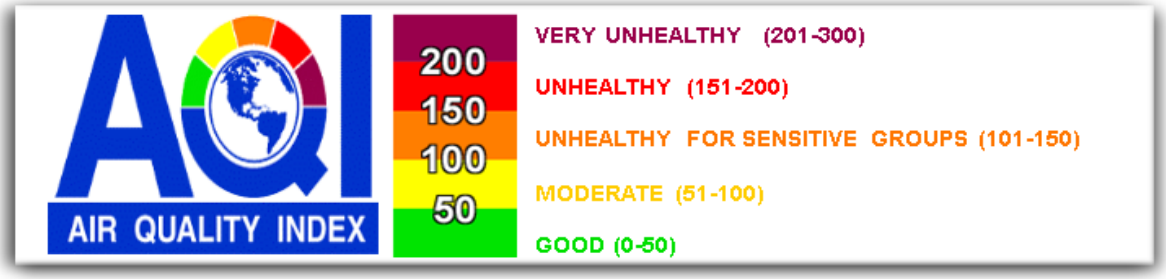
ADEQ Arizona Department of Environmental Quality



AIR QUALITY FORECAST ISSUED Friday, August 12, 2016

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 NOTICES AIR POLLUTANT	YESTERDAY Thu, 8/11/2016 Highest AQI Reading/Site (*Preliminary data only*)	TODAY Fri, 8/12/2016	TOMORROW Sat, 8/13/2016 Ozone High Pollution Advisory HPA	EXTENDED Sun, 8/14/2016 Ozone High Pollution Advisory HPA
O3	**51** **North Phoenix**	**84** ***Moderate***	**101** ***Unhealthy for Sensitive Groups***	**101** ***Unhealthy for Sensitive Groups***
CO	**6** **Diablo**	**6** ***Good***	**6** ***Good***	**7** ***Good***
PM-10	**21** **Greenwood**	**36** ***Good***	**43** ***Good***	**39** ***Good***
PM-2.5	**33** **North Phoenix**	**30** ***Good***	**32** ***Good***	**31** ***Good***

O3 = Ozone CO = Carbon Monoxide PM-10 = Particles 10 microns & smaller PM-2.5 = Particles smaller than 2.5 microns

"High Pollution Advisory" (HPA) means that the highest concentration of OZONE, PM-10, or PM-2.5 may exceed the federal health standard.

"Health Watch" (HW) means that the highest concentration of OZONE, PM-10 or PM-2.5 may approach the federal health standard.

Health Statements	
Friday, 08/12/2016	Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.
Saturday, 08/13/2016	Active children and adults and people with respiratory disease such as asthma should limit prolonged exertion outdoors.

Synopsis and Discussion

An Ozone High Pollution Advisory is valid for Saturday, August 13, 2016.
An Ozone High Pollution Advisory is valid for Sunday, August 14, 2016.

Note: During active monsoon periods, strong outflow winds from even distant thunderstorms can generate periods of dense blowing dust.

The atmosphere will dry out this weekend, leading to a decrease in weather activity in the Valley. Dry air intruding from the north will force moisture southward, giving us clear skies and warmer temperatures this weekend. Nevertheless, the higher terrain still has a chance for some scattered storms tomorrow. It's possible these storms can be strong enough to produce some outflows from the east. Fortunately, the chance of blowing dust should be lower due to the widespread rain eastern Maricopa and Pinal Counties have seen over the past 72 hours. With weather activity quieting down in the Valley this weekend, ozone will have a chance to build up near the ground. Therefore, a High Pollution Advisory is issued for Saturday and Sunday. The potential gusty winds as a product of outflows from tomorrow's activity can help to clear out the air shed. But, they're expected to occur during the evening, long after the time frame when ozone tends to hit its max for the day.

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

Check out the latest issue of:

Cracking the AQ Code

If you haven't already, click HERE to start receiving your Daily Air Quality Forecasts through GovDelivery.

USEFUL LINKS	
INTERACTIVE MAPS	http://alert.fcd.maricopa.gov/alert/Google/v3/air.html http://www.airnow.gov/
WEB CAMERA IMAGES	http://www.phoenixvis.net/

POLLUTION MONITOR READINGS FOR Thursday, August 11, 2016

O3 (OZONE)

SITE NAME	MAX 8-HR VALUE (PPB)	MAX AQI	AQI COLOR CODE
Alamo Lake	38	35	
Apache Junction	49	45	
Blue Point	49	45	

Buckeye	39	36	
Casa Grande	42	39	
Cave Creek	49	45	
Central Phoenix	50	46	
Dysart	44	41	
Falcon Field	53	49	
Fountain Hills	54	50	
Glendale	47	44	
Humboldt Mountain	51	47	
Phoenix Supersite	51	47	
Mesa	52	48	
North Phoenix	55	51	
Pinal Air Park	41	38	
Pinnacle Peak	51	47	
Queen Valley	47	44	
Rio Verde	42	39	
South Phoenix	45	42	
South Scottsdale	49	45	
Tempe	44	41	
Tonto Nat'l Mon.	50	46	
West Chandler	42	39	
West Phoenix	48	44	
Yuma	22	20	

CO (CARBON MONOXIDE)

SITE NAME	MAX 8-HR VALUE (PPM)	MAX AQI	AQI COLOR CODE
Central Phoenix	0.4	5	
Diablo	0.5	6	
Greenwood	0.5	6	
Phoenix Supersite	NOT AVBL	NOT AVBL	
West Phoenix	0.4	5	

PM-10 (PARTICLES)

SITE NAME	MAX 24-HR VALUE (µg/m3)	MAX AQI	AQI COLOR CODE
Buckeye	16.7	15	
Central Phoenix	17.5	16	
Combs School (Pinal County)	13.5	12	
Durango	15	14	
Dysart	19.9	18	
Glendale	9.9	8	
Greenwood	23.9	21	
Higley	NOT AVBL	NOT AVBL	
Maricopa (Pinal County)	19.3	18	
Phoenix Supersite	16.7	15	
Mesa	9.4	8	
North Phoenix	12.3	11	
South Phoenix	NOT AVBL	NOT AVBL	
South Scottsdale	15.7	14	
Tempe	9.1	8	
West Chandler	14.6	13	
West Forty Third	21.5	19	
West Phoenix	12.6	11	
Zuni Hills	16.1	15	

PM-2.5 (PARTICLES)

SITE NAME	MAX 24-HR VALUE (µg/m3)	MAX AQI	AQI COLOR CODE
Diablo	4.8	20	
Durango	5.1	21	
Glendale	4.5	19	
Phoenix Supersite	5.5	23	
Mesa	5	21	

North Phoenix	7.8	33	
South Phoenix	NOT AVBL	NOT AVBL	
Tempe	4.6	19	
West Phoenix	5.5	23	

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 ($\mu g/m^3$)
Averaging interval – 24 hours (midnight to midnight).
Reduction tips – Stabilize loose soils, slow down on dirt roads, carpool, and use public transit.

Updated 8/11/2016