

# MATES-3

## Emissions Inventory

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# Overview

- Inventory based on 2003 AQMP
- 1997 base year
- Projected to 2004 using growth and control factors from the 2003 AQMP
- Point source emissions based on current activity
- 2 km by 2 km gridded inventory
- Enhancements for sub-grid scale evaluation

# Point Sources – Data & Methods

- AER facilities
  - 3000+ facilities report annually
  - Criteria pollutants & 24 TACs
  - Toxics emissions estimated from VOC & PM emissions using source-specific speciation profiles
  - [www.arb.ca.gov/emisinv/speciate/speciate.htm](http://www.arb.ca.gov/emisinv/speciate/speciate.htm)

# Point Sources – Data & Methods

(continued)

- AB2588 facilities
  - 700+ facilities report quadrennially
  - 170+ toxics reported
  - Toxic emissions estimated from source activity & emission factors

# Area Sources – Data & Methods

- For area source categories estimated by ARB, statewide emission estimates apportioned to county levels
- For area source categories estimated by SCAQMD, emissions estimated at the county level
- Emissions allocated to 2 km by 2 km grid cells using spatial surrogates
- Toxics emissions estimated from VOC & PM emissions using source-specific speciation profiles
- Emissions based of 2003 AQMP (1997 baseline)
- Emissions projected to year of interest

# On-Road Sources – Data & Methods

- EMFAC2002 – ARB's on-road emission factor model
- Toxics emissions estimated from VOC & PM emissions using source-specific speciation profiles
- Emissions allocated to 2 km by 2 km grids based on link activity using DTIM
- Emissions based on 2003 AQMP

# Off-Road Sources – Data & Methods

- Majority of off-road source categories estimated by ARB's OFF-ROAD model
- Aircraft and ship emissions estimated by SCAQMD
- Toxics emissions estimated from VOC & PM emissions using source-specific speciation profiles
- Emissions allocated to 2 km by 2 km grid cells using spatial surrogates
- Emissions based on 2003 AQMP

# Enhancements

(Subject to Resource Availability)

- Point sources
  - Convert form-based emissions to SIC/SCC based emissions (i.e., De-aggregation process)
- Area sources
  - Develop microscale inventories at selected locations
- On-road sources
  - Develop link-based emissions and perform microscale modeling near freeways



# Enhancements

(Subject to Resource Availability)

- Off-road sources
  - Incorporate emission inventory developed for the PoLA study if available
- Develop bottom-up inventories for important area source categories
  - gas stations
  - dry cleaners
  - metal plating & finishing
  - autobody shops

# Schedule

- March 2004 – Inventory Protocol
- October 2004 - Basin-wide inventory
- January 2005 – Gridded inventory
- March 2005 – Draft Inventory Report