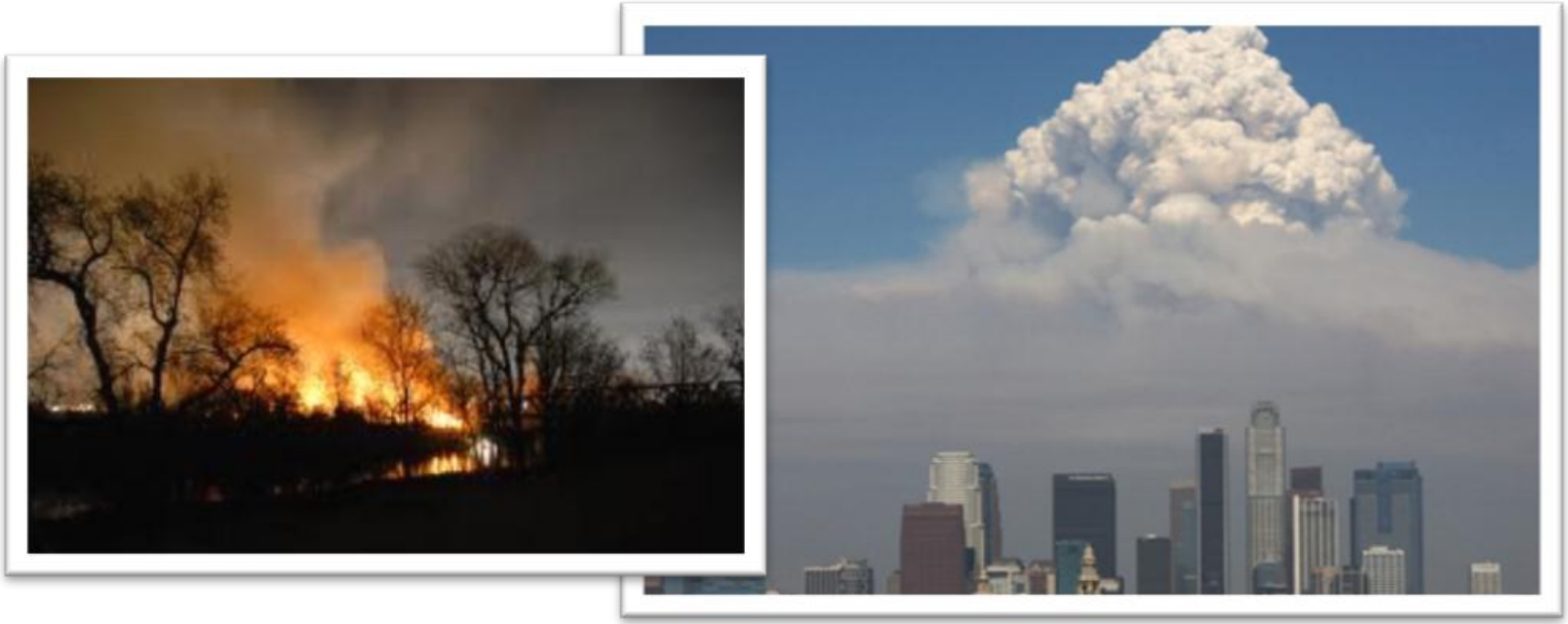
ARB's Role in Responding to Air Emergencies in California

Monitoring and Laboratory Division
Office of Emergency Response
August 23, 2012

Why an Emergency Response Program?

Fulfills a statutory obligation to support and provide air monitoring for state level emergencies.



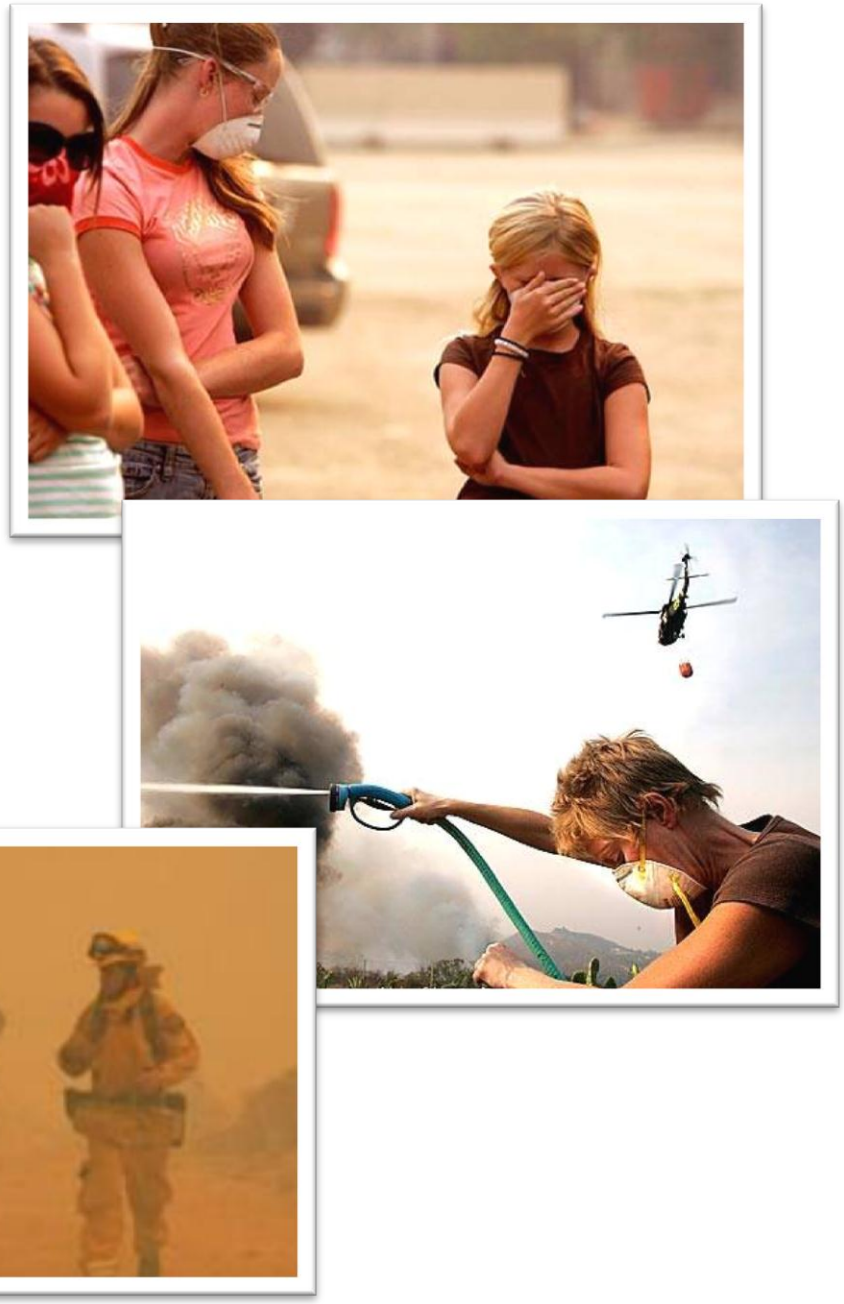
Statutory Overview

- 1991 RAPID Act
- 2002 Administrative Orders
- 2006 Emergency Services Act Revision

California: Prone to Disaster Risks

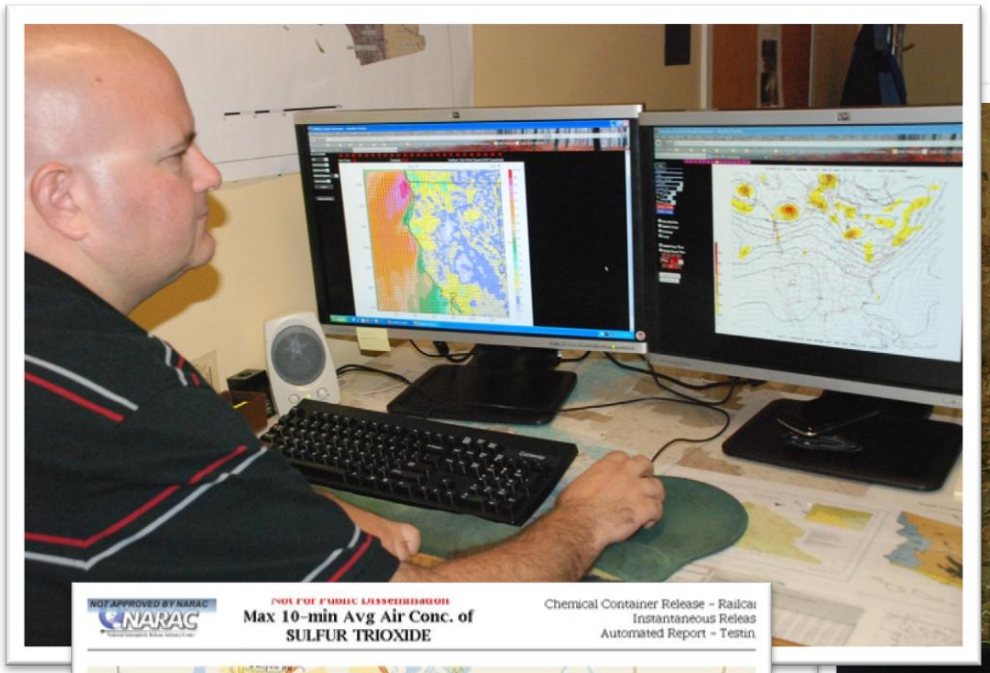
Our Mission:

Protect public health by providing actionable air quality data that assists authorities in sound safety decision-making.



Our Role includes:

- Modeling and forecasting
- Monitoring and analyses
- Health impact assessment
- Interagency collaboration



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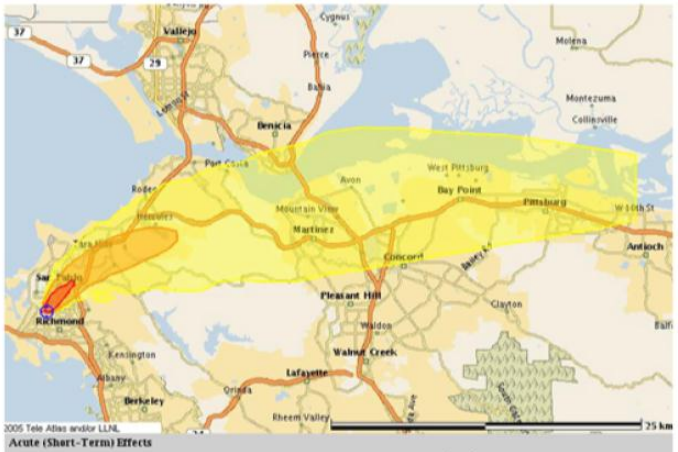
Not For Public Dissemination

Max 10-min Avg Air Conc. of
SULFUR TRIOXIDE

Chemical Container Release - Railca
Instantaneous Releas
Automated Report - Testin



Acute (Short-Term) Effects

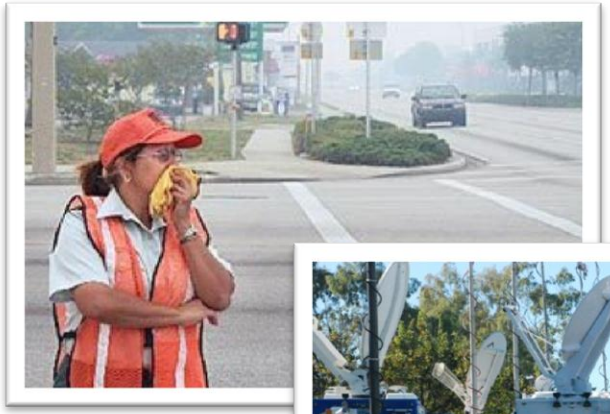
Description	Level (mg/m3)	Extent	Area	Population
>60-min AEGL-3: Death or irreversible health effects possible.	>160	3.3km	2.5km2	12,000
>60-min AEGL-2: Serious health effects or impaired ability to take protective action.	>8.7	12.4km	27.5km2	55,500
>60-min AEGL-1: Minor reversible health effects. Possible odor.	>0.2	49.3km	419km2	272,000

ote: Areas and counts in the table are cumulative. Population Source = LandScanUSA10 LandScan2005.

Modeling and Forecasting

Monitoring and Data Analysis

Health Impact Assessment



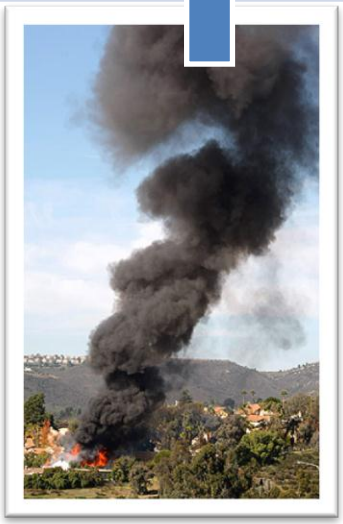
Interagency Collaboration

Joint preparedness for reliable and predictable support

Emergency Collaboration

Recent ARB Responses

2010 San Bruno Pipeline Explosion



2010 Escondido Explosives Burn

2011 Fukushima Fallout Monitoring

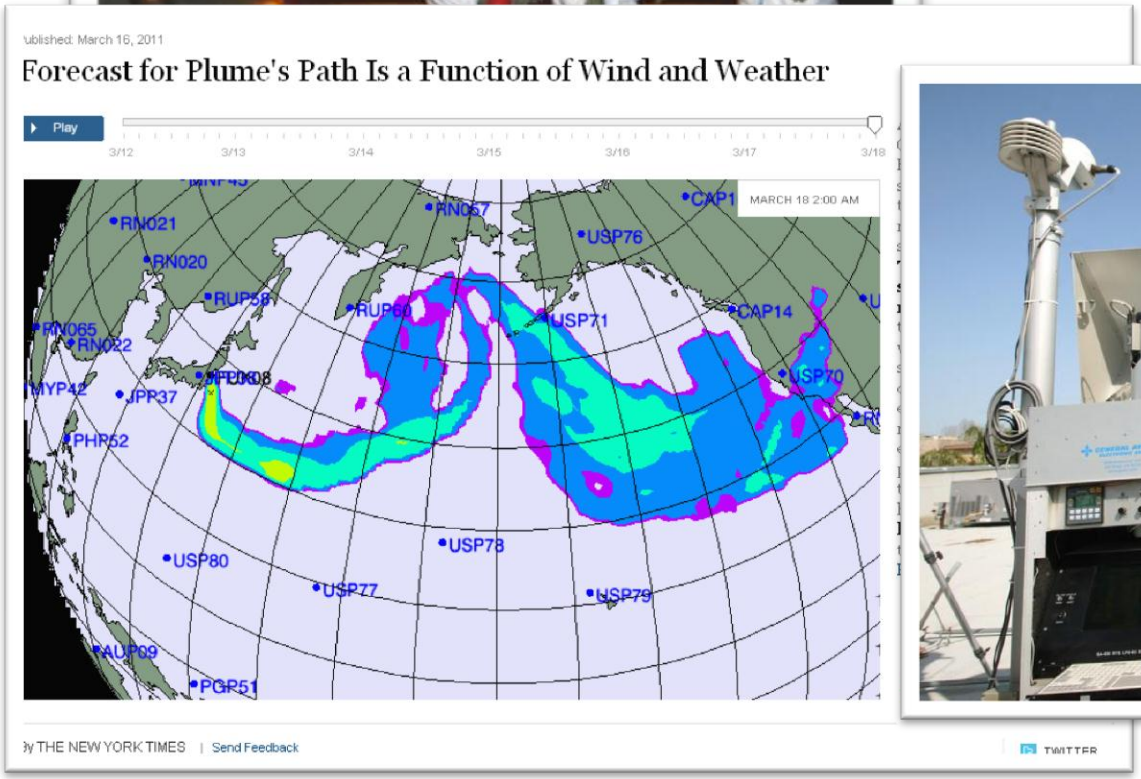
2012 Sierra Fires

Escondido Explosives Burn

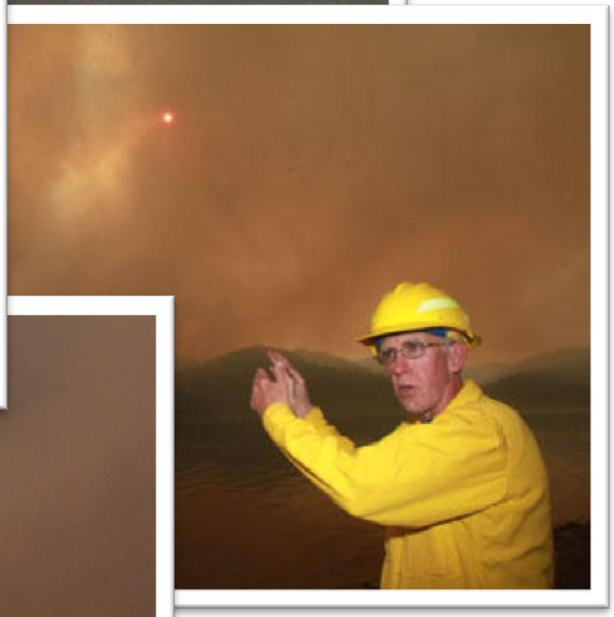
December 2010

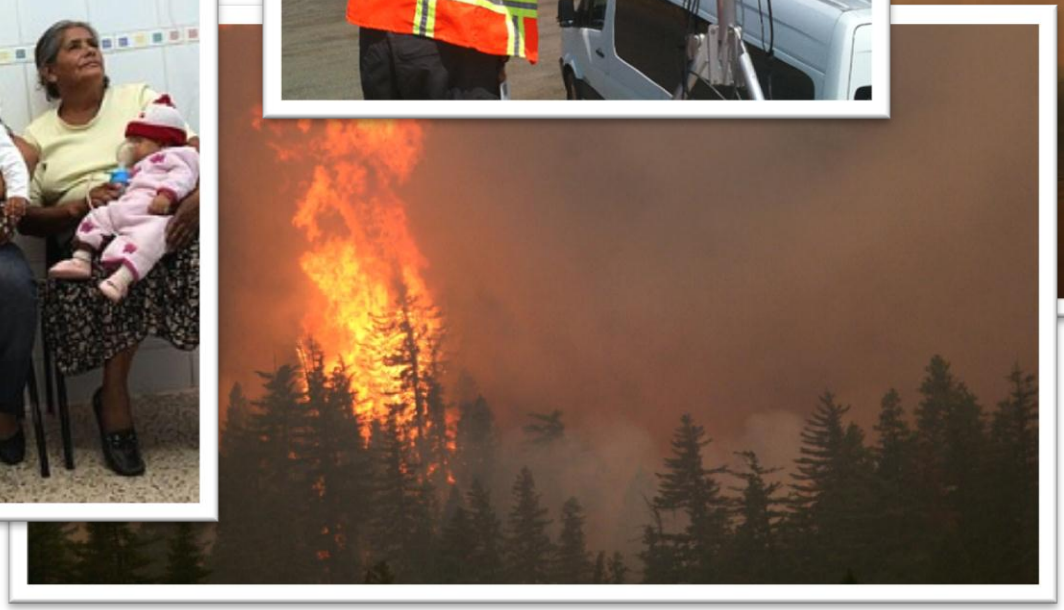
Fukushima Nuclear Disaster

March 2011



2012 Activities





Future Vision

- Leverage resources through collaboration

- Evaluate and deploy leading-edge air monitoring technology

- Optimize data quality and messaging