



AIR QUALITY FORECAST FOR Monday, September 14, 2015

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 <u>Sat 09/12/2015</u>	TODAY <u>Sun 09/13/2015</u>	TOMORROW <u>Mon 09/14/2015</u>	EXTENDED <u>Tue 09/15/2015</u>
NOTICES (*SEE BELOW FOR DETAILS)		Blowing Dust Possible		
AIR POLLUTANT	Highest AQI Reading/Site (*Preliminary data only*)			
O3*	87 Phoenix Supersite	48 <i>Good</i>	35 <i>Good</i>	40 <i>Good</i>
CO*	6 Greenwood	5 <i>Good</i>	6 <i>Good</i>	5 <i>Good</i>
PM-10*	50 West Chandler	55 <i>Moderate</i>	40 <i>Good</i>	44 <i>Good</i>
PM-2.5*	40 Phoenix Supersite	30 <i>Good</i>	28 <i>Good</i>	30 <i>Good</i>

* 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 Statements	
Sunday, 09/13/2015	Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.
Monday, 09/14/2015	No health impacts are expected.

SYNOPSIS AND DISCUSSION

We've got quite an active day ahead of us. A wave of storms originating near southern Arizona is expected to move through the Valley today. The main lift for these convective cells will be the dry air moving into the region. Therefore, expect light winds throughout the day with strong breezy and gusty winds near thunderstorm outflows. Ahead of these storms will be outflows that can pick up dust in the lower deserts. Thus, blowing dust is possible. By tomorrow, the trough located over California will move eastward. Drier air located behind the trough will follow and seep into Arizona. Thus, weather activity will be on the decline this week. However, any lingering moisture coupled with the dynamics from the trough can produce a few more cells tomorrow. As for air quality, PM-10 can be a concern today. But, ozone will fall due to a southerly flow shutting down any transport from the west.

Check back tomorrow for more. Until then, have a good day! -P.Patel

MONITORING SITE MAPS	
INTERACTIVE MAPS	http://alert.fcd.maricopa.gov/alert/Google/v3/air.html http://www.airnow.gov/

POLLUTION MONITOR READINGS FOR Saturday, September 12, 2015

O3 (OZONE)

SITE NAME	MAX 8-HR VALUE (PPB)	MAX AQI	AQI COLOR CODE
Alamo Lake	43	36	
Apache Junction	55	47	
Blue Point	59	50	
Buckeye	46	39	
Casa Grande	51	43	
Cave Creek	56	47	
Central Phoenix	65	67	
Dysart	54	46	
Falcon Field	68	77	
Fountain Hills	55	47	
Glendale	62	58	
Humboldt Mountain	57	48	
Phoenix Supersite	71	87	
Mesa	69	80	
North Phoenix	69	80	
Pinal Air Park	55	47	
Pinnacle Peak	60	51	
Queen Valley	54	46	
Rio Verde	47	40	
South Phoenix	62	58	
South Scottsdale	60	51	
Tempe	NOT AVBL	NOT AVBL	NOT AVBL
Tonto Nat'l Mon.	52	44	
West Chandler	60	51	
West Phoenix	68	77	
Yuma	21	18	

CO (CARBON MONOXIDE)

SITE NAME	MAX 8-HR VALUE (PPM)	MAX AQI	AQI COLOR CODE
Central Phoenix	0.3	3	
Dysart	0.1	1	
Glendale	0.3	3	
Greenwood	0.5	6	
Phoenix Supersite	0.3	3	
Mesa	0.3	3	
North Phoenix	0.4	5	
South Phoenix	0.4	5	
South Scottsdale	0.2	2	
Tempe	#DIV/0!	NOT AVBL	NOT AVBL
West Chandler	0.3	3	
West Phoenix	0.3	3	

PM-10 (PARTICLES)

SITE NAME	MAX 24-HR VALUE ($\mu\text{g}/\text{m}^3$)	MAX AQI	AQI COLOR CODE
Buckeye	56.0	52	
Central Phoenix	35.9	33	
Combs School (Pinal County)	48.9	45	
Durango	24.5	23	
Dysart	50.0	46	
Glendale	31.6	29	
Greenwood	43.1	40	
Higley	NOT AVBL	NOT AVBL	NOT AVBL
Maricopa (Pinal County)	40.2	37	
Phoenix Supersite	33.2	31	
Mesa	33.1	31	
North Phoenix	30.3	28	
South Phoenix	27.3	25	
South Scottsdale	29.8	28	
Tempe	NOT AVBL	NOT AVBL	NOT AVBL
West Chandler	54.0	50	
West Forty Third	41.6	38	
West Phoenix	28.2	26	
Zuni Hills	50.2	46	

PM-2.5 (PARTICLES)

SITE NAME	MAX 24-HR VALUE ($\mu\text{g}/\text{m}^3$)	MAX AQI	AQI COLOR CODE
Diablo	9.1	38	
Durango	6.6	28	
Glendale	6.2	26	
Phoenix Supersite	9.5	40	
Mesa	7.6	32	
North Phoenix	6.5	27	
South Phoenix	6.7	28	
Tempe	NOT AVBL	NOT AVBL	NOT AVBL
West Phoenix	6.9	29	

DESCRIPTION OF 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 NOx (Nitrogen Oxides) in the presence of sunlight.

Sources – VOCs are emitted from motor vehicles, chemical plants, refineries, factories, and other industrial sources. NOx 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/m3)

Averaging interval – 24 hours (midnight to midnight).

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