



South Coast Air Quality Management District

Clean Air Challenges and Technologies



Matt Miyasato, Ph.D.

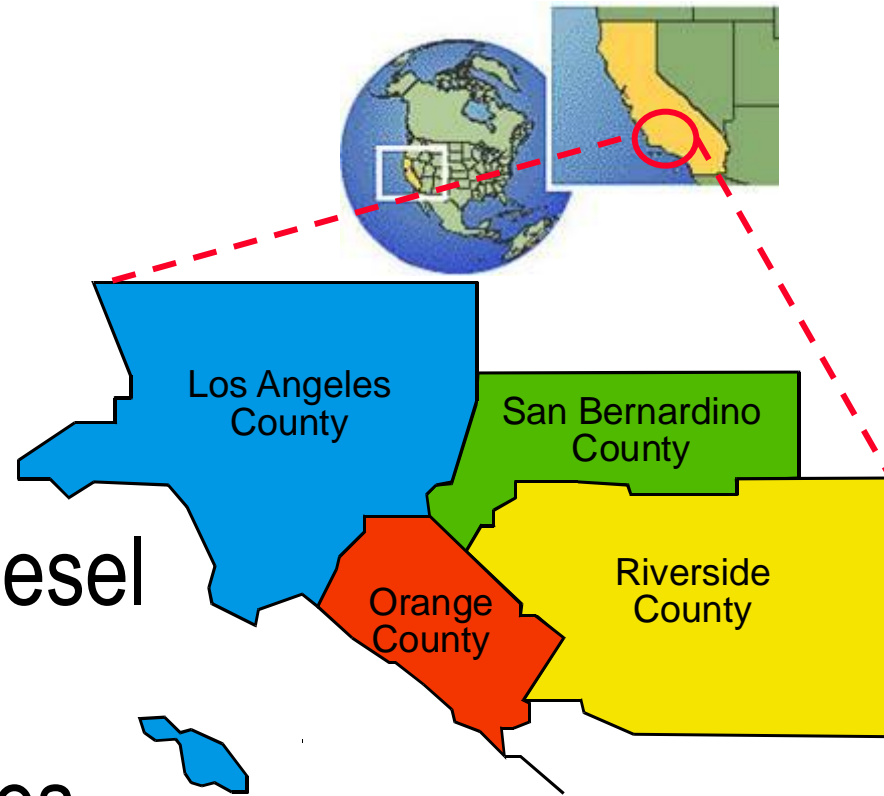
Assistant Deputy Executive Officer

Science and Technology Advancement

AQMD Background

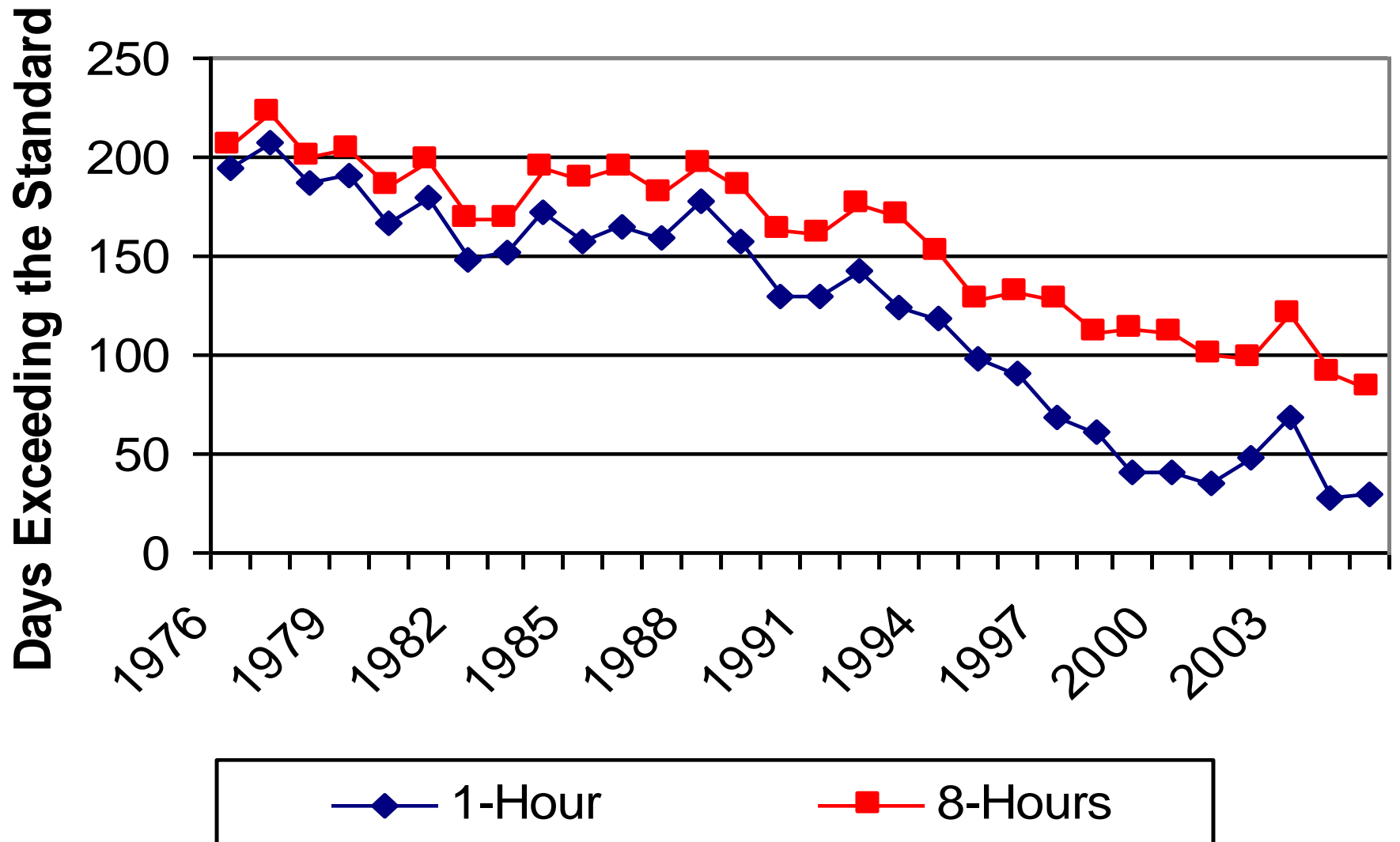
South Coast Basin:

- 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

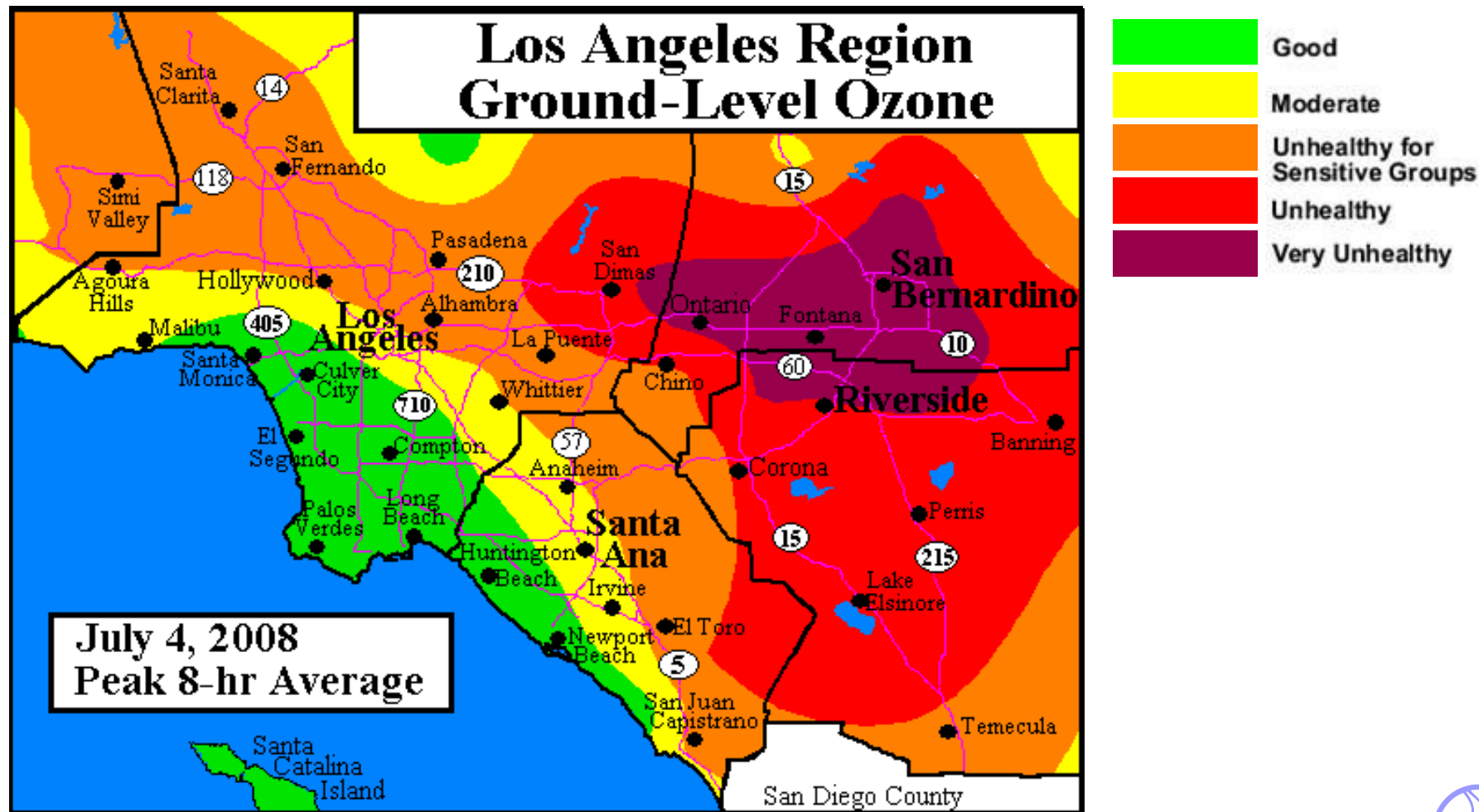




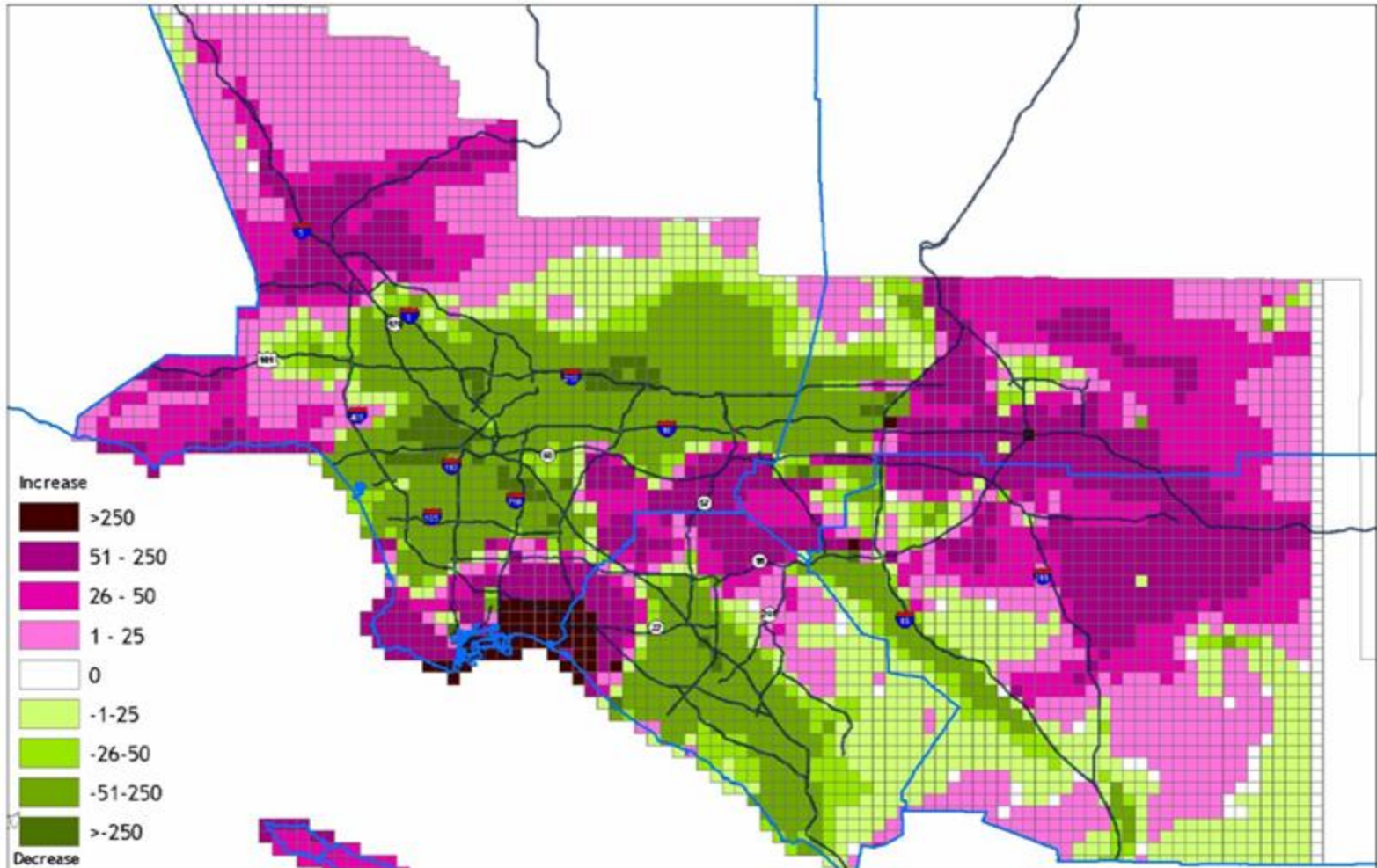
Days Over the Federal Standards



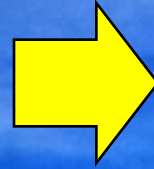
Worst Air Quality in the Nation



Change in Air Toxics Risk (per million) from 1998-99 to 2005 Using Back-Cast 1998 Emissions



Transition to
Sustainable
Mobility?



*Informed
choices and
actions*

Technologies and Policies

Clean Fuels Program

- Established in 1988
- \$1 fee on DMV registrations (\$~12M/yr)
- Stationary source fee (~\$400k/yr)
- Co-Funds projects to research, develop, demonstrate, and deploy (*RD*³) clean technologies



AQMD Technology Portfolio

- Near-term to longer-term
- “Planting many seeds”
- Developing “Pathways”

Fuel Cell



Plug-ins



Clean Transit



Heavy-Duty
Natural Gas



CNG

Diesel Particulate Filters

- Retrofit heavy-duty on-road diesel trucks with CARB Level 3 DPF
- Funding
 - \$1 million EPA DERA Grant
 - \$2.5 million AQMD Prop. 1B
- Competitive bid process



Engine Technologies

- 8.9L transit, waste, and school bus
- Heavy-heavy-duty (12L)
 - Over-the-road applications
 - 2010 federal standards

2010 Compliant!



Medium and Heavy-Duty Hybrid Technologies

- EPRI-DaimlerChrysler Sprinter
- EPRI-Ford/Eaton Boom Truck
- Electric tow tractor



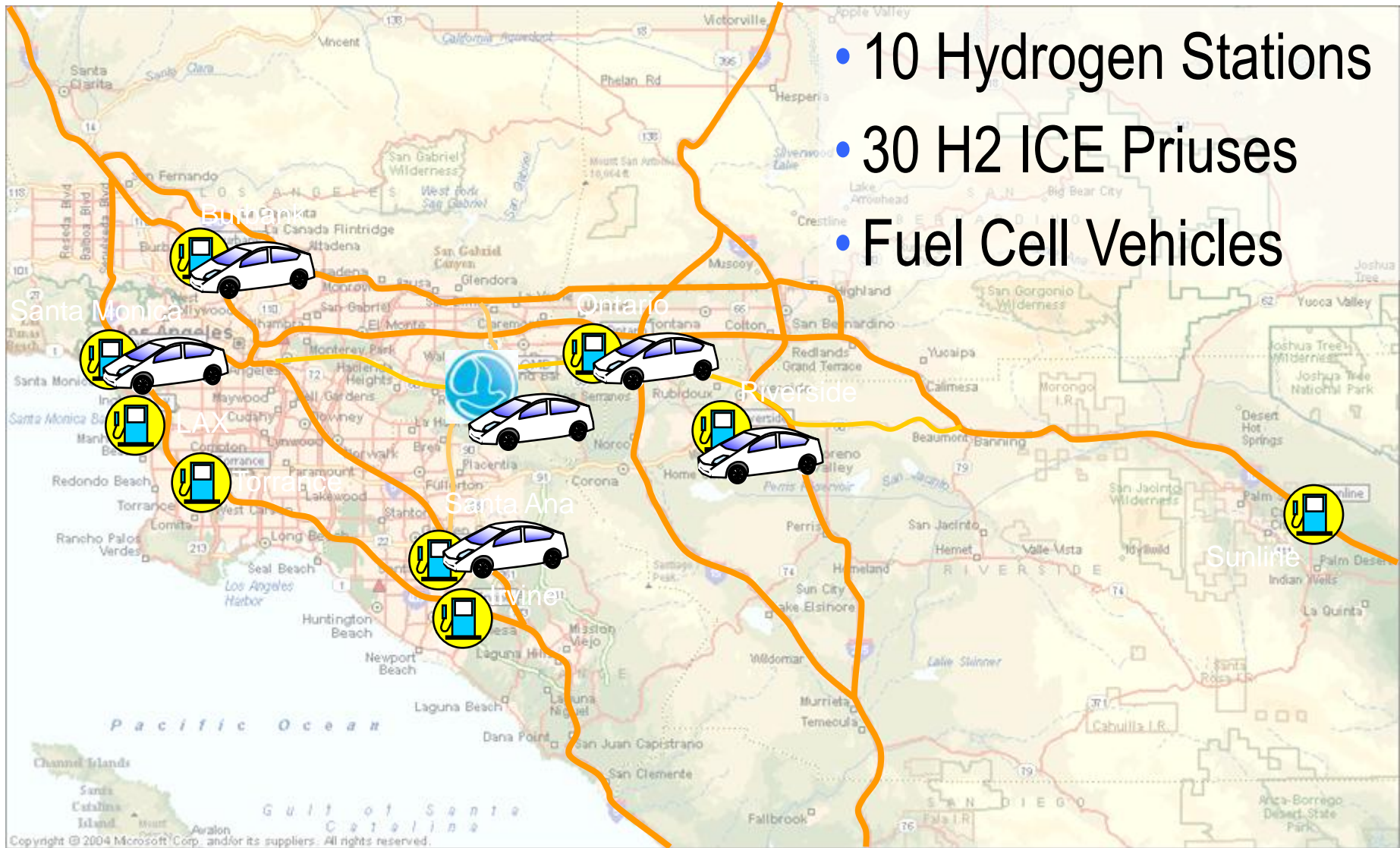
Hydraulic Hybrids

- Hydraulic hybrid shuttle
- Hydraulic hybrid van
 - HCCI gasoline engine
 - 3-year EPA CRADA
 - EPA (OTAQ), Navistar, Eaton, Army NAC, CARB & SCAQMD



Hydrogen and Fuel Cell Vehicles

- 10 Hydrogen Stations
- 30 H2 ICE Priuses
- Fuel Cell Vehicles



Develop and Demonstrate Pathways

- PZEV technologies available
- Hybrids and CNG
- Plug-ins by 2010
- Enabling technologies for hydrogen and fuel cells



Renewables?

FREE GAS!

SEPT. 5-28

L.A. COUNTY
FAIR

546

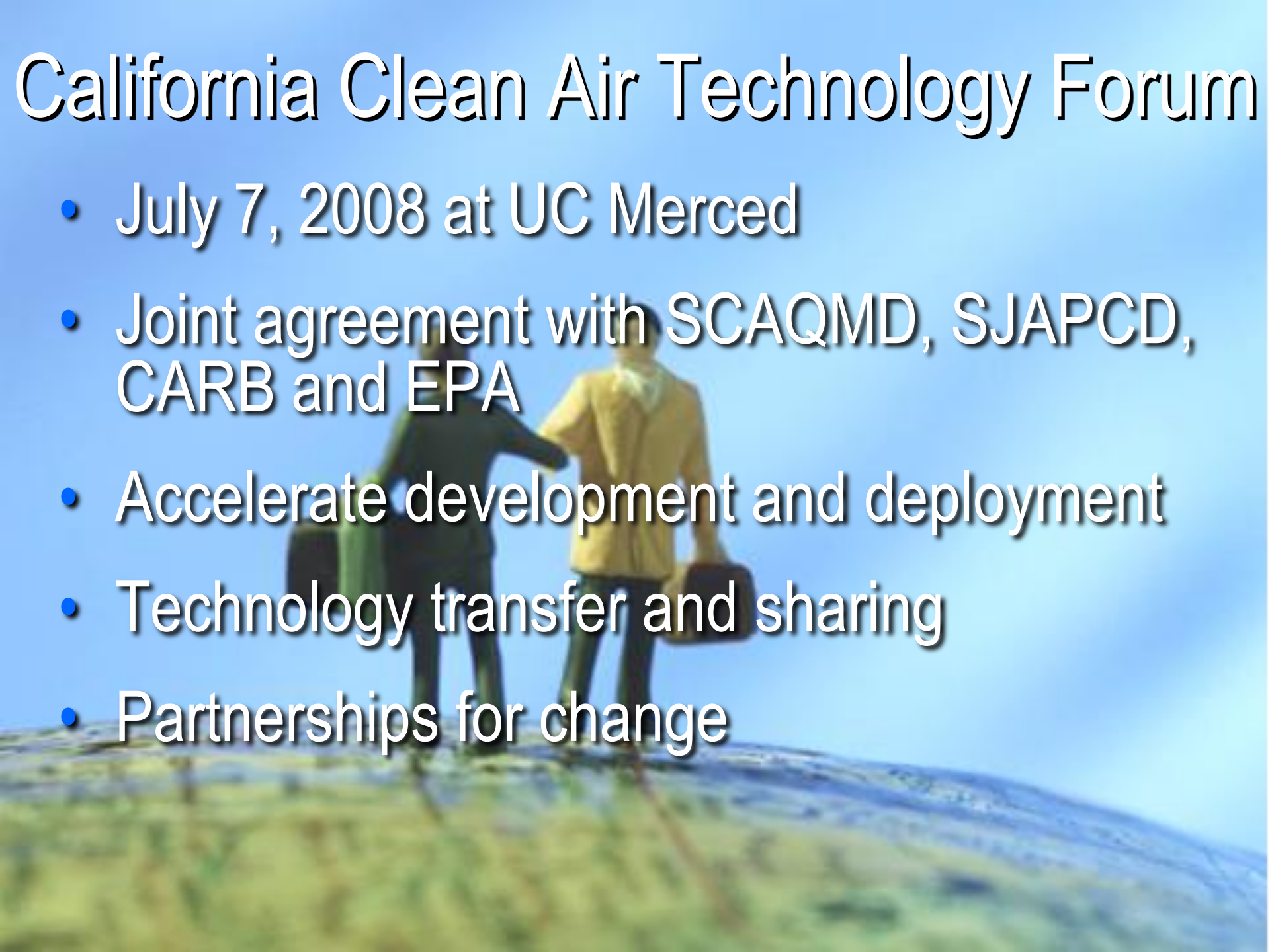
REGENCY

Collaborate to Develop Sustainable Technologies and Policies



California Clean Air Technology Forum

- July 7, 2008 at UC Merced
- Joint agreement with SCAQMD, SJAPCD, CARB and EPA
- Accelerate development and deployment
- Technology transfer and sharing
- Partnerships for change



For More Information....



South Coast
Air Quality Management District

Cleaning the air that we breathe...

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Matt Miyasato, Ph.D.

mmiyasato@aqmd.gov

909-396-3249

