



**NEW!!! CLICK HERE FOR UPDATED 2009 OZONE SEASON STATS NEW!!!**  
**AIR QUALITY FORECAST FOR SATURDAY, JULY 04, 2009**

This report is updated by 1:00 p.m. Sunday thru Friday and is valid for areas within and bordering Maricopa County in Arizona

FORECAST DATE	YESTERDAY THU 07/02/2009	TODAY FRI 07/03/2009	TOMORROW SAT 07/04/2009	EXTENDED SUN 07/05/2009
<b>NOTICES</b> (*SEE BELOW FOR DETAILS)	<b>DUST</b>	<b>OZONE HEALTH WATCH</b>	<b>OZONE HEALTH WATCH</b>	<b>DUST</b>
AIR POLLUTANT	Highest AQI Reading/Site (Preliminary data only)	<b>DUST</b>	<b>DUST</b>	
<b>O3*</b>	<b>116</b> WEST PHOENIX	<b>93</b> MODERATE	<b>93</b> MODERATE	<b>71</b> MODERATE
<b>CO*</b>	<b>07</b> GREENWOOD	<b>08</b> GOOD	<b>07</b> GOOD	<b>07</b> GOOD
<b>PM-10*</b>	<b>30</b> WEST FORTY THIRD	<b>68</b> MODERATE	<b>74</b> MODERATE	<b>72</b> MODERATE
<b>PM-2.5*</b>	<b>42</b> WEST PHOENIX	<b>40</b> GOOD	<b>49</b> GOOD	<b>39</b> GOOD

\* O3 = Ozone    CO = Carbon Monoxide    PM-10 = Particles 10 microns & smaller    PM-2.5 = Particles smaller than 2.5 microns  
 \*\*"Ozone Health Watch" means that the highest concentration of OZONE may approach the federal health standard.  
 "PM-10 or PM-2.5 Health Watch" means that the highest concentration of PM-10 or PM-2.5 may approach the federal health standard.  
 "High Pollution Advisory" means that the highest concentration of OZONE, PM-10, or PM-2.5 may exceed the federal health standard.  
 "DUST" means that short periods of high PM-10 concentrations caused by outflow from thunderstorms are possible.

**Health message for Friday, July 03: Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.**

**Health message for Saturday, July 04: Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.**

**Synopsis and Discussion**

**AN OZONE HEALTH WATCH HAS BEEN ISSUED FOR THE REST OF TODAY AND HAS BEEN EXTENDED THRU SATURDAY JULY 04**

Surface winds on Thursday were mostly light or calm all afternoon and this contributed to the highest local ozone level of the season thus far. The locations of the monitoring sites that either exceeded the standard or were in the upper moderate range of the Air Quality Index were all located within the central city – a trademark of a light to easterly wind regime. Also, an early morning outflow boundary on Thursday also likely helped the process along. Valley ozone levels were ramping up early and fast this morning, prompting the issuance of an Ozone Health Watch. In addition, even though surface winds are expected to become westerly on Saturday, the potential for outflow boundaries may partially offset this westerly wind flow. Locations at highest risk for near-to-unhealthy ozone levels should shift to the east and northeast Valley today and Saturday. –Reith

MONITORING SITE MAPS: STATIC MAP - <http://www.azdeq.gov/environ/air/monitoring/images/map.jpg>  
 INTERACTIVE MAPS - <http://aqwww.maricopa.gov/AirMonitoring/SitePollutionMap.aspx>  
<http://www.airnow.gov/>



**POLLUTION MONITOR READINGS FOR THURSDAY, JULY 02, 2009**



**O3 (OZONE)**

For facts on new 8-hr ozone standard go to: [http://www.epa.gov/air/ozonepollution/pdfs/2008\\_03\\_aqi\\_changes.pdf](http://www.epa.gov/air/ozonepollution/pdfs/2008_03_aqi_changes.pdf)  
 For maps go to: <http://www.airnow.gov/index.cfm?action=airnow.currentconditions>

SITE NAME	MAX 8-HR VALUE (PPB)	MAX AQI	AQI COLOR CODE
Alamo Lake (La Paz County)	56	47	Green
Apache Junction (Pinal County)	63	61	Yellow
Blue Point	57	48	Green
Buckeye	69	80	Yellow
Casa Grande (Pinal County)	62	58	Yellow
Cave Creek	58	49	Green
Central Phoenix	71	87	Yellow
Combs School (Pinal County)	47	40	Green
Dysart	69	80	Yellow
Falcon Field	63	61	Yellow
Fountain Hills	56	47	Green
Glendale	NOT AVBL	NOT AVBL	NOT AVBL
Humboldt Mountain	56	47	Green
Maricopa (Pinal County)	57	48	Green
North Phoenix	68	77	Yellow
Phoenix Supersite	77	104	Orange
Pinal Air Park (Pinal County)	61	54	Yellow
Pinnacle Peak	61	54	Yellow
Queen Valley (Pinal County)	65	67	Yellow
Rio Verde	56	47	Green
South Phoenix	75	100	Yellow
South Scottsdale	68	77	Yellow
Tempe	66	71	Yellow
Tonto Nat'l Mon. (Gila County)	55	47	Green
West Chandler	63	61	Yellow
West Phoenix	82	116	Orange
Yuma (Yuma County)	37	31	Green

## CO (CARBON MONOXIDE)

SITE NAME	MAX 8-HR VALUE (PPM)	MAX AQI	AQI COLOR CODE
Central Phoenix	0.4	05	
Greenwood	0.6	07	
Phoenix Supersite	0.4	05	
West Indian School	0.5	06	
West Phoenix	0.1	01	

## PM-10 (PARTICLES)

SITE NAME	MAX 24-HR VALUE (ug/m3)	MAX AQI	AQI COLOR CODE
Buckeye	26	24	
Central Phoenix	21	19	
Combs School(Pinal County)	NOT AVBL	NOT AVBL	NOT AVBL
Durango	29	27	
Greenwood	31	29	
Higley	23	21	
Maricopa (Pinal County)	NOT AVBL	NOT AVBL	NOT AVBL
Phoenix Supersite	19	18	
South Phoenix	29	27	
West Forty Third	32	30	
West Phoenix	25	23	

## PM-2.5 (PARTICLES)

(Some data derived from light-scattering equipment)

For maps go to: <http://www.airnow.gov/>

SITE NAME	MAX 24-HR VALUE (ug/m3)	MAX AQI	AQI COLOR CODE
Durango	6.8	22	
Dysart	4.9	16	
Estrella Mountain Park	4.3	14	
Phoenix Supersite	7.6	25	
South Phoenix	6.5	21	
Vehicle Emissions Lab	5.7	19	
West Phoenix	12.9	42	

## LOCAL AIR POLLUTANTS IN DETAIL



### **O3 (OZONE):**

**Description** – This is a secondary pollutant that is formed by the reaction of other primary pollutants (precursors) such as VOCs (volatile organic compounds) and NO<sub>x</sub> (Nitrogen Oxides) in the presence of heat and sunlight.

**Sources** – VOCs are emitted from motor vehicles, chemical plants, refineries, factories, and other industrial sources. NO<sub>x</sub> is emitted from motor vehicles, power plants, and other sources of combustion.

**Potential health impacts** – Exposure to ozone can make people more susceptible to respiratory infection, result in lung inflammation, and aggravate pre-existing respiratory diseases such as asthma. Other effects include decrease in lung function, chest pain, and cough.

**Unit of measurement** – Parts per billion (ppb).

**Averaging interval** – Highest eight-hour period within a 24-hour period (midnight to midnight).

**Reduction tips** – Curtail daytime driving, refuel cars and use gasoline-powered equipment as late in the day as possible.

### **CO (CARBON MONOXIDE):**

**Description** – A colorless, odorless, poisonous gas formed when carbon in fuels is not burned completely.

**Sources** – In cities, as much as 95 percent of all CO emissions emanate from automobile exhaust. Other sources include industrial processes, non-transportation fuel combustion, and natural sources such as wildfires. Peak concentrations occur in colder winter months.

**Potential health impacts** – Reduces oxygen delivery to the body's organs and tissues. The health threat is most serious for those who suffer from cardiovascular disease.

**Unit of measurement** – Parts per million (ppm).

**Averaging interval** – Highest eight-hour period within a 24-hour period (midnight to midnight)

**Reduction tips** – Keep motor vehicle tuned properly and minimize nighttime driving.

### **PM-10 & PM-2.5 (PARTICLES):**

**Description** – The term “particulate matter” (PM) includes both solid particles and liquid droplets found in air. Many manmade and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. Particles less than 10 micrometers in diameter tend to pose the greatest health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 micrometers in diameter are referred to as “fine” particles and are responsible for many visibility degradations such as the “Valley Brown Cloud” (see <http://www.phoenixvis.net/>). Particles with diameters between 2.5 and 10 micrometers are referred to as “coarse”.

**Sources** – Fine = All types of combustion (motor vehicles, power plants, wood burning, etc.) and some industrial processes. Coarse = crushing or grinding operations and dust from paved or unpaved roads.

Potential health impacts – PM can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases, such as asthma and chronic bronchitis.

Units of measurement – Micrograms per cubic meter (ug/m<sup>3</sup>)

Averaging interval – 24 hours (midnight to midnight).

Reduction tips – Stabilize loose soils, slow down on dirt roads, carpool, and use public transit.

{Updated 08/14/2007}