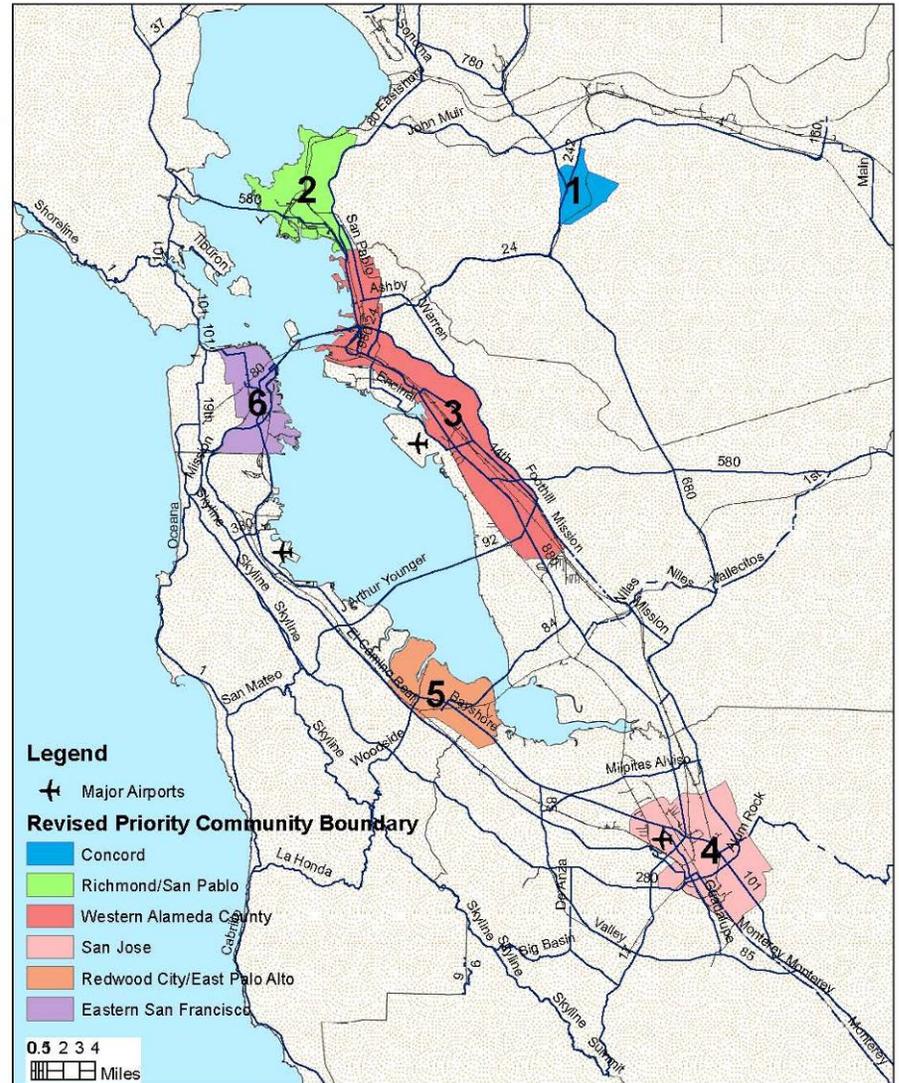
- Identify low-income areas that intersect top 50% exposure cells (yellow or orange) AND are within one grid cell from a top 25% emission cell (red outline)
- Construct boundaries along major roads or highways that encompass nearby high emission cells and low income areas
- Use knowledge of local areas to make judgments
  - select bounding roadways
  - recognize that emissions, modeling, demographic data may not perfectly reflect true conditions
- Use the above boundaries for year 11 of Carl Moyer projects
- Refine these boundaries with community input and feedback

# Revised Maps for Grant Funding



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Revised Priority Communities for Grant Funding



March 25, 2009

Lau.../Grant communities.mxd

- Carl Moyer Program revised community boundaries

- Concord
- Richmond/San Pablo
- Western Alameda County
- San Jose
- Redwood City/East Palo Alto
- Eastern San Francisco

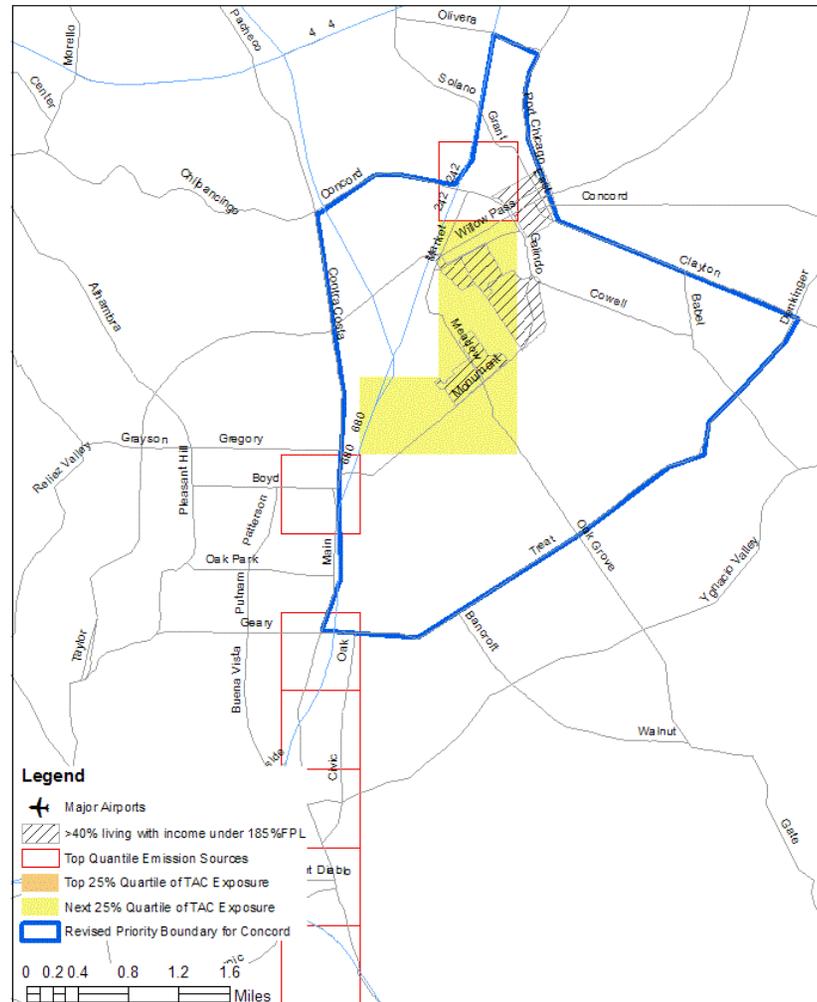
April 21, 2009



# BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Exposure to Toxic Air Contaminants of Sensitive Populations in Concord  
in the Year 2005 Based on a Weighted Product of Population and Emissions

# Concord



Note: Sensitive population includes people under the age of 18 and over 64 years old.  
Toxic air contaminants include diesel PM, 1,3-butadiene, formaldehyde, and acetaldehyde.

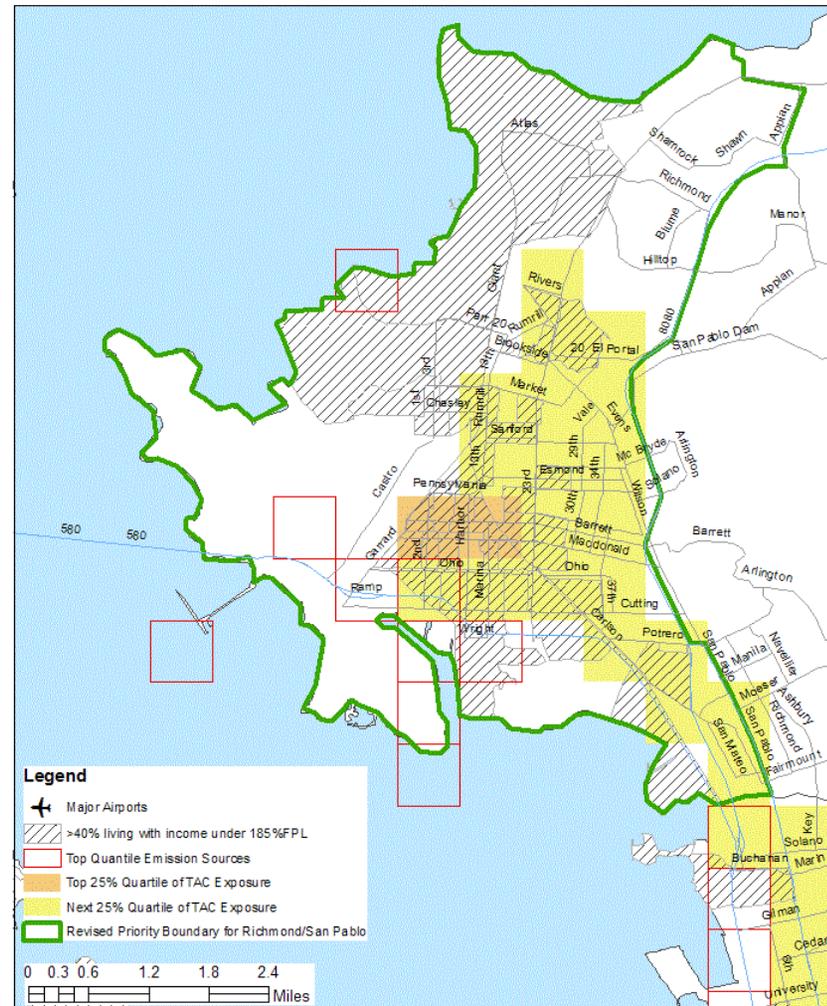
April 17, 2009



# BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Exposure to Toxic Air Contaminants of Sensitive Populations in Richmond/San Pablo in the Year 2005 Based on a Weighted Product of Population and Emissions

## Richmond/ San Pablo

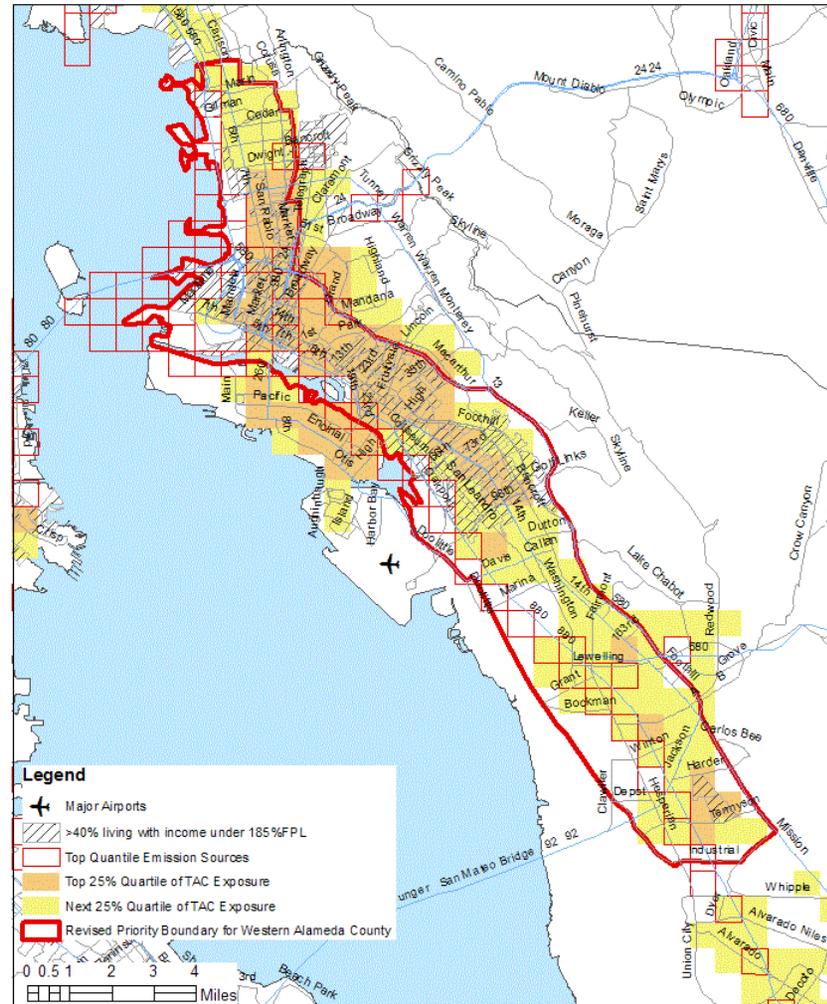




# BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Exposure to Toxic Air Contaminants of Sensitive Populations in Western Alameda County  
in the Year 2005 Based on a Weighted Product of Population and Emissions

## Western Alameda County



Note: Sensitive population includes people under the age of 18 and over 64 years old.

Toxic air contaminants include diesel PM, 1,3-butadiene, formaldehyde, and acetaldehyde.

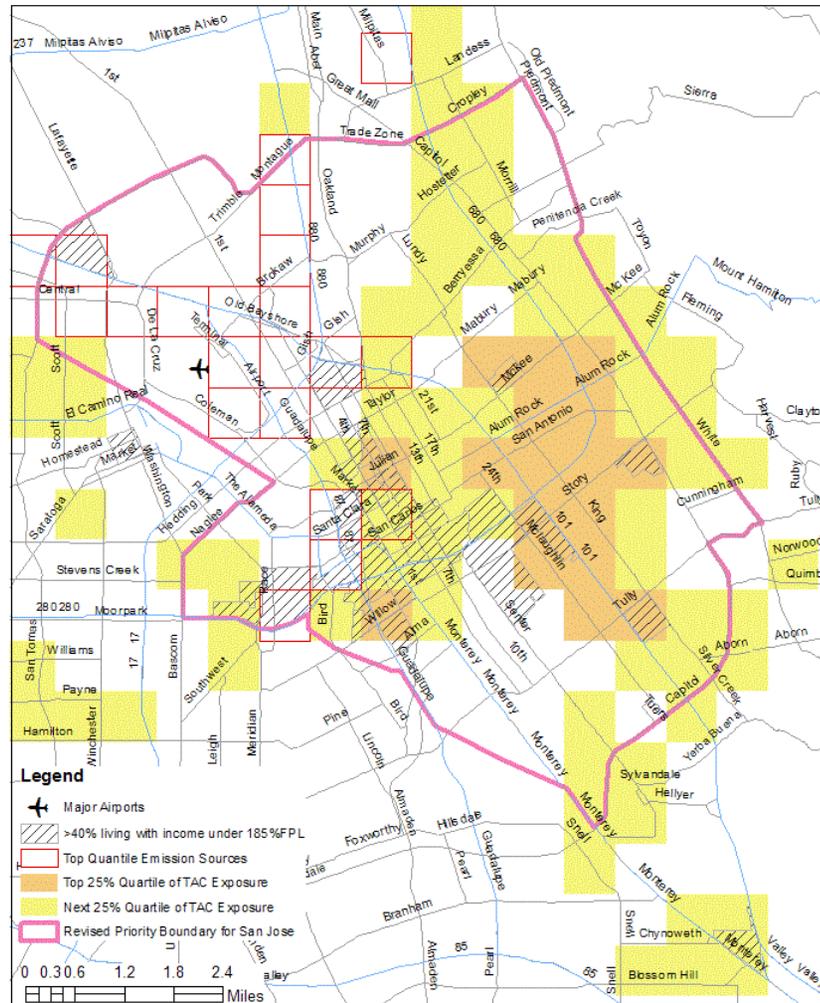
April 17, 2009

# San Jose



## BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Exposure to Toxic Air Contaminants of Sensitive Populations in San Jose  
in the Year 2005 Based on a Weighted Product of Population and Emissions



Note: Sensitive population includes people under the age of 18 and over 64 years old.  
Toxic air contaminants include diesel PM, 1,3-butadiene, formaldehyde, and acetaldehyde.

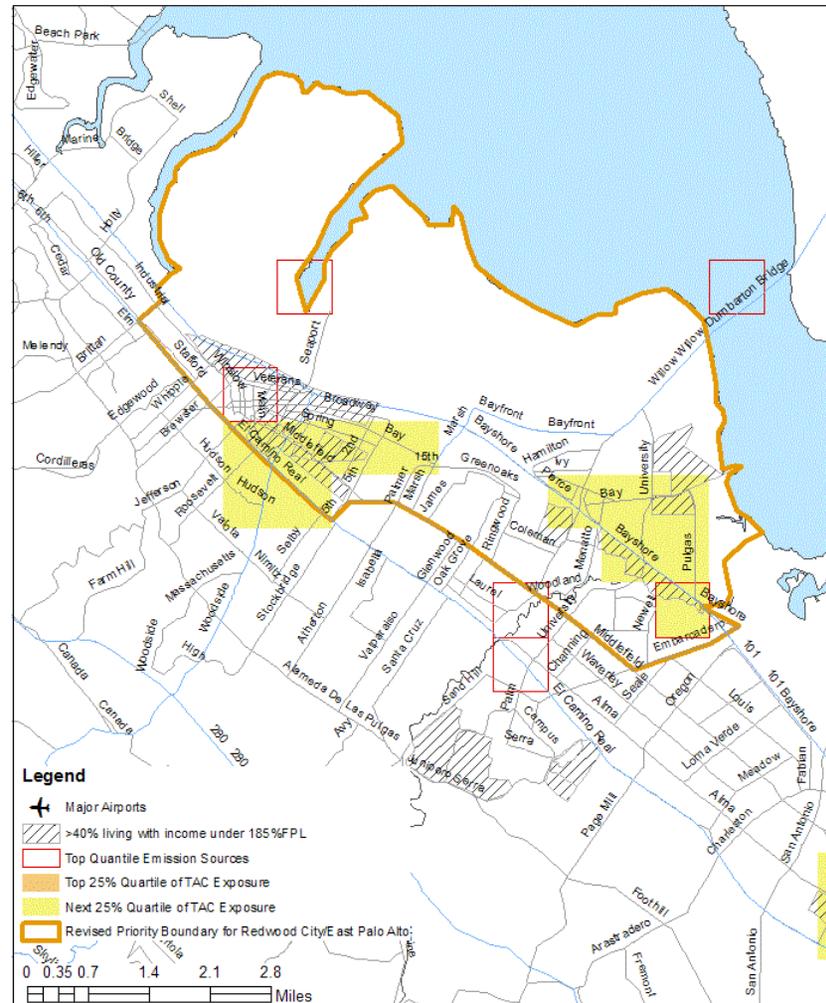
April 17, 2009



# BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Exposure to Toxic Air Contaminants of Sensitive Populations in Redwood City/East Palo Alto in the Year 2005 Based on a Weighted Product of Population and Emissions

# Redwood City/East Palo Alto



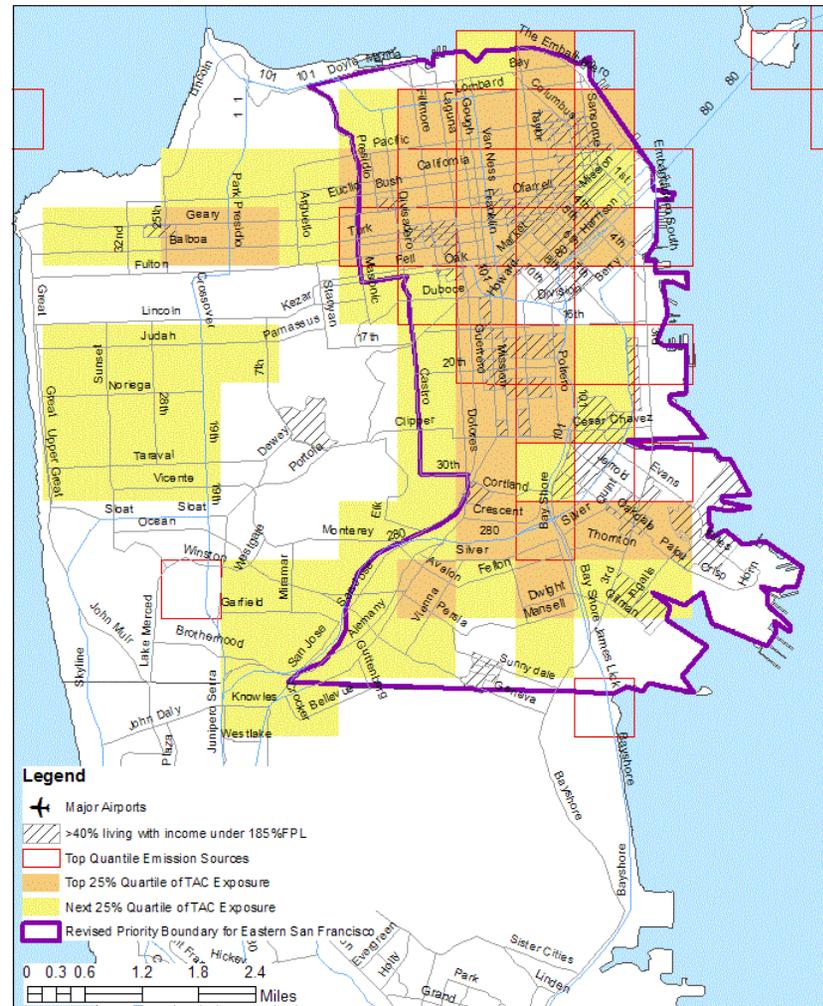
April 17, 2009

# Eastern San Francisco



## BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Exposure to Toxic Air Contaminants of Sensitive Populations in Eastern San Francisco in the Year 2005 Based on a Weighted Product of Population and Emissions



Note: Sensitive population includes people under the age of 18 and over 64 years old.  
Toxic air contaminants include diesel PM, 1,3-butadiene, formaldehyde, and acetaldehyde.

April 17, 2009

# Next Steps

- Identify other potential applications, such as
  - Outreach
  - Enforcement activities
  - Enhanced monitoring and emissions tracking/reporting
  - Indirect source review
  - More stringent permit requirements for new and modified sources
- Consider varying the boundaries for specific applications
- Seek input