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)

- 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, February 2, 2024

It has rained throughout Pinal County, with rainfall amounts ranging from 0.25 inches up to 2 inches. There is a small chance of scattered showers this afternoon. Temperatures have dropped into the 50s and are expected to remain there for the next couple of days. A brief ridge will bring a slight warmup on Sunday through Tuesday before another winter storm brings more chances of rainfall.

The rainfall has helped to reduce particulate levels back to single digit concentrations, which should remain low until the next rainfall. The ozone levels should remain in the Good AQI category, which is typical for this time of year.

Have a great weekend.

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

<table>
<thead>
<tr>
<th>Yesterday’s Daily Maximum AQI @ Hidden Valley</th>
<th>HIDDEN VALLEY (HV) PM$<em>{2.5}$ and PM$</em>{10}$ AQI FORECAST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>THURS 2/1/24</td>
</tr>
<tr>
<td>HV PM$_{2.5}$</td>
<td>18</td>
</tr>
<tr>
<td>HV PM$_{10}$</td>
<td>22</td>
</tr>
</tbody>
</table>

(Twitter: HV_AQI)
AIR POLLUTANTS IN DETAIL

**PM**\(_{10}\) & **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/m\(^3\))

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

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

**O\(_3\)** 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 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.