



**VERY UNHEALTHY (201-300)**  
**UNHEALTHY (151-200)**  
**UNHEALTHY FOR SENSITIVE GROUPS (101-150)**  
**MODERATE (51-100)**  
**GOOD (0-50)**

For more information visit:  
<http://www.airnow.gov/index.cfm?action=aqibasics.aqi>

**NEW!!! CLICK HERE FOR UPDATED 2010 OZONE SEASON STATS NEW!!!**

**AIR QUALITY FORECAST FOR FRIDAY, SEPTEMBER 03, 2010**

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 WED 09/01/2010	TODAY THU 09/02/2010	TOMORROW FRI 09/03/2010	EXTENDED SAT 09/04/2010
<b>NOTICES</b> (*SEE BELOW FOR DETAILS)	NONE	OZONE HEALTH WATCH	OZONE HEALTH WATCH EXTENSION NWS EXCESSIVE HEAT WATCH	NONE
AIR POLLUTANT	Highest AQI Reading/Site (Preliminary data only)			
<b>O3*</b>	<b>71</b> QUEEN VALLEY	<b>90</b> MODERATE	<b>90</b> MODERATE	<b>74</b> MODERATE
<b>CO*</b>	<b>09</b> GREENWOOD	<b>10</b> GOOD	<b>09</b> GOOD	<b>08</b> GOOD
<b>PM-10*</b>	<b>40</b> WEST FORTY THIRD	<b>38</b> GOOD	<b>40</b> GOOD	<b>34</b> GOOD
<b>PM-2.5*</b>	<b>37</b> PHOENIX SUPERSITE	<b>35</b> GOOD	<b>38</b> GOOD	<b>29</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 Thursday, September 02: Unusually sensitive people should consider reducing prolonged or heavy exertion.**

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

**Synopsis and Discussion**

**TODAY'S OZONE HEALTH WATCH HAS BEEN EXTENDED THRU FRIDAY SEPTEMBER 03**

Since Sunday highest local 8-hour average ozone levels have risen by 20 parts per billion and peak hourly concentrations have increased by 28 ppb. During the same period afternoon high temperatures have warmed by 3-5 deg F, cloud cover has become nearly absent, and afternoon winds have decreased from gusting to 30 mph to mostly <15 mph. Since relatively light winds are forecast to continue thru Friday, and afternoon highs are expected to top 110 deg F by then, today's Ozone Health Watch will remain in effect and has been extended thru Friday. As of 10:00 a.m. today hourly ozone concentrations at the central metro monitoring sites – those most at risk for high ozone readings the next few days – were running up to 11 ppb higher than 24 hours ago. Although a ridge aloft is currently building over the state from the west and south, significant monsoon moisture will not return to the Phoenix metro area for the foreseeable future. The current light wind regime will give way to breezy east to southeasterly winds on Saturday morning and increasing southwesterly winds on Sunday afternoon as another upper level trough in the mid-latitude storm track approaches from the west. As a result, local ozone readings will likely drop into good range of the Air Quality Index this weekend.-Reith

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

**POLLUTION MONITOR READINGS FOR WEDNESDAY, SEPTEMBER 01, 2010**

**O3 (OZONE)**

Info on current 8-hour ozone standard: [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 archived AQI maps go to: [http://www.airnow.gov/index.cfm?action=airnow\\_maps](http://www.airnow.gov/index.cfm?action=airnow_maps)

SITE NAME	MAX 8-HR VALUE (PPB)	MAX AQI	AQI COLOR CODE
Alamo Lake (La Paz County)	42	36	Green
Apache Junction (Pinal County)	60	51	Yellow
Blue Point	60	51	Yellow
Buckeye	42	36	Green
Casa Grande (Pinal County)	50	42	Green
Cave Creek	45	38	Green
Central Phoenix	54	46	Green
Combs School (Pinal County)	51	43	Green
Dysart	41	35	Green
Falcon Field	55	47	Green
Fountain Hills	57	48	Green
Glendale	50	42	Green
Humboldt Mountain	49	42	Green
Maricopa (Pinal County)	45	38	Green
North Phoenix	55	47	Green
Phoenix Supersite	55	47	Green
Pinal Air Park (Pinal County)	46	39	Green
Pinnacle Peak	47	40	Green
Queen Valley (Pinal County)	66	71	Yellow
Rio Verde	62	58	Yellow
South Phoenix	54	46	Green
South Scottsdale	60	51	Yellow
Tempe	54	46	Green
Tonto Nat'l Mon. (Gila County)	54	46	Green
West Chandler	63	61	Yellow
West Phoenix	NOT AVBL	NOT AVBL	NOT AVBL
Yuma (Yuma County)	67	74	Yellow

## CO (CARBON MONOXIDE)

SITE NAME	MAX 8-HR VALUE (PPM)	MAX AQI	AQI COLOR CODE
Central Phoenix	0.5	06	
Greenwood	0.8	09	
Phoenix Supersite	0.4	05	
West Phoenix	NOT AVBL	NOT AVBL	NOT AVBL

## PM-10 (PARTICLES)

SITE NAME	MAX 24-HR VALUE (ug/m3)	MAX AQI	AQI COLOR CODE
Buckeye	32	30	
Central Phoenix	35	32	
Combs School(Pinal County)	49	45	
Durango	40	37	
Dysart	22	20	
Glendale	21	19	
Greenwood	33	31	
Higley	30	28	
Maricopa (Pinal County)	27	25	
Phoenix Supersite	23	21	
South Phoenix	23	21	
West Chandler	21	19	
West Forty Third	44	40	
West Phoenix	NOT AVBL	NOT AVBL	NOT AVBL
Zuni Hills	18	17	

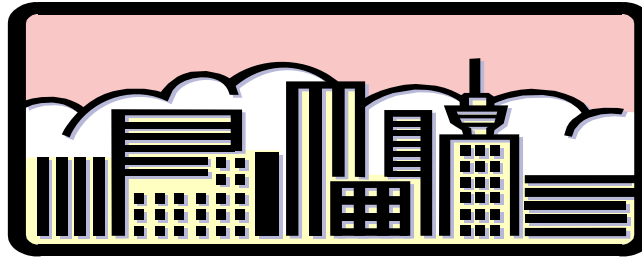
## PM-2.5 (PARTICLES)

(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	9.6	31	
Dysart	5.3	17	
Estrella Mountain Park	3.7	12	
Phoenix Supersite	11.5	37	
South Phoenix	5.9	19	
Vehicle Emissions Lab	6.1	20	
West Phoenix	NOT AVBL	NOT AVBL	NOT AVBL

## 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 03/23/2010}