



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
SATURDAY-MONDAY,
SEPTEMBER 25-27, 2021

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					
	THU 9/23/21	FRI 9/24/21	SAT 9/25/21	SUN 9/26/21	MON 9/27/21	TUE 9/28/21	WED 9/29/21
OZONE	48 Multiple Locations	57	65	50	65	64	62
PM_{2.5}	48 Hidden Valley	75	70	75	81	85	82
PM₁₀	39 Pinal Air Park	50**	45**	43**	45**	52**	50**
HEALTH WATCH/ ADVISORY							

** 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.

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

Discussion

Updated Friday, September 24, 2021

Cooling temperatures continue today through early next week, with highs in the lower 90s. Cloudy conditions this morning and sporadic rainfall, we can expect some additional rain in our forecast especially tomorrow and Sunday. The upper level trough will provide unsettled weather conditions to bring rain and thunderstorms to our region, resulting in potential wind blown dust. It is forecasted that there will be lower temperatures that are below normal this weekend. This will bring moisture to our soil to suppress wind blown dust and dust from dust generating activities. Particulate levels are anticipated to be in the Good AQI category today and to early next week, excluding in Hidden Valley. The Hidden Valley PM₁₀ monitor is observed to have early morning spikes due to local activity, this may result in reaching the Unhealthy for Sensitive Groups category today. The weekend, we will expect upper moderate AQI levels for Hidden Valley as the rain may aid in keeping the particulate levels down. The highest forecasted ozone levels are in the low moderate AQI category through Saturday and good on Sunday due to the aforementioned unsettled weather and precipitation expected, with moderate levels to return by Monday as storms dissipate. Check back on Monday for an updated air quality forecast. Forecaster: L. Gabir

[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 (HV) PM₁₀ AQI FORECAST					
	THU 9/23/21	FRI 9/24/21	SAT 9/25/21	SUN 9/26/21	MON 9/27/21	TUE 9/28/21	WED 9/29/21
HV PM₁₀ (Twitter: HV AQI)	72	102	90	95	98	101	102

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 ($\mu\text{g}/\text{m}^3$)

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.