



LINK TO EXCEEDANCE & HEALTH STATEMENT INFO FOR THE 2009-10 & 2008-09 FORECAST SEASONS

AIR QUALITY FORECAST FOR WEDNESDAY, FEBRUARY 10, 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 <u>MON 02/08/2010</u>	TODAY <u>TUE 02/09/2010</u>	TOMORROW <u>WED 02/10/2010</u>	EXTENDED <u>THU 02/11/2010</u>
NOTICES (*SEE BELOW FOR DETAILS)				
AIR POLLUTANT	Highest AQI Reading/Site (Preliminary data only)			
O3*	36 FOUNTAIN HILLS	38 GOOD	36 GOOD	33 GOOD
CO*	14 WEST INDIAN SCHOOL & WEST PHOENIX	20 GOOD	11 GOOD	17 GOOD
PM-10*	26 GREENWOOD	24 GOOD	30 GOOD	25 GOOD
PM-2.5*	32 DURANGO	37 GOOD	30 GOOD	29 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 Tuesday, February 9: No health impacts are expected.

Health message for Wednesday, February 10: No health impacts are expected.

Synopsis and Discussion

A modest trough of low pressure will dive south and then push east through southern Arizona on Wednesday. This will bring clouds and a chance for local showers on Wednesday. Rain amounts are forecast to be in the range of 0.10-0.50 inches here in the Phoenix forecast. Spotty in nature, it's possible some parts of the Valley will remain dry. Conditions improve Thursday as the system races east. High pressure will quickly rebound, remaining in place through much of next week. Afternoon desert temperatures will be in the low 60s on Wednesday, warming into the low to mid 70s by early next week.

Winds accompanying the system on Wednesday could be gusty at times, resulting in some isolated areas of blowing dust. However, the increased atmospheric moisture and potential rainfall will counteract any rise in PM-10 concentrations. Thus, air quality levels in the Phoenix forecast area should continue to be in the "Good" range through Friday.

Check back tomorrow for more. Until then, have a good day! -J.Paul

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 MONDAY, FEBRUARY 8, 2010



O3 (OZONE)

SITE NAME	MAX 8-HR VALUE (PPB)	MAX AQI	AQI COLOR CODE
Apache Junction	41	35	Green
Blue Point	41	35	Green
Central Phoenix	35	30	Green
Fountain Hills	43	36	Green
North Phoenix	34	29	Green
Phoenix Supersite	35	30	Green
Pinnacle Peak	39	33	Green
South Phoenix	35	30	Green
South Scottsdale	39	33	Green
West Phoenix	34	29	Green

CO (CARBON MONOXIDE)

SITE NAME	MAX 8-HR VALUE (PPM)	MAX AQI	AQI COLOR CODE
Buckeye	0.2	2	Green
Central Phoenix	0.3	3	Green
Dysart	0.2	2	Green
Glendale	0.4	5	Green
Greenwood	0.8	9	Green
Mesa	0.2	2	Green
North Phoenix	0.5	6	Green
Phoenix Supersite	0.6	7	Green
South Phoenix	0.6	7	Green
South Scottsdale	0.2	2	Green
Tempe	0.3	3	Green
West Chandler	0.7	8	Green
West Indian School	1.2	14	Green
West Phoenix	1.2	14	Green

PM-10 (PARTICLES)

SITE NAME MAX 24-HR VALUE (ug/m3) MAX AQI AQI COLOR CODE

Buckeye	11.1	10	
Central Phoenix	15.8	14	
Combs School (Pinal County)	17.5	16	
Durango	24.6	22	
Dysart	10.8	10	
Glendale	14.7	13	
Greenwood	28.4	26	
Higley	21.3	19	
Maricopa (Pinal County)	28.4	26	
Phoenix Supersite	15.3	14	
South Phoenix	17.9	16	
West Chandler	13.7	12	
West Forty Third	22.9	21	
West Phoenix	20.4	19	
Zuni Hills	NOT AVBL	NOT AVBL	NOT AVBL

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	10.0	32	
Dysart	NOT AVBL	NOT AVBL	NOT AVBL
Estrella Mountain Park	5.9	19	
Phoenix Supersite	9.3	30	
Queen Valley	2.8	9	
South Phoenix	NOT AVBL	NOT AVBL	NOT AVBL
Vehicle Emissions Lab	5.1	17	
West Phoenix	8.3	27	

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 heat and 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.

{ Updated 09/24/2007 }