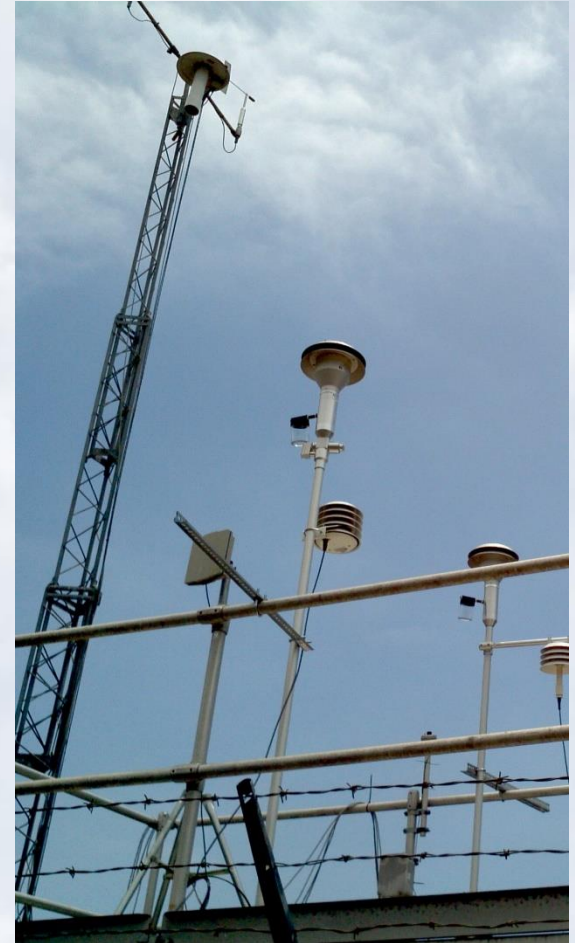


Ambient Air Monitoring Network in Santa Barbara County

Board of Directors Santa Barbara County Air Pollution Control District

Joel Cordes
Air Monitoring/IT Supervisor
January 21, 2016

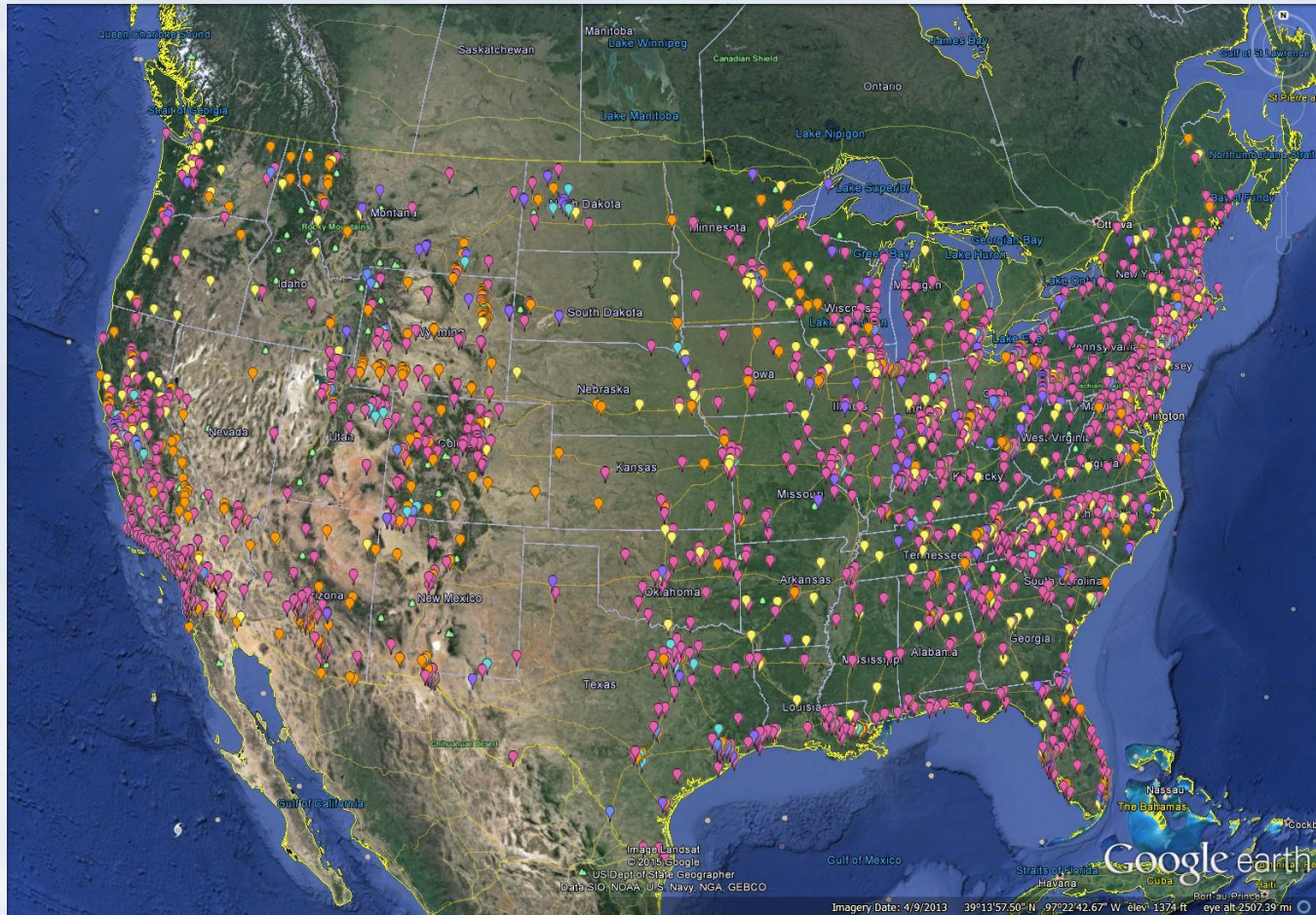


Air Sensors

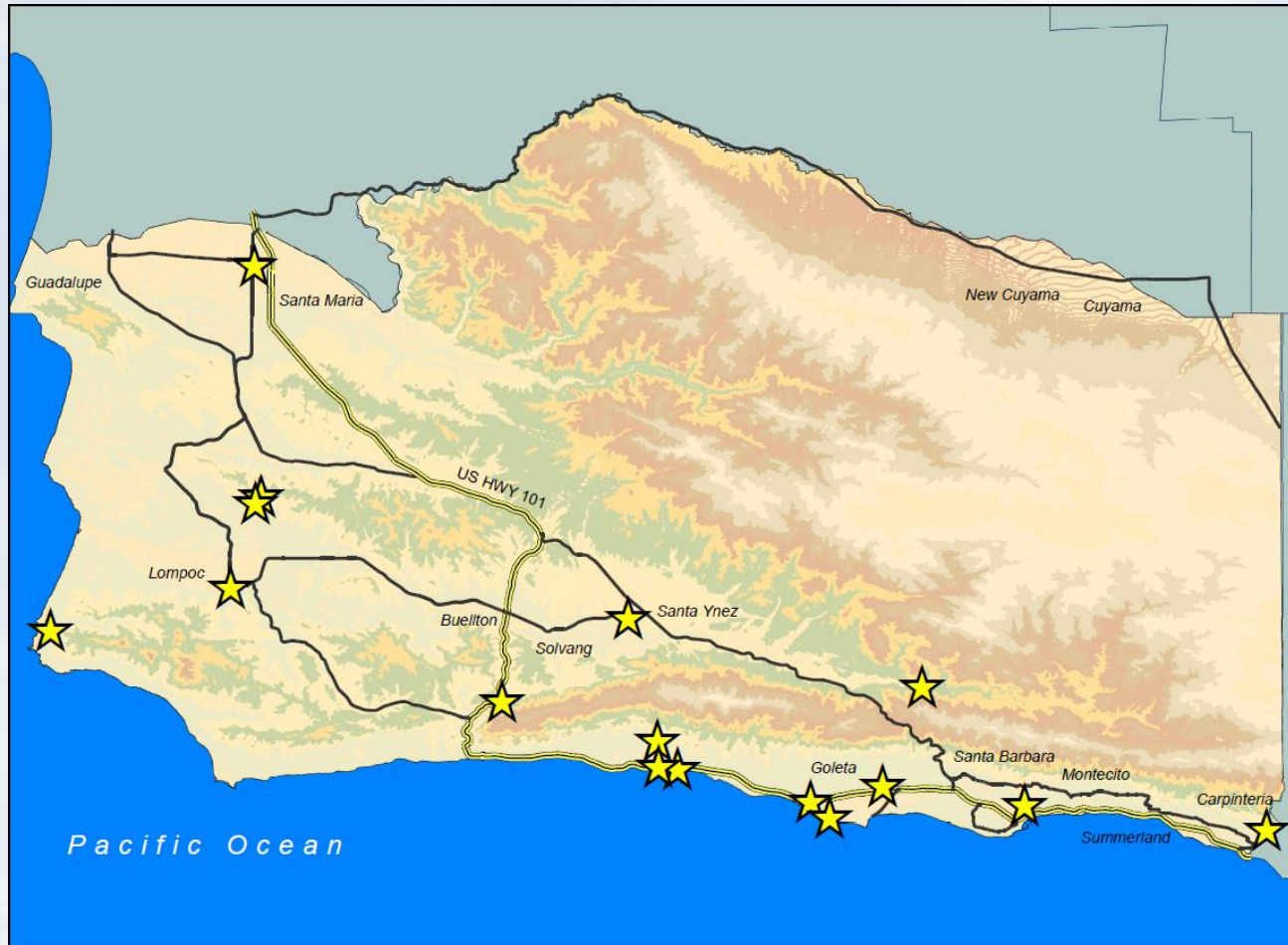
Overview

- Where we monitor
- What is monitored
- Why we monitor
 - Network design
 - Monitor types
- Data use
- New 8 Hour Ozone Standard

Monitoring in the US



Monitoring in Santa Barbara County



Pollutants Monitored

- Ozone (O₃)
- Oxides of Nitrogen (Nox, NO, NO₂)
- Sulfur Dioxide (SO₂)
- Carbon Monoxide (CO)
- Course Particulate Matter (PM₁₀)
- Fine Particulate Matter (PM_{2.5})
- Total Hydrocarbons (THC)
- Hydrogen Sulfide (H₂S)
- Total Reduced Sulfur (TRS)

Meteorological Measurements

- Wind Speed
- Wind Direction
- Ambient Temperature
- Relative Humidity
- Solar Radiation
- Barometric Pressure

Networks Designed to Meet Three Monitoring Objectives

Three main objectives of 40 CFR Part 58 Appendix D

- Provide air pollution data to the general public in a timely manner
- Support compliance with ambient air quality standards and emissions strategy development
- Support air pollution research studies

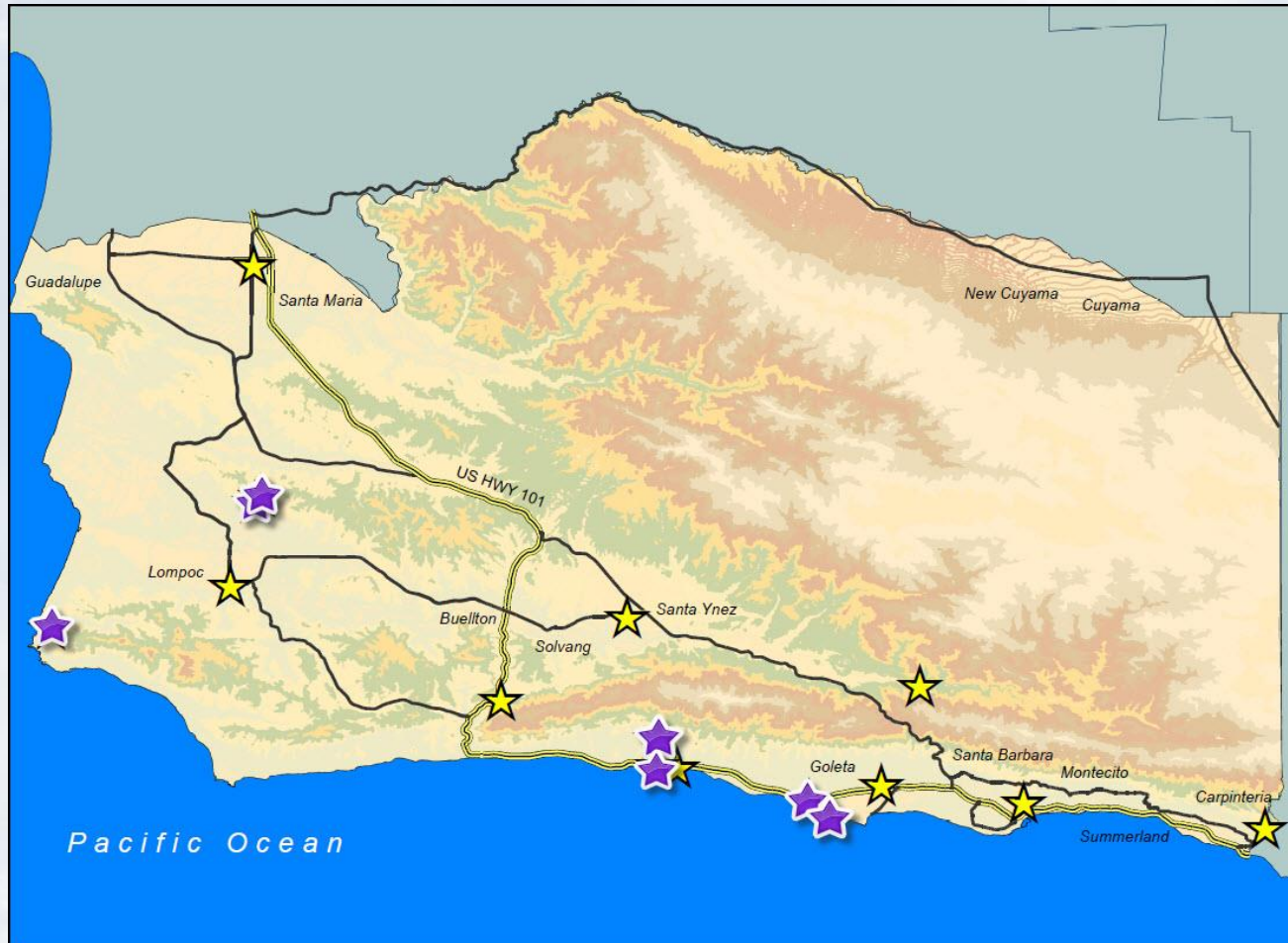
Network Station Types

1. Highest concentrations
2. Population oriented
3. Source impacts
4. General background concentrations
5. Regional pollutant transport

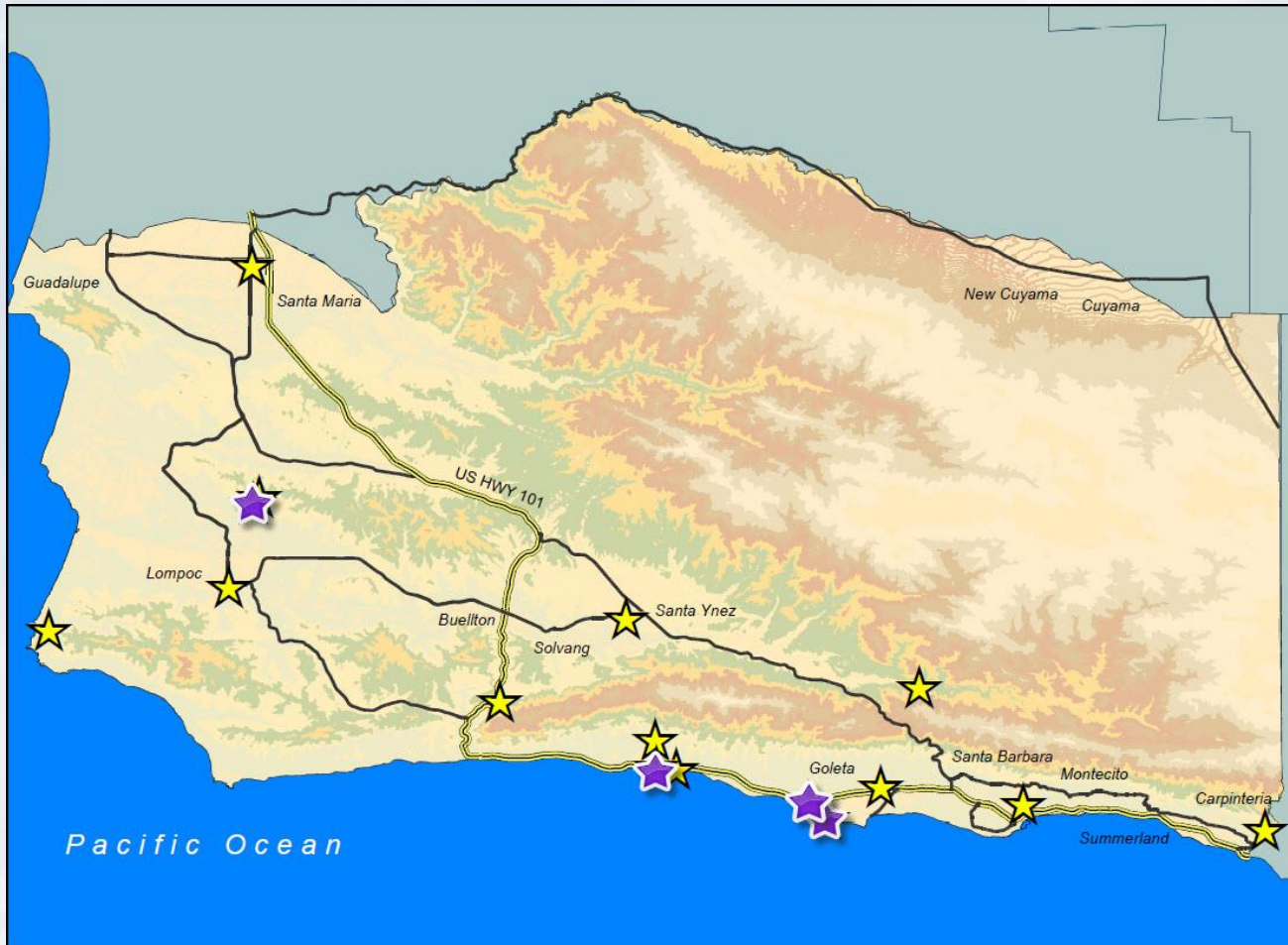
Urban Monitoring Sites



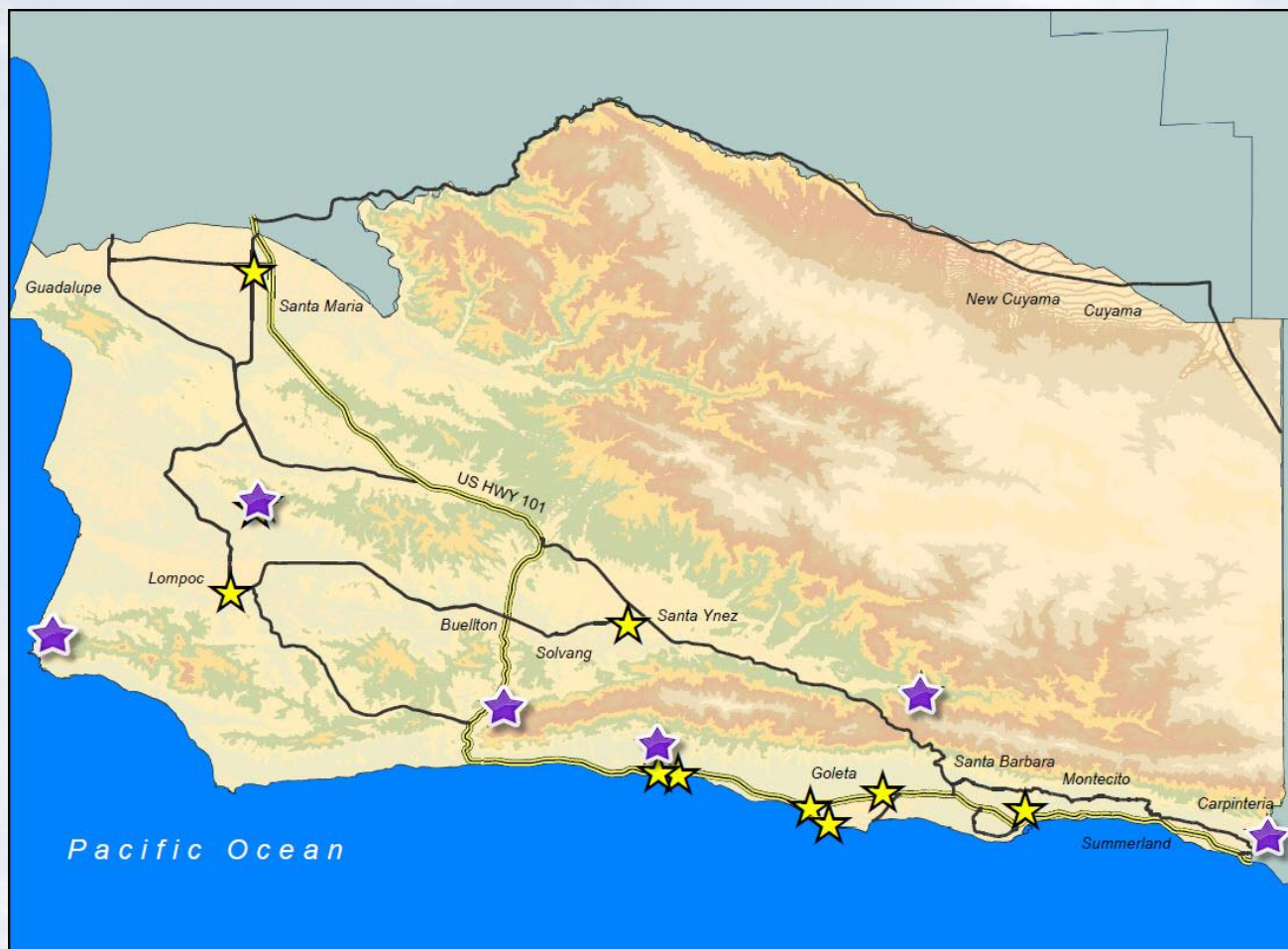
Source Monitoring Sites



Odor Monitoring Sites



Regional Ozone Sites



Ozone Sites



Particulate Monitoring Sites



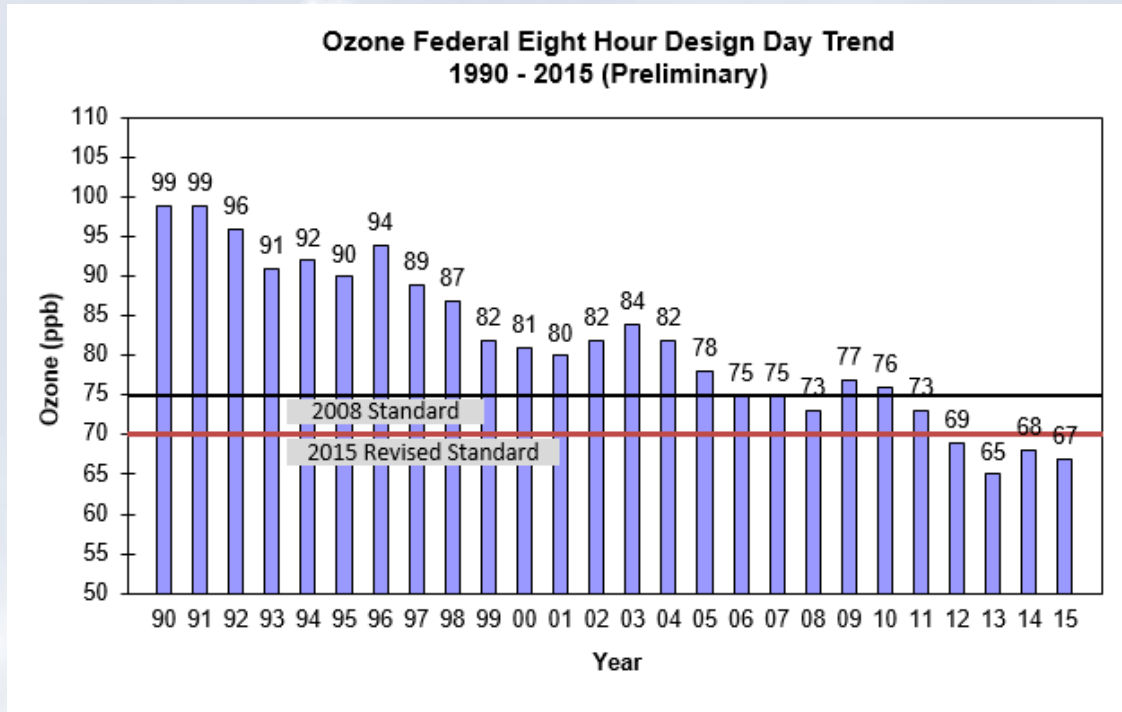
Data Uses

- Compare with AQ standards
- Public awareness
- Air quality mapping
- Trending
- Permit compliance
- Modeling

AQI for Monday, October 06, 2014

Stations Monitoring Ozone and Particulates			
Location	Ozone	PM10	PM2.5
Santa Barbara	Moderate (58)	Good (25)	Good (49)
Santa Maria	Good (36)	Good (26)	Good (37)
Lompoc H St	Good (40)	Good (23)	Good (43)
Goleta	Moderate (51)	Good (18)	Good (47)
El Capitan	Good (48)	Good (21)	
Las Flores Cyn	Unhealthy for Sensitive Groups (101)	Good (20)	
VAFB	Good (43)	Good (23)	
Carpinteria	Unhealthy for Sensitive Groups (101)		
Lompoc HS and P	Good (48)		
Nojoqui	Moderate (77)		
Paradise Rd	Moderate (64)		
Santa Ynez	Moderate (67)		

Santa Barbara County Ozone Design Value



Contact Information

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