



South Coast Air Quality Management District: Transportation Challenges and Proposed Solutions

Seattle, Washington
November 1, 2007



Miguel A. Pulido

Mayor, City of Santa Ana California

SCAQMD Governing Board Member

Seattle



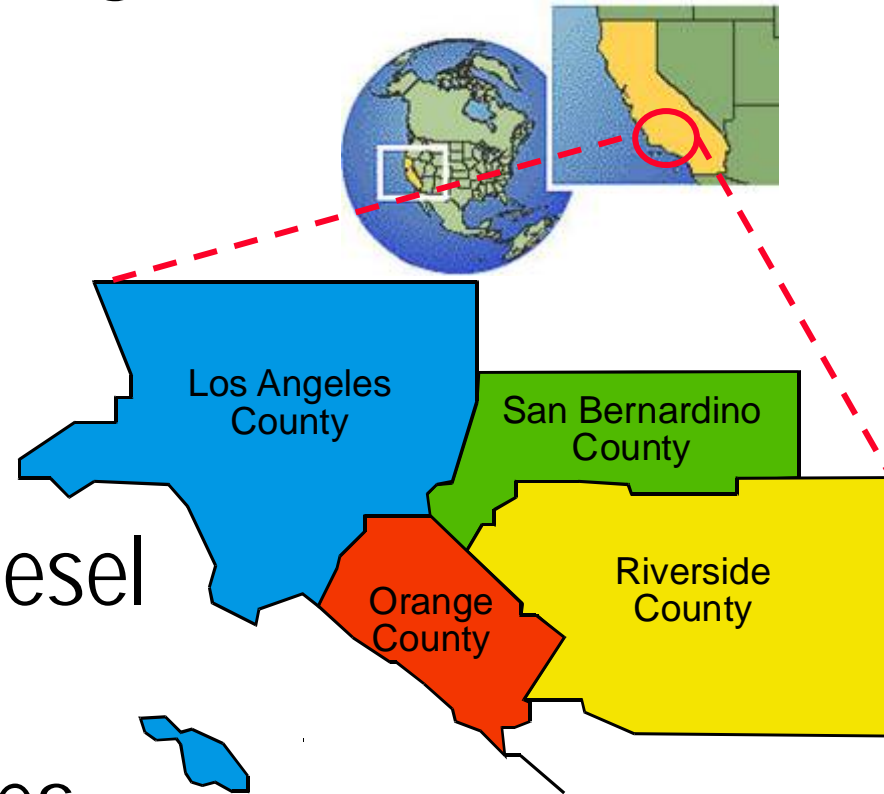
Santa Ana



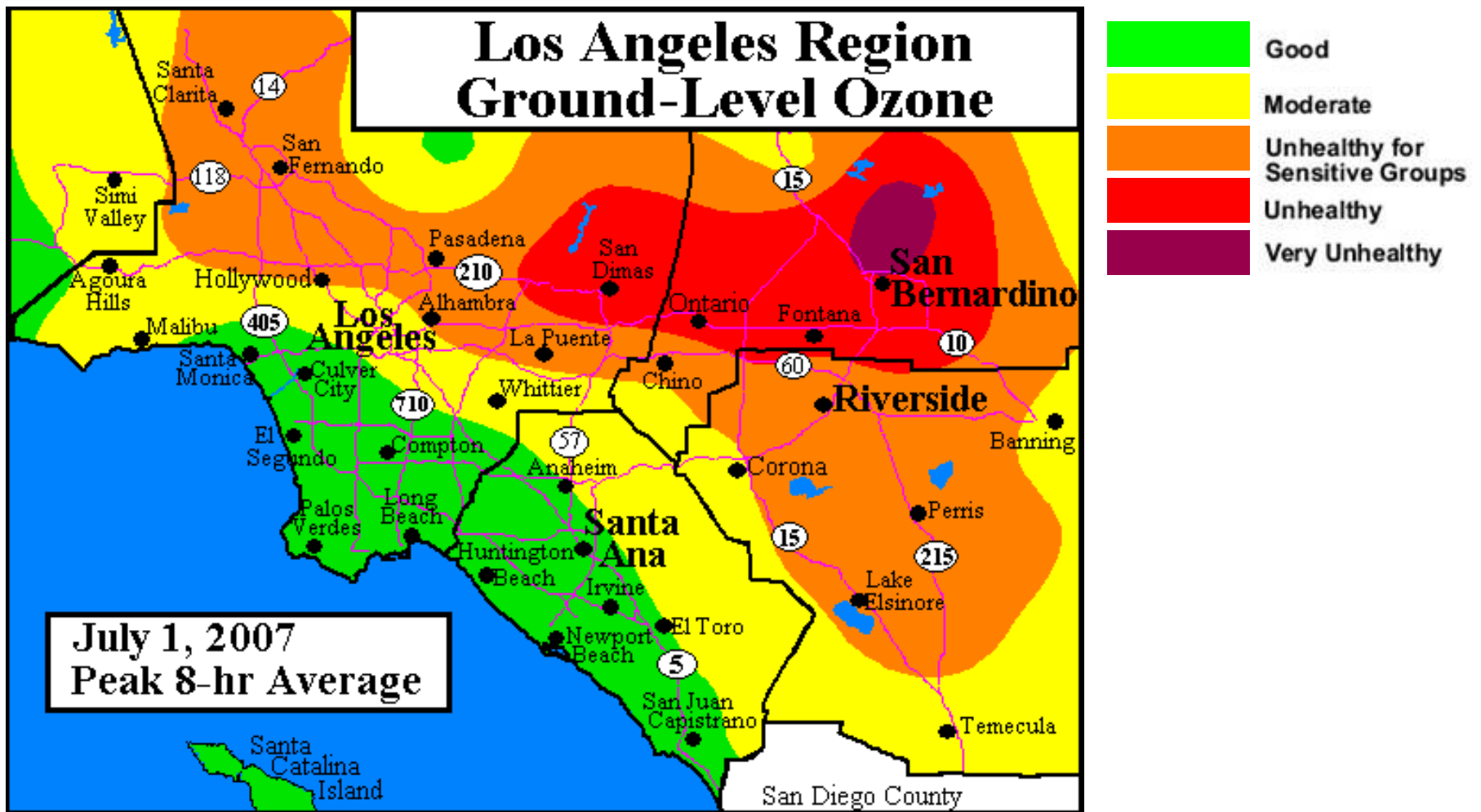
AQMD Background

South Coast Basin:

- 4-county region
- 11,000 sq. miles
- 16+ million residents
- Hundreds of thousands diesel vehicles
- Millions of gasoline vehicles
- Combined Ports of Long Beach and Los Angeles are nation's largest cargo gateway

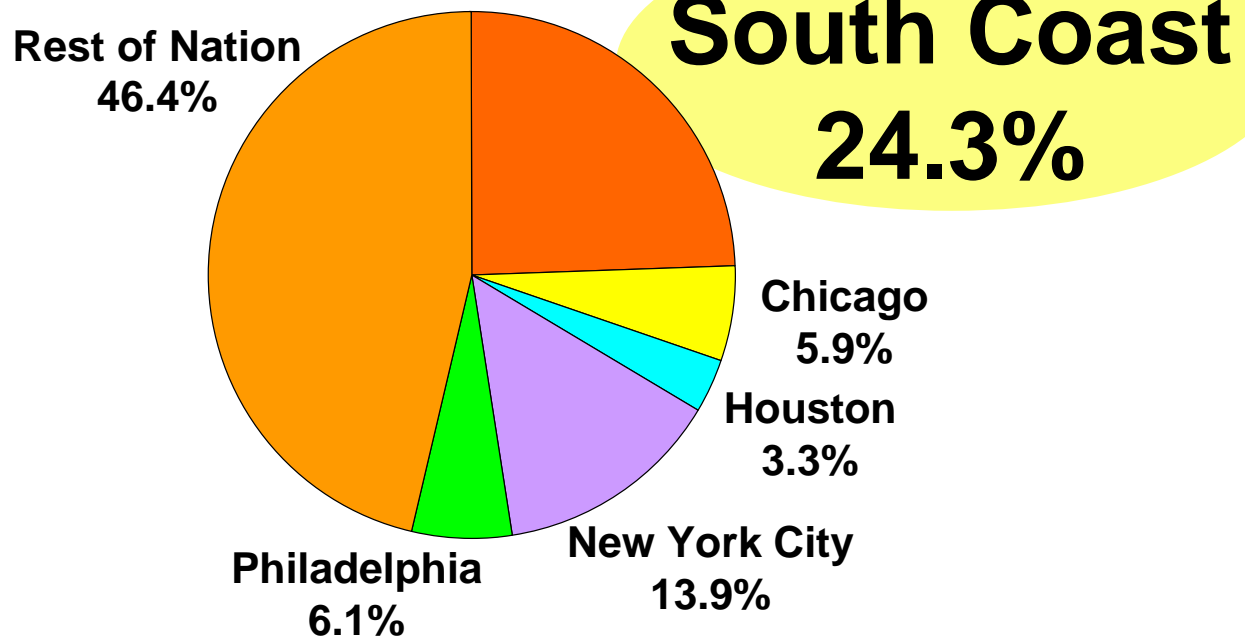


Worst Air Quality in the U.S.



SCAB's Disproportionate Air Pollution Exposure

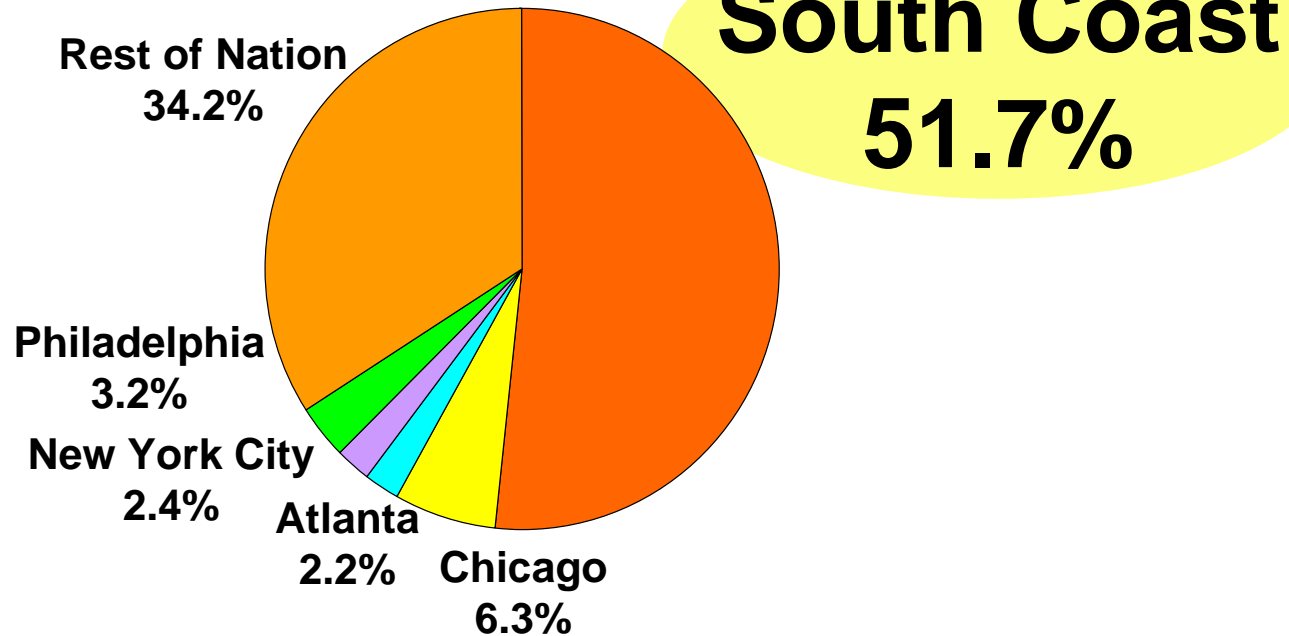
8 Hour Ozone
(NAAQS = 0.08 ppm)



Population-weighted exposures above the NAAQS, based on 2000-02 AIRS data

SCAB's Disproportionate Air Pollution Exposure (cont.)

Annual Average PM2.5
(NAAQS = 15 ug/m³)



Population-weighted exposures above the NAAQS, based on 2000-02 AIRS data

Recent CARB Assessment of PM Health Effects

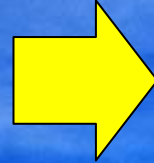


Cases/Year due to PM_{2.5} in South Coast*

Premature Deaths	5,400
Hospitalizations	2,400
Asthma & Lower Respiratory Symptoms	140,000
Lost Work Days	980,000
Minor Restricted Activity Days	5,000,000

* 1999-2000 Air Quality Data

Transition to
Sustainable
Mobility



- Economy
- GHG
- Energy
- **Air Quality**

Technologies + Policies

AQMD Technology Portfolio

- Near-term to longer-term technologies
- “Planting many seeds” for future harvest
- Developing “Pathways”

Fuel Cell



Plug-in Hybrids



Heavy-Duty
Natural Gas



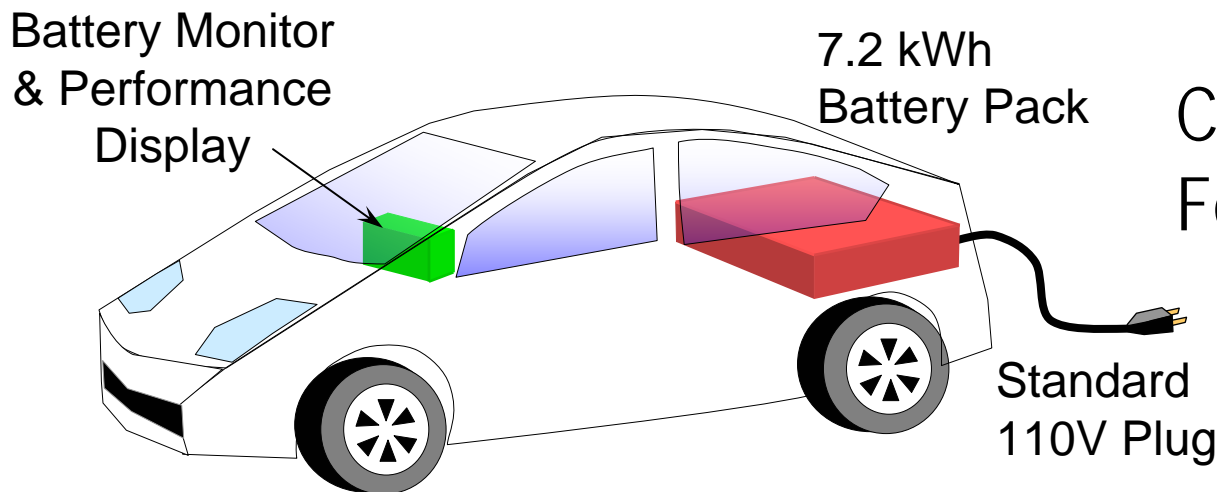
CNG

Plug-in Hybrid Electric Vehicles

- Increased range (up to 2x normal hybrid)
- Charge off-peak from household outlet
- Zero-emission miles



Channel 7 KABC Interview
Feb. 2007



Potential Fuel Savings

- Current Hybrid:
 - 400 mile range
 - 10 gallon tank
 - \$3/gallon
- 8¢ per mile



9 kWh battery at
\$0.08/kWh off-peak

- Plug-in Hybrid:
 - 800 mile range
 - 10 gal tank + 9 kWh battery
 - \$3/gallon + \$0.72 recharge
- 4¢ per mile

AQMD Plug-in Hybrid Electric Projects

- EnergyCS – 5 Priuses
- Thirty Vehicle Program
 - 20 Quantum Escapes
 - 10 Hymotion Priuses
 - In progress
- EPRI-DaimlerChrysler Sprinter
- EPRI-Ford/Eaton Boom Truck



Increased Automaker Activities

- GM (Vue, Volt)
- Ford (Airstream, Edge, Escape)
- Toyota (Prius)



Airstream

MY 2009 - 2010



Escape



PHEVs Have Wide Range of Support

- Advocacy groups
- Neo-Conservatives (Woolsey, Schultz)
- Environmental Groups
- Utilities



Plug-in Partners

- www.pluginpartners.com
- Plug-in Partners Petition
Send a message to automakers
- Soft Fleet orders
Establish demand for market case
- Develop rebates and incentives
Austin Energy established a rebate for future PHEV owners



OCTA Transit Bus Activities

- Clean buses are also low in GHGs
 - Gasoline Hybrids (testing 2)
 - 232 LNG
 - 30 CNG (with 263 ordered)
- Future zero-emission possibilities
 - Battery electric
 - Fuel cells



Hydrogen Vehicle Demonstrations

- 2 Honda Fuel Cell Vehicles
- 1 DaimlerChrysler Fuel Cell Vehicle
- 30 H2ICE Prius





All in Concert

- Reduce greenhouse gas emissions
- Reduce dependence on foreign fuels
- Reduce urban air pollution
- Improve the economy
- Technologies + Policies



What Can You Do?

- Join Plug-in Partners

www.pluginpartners.com



- Develop incentives and rebate mechanisms



- Support and purchase low emission vehicles, such as hybrids and CNG

www.cleanairchoices.org

DRIVECLEAN.CA.GOV



- Support clean transit buses such as CNG and hybrids