



PINAL COUNTY



AIR QUALITY INDEX

FORECAST

GOOD (0-50)	MODERATE (51-100)	UNHEALTHY FOR SENSITIVE GROUPS (USG) (101-150)	UNHEALTHY (151-200)	VERY UNHEALTHY (201-300)	HAZARDOUS (301-500)
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FOR TUESDAY, SEPTEMBER 22, 2020

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 SUN 9/20/20	TODAY MON 9/21/20	TOMORROW TUE 9/22/20	EXTENDED WED 9/23/20	EXTENDED THU 9/24/20
OZONE	87 QUEEN VALLEY	70 MODERATE	85 MODERATE	90 MODERATE	95 MODERATE	55 MODERATE
PM _{2.5}	79 HIDDEN VALLEY	68 MODERATE	55 MODERATE	60 MODERATE	65 MODERATE	75 MODERATE
PM ₁₀	70** STANFIELD	65** MODERATE	70** MODERATE	75** MODERATE	75** MODERATE	85** MODERATE
HEALTH WATCH/ADVISORY*	NONE	NONE	NONE	NONE	NONE	<i>BLOWING DUST</i>

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



- Symbol for **High Pollution Watch (HPW)** – Issued when there is potential for a pollutant to exceed the federal health standard. Issued in advance (2 or more days) as a lookout for potential poor air quality (Above 100 AQI). As the date nears and the confidence in the forecast increases, the High Pollution Watch will be upgraded to a High Pollution Advisory.



- Symbol for **High Pollution Advisory (HPA)** – When it's imminent or there is a high probability for a pollutant to exceed the federal health standard.

Health message for Monday-Tuesday, September 21-22, 2020: Active children, adults and people with lung disease, such as asthma, should consider reducing outdoor activities.

Discussion

Updated Monday, September 21, 2020

A weak system located around northern Mexico/southern Arizona has brought some clouds and a few sprinkles to the area this morning. The haze continues to blanket the region and has been reflected in the PM₁₀ and PM_{2.5} concentrations the past several days (several monitoring locations in the moderate AQI category and Hidden Valley PM₁₀ exceedances Thursday through Saturday, PM_{2.5} exceedance on Saturday). The unsettled conditions will last through Tuesday before high pressure once again builds in and continues the triple digits afternoon high temperatures. The ozone and particulates are forecast to be in the moderate AQI category at several monitoring locations this week. Additionally the ozone levels are forecast to rise towards the health standard by Thursday and so we'll have to keep tabs on the possibility of ozone levels exceeding the health standard, stay tuned.

Another upper level system is forecast to approach late in the work week and bring an increase in winds on Friday. Therefore blowing dust is likely and is reflected in the widespread PM₁₀ moderate forecasts on Friday. Check back tomorrow for an updated air quality forecast. 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	SUN 9/20/20	TODAY AQI FORECAST MON 9/21/20	TOMORROW AQI FORECAST TUE 9/22/20	EXTENDED AQI FORECAST WED 9/23/20	EXTENDED AQI FORECAST THU 9/24/20	EXTENDED AQI FORECAST FRI 9/25/20
Hidden Valley (Twitter: HV_AQI)	N/A	85	75	75	77	85

<u>AIR QUALITY FORECAST FOR PM_{2.5} (PARTICLES)</u>					
SITE NAME	TODAY AQI FORECAST MON 9/21/20	TOMORROW AQI FORECAST TUE 9/22/20	EXTENDED AQI FORECAST WED 9/23/20	EXTENDED AQI FORECAST THU 9/24/20	EXTENDED AQI FORECAST FRI 9/25/20
Casa Grande (Twitter: CG_AQI)	55	53	52	54	46
Hidden Valley (Twitter: HV_AQI)	68	55	60	65	75

AIR QUALITY FORECAST BY LOCATION FOR
OZONE

SITE NAME	TODAY AQI FORECAST MON 9/21/20	TOMORROW AQI FORECAST TUE 9/22/20	EXTENDED AQI FORECAST WED 9/23/20	EXTENDED AQI FORECAST THU 9/24/20	EXTENDED AQI FORECAST FRI 9/25/20
Apache Junction (Twitter: AJ AQI)	65	85	90	95	55
Casa Grande (Twitter: CG AQI)	55	65	75	85	45
Pinal Air Park (Twitter: PAP AQI)	55	60	70	80	44
Queen Valley	70	85	90	95	50

AIR QUALITY FORECAST BY LOCATION FOR
PM₁₀ (PARTICLES)

SITE NAME	TODAY AQI FORECAST MON 9/21/20	TOMORROW AQI FORECAST TUE 9/22/20	EXTENDED AQI FORECAST WED 9/23/20	EXTENDED AQI FORECAST THU 9/24/20	EXTENDED AQI FORECAST FRI 9/25/20
Apache Junction (Twitter: AJ AQI)	26	24	27	33	52
Casa Grande (Twitter: CG AQI)	42	41	43	47	60
Eleven Mile Corner (Twitter: PC Housing AQI)	52	51	54	55	70
Eloy (Twitter: Eloy AQI)	45	44	46	48	70
Maricopa (Twitter: Maricopa City AQ)	55	54	55	60	75
Pinal Air Park (Twitter: PAP AQI)	35	33	36	39	55
San Tan Valley Twitter: Santan AQI)	45	44	46	50	60
Stanfield (Twitter: Stanfield AQI)	65	70	75	75	85

AIR POLLUTANTS IN DETAIL

PM₁₀ & PM_{2.5} (PARTICLES):

Description – The term “particulate matter” (PMS) 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 million (ppm).

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.