



# PINAL COUNTY



**AIR QUALITY INDEX**

## FORECAST

<b>GOOD</b> (0-50)	<b>MODERATE</b> (51-100)	<b>UNHEALTHY FOR SENSITIVE GROUPS</b> (USG) (101-150)	<b>UNHEALTHY</b> (151-200)	<b>VERY UNHEALTHY</b> (201-300)	<b>HAZARDOUS</b> (301-500)
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### FOR WEDNESDAY, MARCH 22, 2023

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 yesterday	Highest AQI forecasted value					
	MON 3/20/23	TUES 3/21/23	WED 3/22/23	THURS 3/23/23	FRI 3/24/23	SAT 3/25/23	SUN 3/26/23
OZONE	40 Apache Junction	40	38	45	48	50	49
PM <sub>2.5</sub>	16 Apache Junction	30	25	15	17	20	18
PM <sub>10</sub>	26** Stanfield	45**	40**	18**	20**	17**	25**

\*\* Excludes the Hidden Valley Monitor, see Hidden Valley PM<sub>10</sub> 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.

[AQI and your health](#) | [Air Quality Guide for Ozone](#) | [Air Quality Guide for Particulates](#)

## Discussion

Updated Tuesday, March 21, 2023

Some areas may have seen a few raindrops already this morning. Widespread rain is expected tonight through tomorrow morning, ranging from traceable to 0.25", and the strong winds are projected to impact our area as well (up to 30 mph overnight). After the storm, the temperatures should recover back into the 70s by this weekend.

The PM10 levels are expected to elevate a little bit during the windy period today and tomorrow. Since we received a sufficient amount of rain last week, the topsoil should remain stabilized unless it was heavily disturbed by local activities lately. Meanwhile, our forecast remains in the Good AQI category.

The spring equinox is here! It means our daylight and nighttime are split equally (12 hours each) and the daylight will get stretched every day from today to Summer Solstice on June 21<sup>st</sup>. Despite receiving more sunlight, the storms with cloudy/overcast and windy conditions are expected to keep the ozone levels within the Good AQI category in the next few days.

Check back tomorrow for an updated air quality forecast.

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

	Yesterday's Daily Maximum AQI @ Hidden Valley	<b>HIDDEN VALLEY (HV) PM<sub>10</sub> AQI FORECAST</b>					
	MON 3/20/23	TUES 3/21/23	WED 3/22/23	THURS 3/23/23	FRI 3/24/23	SAT 3/25/23	SUN 3/26/23
HV PM10 (Twitter: HV_AQI)	29	25	15	30	20	35	25

## AIR POLLUTANTS IN DETAIL

### PM<sub>10</sub> & PM<sub>2.5</sub> (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/m<sup>3</sup>)

**Averaging interval** – 24 hours (midnight to midnight).

**Reduction tips** – Stabilize loose soils, slow down on dirt roads, and carpool.

### O<sub>3</sub> 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 a 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.