**FORECAST**

**FOR**

**Wednesday, July 6th, 2022**

This forecast is updated by 10:00 a.m. Monday through Friday and as needed

(AQI Forecast on [Twitter](https://twitter.com) – see tables below for location specific Twitters)

<table>
<thead>
<tr>
<th>Highest AQI value/Site in Pinal County yesterday</th>
<th>Highest AQI forecasted value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MON</strong> 7/4/22</td>
<td><strong>TUES</strong> 7/5/22</td>
</tr>
<tr>
<td>OZONE</td>
<td></td>
</tr>
<tr>
<td>Casa Grande/Pinal Air Park/Queen Valley</td>
<td>44</td>
</tr>
<tr>
<td>PM2.5</td>
<td></td>
</tr>
<tr>
<td>Hidden Valley</td>
<td>43</td>
</tr>
<tr>
<td>PM10</td>
<td></td>
</tr>
<tr>
<td>Eleven Mile Corner</td>
<td>27**</td>
</tr>
</tbody>
</table>

**HEALTH WATCH/ADVISORY**

**Ozone**

**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, July 5th, 2022

A weak disturbance is moving across southeastern Arizona and provides small chances of showers and thunderstorms this morning. However, the chance will be lower tomorrow as the air gets drier with the ridge of high pressure coming into the area. The temperature will slowly rise to 110 degrees by the weekend.

Speaking of Air Quality – the ridge of high pressure brings in lower wind speeds and higher temperatures in the region. So, the ozone levels are the one to watch especially with light westerly to northwesterly wind throughout the day which carries the Phoenix metro air into the Apache Junction and Queen Valley area. So, the ozone levels are forecast to be in the Moderate AQI category with the possibility of jumping into the Unhealthy for Sensitive Groups AQI category by this weekend.

Hidden Valley is already showing elevated PM10 levels this morning with light easterly winds but should hold to a low-Moderate AQI category for today. Depending on the morning winds, the continued local activities east of the monitoring site disturbing the soil with no rain in sight can cause a spike in the PM10 levels. In the meantime, you can check on the near-real time air quality index (AQI) levels, by going to [https://www.pinalcountyaz.gov/AirQuality/Pages/AirQualityReport.aspx](https://www.pinalcountyaz.gov/AirQuality/Pages/AirQualityReport.aspx).

Check back tomorrow for an updated air quality forecast.

### HOURLY MONITORING DATA  
(Draft, preliminary data - subject to change)

<table>
<thead>
<tr>
<th>YESTERDAY’S AQI LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MON</strong> 7/4/22</td>
</tr>
<tr>
<td><strong>HV PM&lt;sub&gt;10&lt;/sub&gt; (Twitter: HV_AQI)</strong></td>
</tr>
</tbody>
</table>
AIR POLLUTANTS IN DETAIL

**PM\textsubscript{10} & PM\textsubscript{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 (\(\text{ug/m}^3\))

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

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

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**O\textsubscript{3} 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 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.