

People's Health

Outcomes • Planning • Evaluation



Know the Facts: Air Quality

DID YOU KNOW?

- Outdoor air pollution is a major environmental health problem that can lead to premature deaths due to ischemic heart disease, stroke, chronic obstructive pulmonary disease and lung cancer.
- Ozone and five other pollutants (particulate matter, nitrogen oxide, carbon monoxide, sulfur dioxide and lead) are considered harmful to public and environmental health.
- The term “particulate matter” (PM) includes both solid particles and liquid droplets found in air. Particles less than 10 micrometers in diameter (PM10) pose a health concern because they can be inhaled into and accumulate in the respiratory system.
- Ozone is a regional pollutant that often impacts a large area. Ozone transport occurs readily in the Sacramento Valley Basin and foothills.
- Car and truck exhaust is the major source of pollutants that produce ozone in our environment.

WHERE WE WERE (BASELINE):

- 1 day in violation of ozone standard in Redding during 1993.
- 0 days in violation of ozone standard in Anderson during 1993.
- 1 day in violation of PM10 standard in Redding during 1993.
- 5 days in violation of PM10 standard in Anderson during 1993.

WHERE WE ARE:

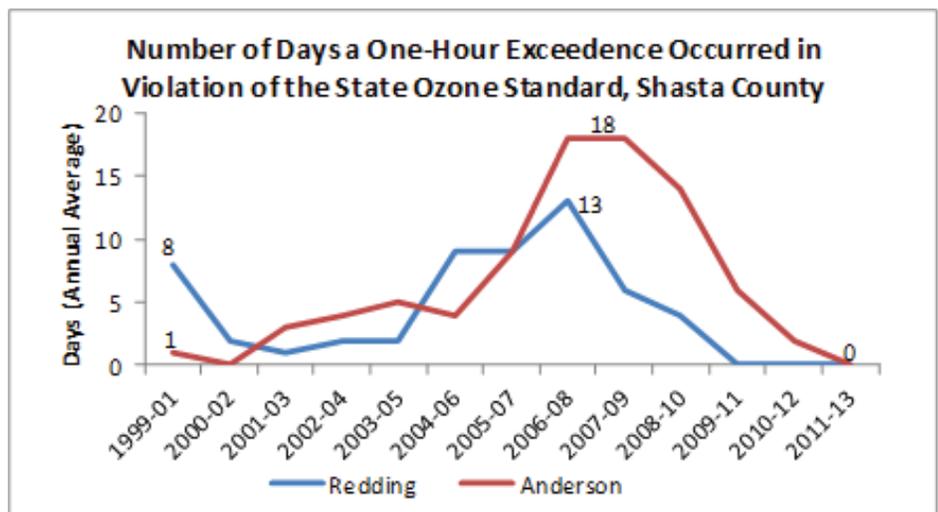
- 0 days in violation of ozone standard in Redding during 2011-13.
- 0 days in violation of ozone standard in Anderson during 2011-13.
- 0 days in violation of PM10 standard in Redding during 2011-13.
- 1 day in violation of PM10 standard in Anderson during 2011-13.

WHERE WE ARE AIMING (HP2020 GOALS):

- Reduce the number of days the Air Quality Index (AQI) exceeds 100.

DEFINITION:

Number of days in violation of state standards for ozone (0.09 ppm – one hour standard) and particulate matter of 10 micrometers in diameter or less (PM10) (50 µg/m³ – 24 hour standard).

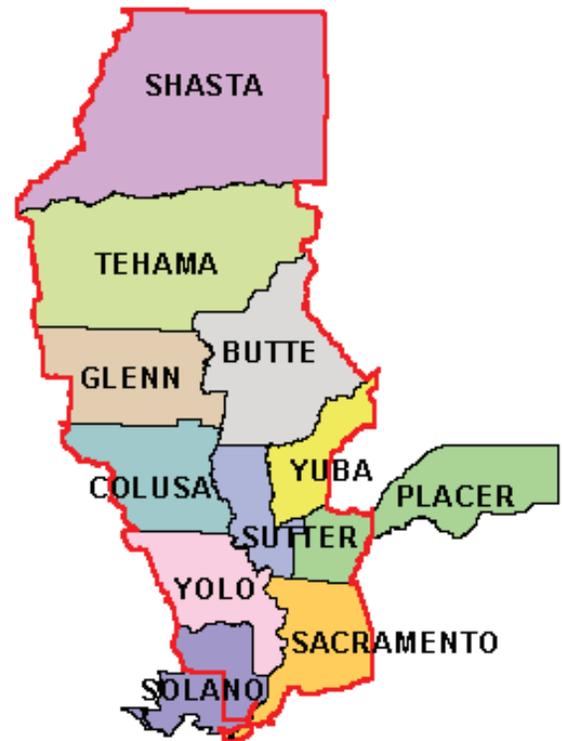


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Find more health information at www.shastahhsa.net. Click on “Health and Safety,” then “Current Health Concerns.” Questions? Email shastahealthdata@co.shasta.ca.us

Days in violation of the State PM10 standard, Shasta County (3-year averages)		
Year	Redding	Anderson
1999-01	1	1
2000-02	0	1
2001-03	0	1
2002-04	0	1
2003-05	0	1
2004-06	0	0
2005-07	0	0
2006-08	1	1
2007-09	1	1
2008-10	1	1
2009-11	0	0
2010-12	0	0
2011-13	0	1

Sacramento Valley Air Basin



KEY POINTS:

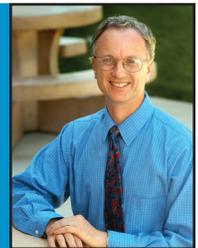
- Shasta County is located at the north end of the Sacramento Valley Air Basin. Due to frequent calm weather conditions in the basin, air pollutants tend to accumulate and persist in the valley for several days at a time.
- The average number of ozone violation days in Redding and Anderson was highest during 2006-2008.
- Each year during 1993-2013, there were one or fewer days in violation of the PM10 standard.

PRIMARY PREVENTION ACTIVITIES:

- Use clean technologies that reduce industrial smokestack emissions.
- Use low-emissions fuels and renewable combustion-free power sources (like solar, wind or hydropower).
- Consider composting rather than burning brush and leaves.
- Purchase and maintain vehicles for best gas mileage or for lowest emissions of air pollutant gases.
- Carpool or use public transportation whenever possible.
- Reduce motor-vehicle trips, especially on days predicted to have high ozone levels.

From the Desk of Andrew Deckert, MD, MPH

*Shasta County
Public Health Officer*



Air pollution is associated with several major illnesses such as cardiac and respiratory diseases, predisposition to different infections and cancers of lung and urinary tract.

The major hazardous air pollutants are ozone, particulate matter of small size (less than 10 micrometers in diameter), nitrogen dioxide (NO₂) and sulfur dioxide (SO₂).

Production and use of clean energy sources, efficient methods of transportation, and reducing the pollutants from industry and agriculture can help reduce air pollution-related deaths.

To your health!