

State of the Air 2014:

Notes for the Southwest

Notes: Rankings have changed in part because OMB combined some smaller metro areas into larger metro areas. Those combinations reduced the overall number of metros ranked to 217 nationwide from 277 in the previous reports. This report covers 2010-2012.

Key Findings

- **Region reflects national trends** in 2014 report compared to 2013 report in worse ozone, but the region had more cities with better year-round particles (with some exceptions) and worse short-term particles.
 - Hotter summers led to worse ozone, a challenging situation with changing climate.
 - Cleaner diesel, power plants led to less year-round particle pollution, but weather may have kept some worse. Most areas meet the annual national standard.
- **Salt Lake City** had fewer short-term spikes in PM, but still is 8th most polluted—and these data do not take the winter of 2013 or 2014 into count. Short-term spikes can vary by the weather, but can be helped by cleaning up sources.
- **Phoenix** is the only SW city on all three 25 most polluted lists **and had worse air quality in all three. Las Vegas also did worse in all three.**
- **Albuquerque** ranked on both the cleanest cities list for particle pollution: year-round and short-term. However, the city earned an F for ozone.

Phoenix-Mesa-Scottsdale, AZ

Ranked tied for 8th most polluted for year-round particles—*worse level, worse ranking*

Ranked tied for 15th most polluted for short-term particle pollution— *worse average number of days, worse ranking*

Ranked tied for 11th most polluted for ozone—*significantly worse average number of days, worse ranking*

Ozone. The metro area has **significantly worsened ozone levels** in 2010-2012 and worsened its ranking to 11th from 23rd in 2009-2011 for most polluted in the nation.

- **Maricopa County, AZ**, the most polluted county in the metro area, significantly increased its weighted average to 18.7 days with unhealthy levels of ozone, one-third more days than the

weighted average of 11.7 days in 2009-2011. This year's weighted average reverses a trend toward cleaner air begun after 2005-2007.

Year-round Particles. The **metro area worsened** year-round particle levels in 2010-2012 over the previous report. The metro area's ranking worsened to tied for 8th most polluted metro area from 18th most polluted in the 2013.

- **Pinal County, AZ**, the most polluted county in the metro area, **worsened its pollution to 13.5 $\mu\text{g}/\text{m}^3$** from its 13.3 $\mu\text{g}/\text{m}^3$ in 2009-2011. Annual particle pollution remains elevated after the new monitor in Pinal County showed elevated levels. This does include data from the Cowtown monitor.

Short-term Particles. The **metro area worsened its average unhealthy days** for particle pollution in 2010-2012. Rank significantly worsened to 15th most polluted for short-term particle pollution from 21st place in 2009-2011.

- The metro area **worsened its weighted average** to 6.3 days, recorded in **Maricopa County, AZ**, from 5.3 days in 2009-2011. This continues a fluctuating trend of pollution levels that is approaching its high of 7 days in 2000-2002. This does include data from the Cowtown monitor.

Counties in this metro

Arizona

Maricopa

Pinal

Salt Lake City-Provo-Orem, UT

Ranked 8th most polluted for short-term particles—improved ranking, Lowest average number of days ever.

Ranked tied for 117th most polluted for year-round particles—slightly improved levels

Ranked tied for 53rd most polluted for ozone—worse ozone, but improved ranking

Short-term Particles. The metro area **had its fewest days yet** with unhealthy for particle pollution in 2010-2012. Ranking improved to 8th most polluted from 6th most polluted for short-term levels of particle pollution in 2009-2011. The metro area now **includes the Provo-Orem Metro area** has had historically high readings as well.

- **Salt Lake County, UT**, the most polluted county in the metro area, lowered its weighted average to 13.2 days in 2010-2012 from 21.0 days in 2009-2011. The decrease continues the fluctuating pattern of pollution levels, although this is the fewest days recorded.
- **Overall levels are still declining** from a high of 31.7 days in 2000-2002 and 2002-2004. This metro area now includes Utah County.

Year-round Particles. The **metro area has slightly improved year-round levels** for particle pollution in 2010-2012. It significantly worsened its ranking to tied for 117th most polluted city in the nation for year-round particle pollution in 2010-2012 from tied for 134th in 2009-2011.

- **Salt Lake County, UT**, the most polluted county in the metro area, **slightly improved** its level of year-round particle pollution with a decrease to 9.2 µg/m³, its best levels ever, in 2010-2012 from 9.7 µg/m³ in 2009-2011. This year's levels continue the gradual decrease in annual particle pollution from the high of 15.2 µg/m³ in 2000-2002.

Ozone. The metro area has **slightly worsened ozone levels** in 2010-2012 and ranked tied for 53rd in 2010-2012 for most polluted in the nation, slightly better than the ranking of tied for 51st in 2009-2011 due to higher air pollution levels in other cities.

- **Salt Lake County, UT**, had a weighted average of 7 days with unhealthy levels of ozone, **slightly worse** than 5 days in 2009-2011. This year's weighted average reverses the gradual decline in ozone levels that reached a low of 5 days in 2009-2011. Ozone levels had gradually decreased, with fluctuations, from a high of 22 days in 1996-1998.

Counties in this metro

Utah	Box Elder	Davis	Juab	Morgan	Salt Lake
	Summit	Tooele	Utah	Wasatch	Weber

Las Vegas-Henderson, NV-AZ

Ranked tied for 10th most polluted for ozone—*significantly worse average number of days, worse ranking*

Ranked tied for 61st most polluted for short-term particle pollution—*worse average number of days*

Ranked tied for 164th most polluted for year-round particles—*slightly worse level*

Ozone. The metro area has **significantly worsened ozone levels** in 2010-2012 and worsened its ranking to 10th in 2010-2012 from 16th for most polluted in the nation.

- **Clark County, NV**, the most polluted county in the metro area, **had a weighted average of 19.7 days of unhealthy levels** of ozone in 2010-2012, higher than the weighted average of 12 days in 2009-2011. This is the worst (highest) average number of days since 2006-2008, though this year's weighted average remains a significant improvement over 32.67 days in 2001-2003.

Particle Pollution. The metro area has **more days of unhealthy air on average** in 2010-2012, rising to 1.7 days, a C, from 0.7 days in the 2013 report, and ranked 61st most polluted in the nation. Year-round particles rose slightly to µg/m³ from the record low average in the 2013 report, of 7.7 µg/m³, but still is well below the national air quality standards.

Counties in this metro

Arizona	Mohave	
Nevada	Clark	Nye

Albuquerque-Santa Fe-Las Vegas, NM

Ranked as one of the cleanest cities for short-term particle pollution—no unhealthy air days

Ranked as one of the cleanest cities for year-round particle pollution—slight increase over 2013, but still well under national air quality standard.

Ranked tied for 84th most polluted for ozone—increase in unhealthy air days

Ozone. The metro area has significantly worsened ozone levels in 2010-2012 slightly worsened their ozone levels and ranked tied for 84th in 2010-2012 for most polluted in the nation, much worse than the ranking of tied for 109th in 2009-2011.

- **Bernalillo County, NM, had a weighted average of 3.3 days** with unhealthy levels of ozone, slightly worse than 1.7 days in 2009-2011. This year's weighted average continues the gradual increase in ozone levels from a low of 0.3 days in 2008-2010. Levels are still better than the high of 8.3 days in 2003-2005.

Counties in this metro

New Mexico	Bernalillo	Cibola	Los Alamos	Rio Arriba	San Miguel
	Sandoval	Santa Fe	Torrance	Valencia	

El Paso-Las Cruces, TX-NM

Ranked tied for 8th most polluted for year-round particles—level unchanged, worse ranking

Ranked tied for 9th most polluted for short-term particle pollution—worst number of days on average.

Ranked tied for 102nd most polluted for ozone—unchanged average number of days

Year-round Particles. The metro area worsened year-round particles significantly moving to 8th most polluted metro area from 45th most polluted in the 2013 report. The level **now fails to meet the national air quality standard.** The Las Cruces, NM MSA and the El Paso, TX, MSA were combined into one MSA in this year's report.

- **Doña Ana County, NM has the highest annual average** at 13.5 $\mu\text{g}/\text{m}^3$, a significant increase from the 11.9 $\mu\text{g}/\text{m}^3$ in the 2013 report covering 2009-2011.

Short-term Particles. The metro area experienced its **worst number of unhealthy days** for particle pollution in 2010-2012. Ranking worsened to 9th th most polluted area for short-term levels of particle pollution, this ranking is worse than in 2008-2010 when it tied for 17th.

- **Dona Ana County, NM increased its weighted average to 7.7 days** of unhealthy levels of particle pollution, the highest levels ever recorded for the area, from 6.0 days that were

recorded in 2008-2010. This continues a trend of increasing numbers of high pollution days each year, from the low of 1.7 days in 2005-2007.

Ozone. The metro area maintained the same average number of unhealthy ozone days in 2010-2012, averaging 2.7 days, a D grade. The metro area is now ranked at 102nd most polluted. Both El Paso County, TX and Doña Ana County, NM had 2.7 days on average, a D grade.

Counties in this metro

New Mexico	Doña Ana	
Texas	El Paso	Hudspeth

Logan, UT-ID

Ranked 11th most polluted for short-term particle pollution—worst number of days on average.

Ranked tied for 148^h most polluted for year-round particles—improved annual average, best ever

Ranked tied for 102nd most polluted for ozone—unchanged average number of days

Particle Pollution. The metro area significantly reduced its average number of unhealthy particle pollution days in 2010-2012. Ranked improved to the 11th most polluted from 10th most polluted in 2009-2011. The year-round levels also continued to drop, reaching its lowest annual level.

- **Cache County, UT**, the most polluted county in the metro area, **reduced its weighted average to 8.7 days** in 2010-2012 from 14.3 days in 2009-2011 from 15.7 days of unhealthy levels of particle pollution. This year's average continues the recent trend of reduced averages since 2008-2010. The worst was 31.8 days in 2004-2006.
- Cache County, UT, reported its lowest annual level at 8.7 $\mu\text{g}/\text{m}^3$, that meets the national air quality standard.

Counties in this metro

Idaho	Franklin
Utah	Cache

Fort Collins, CO

Ranked 22nd most polluted for ozone—significantly worse average number of days, worse ranking

Lacked data to develop an average for year-round particle pollution—Incomplete

Ranked as one of the cleanest cities for short-term particle pollution—no unhealthy air days

Ozone. The metro area has significantly worsened ozone levels in 2010-2012 and suffering over twice as many days in 2010-2012 and moving for the first time onto the list of the nation's most polluted cities.

- **Larimer County**, the only county in the MSA, had a weighted average of 14.7 days in 2010-2012, over twice as many as in 2009-2011, when it had 6.7 days. The cleanest period for ozone came in 1996-1998, when the county experienced a weighted average of 3.7 days. The worst period was in 2001-2003 and 2002-2004, when there were 16.3 days.

Denver-Aurora, CO

Lacked data to develop an average for year-round particle pollution –*Incomplete*

Ranked tied for 77th most polluted for short-term particle pollution—*maintained average number of days, worse ranking*

Ranked 26th most polluted for ozone—*worse average number of days, worse ranking*

Ozone. The metro area has worsened ozone levels in 2010-2012 and a worse ranking for most polluted cities for ozone.

- **Jefferson County, CO** had a weighted average of 13.8 days in 2010-2012, more than the 8.2 days in 2009-2011. Ozone levels have increased since the cleanest period in 1996-1998, when the county experienced a weighted average of 7.7 days. The worst period was in 2001-2003, when there were 21.8 days.

Counties in this metro

Colorado	Adams	Arapahoe	Boulder	Broomfield	Clear Creek
	Denver	Douglas	Elbert	Gilpin	Jefferson
	Park	Weld			

Tucson-Nogales, AZ

Ranked tied for 103rd most polluted for year-round particle pollution – *significantly worse annual average and ranking due to combining of metro areas*

Ranked tied for 96th most polluted for short-term particle pollution—*significantly worse average number of days and ranking due to combining of metro areas*

Ranked tied for 148th most polluted for ozone—*slightly improved average number of days, significantly improved ranking*

Counties in this metro

Arizona	Pima	Santa Cruz
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Uintah County, UT

Ranked as the 10th most polluted county for ozone—*more polluted days*

Ozone. Uintah County, UT **has worsened ozone levels** in 2010-2012 and is **the only one in the top 25 most polluted that is not part of a metro area** with population over 50,000. In 2010-2012, the county had 28.3 unhealthy air days on average (an F) and the worst since reporting began in 2005-2007. This year's average is higher than in the 2013 report, with 27.8.

Cleanest Cities

Cleanest for Ozone Pollution

Zero unhealthy air days—All counties

Grand Junction, CO

Cleanest for Year-Round Particle Pollution

Lowest design values

Rank	Design Value	Metropolitan Statistical Area
1	4.0	Prescott, AZ
5	5.1	St. George, UT
6	5.2	Flagstaff, AZ
12	6.2	Reno-Carson City-Fernley, NV
13	6.5	Albuquerque-Santa Fe-Las Vegas, NM
17	6.7	Sierra Vista-Douglas, AZ

Cleanest for Short-term Particle Pollution

Zero unhealthy air days—All counties

Colorado Springs, CO
Farmington, NM
Flagstaff, AZ
Fort Collins, CO
Prescott, AZ
Pueblo-Cañon City, CO
Sierra Vista-Douglas, AZ
St. George, UT
Yuma, AZ

