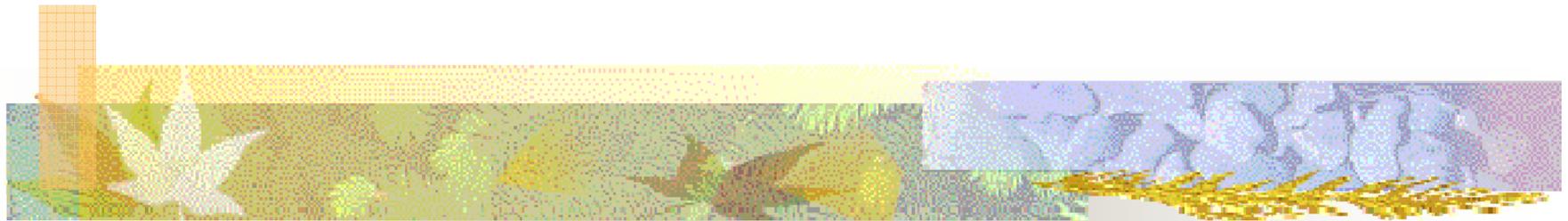
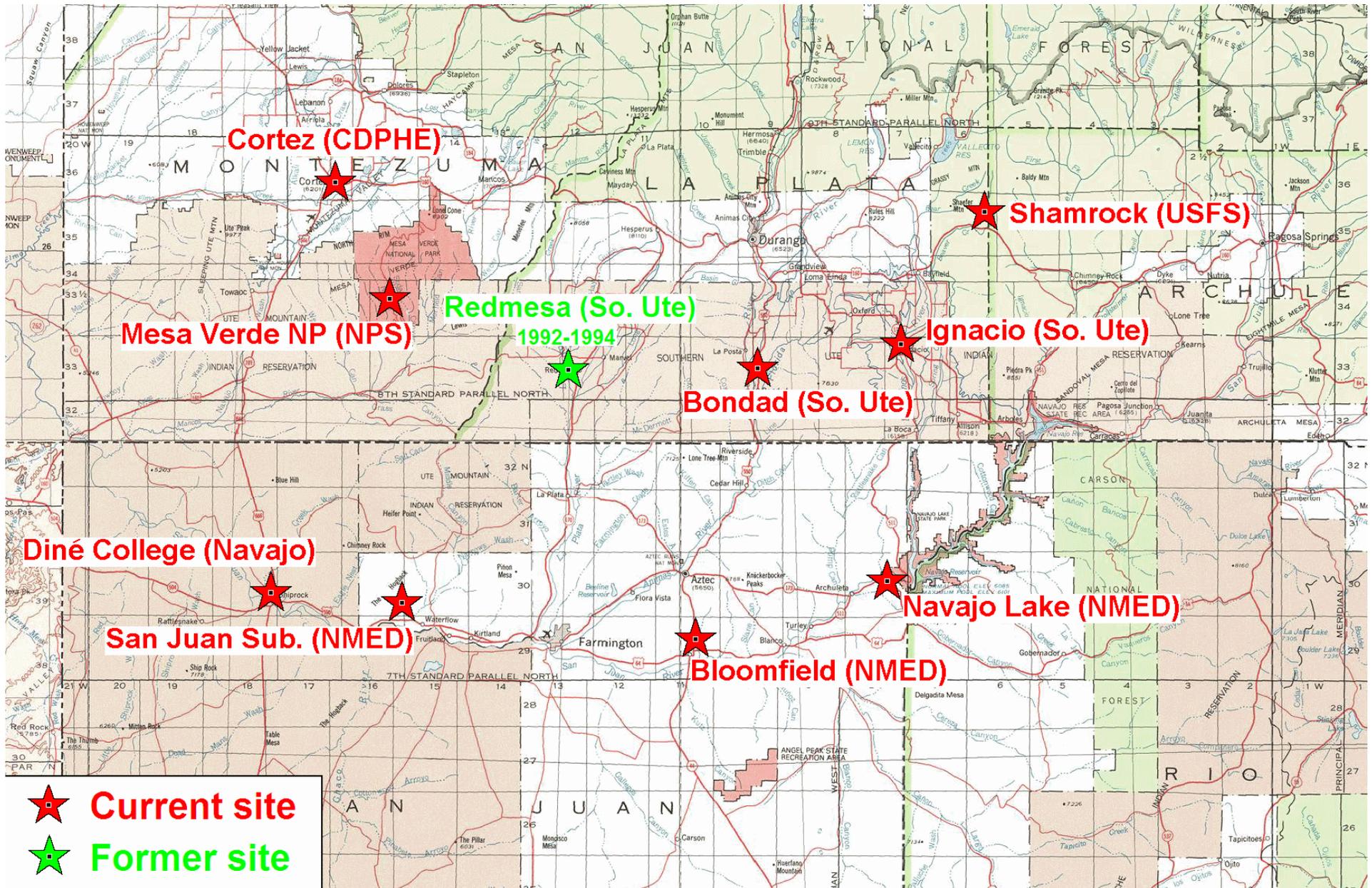


Ozone in the Four Corners Area --- 2012 ---



Four Corners Air Quality Group Meeting
Farmington, NM
30 May 2012

Ozone Monitoring Sites in the Four Corners Area

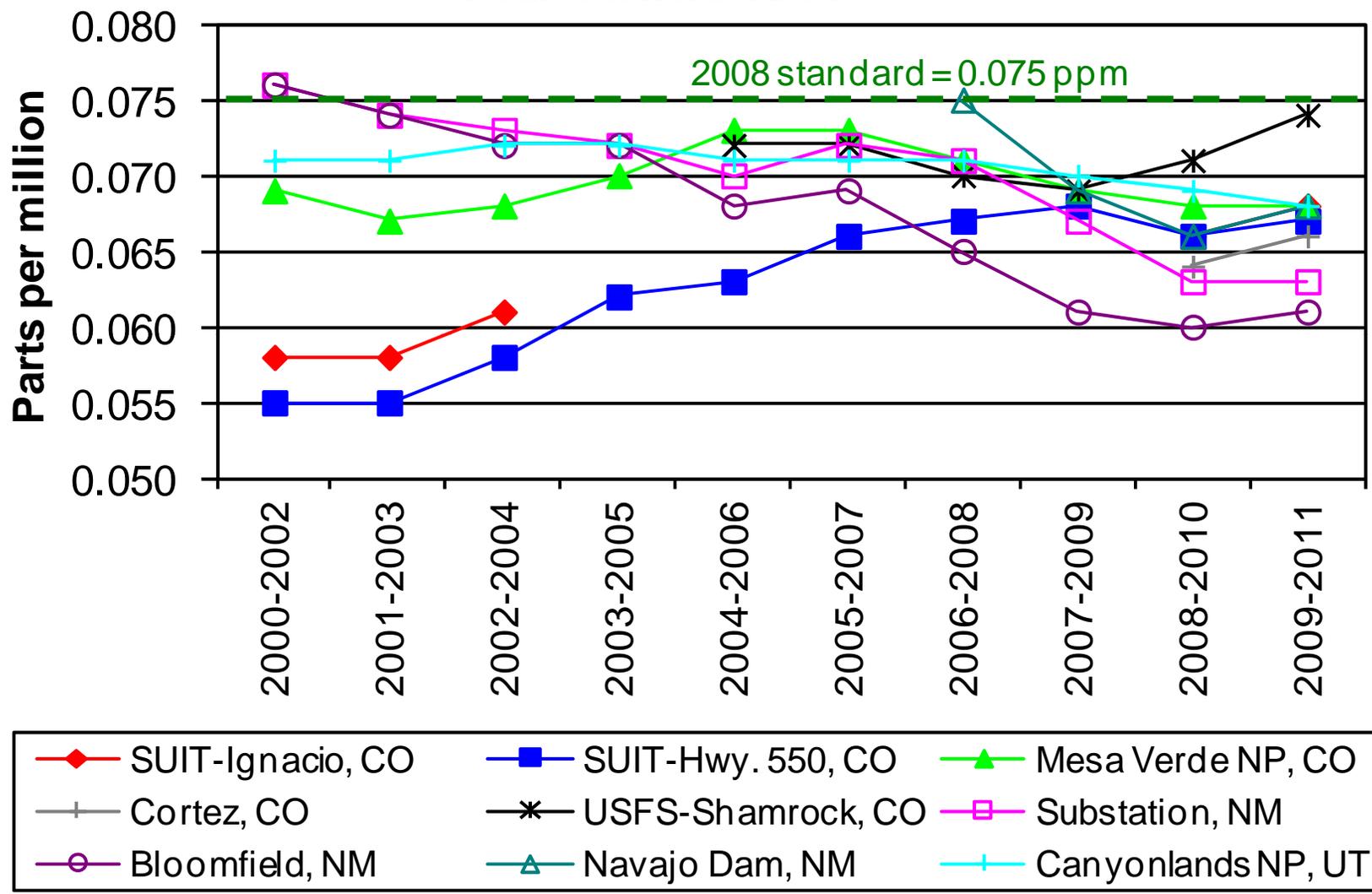


Three Year Average 4th Maximum Ozone Values

Site Name	AQS #	<u>2009</u> 8-hr. O3 4th Max. Value (ppm)	<u>2010</u> 8-hr. O3 4th Max. Value (ppm)	<u>2011</u> 8-hr. O3 4th Max. Value (ppm)	3-yr. Avg. 4th Max. Value (ppm)
CDPHE - Cortez	08-083-0006	0.064	0.064	0.071	0.066
USFS - Shamrock	08-067-1004	0.071	0.074	0.077	0.074
SUIT - Ignacio	08-067-7001	0.065	0.068	0.072	0.068
SUIT - Bondad/Hwy 550	08-067-7003	0.066	0.067	0.069	0.067
NPS - Mesa Verde	08-083-0101	0.069	0.066	0.070	0.068
NMED - Bloomfield	35-045-0009	0.052	0.065	0.066	0.061
NMED - Navajo Lake	35-045-0018	0.061	0.069	0.074	0.068
NMED - Substation	35-045-1005	0.059	0.063	0.068	0.063
Navajo - Dine College	35-045-1233	---	---	0.063	---
NPS - Canyonlands	49-037-0101	0.068	0.068	0.069	0.068

NOTE: *An area is considered to be in attainment of the National Ambient Air Quality Standard when the 3-year average of the annual 4th highest daily maximum 8-hour ozone concentration is less than or equal to 0.075 ppm. Due to truncation, a value of 0.076 ppm or greater would constitute an exceedance of the standard.*

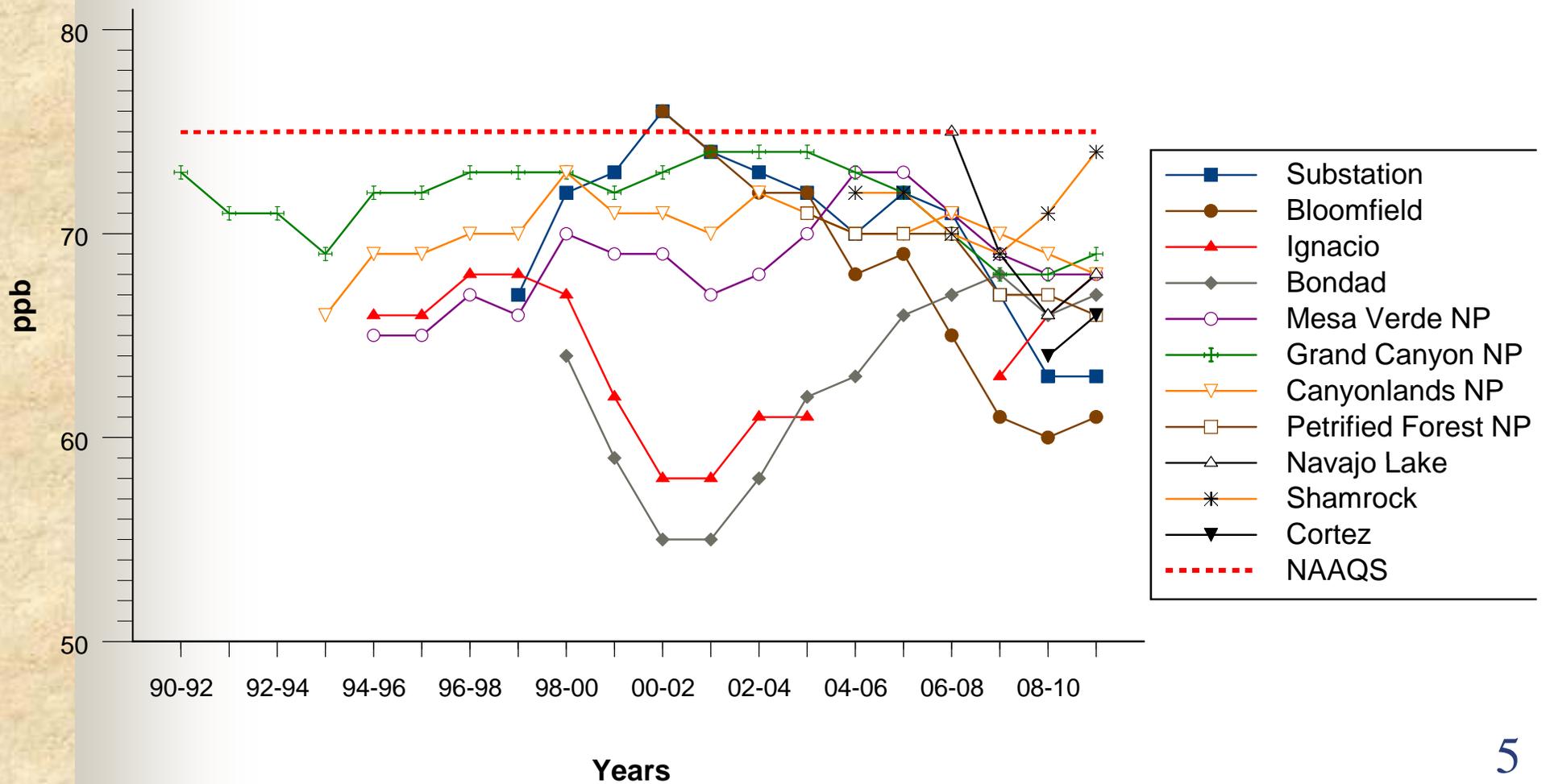
8-hour Ozone --- 3-year Avg. of 4th Max. Four Corners Area



All sites below the current NAAQS

8-hour Ozone Trends

Four Corners Area; 3-year running design values





Other Air Monitoring in the Four-Corners Area (Non-Ozone)

- Particulates – CDPHE, NMED, USFS, SUIIT
- Oxides of Nitrogen – NMED, USFS, SUIIT
- Carbon Monoxide – SUIIT
- Ions (nitrate, sulfate, ammonium) – NPS, USFS, EPA
- Ammonia – EPA, SUIIT
- Visibility – USFS, NPS, SUIIT
- Mercury – NMED, USFS, NPS, MSI
- Meteorology – NMED, USFS, NPS, SUIIT
- VOC/NMOC – NMED, SUIIT

VOC Canister Study



Visibility

- Nephelometer data at NMED-Navajo Lake and SUT-Bondad sites
- Camera at Shamrock Mine site (will be discontinued in 2010 due to lack of funding)
- IMPROVE data at a number of locations
- Overall, cleanest days are getting cleaner, but the dirtier days are not getting any cleaner.

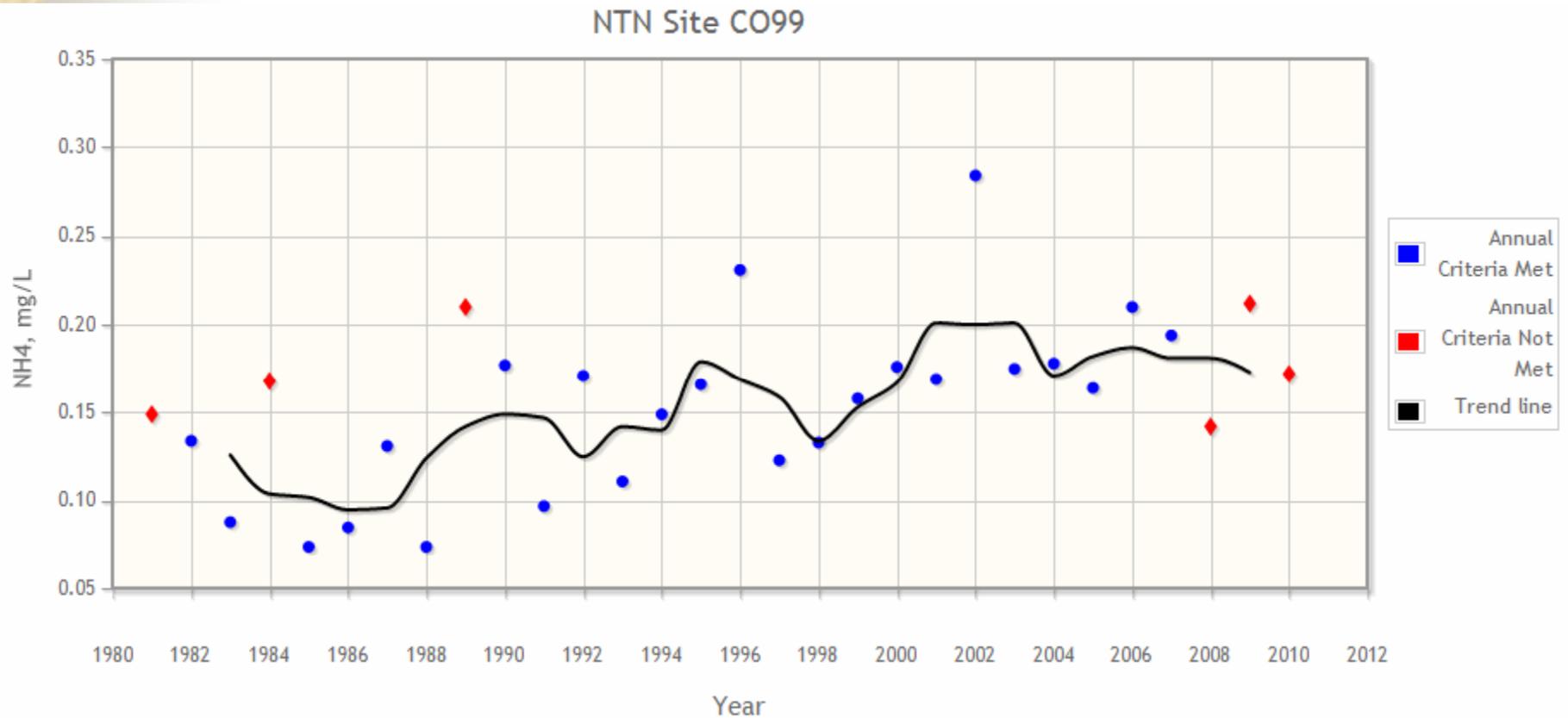


Ammonia



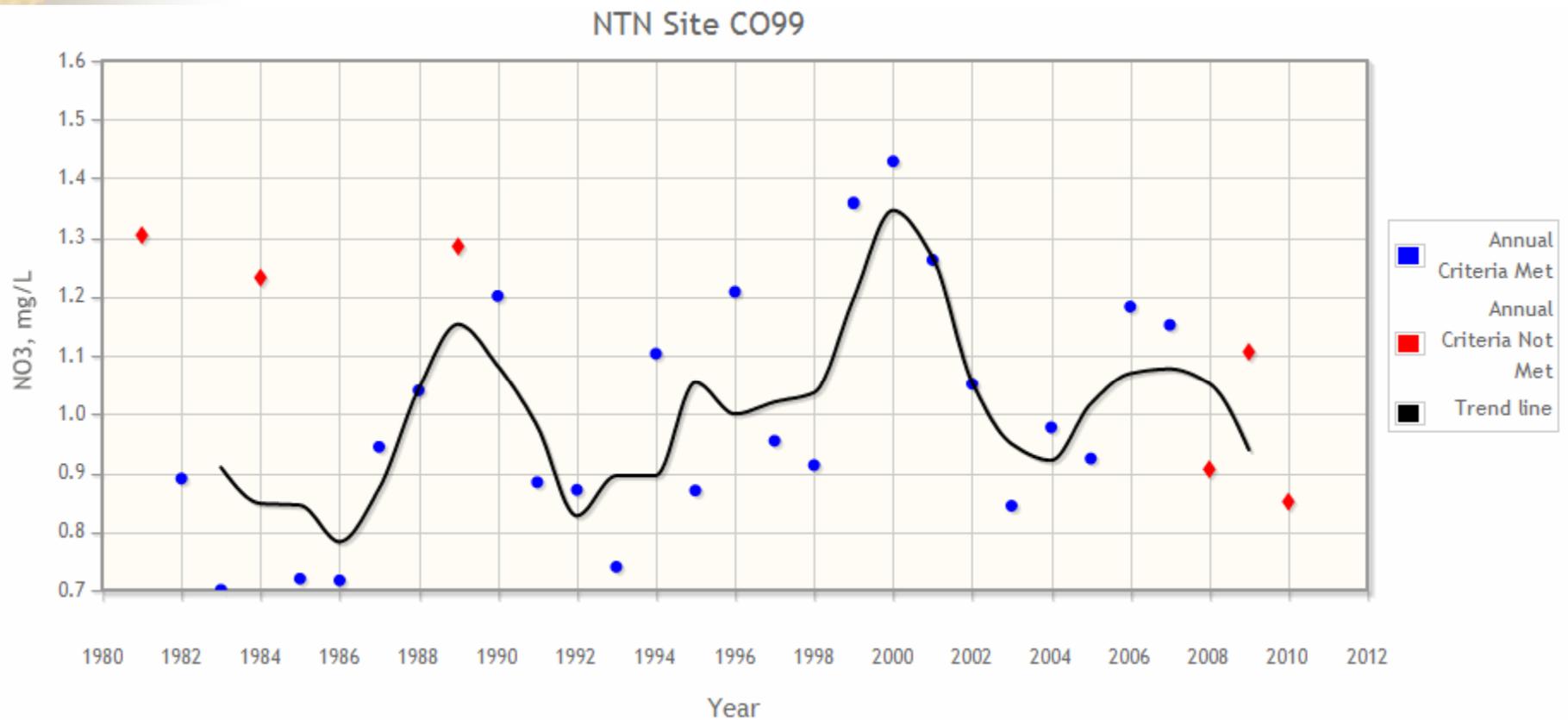
Links to peer reviewed research articles available at
<http://www.nmenv.state.nm.us/aqb/4C/>

Ammonium Trends at Mesa Verde National Park



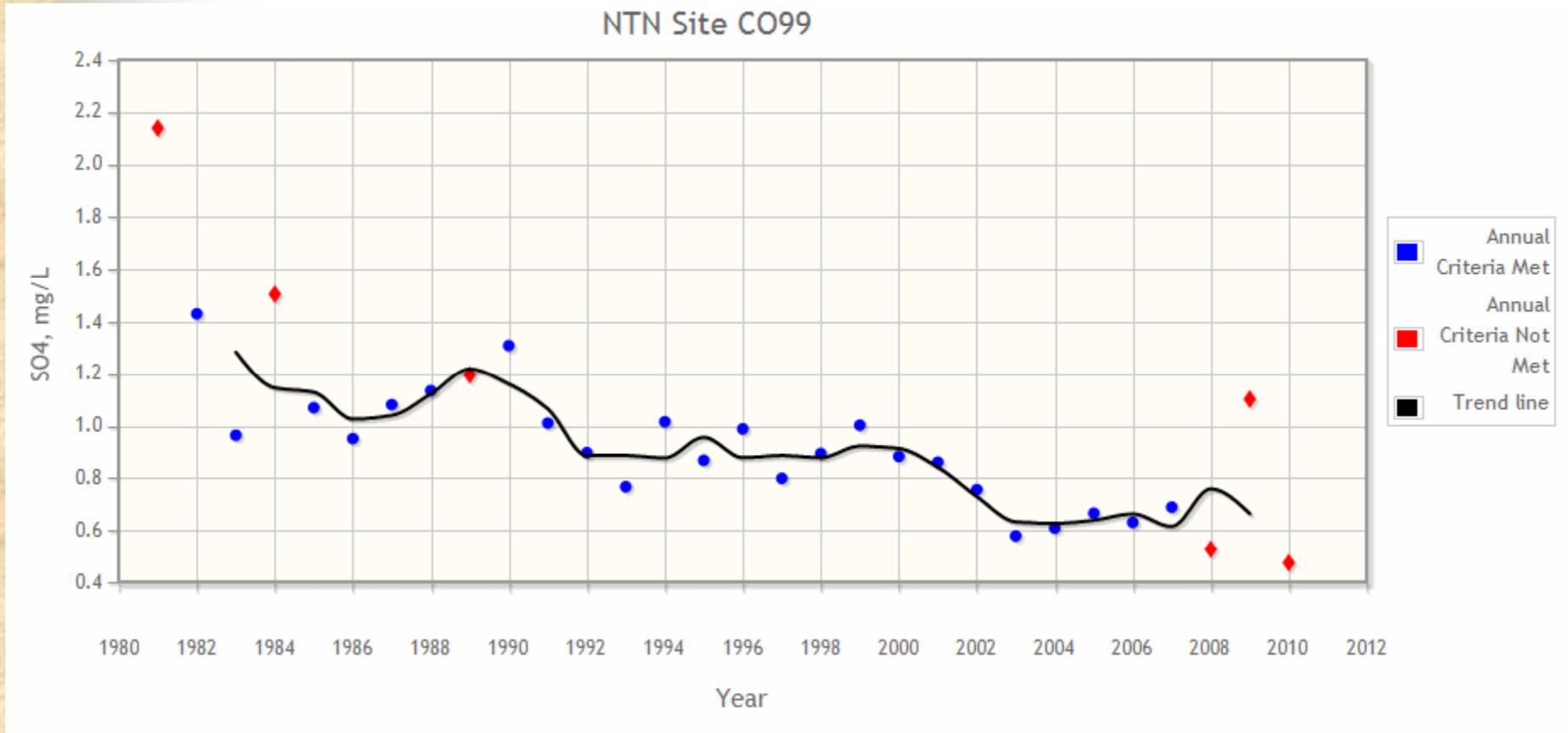
Increasing trend over time

Nitrate Trends at Mesa Verde National Park



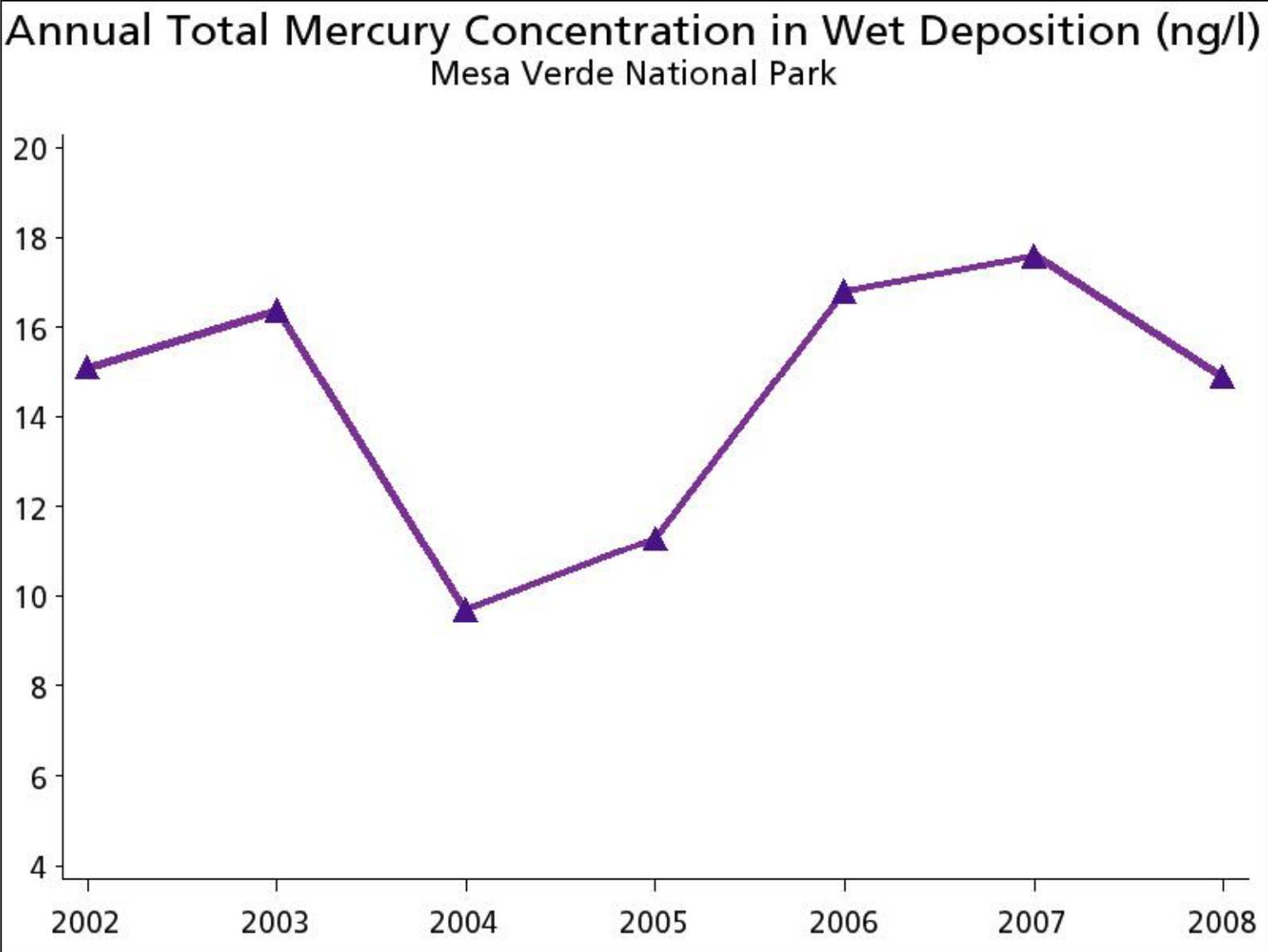
No trend

Sulfate Trends at Mesa Verde National Park



Decreasing trend over time

Mercury Trends at Mesa Verde National Park



No trend



Navajo Lake Site, NM
Monitor type: Reactive
Gaseous Mercury
Study duration: 2 Years;
Completed
11/9/2011

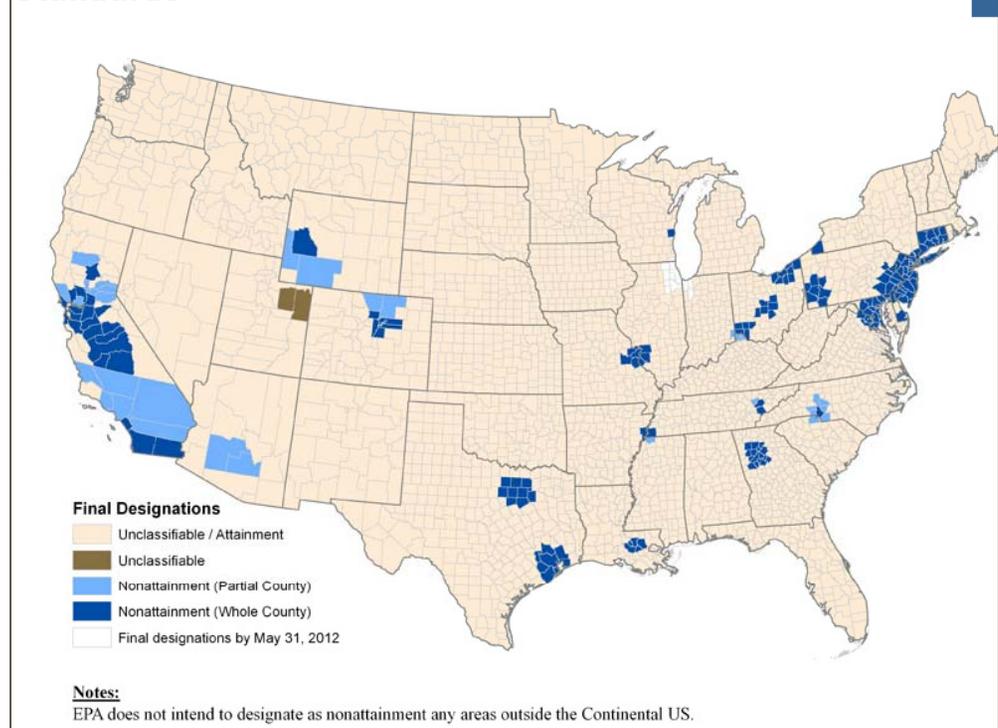


Navajo Lake Site, NM
Monitor type: Wet
Deposition Mercury
Study duration: Ongoing

Recent ozone designations

- **No counties in Four Corners area designated nonattainment**
- All counties and the Indian country in the area were designated “unclassifiable/attainment”
- With exception of the Southern Ute Indian Tribe who requested to be designated as a separate “unclassifiable/attainment” area
- 184 whole counties and 37 partial counties were designated nonattainment nationwide.

Final Nonattainment Areas for the 2008 Ozone Standards



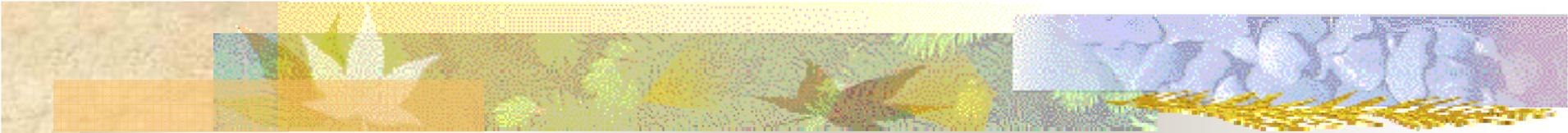


Ozone Advance

Ozone Advance is a collaborative effort by EPA, states, tribes, and local governments to encourage emission reductions in ozone **attainment** areas, to help them continue to meet the National Ambient Air Quality Standard (NAAQS).

Program Goals:

- (1) Help attainment areas take action in order to keep ozone levels below the level of the standard to ensure continued health protection,
- (2) Better position areas to remain in attainment,
- (3) Efficiently direct available resources toward actions to address ozone problems quickly.



Why Should Attainment Areas Work to Reduce Ozone?

- Ensure continued **health** protection
- **Less resource intensive** to implement measures early
- More **flexibility** to pursue a wide range of options
- **Proactive**
 - Could better position some areas to stay in attainment
 - If eventually designated, could provide needed reductions that could result in a lower classification and/or that could feed into any eventual SIP
- EPA could consider early efforts as a **factor in exercising its discretion to redesignate** areas not violating in 2008-10 but violating in later years to nonattainment
- Multi-pollutant **co-benefits**



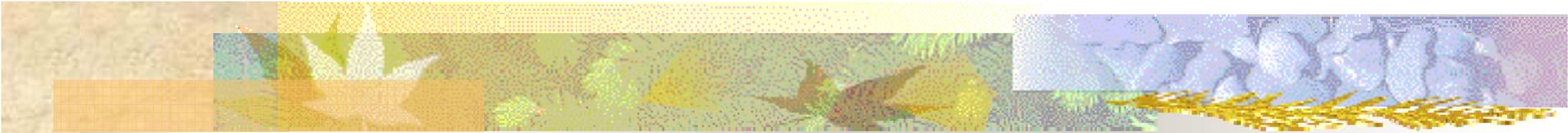
Who Can Participate?

- States, tribes, local governments (S/T/L)
- Councils of Government (COGs)
- Other stakeholders, in conjunction with any of the above
- “Lead” participant?

What Are the Criteria for Program Eligibility?

- Area must not be nonattainment for either 1997 or 2008 8-hour standards at the time the S/T/L(s) is/are accepted into the program.
 - Maintenance areas
 - Eventual Marginal areas
- S/T/L should generally identify the area
- S/T/L should identify the monitor(s) that reflect the area’s air quality
- Required emissions inventory reporting should be complete

- 
- EPA support
 - Rallying point for public/stakeholder awareness and involvement
 - Framework for action
 - Preferred status for DERA grants (**if accepted by June 4, 2012**), see www.epa.gov/cleandiesel/prgnational.htm
 - Possible recognition
 - Opportunity to highlight measures/programs already underway along with those undertaken as part of Program
 - Stakeholder group formation, engagement



What Does Participation Mean?

- Use best efforts to move quickly toward implementing steps that may reduce ozone levels
- Develop a “path forward” within a year
- Implement path forward measures/programs as soon as possible
- Informal status check-ins at least annually



Who Has Signed Up?

- Regional Air Pollution Control Agency for Dayton-Springfield, OH area
- Hood County Clean Air Coalition for Hood County and Granbury, TX
- Mid-America Regional Council Air Quality Forum for Kansas City, MO/KS
- SE MO Regional Planning & Economic Development Comm. for Southeast Missouri
- **Wyoming DEQ for Upper Green River Basin**

Likely Signing Up Soon

- Oklahoma DEQ for Tulsa and/or Oklahoma City areas
- Shreveport, LA
- Omaha, NE
- Utah for the Uinta Basin area**
- **Four Corners Area???? Might be a logical extension of San Juan VISTAS**



Questions?