



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

AIR QUALITY FORECAST FOR SATURDAY, NOVEMBER 21, 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 11/19/2009	TODAY FRI 11/20/2009	TOMORROW SAT 11/21/2009	EXTENDED SUN 11/22/2009
NOTICES (*SEE BELOW FOR DETAILS)				
AIR POLLUTANT	Highest AQI Reading/Site (Preliminary data only)			
O3*	38 PINNACLE PEAK	37 GOOD	35 GOOD	37 GOOD
CO*	28 WEST INDIAN SCHOOL	23 GOOD	25 GOOD	26 GOOD
PM-10*	74 DURANGO	74 MODERATE	68 MODERATE	65 MODERATE
PM-2.5*	86 DURANGO	66 MODERATE	70 MODERATE	70 MODERATE

* 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, November 20: Unusually sensitive people should consider limiting prolonged outdoor exertion.

Health message for Saturday, November 21: Unusually sensitive people should consider limiting prolonged outdoor exertion.

Synopsis and Discussion

PM-2.5 concentrations continue to soar near central Phoenix at the Durango monitor, well into the upper part of the “Moderate” range. The primary source is uncertain at this time. Weather conditions remain fairly unchanged as high pressure continues to rule the pattern across Arizona. Thus, afternoon desert temperatures will stay in the mid to upper 70s through much of next week with relatively light winds and mostly sunny skies. Little to no horizontal movement of the air means continued accumulation of dust, wood smoke from fireplaces, car emissions, etc. can be expected through much of next week. There is an increasing risk of a Health Watch or High Pollution Advisory for PM-2.5 and possibly PM-10 next week with no rain or major wind-related clearing event expected over the next 7 to 10 days. Either would automatically trigger a NO BURN DAY for Maricopa County. Local residents can do their part to help lower this possibility by limiting or foregoing fireplace and outdoor fire pit activities, reducing speeds on dirt roads, watering down unstable soil where possible, and carpooling or limiting vehicle trips. For more information on particle pollution, health effects and reduction tips, visit www.airnow.gov.

Check back on Sunday for the latest. Until then, have a great weekend! –J.Paul

MONITORING SITE MAPS: STATIC MAP – <http://www.azdeg.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, NOVEMBER 19, 2009



O3 (OZONE)

SITE NAME	MAX 8-HR VALUE (PPB)	MAX AQI	AQI COLOR CODE
Apache Junction	37	31	
Blue Point	43	36	
Central Phoenix	24	20	
Fountain Hills	39	33	
North Phoenix	30	25	
Phoenix Supersite	24	20	
Pinnacle Peak	45	38	
South Phoenix	32	27	
South Scottsdale	28	24	
West Phoenix	26	22	

CO (CARBON MONOXIDE)

SITE NAME	MAX 8-HR VALUE (PPM)	MAX AQI	AQI COLOR CODE
Buckeye	0.3	3	
Central Phoenix	1.4	16	
Dysart	0.3	3	
Glendale	0.9	10	
Greenwood	2.3	26	
Mesa	0.7	8	
North Phoenix	1.0	11	
Phoenix Supersite	1.5	17	
South Phoenix	1.2	14	
South Scottsdale	1.3	15	
Tempe	1.3	15	
West Chandler	1.1	13	
West Indian School	2.5	28	
West Phoenix	2.3	26	

PM-10 (PARTICLES)

SITE NAME	MAX 24-HR VALUE (ug/m3)	MAX AQI	AQI COLOR CODE
Buckeye	82.9	65	
Central Phoenix	54.5	50	
Combs School (Pinal County)	82.1	64	
Durango	102.9	74	
Dysart	41.9	38	
Glendale	52.7	48	
Greenwood	89.6	68	
Higley	58.4	53	
Maricopa (Pinal County)	56.4	51	
Phoenix Supersite	44.5	41	
South Phoenix	71.7	59	
West Chandler	43.5	40	
West Forty Third	87.8	67	
West Phoenix	74.2	60	

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	29.7	86	
Dysart	9.6	31	
Estrella Mountain Park	9.8	32	
Phoenix Supersite	18.3	58	
Queen Valley	9.9	32	
South Phoenix	NOT AVBL	NOT AVBL	NOT AVBL
Vehicle Emissions Lab	13.7	44	
West Phoenix	21.6	66	

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_x (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_x 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 }