



# Overview



❖ **Federal  
Environmental Protection Agency  
(EPA)**

❖ **State  
Air Resources Board (ARB)**

❖ **Local  
Air Pollution Control Districts  
(APCDs)**



# Line of Authority

- ❖ **U.S. Environmental Protection Agency (EPA)**
  - ❖ **Federal Clean Air Act and its amendments (CAA)**
  - ❖ **Code of Federal Regulations (CFR)**
- ❖ **Air Resources Board (ARB)**
  - ❖ **California Clean Air Act (CCAA)**
  - ❖ **Health and Safety Code (H&SC)**
  - ❖ **Code of California Regulation (CCR)**
- ❖ **Air Pollution Control Districts (APCDs)**
  - ❖ **Rules and Regulations**



# Responsibility

## ❖ EPA

- ❖ National Ambient Air Quality Standards (NAAQS)
- ❖ Requires State Implementation Plans (SIPs)
- ❖ Regulations of national significance

## ❖ ARB

- ❖ California Ambient Air Quality Standards (CAAQS)
- ❖ Evaluates District plans
- ❖ Submits Statewide Implementation Plans (SIPs)
- ❖ Regulations of state significance

## ❖ APCDs

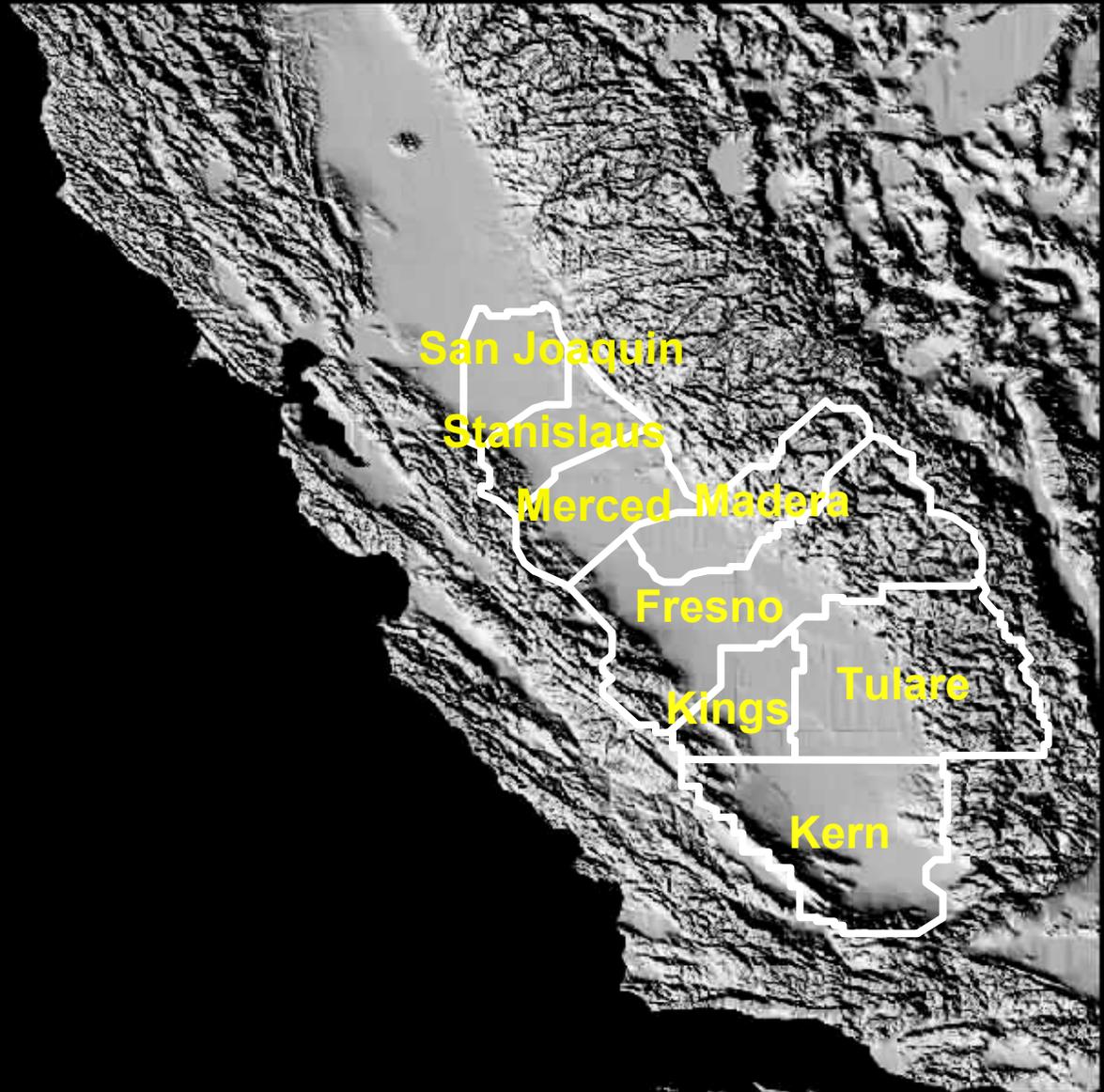
- ❖ Regulate stationary & area sources
- ❖ Attainment planning



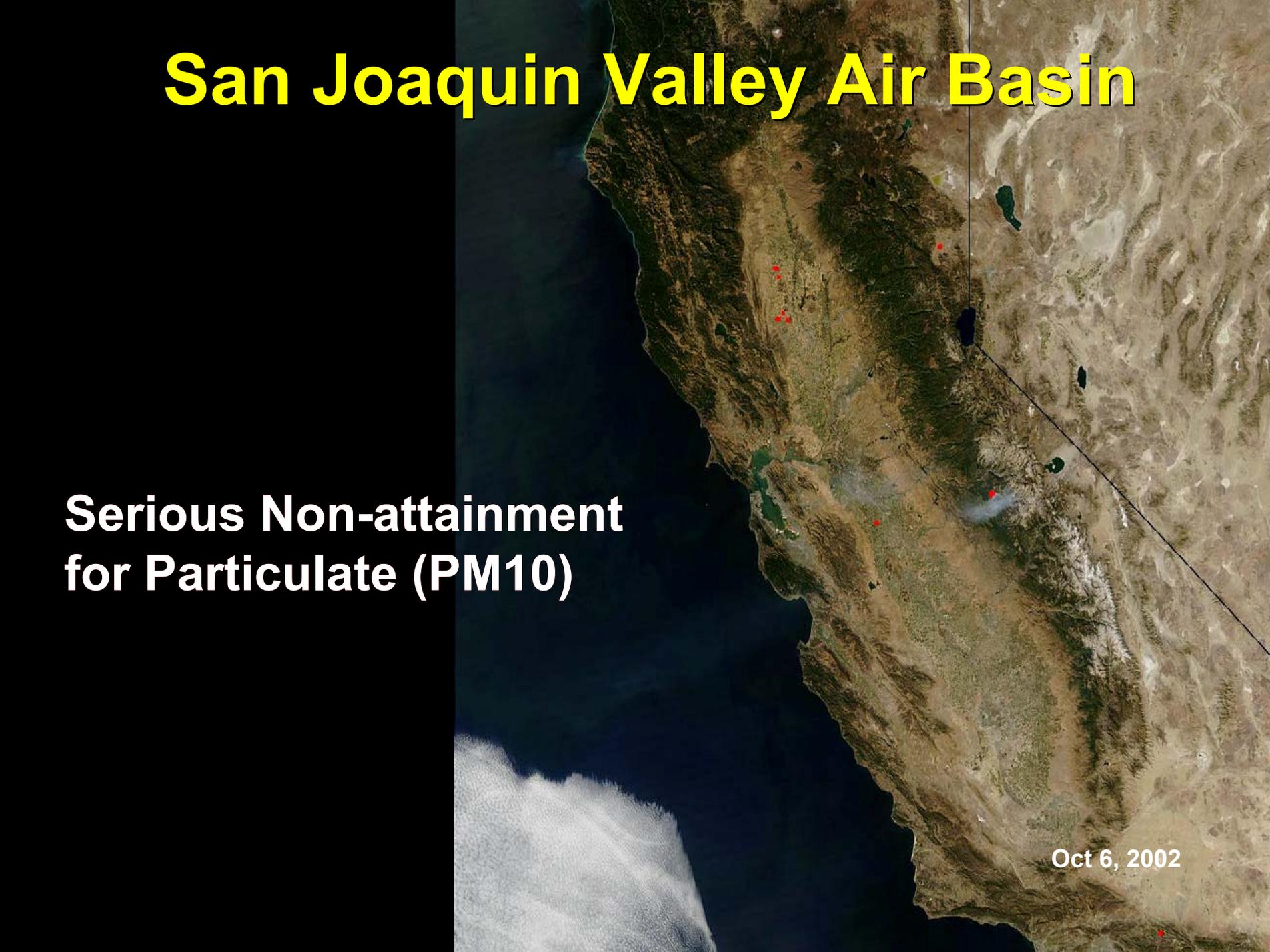
# State And Federal Mandates

- ❖ **California Clean Air Act**
  - ❖ **Air Quality Attainment Plans**
- ❖ **Air Toxic Hot Spots Act**
- ❖ **Air Toxic Control Measures**
- ❖ **Federal Clean Air Act**
  - ❖ **Ozone Plans**
  - ❖ **PM-10 Plans**
  - ❖ **Carbon Monoxide Plan**
  - ❖ **Title III Air Toxics**
  - ❖ **Title V Operating Permits**

# San Joaquin Valley Air Basin



# San Joaquin Valley Air Basin



**Serious Non-attainment  
for Particulate (PM10)**

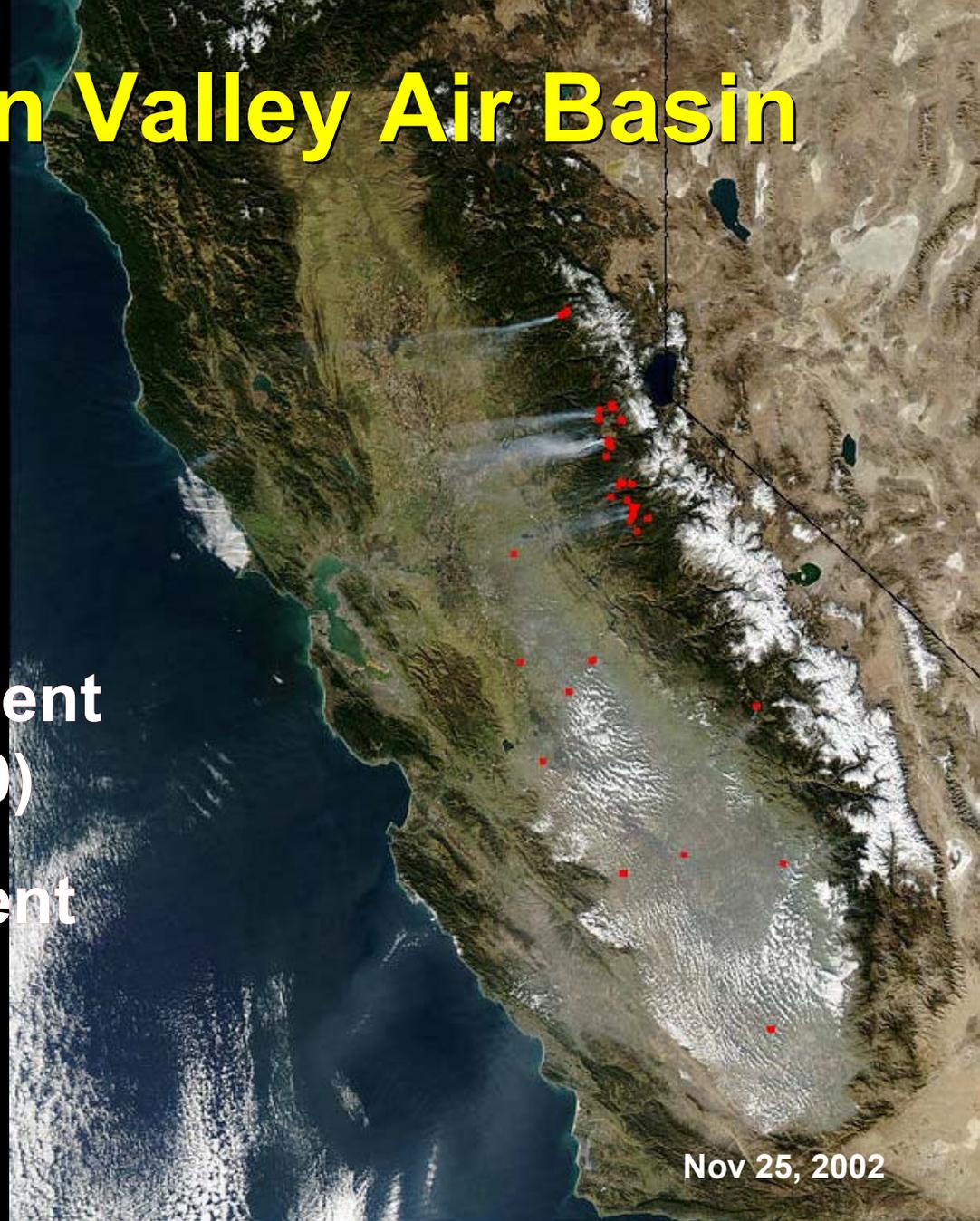
Oct 6, 2002

# San Joaquin Valley Air Basin

**Serious Non-attainment  
for Particulate (PM<sub>10</sub>)**

**Severe Non-attainment  
for Ozone (O<sub>3</sub>)**

soon extreme ?



Nov 25, 2002

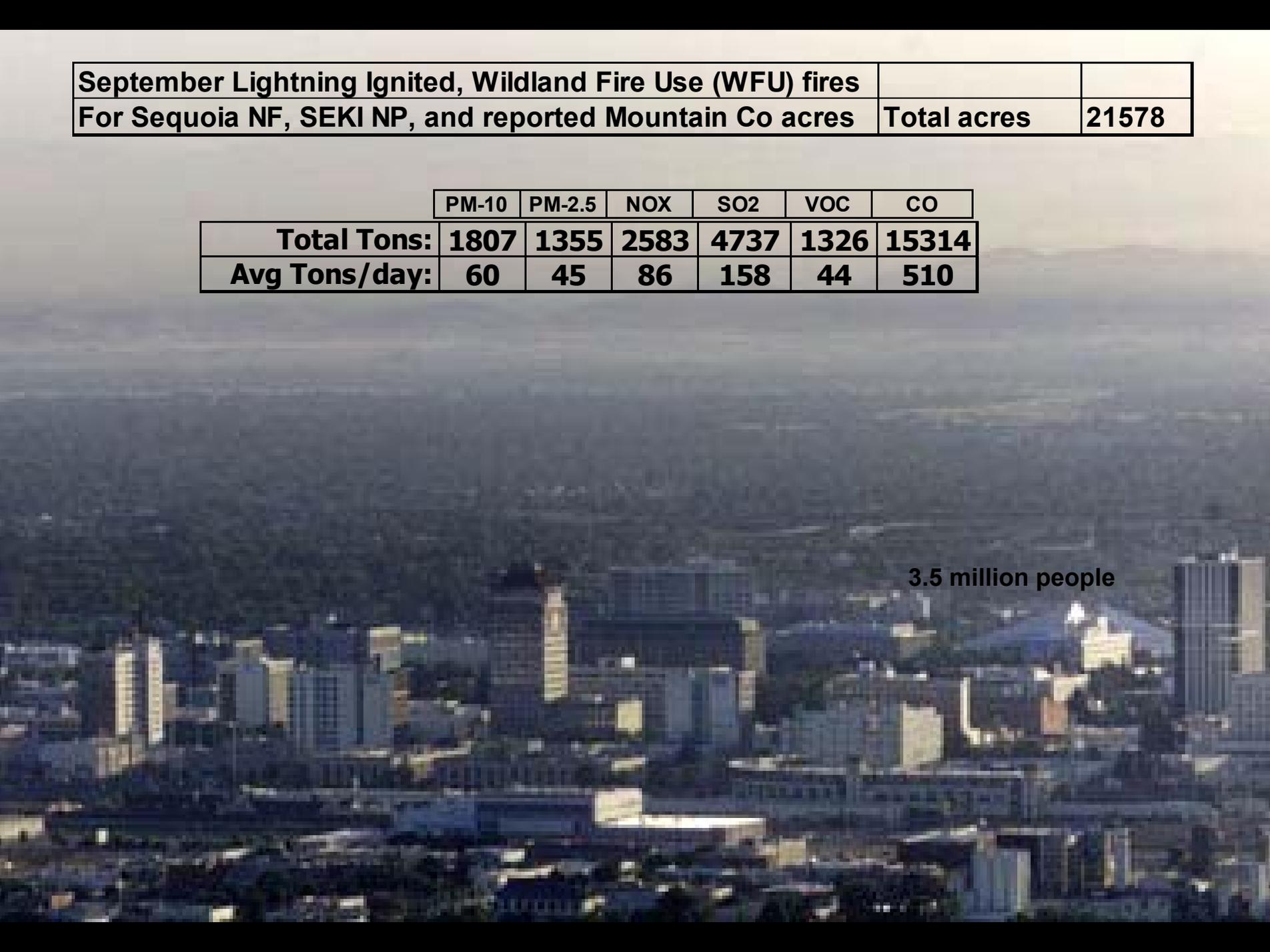
# Major Changes to T17

- ❖ “New” focus on smoke management
- ❖ Addition of specific Rx burn requirements

<b>September Lightning Ignited, Wildland Fire Use (WFU) fires</b>		
<b>For Sequoia NF, SEKI NP, and reported Mountain Co acres</b>	<b>Total acres</b>	<b>21578</b>

	<b>PM-10</b>	<b>PM-2.5</b>	<b>NOX</b>	<b>SO2</b>	<b>VOC</b>	<b>CO</b>
<b>Total Tons:</b>	<b>1807</b>	<b>1355</b>	<b>2583</b>	<b>4737</b>	<b>1326</b>	<b>15314</b>
<b>Avg Tons/day:</b>	<b>60</b>	<b>45</b>	<b>86</b>	<b>158</b>	<b>44</b>	<b>510</b>

3.5 million people



**South View from Moro Rock  
Across the Middle Fork of the Kaweah**

**Castle Rocks**



**Paradise 2 fires**



**South/Southwest View from Moro Rock  
Across the Middle Fork of the Kaweah**

**Paradise 2 fires**



**Milk Ranch Peak**



**Southwest View from Moro Rock  
Down the Middle Fork of the Kaweah**

**Milk Ranch  
Peak**



**Inversion layer**



**Kaweah Middle Fork  
Toward Three Rivers**





# Daily Burn Authorization System

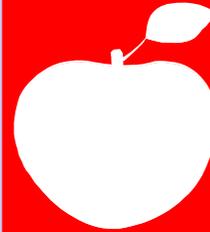
- ❖ **Require Considerations:**
  - ❖ Existing air quality
  - ❖ Meteorological conditions
  - ❖ The type & amount of material
  - ❖ Location and timing
  - ❖ Proximity to smoke sensitive areas
  - ❖ Cumulative smoke impacts

# The Economics Of Air Quality

Polluted air creates...



Increased  
medical  
costs



Reduced  
yield  
or  
damaged  
crops

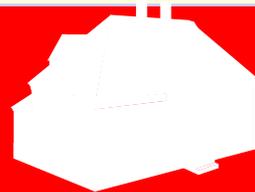


Increased  
maintenance  
costs

Loss of  
production  
from livestock



Lowered  
real estate  
values



# New England Journal Of Medicine

Fine Particulate Air Pollution and Mortality in 20 U.S. Cities, 1987–1994  
Volume 343:1742-1749 December 14, 2000 Number 24

- ❖ **“Results:** After taking into account potential confounding by other pollutants, we found consistent evidence that the level of PM10 is associated with the rate of death from all causes and from cardiovascular and respiratory illnesses.”
- ❖ **“The estimated increase in the relative rate of death from all causes was 0.51 percent (95 percent posterior interval, 0.07 to 0.93 percent) for each increase in the PM10 level of 10 µg per cubic meter.”**

# **Cont. New England Journal Of Medicine**

**Fine Particulate Air Pollution and Mortality in 20 U.S. Cities, 1987–1994**  
**Volume 343:1742-1749 December 14, 2000 Number 24**

**Conclusions** There is consistent evidence that the levels of fine particulate matter in the air are associated with the risk of death from all causes and from cardiovascular and respiratory illnesses. These findings strengthen the rationale for controlling the levels of respirable particles in outdoor air.

# Asthma

- From 1990-1997, 5,000 Californians died from asthma.
- Over 50,000 Californians are hospitalized annually to treat asthma. 12,000 people were from the San Joaquin Valley, of which 5,000 were children.