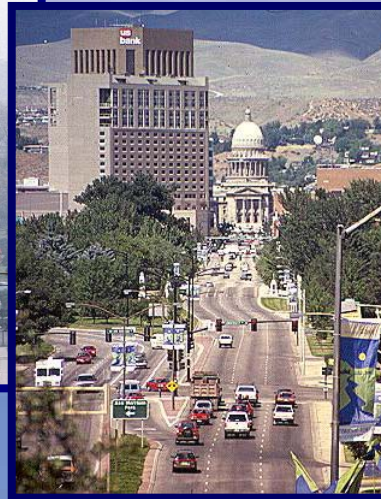
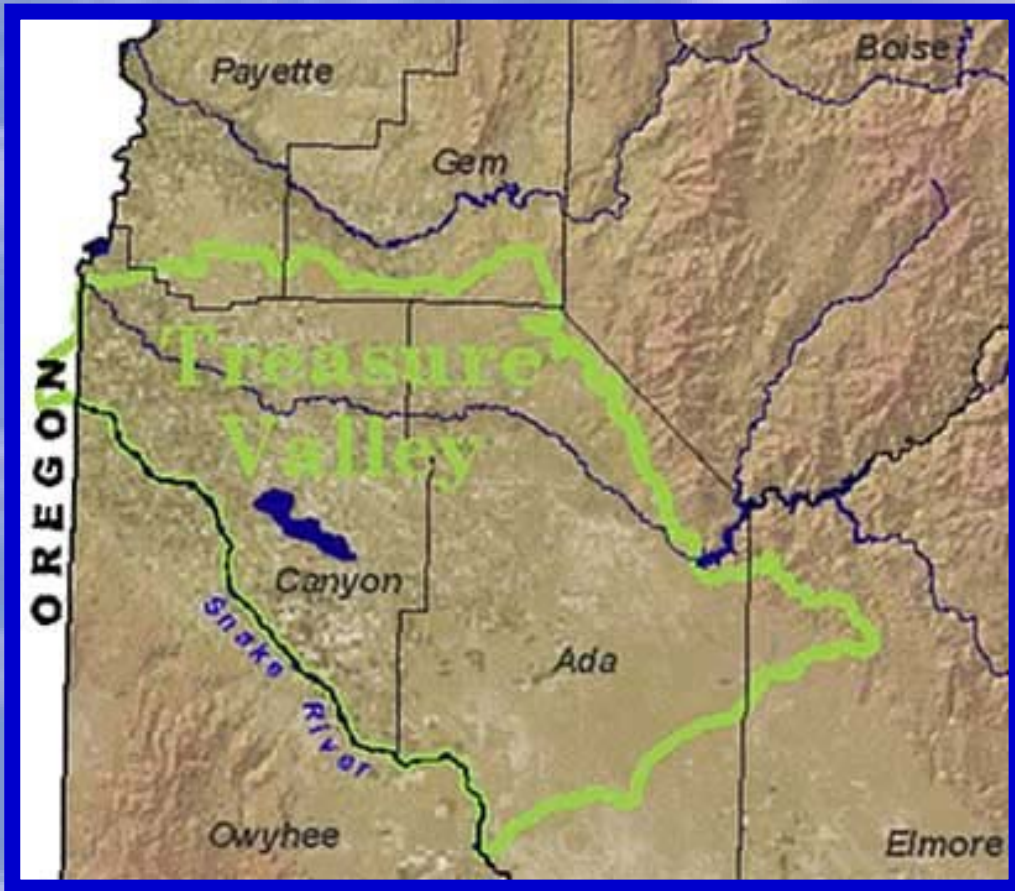


Air Quality in the Treasure Valley

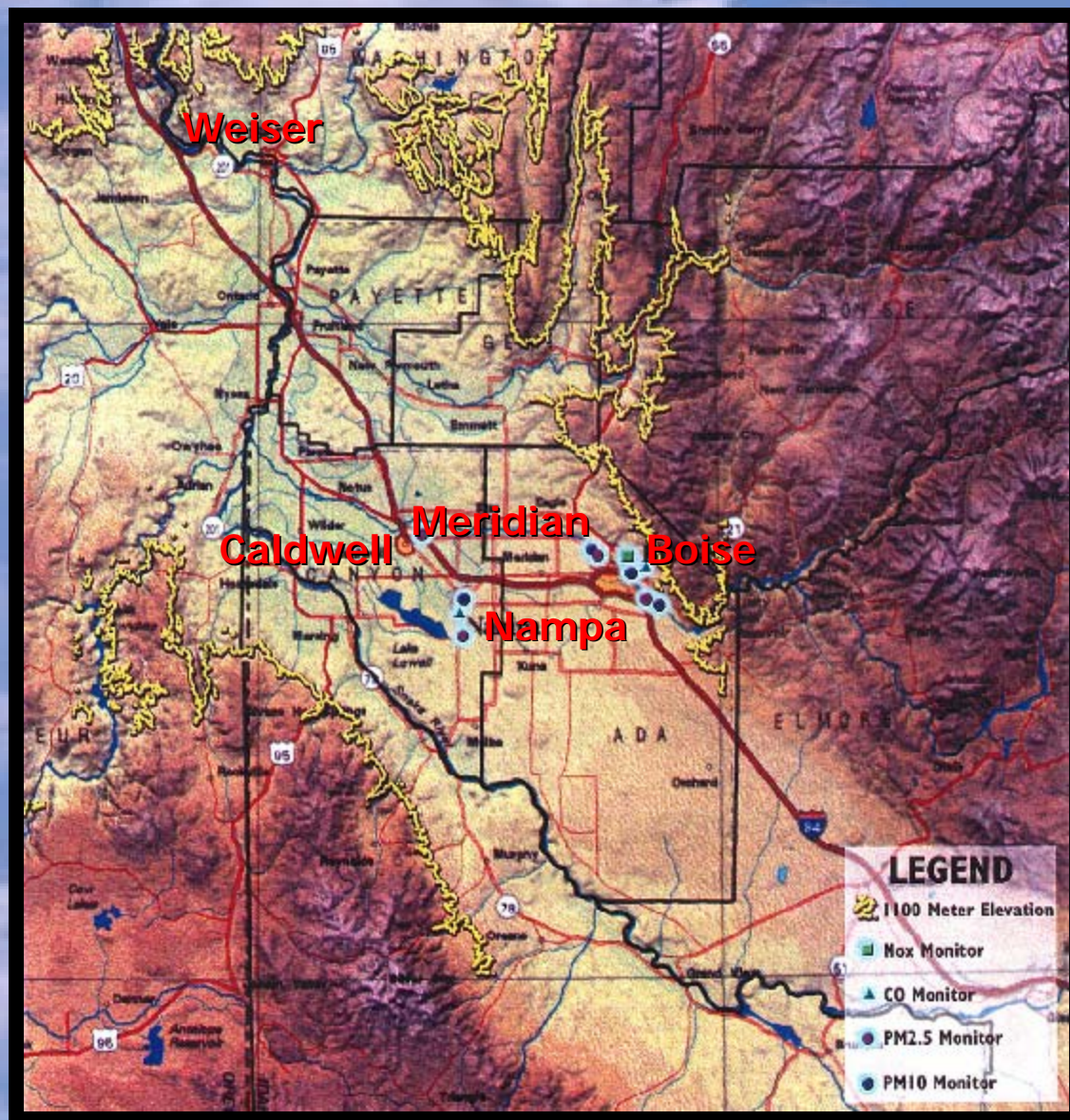


Dale Stephenson Ph.D.
Boise State University

The Treasure Valley



The Treasure Valley Airshed



Treasure Valley Population

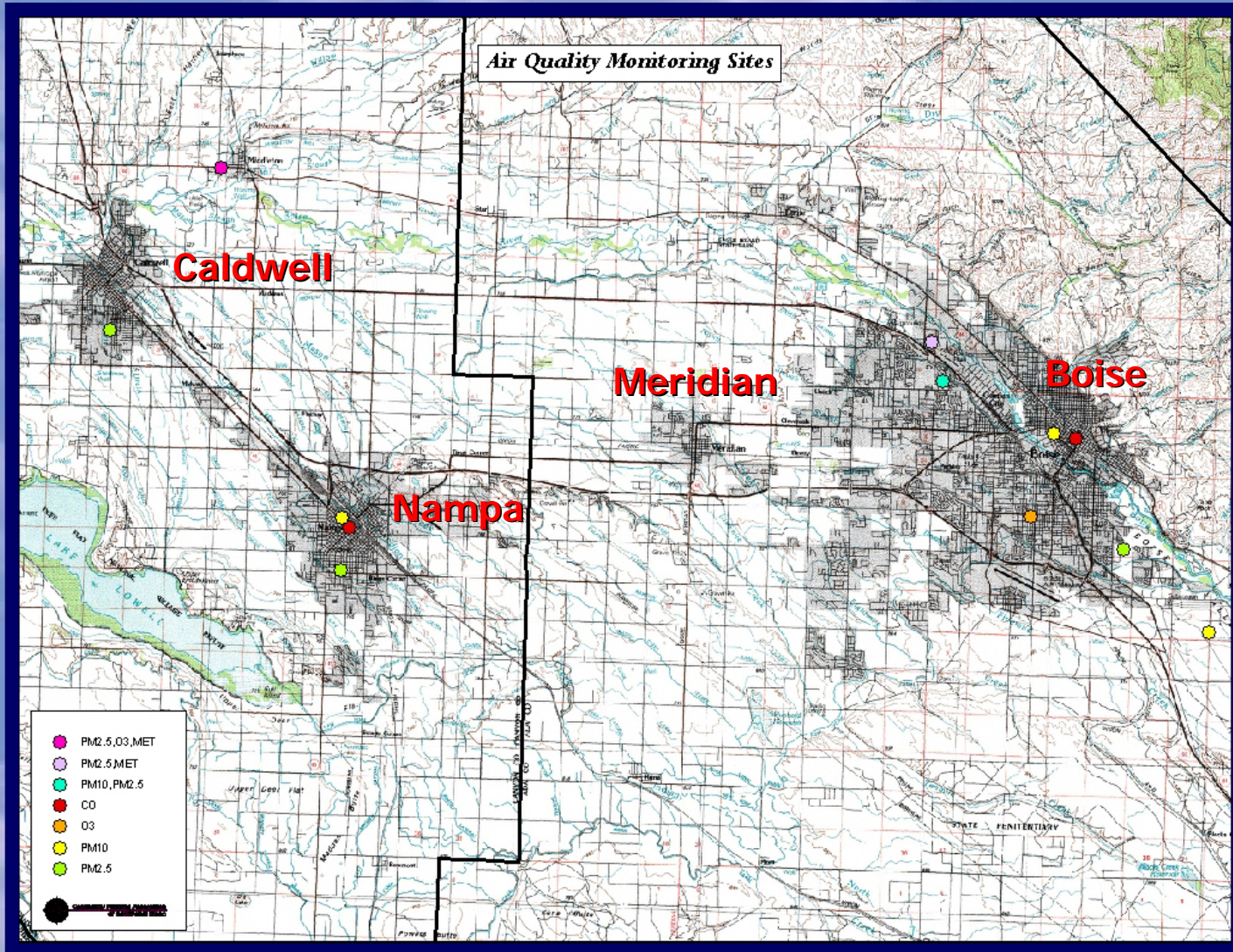


- 2000 US Census Estimate: 430,000
- 2007 Estimate: 580,000*
- 2030 Estimate: 825,000**

**Community Planning Association of Southwest Idaho (COMPASS)*

***Growth Forecast - U.S. Census Bureau*

Air Quality Monitoring Sites



National Ambient Air Quality Standards (NAAQS)

A = Attainment
N = Nonattainment
M = Maintenance
U = Unclassified

National Ambient Air Quality Standards			
Pollutant	Primary Stds.	Averaging Times	
Carbon Monoxide	9 ppm (10 mg/m ³)	8-hour	M
	35 ppm (40 mg/m ³)	1-hour	
Lead	1.5 µg/m ³	Quarterly Average	A
Nitrogen Dioxide	0.053 ppm (100 µg/m ³)	Annual	U
Particulate Matter (PM ₁₀)	50 µg/m ³	Annual	M
	150 µg/m ³	24-hour	
Particulate Matter (PM _{2.5})	15.0 µg/m ³	Annual	A
	35 µg/m ³	24-hour	
Ozone	0.08 ppm	8-hour	A
Sulfur Oxides	0.03 ppm	Annual	U
	0.14 ppm	24-hour	
	-----	3-hour	

Historical Issues

- Past Nonattainment Pollutants
 - Carbon Monoxide (CO)
 - Particulate Matter (PM₁₀)
- Solutions
 - CO (*redesignated maintenance 12/02*)
 - Cleaner vehicle technology
 - Emission testing programs
 - PM₁₀ (*redesignated maintenance 11/03*)
 - Local wood stove ordinances
 - Local open burning ordinances
 - Industrial permits
 - Road sweeping agreements



Current Issue: PM_{2.5}

Volatile Organic Compounds

- *industrial sources*
- *biogenic sources*
- *fuel sources*



Nitrogen/Sulfur Oxides & Ammonia

- *motor vehicles*
- *diesel fuel*
- *livestock*

Primary PM_{2.5}
- directly emitted



Secondary PM_{2.5}
- chemically formed

Cold, Stagnant Air

Current Issue: Ozone

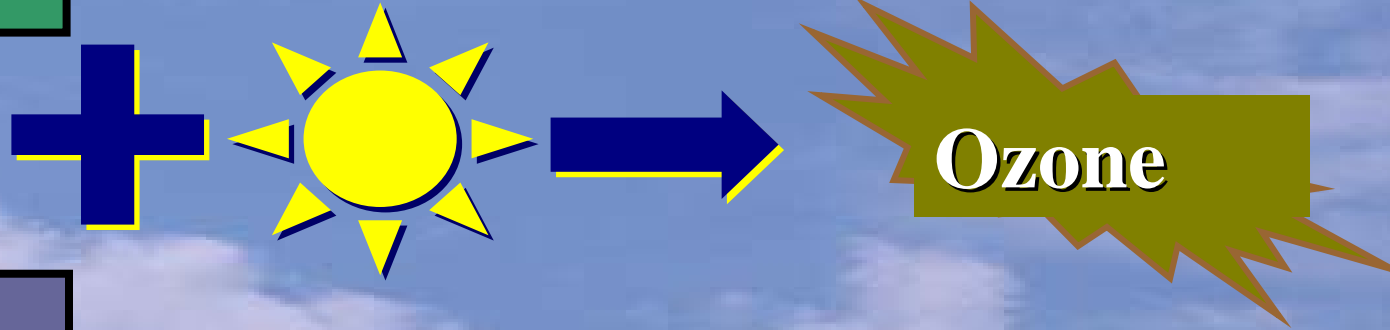
Volatile Organic Compounds

- *industrial sources*
- *biogenic sources*
- *fuel sources*

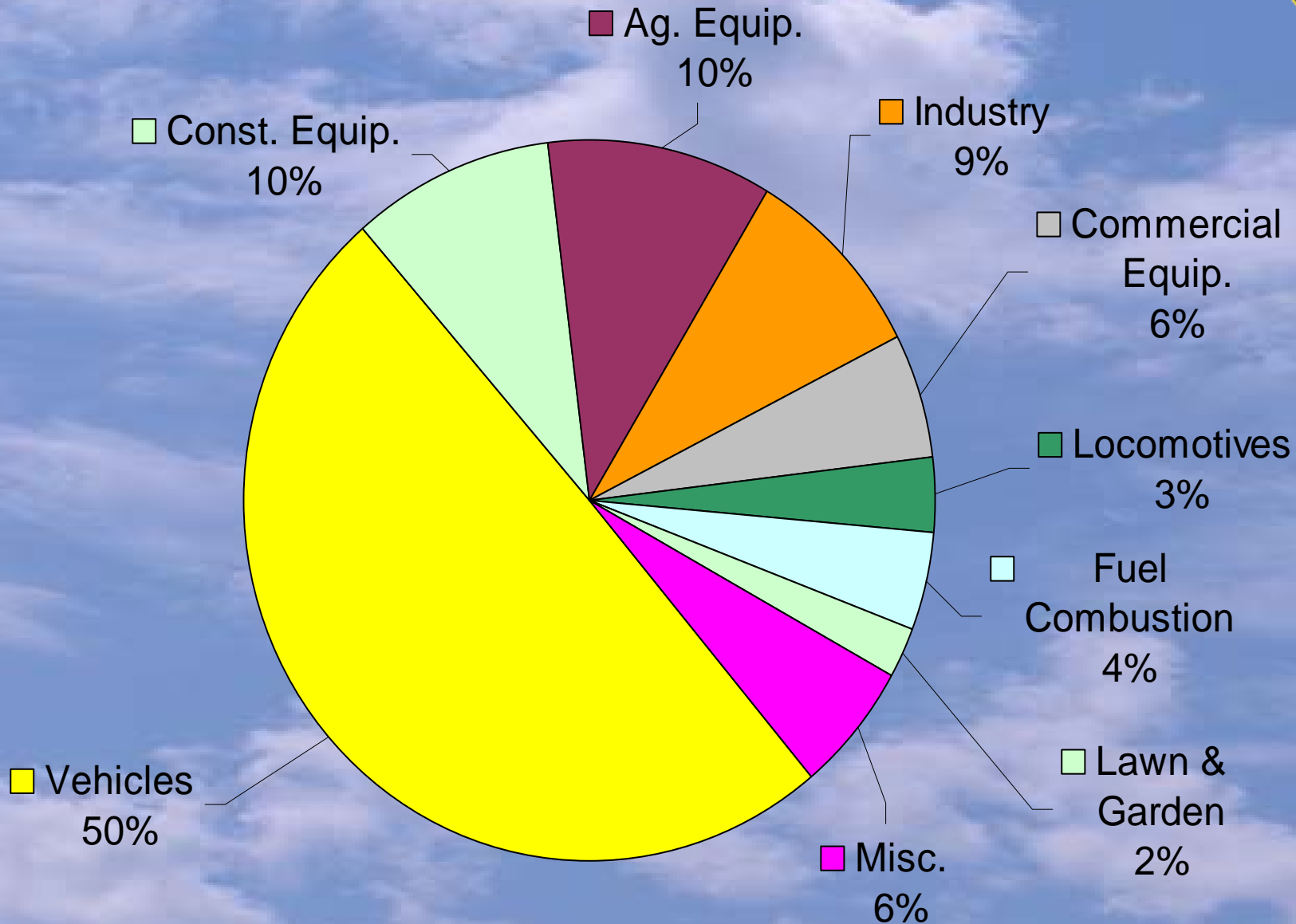
Nitrogen Oxides

- *transportation sources*

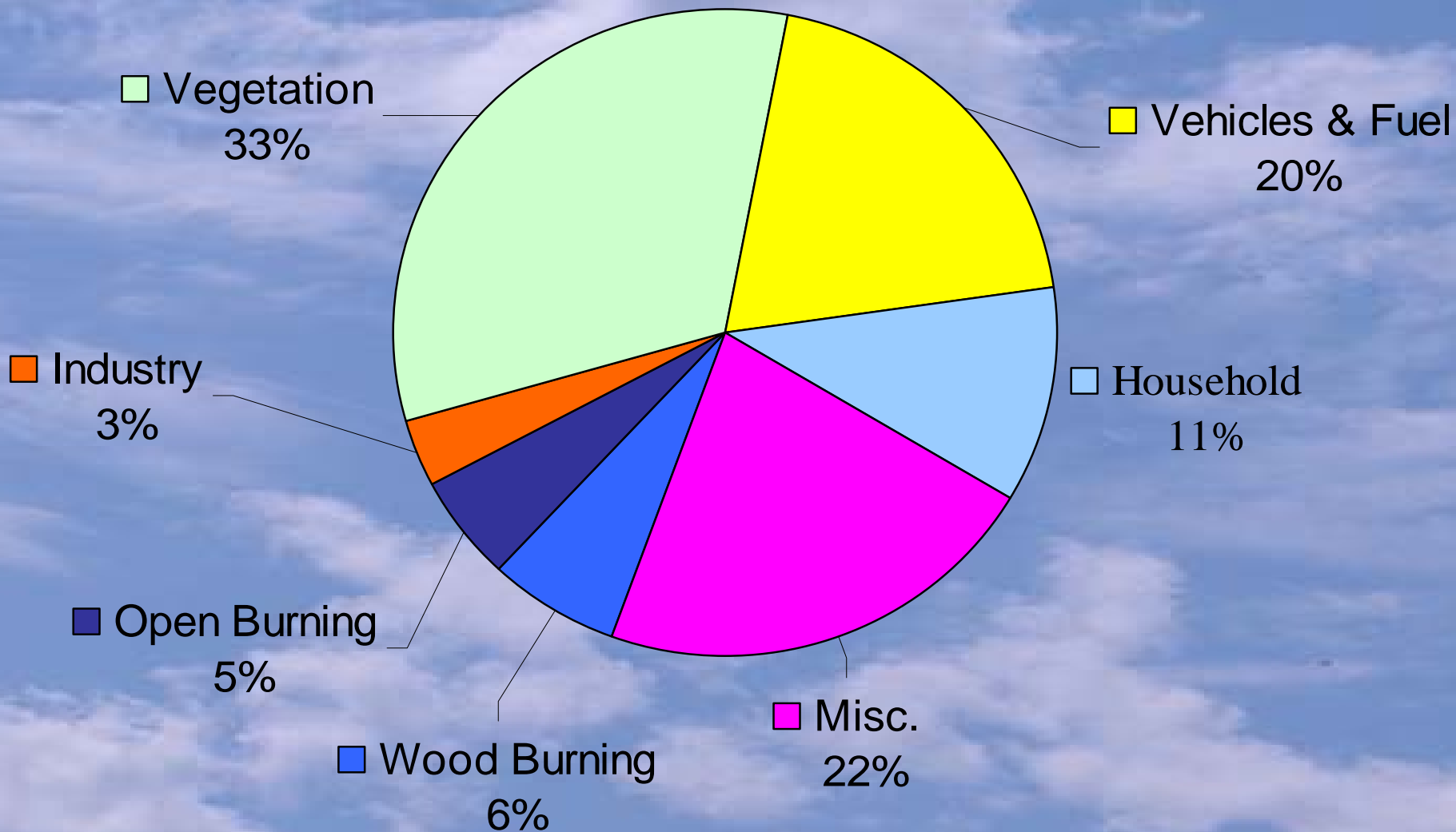
Strong sunlight



Sources of Nitrogen Oxides Treasure Valley 1999



Sources of Volatile Organic Chemicals Treasure Valley 1999



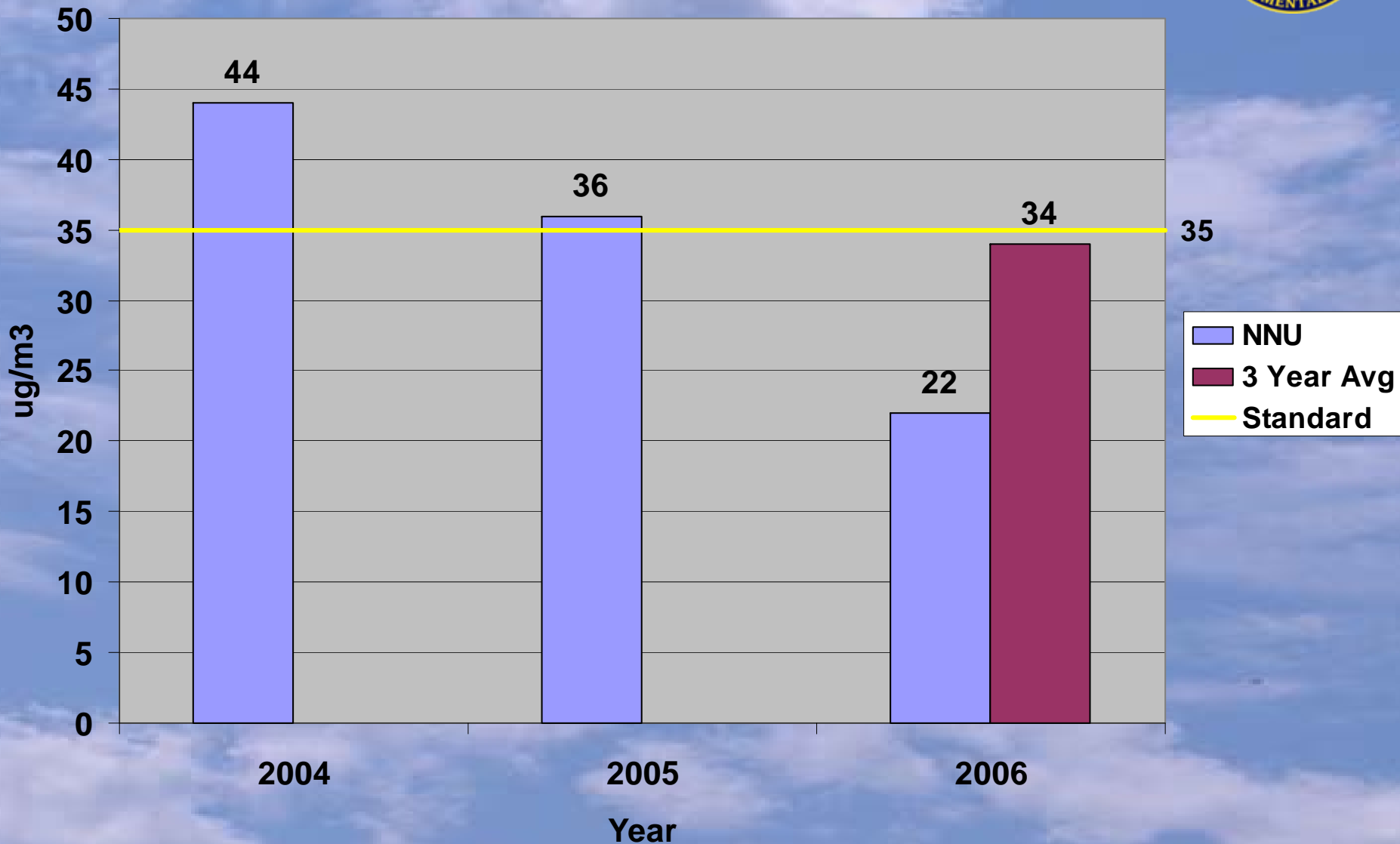
Vehicle Miles Traveled



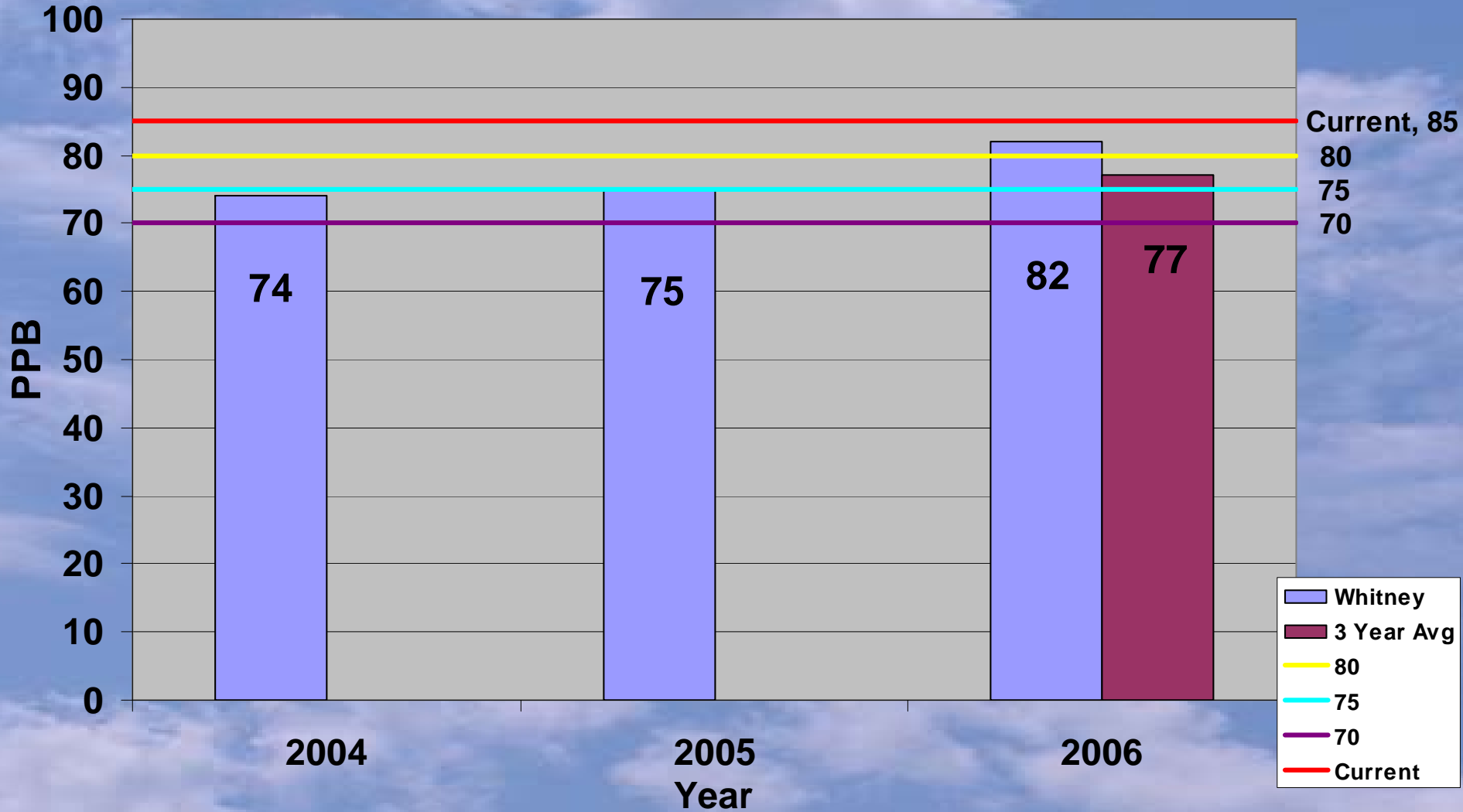
- VMT/day (2006): 6.8 million**
- VMT/day (2030): 13 million**

***COMPASS Report No. 12-2005*

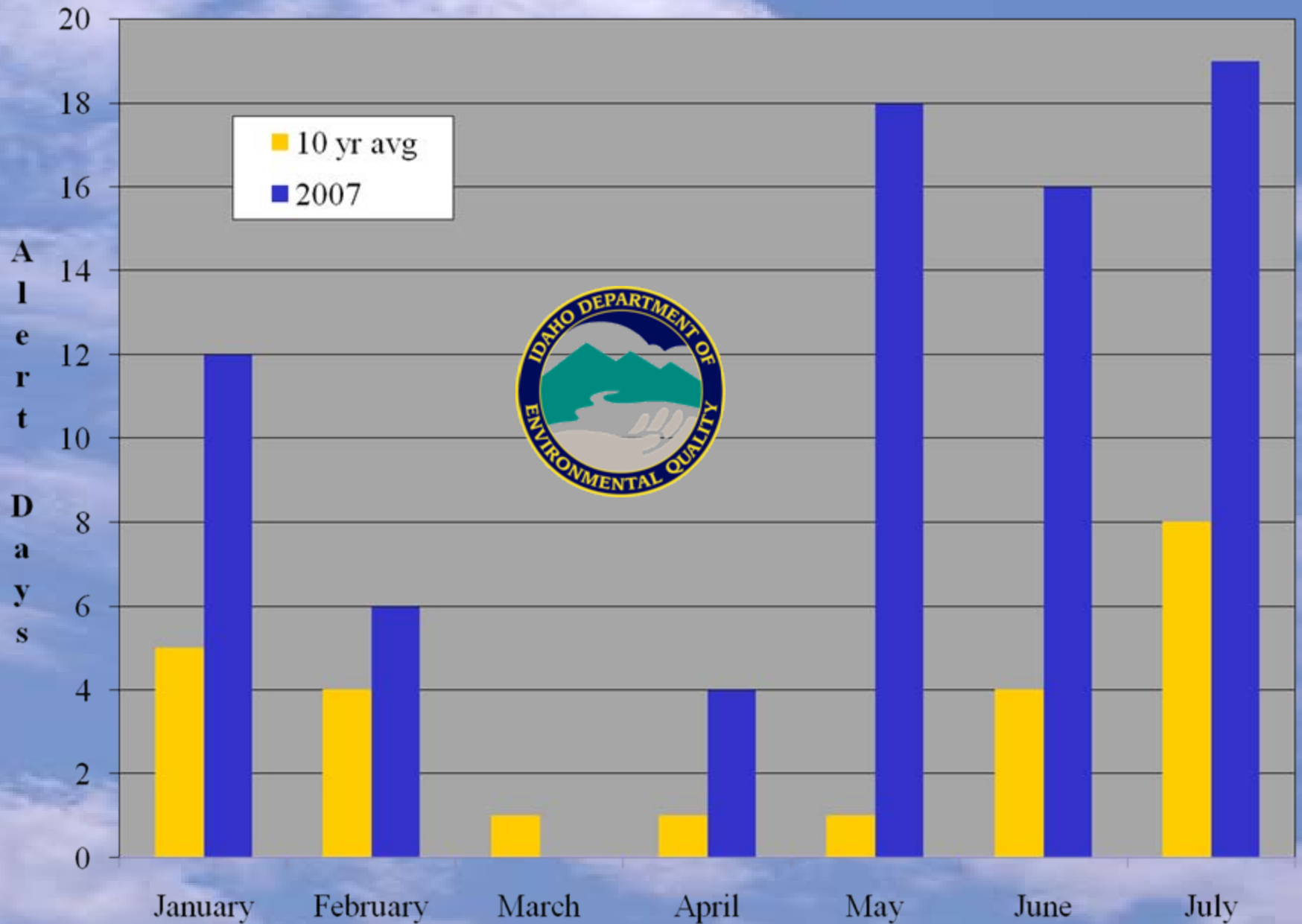
TV PM_{2.5} Nonattainment Values



TV Ozone Nonattainment Values



2007 compared to 10 year average

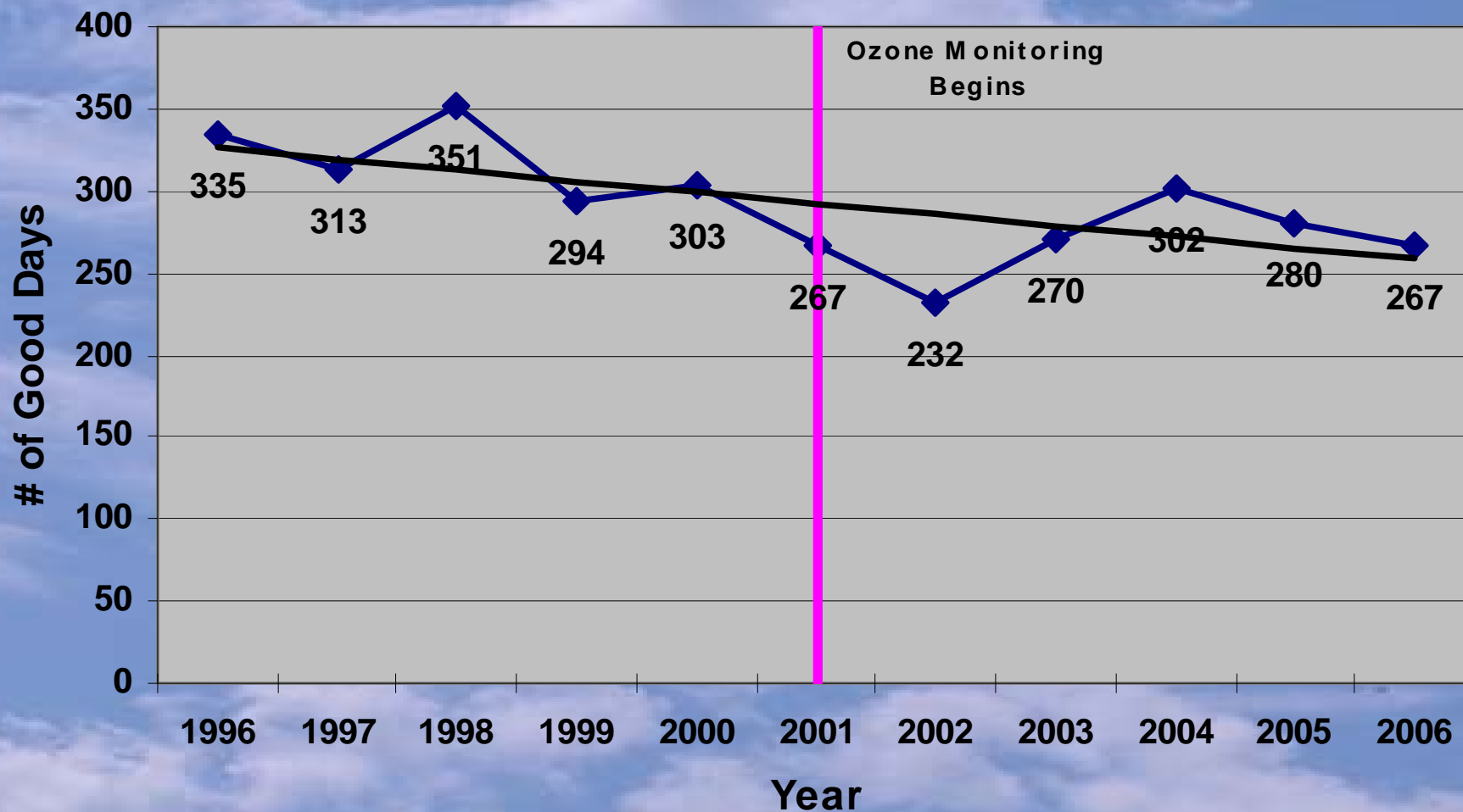




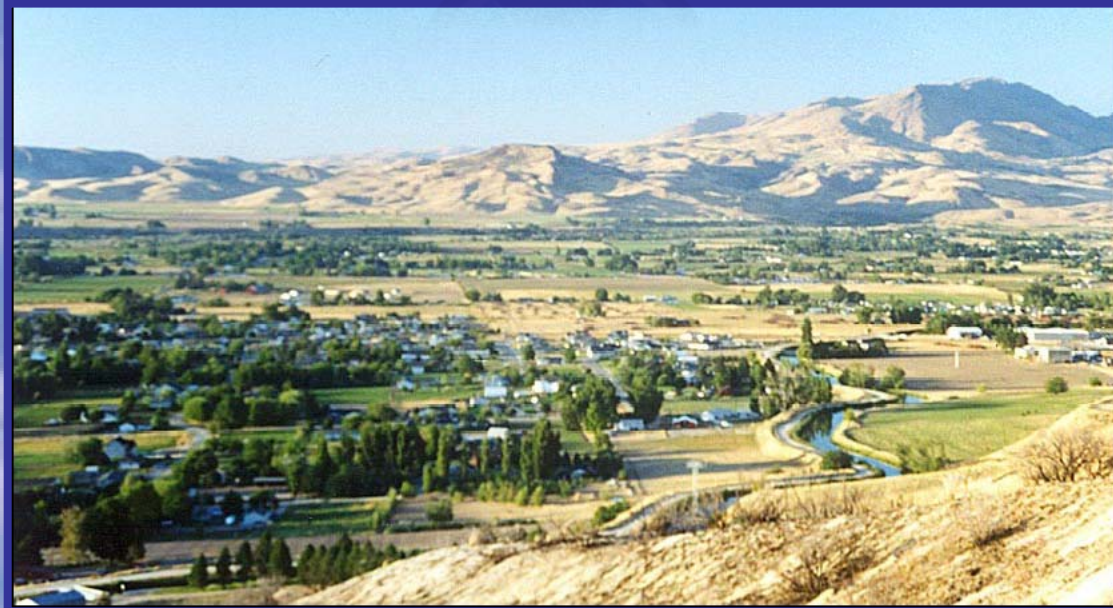
Good Air Days in Boise MSA

(Ada and Canyon Counties)

Source: <http://www.epa.gov/oar/data/>



Treasure Valley Air Quality Council – *Together, Making A Visible Difference*



TVAQC History

- 3/29/05 – Regional Air Quality Act signed into law
 - Established the Treasure Valley Air Quality Council (TVAQC)
 - 14-member Council
 - Mission: Protect, preserve, and improve the quality of the air in the Treasure Valley

TVAQC Actions

- February 2007 – As required, Treasure Valley Air Quality Plan submitted to the Idaho State Legislature
- 2007 Idaho State Legislative Session – Legislatures recognized receipt of the plan and it is not rejected

Air Quality Plan Recommendations

- AIR QUALITY EDUCATIONAL OUTREACH PROGRAM
 - Initial funding through a legislative appropriation
 - Implemented by IDEQ
 - Targeted at fostering behaviors that preserve good air quality

Air Quality Plan Recommendations

- VEHICLE EMISSIONS TESTING PROGRAM IN BOTH ADA AND CANYON COUNTIES
 - Funding mechanism TBD
 - On Board Diagnostic Testing
 - Phase out mechanism of existing tailpipe testing program in Ada County under discussion

Air Quality Plan Recommendations

- STAGE 1 VAPOR RECOVERY AT RETAIL GAS STATIONS
 - The adoption of rules that require Stage 1 Vapor Recovery through the negotiated rule-making process
 - Negotiated rule-making process is currently underway between IDEQ and associated stakeholders

Air Quality Plan Recommendations

- UNIFORM ORDINANCES FOR LOCAL AIR QUALITY PROBLEMS
 - Targeted at issues associated with fugitive dust
 - Historical success has been observed with burn ban ordinances

Air Quality Plan Recommendations

- REGIONAL LAND USE AND TRANSPORTATION PLANNING
 - *Communities in Motion*
 - *Blueprint for Good Growth*
 - Targeted at better coordination between counties and municipalities to in regards to long range planning

Air Quality Plan Recommendations

- ISSUES UNDER STUDY – Next steps
 - Alternative Fuels
 - Emissions Trading
 - More stringent requirements on stationary emission sources
 - Adoption of an LEV II vehicle program

Take Home Messages:

- At present, no area in the Treasure Valley is in nonattainment status for any of the NAAQS
- Growth, weather, and the proposed ozone standard will play major roles with respect to future attainment of the NAAQS
- The Treasure Valley is taking proactive steps (prior to nonattainment status) to preserve the quality of air we breathe

Thanks!!

