



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 SATURDAY THROUGH TUESDAY, NOVEMBER 10-13, 2018

This forecast is updated by 10:00 a.m. Monday through Friday and as needed (AQI Forecast on [Twitter](#) – see tables below for location specific Twitters)

	Highest AQI value/Site in Pinal County	Highest AQI forecasted value (see tables below for forecasts by monitoring location)				
		YESTERDAY THU 11/8/18	TODAY FRI 11/9/18	TOMORROW SAT 11/10/18	EXTENDED SUN 11/11/18	EXTENDED MON 11/12/18
OZONE	40 PINAL AIR PARK	43 GOOD	42 GOOD	41 GOOD	40 GOOD	39 GOOD
PM _{2.5}	27 CASA GRANDE	65 MODERATE	45 GOOD	44 GOOD	47 GOOD	48 GOOD
PM ₁₀	52** SAN TAN VALLEY	90** MODERATE	65** MODERATE	67** MODERATE	75** MODERATE	75** MODERATE
HEALTH WATCH/ ADVISORY*	<i>BLOWING DUST late</i>	PM ₁₀ HEALTH WATCH  <i>BLOWING DUST</i>	NONE	<i>LOCALIZED BLOWING DUST POSSIBLE late</i>	<i>LOCALIZED BLOWING DUST POSSIBLE</i>	<i>LOCALIZED BLOWING DUST POSSIBLE</i>

** Excludes the Hidden Valley Monitor, see Hidden Valley PM₁₀ table below

PM₁₀ = Particles 10 microns and smaller; PM_{2.5} = Particles 2.5 microns and smaller

“Ozone Health Watch” means that the highest concentration of OZONE may approach the federal health standard.

“PM_{2.5} and/or PM₁₀ Health Watch” means that the highest concentration of PM_{2.5} and/or PM₁₀ may approach the federal health standard.

“High Pollution Advisory” (HPA) means that the highest concentration of OZONE, PM_{2.5} or PM₁₀ may exceed the federal health standard.

“DUST” means that short periods of high PM₁₀ concentrations caused by outflow from thunderstorms are possible.

Health message for Friday, November 9, 2018 Active children, adults and people with lung disease, such as asthma, should reduce outdoor activities.

Health message for Saturday-Tuesday, November 10-13, 2018 Active children, adults and people with lung disease, such as asthma, should consider reducing outdoor activities.

Discussion

Updated Friday, November 9, 2018

****PM₁₀ HEALTH WATCH IN EFFECT FRIDAY, NOVEMBER 9, 2018 ****

A couple of cold fronts will usher in a weekend full of crisp autumn air. The afternoon high temperatures will only reach the 70s this weekend. The second cold front late Sunday/early Monday will bring some more breeziness to the area. Spotty blowing dust is possible and is reflected in the forecasted PM₁₀ levels for Monday and Tuesday.

The dry weather conditions are forecast through all of next week which will continue the drying out process for ground surfaces. Additionally, locally heavy dust causing activities (i.e. harvest) typical of this time of year will help elevate the PM₁₀ levels, especially during the morning hours when temperature inversions trap pollutants close to the ground. We’ll have to keep an eye on the particulates as the week progresses next week.

Stay up to date with current air pollution levels by checking the near real-time PM₁₀, PM_{2.5} and ozone levels online at <http://www.pinalcountyaz.gov/AirQuality/Pages/AirQualityReport.aspx>.

Forecaster: S. DiBiase

[HOURLY MONITORING DATA](#) (Draft, preliminary data - subject to change)
[MONITORING NETWORK MAP](#) [YESTERDAY’S AQI LEVELS](#)

Yesterday’s Daily Maximum AQI @ Hidden Valley		HIDDEN VALLEY PM₁₀ AIR QUALITY FORECAST				
SITE NAME	THU 11/8/18	TODAY AQI FORECAST FRI 11/9/18	TOMORROW AQI FORECAST SAT 11/10/18	EXTENDED AQI FORECAST SUN 11/11/18	EXTENDED AQI FORECAST MON 11/12/18	EXTENDED AQI FORECAST TUE 11/13/18
Hidden Valley (Twitter: HV AQI)	41	95	75	75	80	82

AIR QUALITY FORECAST FOR
PM_{2.5} (PARTICLES)

SITE NAME	TODAY AQI FORECAST FRI 11/9/18	TOMORROW AQI FORECAST SAT 11/10/18	EXTENDED AQI FORECAST SUN 11/11/18	EXTENDED AQI FORECAST MON 11/12/18	EXTENDED AQI FORECAST TUE 11/13/18
Casa Grande (Twitter: CG_AQI)	52	40	45	45	44
Hidden Valley (Twitter: HV_AQI)	65	45	44	47	48

AIR QUALITY FORECAST BY LOCATION FOR
PM₁₀ (PARTICLES)

SITE NAME	TODAY AQI FORECAST FRI 11/9/18	TOMORROW AQI FORECAST SAT 11/10/18	EXTENDED AQI FORECAST SUN 11/11/18	EXTENDED AQI FORECAST MON 11/12/18	EXTENDED AQI FORECAST TUE 11/13/18
Apache Junction (Twitter: AJ_AQI)	40	33	32	30	31
Casa Grande (Twitter: CG_AQI)	75	48	45	46	47
Eleven Mile Corner (Twitter: PC_Housing_AQI)	85	46	45	47	49
Eloy (Twitter: Eloy_AQI)	85	45	44	45	46
Maricopa (Twitter: Maricopa_City_AQI)	75	44	45	44	47
Pinal Air Park (Twitter: PAP_AQI)	50	40	39	38	41
San Tan Valley Twitter: Santan_AQI)	65	45	44	50	55
Stanfield (Twitter: Stanfield_AQI)	90	65	67	75	75

AIR QUALITY FORECAST BY LOCATION FOR OZONE

SITE NAME	TODAY AQI FORECAST FRI 11/9/18	TOMORROW AQI FORECAST SAT 11/10/18	EXTENDED AQI FORECAST SUN 11/11/18	EXTENDED AQI FORECAST MON 11/12/18	EXTENDED AQI FORECAST TUE 11/13/18
Apache Junction (Twitter: AJ_AQI)	42	42	41	40	39
Casa Grande (Twitter: CG_AQI)	39	40	39	39	38
Pinal Air Park (Twitter: PAP_AQI)	43	41	40	40	39

* The symbols used for the Health Watch/Advisory are shown below



- Symbol for Health Watch (HW)



- Symbol for High Pollution Advisory (HPA)

AIR POLLUTANTS IN DETAIL

PM₁₀ & 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 NO_x (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. 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.