

To: Stakeholders  
 From: Pinal County Air Quality  
 Date: 10/4/2022

**DRAFT** 2022 Pinal County PM<sub>10</sub> & PM<sub>2.5</sub> Exceedances **DRAFT**

**\*DRAFT\* Summary of 2022 24-hour Average PM<sub>10</sub> Exceedance Day(s) by Monitoring Site**

Monitoring Site - AQS # (POC))	# PM <sub>10</sub> 24-hr Average Exceedances				Total Exceedances
	Related to Wind	Related to Stagnation	Related to Combination of windy and stagnant conditions	Related to Transport	
Apache Junction – 04-021-3002					
Casa Grande - 04-021-3001(3)					
Combs - 04-021-3009 (3)					
Eloy – 04-021-3014 (1) & (3)					
Hidden Valley – 04-021-3015 (3)	3	8	3		14
Maricopa – 04-021-3016 (3)	1				1
Pinal Air Park – 04-021-3007 (3)	1				1
PCH – 04-021-3011 (3)					
Stanfield – 04-021-3008 (3)	2				2

**\*DRAFT\* Summary of 2022 24-hour Average PM<sub>2.5</sub> Exceedance Day(s) by Monitoring Site**

Monitoring Site - AQS # (POC))	# PM <sub>2.5</sub> 24-hr Average Exceedances				Total Exceedances
	Related to Wind	Related to Stagnation	Related to Combination of windy and stagnant conditions	Related to Transport	
Casa Grande - 04-021-3001(3)					
Hidden Valley – 04-021-3015 (3)	1		1		2

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**\*Data preliminary – subject to change \***

Date	Day of Week	Site	AQS #	PM <sub>10</sub> 24-hr Average Concentration (ug/m <sup>3</sup> )	PM <sub>2.5</sub> 24-hr Average Concentration (ug/m <sup>3</sup> )	Weather Type (Cold Front, Monsoon, etc.)	Exceedance(s) Related to Wind, Stagnation, Combo <sup>i</sup> , Transport	AQI Forecast <sup>ii</sup> / Dust Risk Forecast <sup>iii</sup>
1/28/22	Fri	Hidden Valley	04-021-3015	166	13.0	Pressure Gradient (Max. wind 36 mph)	Wind	Moderate/ Moderate
4/18/22	Mon	Hidden Valley	04-021-3015	163	23.2	High pressure (Max. wind 21 mph)	Stagnation	Moderate/ Moderate
4/26/22	Tue	Hidden Valley	04-021-3015	149	39.9	Trough (Max. wind 36 mph)	Combo	Moderate/ Moderate
5/5/22	Thu	Hidden Valley	04-021-3015	167	16.0	High pressure (Max. wind 14 mph)	Stagnation	Moderate/ Moderate
5/13/22	Fri	Hidden Valley	04-021-3015	161	22	High pressure (Max. wind 14 mph)	Stagnation	Moderate/Low
5/14/22	Sat	Hidden Valley	04-021-3015	213	23.6	High pressure (Max. wind 18 mph)	Stagnation	Moderate/ Moderate
5/20/22	Fri	Stanfield	04-021-3008	233	n/a	Trough (Max. wind 35 mph)	Wind	Moderate/ Moderate
6/11/22	Sat	Hidden Valley	04-021-3015	165	30.4	High pressure (Max. wind 23 mph)	Stagnation	Moderate/ Moderate
6/15/22	Wed	Hidden Valley	04-021-3015	185	33.7	High pressure (Max. wind 17 mph)	Stagnation	Moderate/ Moderate
6/16/22	Thu	Hidden Valley	04-021-3015	183	25.2	High pressure (Max. wind 20 mph)	Stagnation	Moderate/ Moderate
6/21/22	Tue	Hidden Valley	04-021-3015	215	17.6	A.M. stagnation, P.M. Monsoon outflows (Max. wind 38 <sup>1</sup> mph)	Combo	USG/High

<sup>1</sup> Pinal Air Park Max wind speed

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6/24/22	Fri	Hidden Valley	04-021-3015	157	13.3	Monsoon outflows (Max. wind 37 mph)	Wind	Low/Low
7/9/22	Sat	Hidden Valley	04-021-3015	211	32.0	A.M. stagnation, P.M. Monsoon outflows (Max. wind 41 mph)	Combo	Moderate/Low
7/13/22	Wed	Stanfield	04-021-3008	238	N/A	Monsoon outflows (Max. wind 52 <sup>2</sup> mph)	Wind	Moderate/ Moderate
		Hidden Valley	04-021-3015	161	31.3			
7/17/22	Sun	Maricopa	04-021-3016	160	N/A	Monsoon outflows (Max. wind 47 <sup>2</sup> mph)	Wind	Moderate/ Moderate
8/14/22	Sun	Pinal Air Park	04-021-3007	178	N/A	Monsoon outflows (Max. wind 46 <sup>3</sup> mph)	Wind	Low/Low
9/1/22	Thu	Hidden Valley	04-021-3015	164	13.2	Monsoon outflows (Max. wind 52 <sup>4</sup> mph)	Combo	Moderate/ Moderate
9/6/22	Tue	Hidden Valley	04-021-3015	166	17.3	High pressure (Max. wind 16 mph)	Stagnation	Moderate/ Moderate
10/3/22	Mon	Hidden Valley	04-021-3015	95	57.8	Upper low (Max. wind 45 <sup>5</sup> mph)	Wind	Moderate/Low

<sup>2</sup> Hidden Valley

<sup>3</sup> Eleven Mile Corner

<sup>4</sup> NWS 9 pm Storm report - 54 mph wind gust 7 miles ESE of Queen Creek

<sup>5</sup> Casa Grande

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**Bold text means the PM<sub>10</sub> and/or PM<sub>2.5</sub> data may be flagged as exceptional/natural event in AQS**

<sup>i</sup> Combination of stagnation and winds (i.e. light winds in the morning with elevated PM<sub>10</sub> levels and higher winds in afternoon/evening with elevated PM<sub>10</sub> levels attributed to windblown dust).

<sup>ii</sup> Air Quality Index (AQI) forecast issued by Pinal County Air Quality – AQI Categories (Good (G), Moderate (M), Unhealthy for Sensitive Groups (USG), Unhealthy (U), etc.). PM10 High Pollution Advisory (HPA) is for forecasted AQI levels of 101+.

<sup>iii</sup> 2014 Adopted legislation (HB2125) – A West Pinal County PM10 Nonattainment Area Dust Risk Forecast prepared and issued by ADEQ – Risk categories (Low (L), Moderate (M), High (H)).

<sup>iv</sup> Combination of stagnation and winds (i.e. light winds in the morning with elevated PM<sub>10</sub> levels and higher winds in afternoon/evening with elevated PM<sub>10</sub> levels attributed to windblown dust).

<sup>v</sup> Air Quality Index (AQI) forecast issued by Pinal County Air Quality – AQI Categories (Good (G), Moderate (M), Unhealthy for Sensitive Groups (USG), Unhealthy (U), etc.). PM10 High Pollution Advisory (HPA) is for forecasted AQI levels of 101+.

<sup>vi</sup> 2014 Adopted legislation (HB2125) – A West Pinal County PM10 Nonattainment Area Dust Risk Forecast prepared and issued by ADEQ – Risk categories (Low (L), Moderate (M), High (H)).