



PINAL COUNTY



FORECAST

GOOD (0-50)	MODERATE (51-100)	UNHEALTHY FOR SENSITIVE GROUPS (101-150)	UNHEALTHY (151-200)	VERY UNHEALTHY (201-300)	HAZARDOUS (301-500)
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AIR QUALITY FORECAST FOR WEDNESDAY, MARCH 17, 2010

This forecast is updated by 1:00 p.m. Monday through Friday or as needed
(AQI Forecast on [Twitter](#) – see below for location specific Twitters)

Valid for areas within Pinal County Arizona

	Highest AQI value/Site in Pinal County	Highest AQI forecasted value (see table below for forecasts by monitoring location)			
		YESTERDAY MON 3/15/10	TODAY TUE 3/16/10	TOMORROW WED 3/17/10	EXTENDED THU 3/18/10
OZONE	47 CASA GRANDE	46 GOOD	50 GOOD	55 MODERATE	50 GOOD
PM-10*	35** STANFIELD	43** GOOD	47** GOOD	50** GOOD	55** MODERATE
HEALTH WATCH/ ADVISORY	NONE	NONE	NONE	NONE	NONE

*PM-10 = Particles 10 microns and smaller

**Excludes Cowtown monitor. See following page for Cowtown forecast.

“[Ozone Health Watch](#)” means that the highest concentration of OZONE may approach the federal health standard.

“[PM-10 Health Watch](#)” means that the highest concentration of PM-10 may approach the federal health standard.

“[High Pollution Advisory](#)” (HPA) means that the highest concentration of OZONE or PM-10 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 Wednesday, March 17, 2010: No health impacts expected.

Discussion

Updated Tuesday, March 16, 2010 at 11:35 a.m.

A tight pressure gradient continues the breezy conditions around the area today. Casa Grande has reported wind gusts up to 30 mph at times this morning. The breezy conditions with winds out of the east to northeast direction will remain through Wednesday. Daytime high temperatures will be above normal with afternoon high temperatures reaching the upper 70s to low 80s through Thursday.

The ozone levels will increase as the week progresses and will reach the moderate AQI category on Thursday. However, a dry cold front will move through the area on Friday. Gusty winds associated with the cold front will create areas of blowing dust and help PM₁₀ levels reach the moderate AQI category on Friday. The cold front will knock the temperatures back a few degrees and change the wind direction which will help drop the ozone levels back into the good AQI category on Friday. Stay tuned.
Forecaster- S. DiBiase

COWTOWN					
(Twitter: Cowtown AQI)					
	YESTERDAY MON 3/15/10	TODAY'S AQI FORECAST TUE 3/16/10	TOMORROW AQI FORECAST WED 3/17/10	EXTENDED AQI FORECAST THU 3/18/10	EXTENDED AQI FORECAST FRI 3/19/10
PM-10*	60	40	55	60	65

[MONITORING NETWORK MAP](#) [YESTERDAY'S AQI LEVELS](#)
[AIR QUALITY FORECAST BY LOCATION FOR](#)
PM-10 (PARTICLES)

SITE NAME	TODAY'S AQI FORECAST TUE 3/16/10	TOMORROW AQI FORECAST WED 3/17/10	EXTENDED AQI FORECAST THU 3/18/10	EXTENDED AQI FORECAST FRI 3/19/10
Casa Grande (Twitter: CG AQI)	35	33	37	50
Eleven Mile Corner (Twitter: PC Housing AQI)	40	33	40	50
Maricopa (Twitter: MaricopaCity AQ)	37	40	46	55
San Tan Valley (Twitter: Santan AQI)	33	27	28	40
Stanfield (Twitter: Stanfield AQI)	43	47	50	55

OZONE*

SITE NAME	TODAY'S AQI FORECAST TUE 3/16/10	TOMORROW AQI FORECAST WED 3/17/10	EXTENDED AQI FORECAST THU 3/18/10	EXTENDED AQI FORECAST FRI 3/19/10
Apache Junction (Twitter: AJ_AQI)	46	48	50	49
Casa Grande (Twitter: CG_AQI)	48	50	55	50

AIR POLLUTANTS IN DETAIL

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 and carpool.

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. The ozone “season” generally occurs during the spring and summer months (April-October) when high temperatures and extended daylight hours create the conditions most conducive to ozone formation.

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.