

To: Stakeholders
 From: Pinal County Air Quality
 Date: 7/18/2022

DRAFT 2022 Pinal County PM₁₀ & PM_{2.5} Exceedances **DRAFT**

***DRAFT* Summary of 2022 24-hour Average PM₁₀ Exceedance Day(s) by Monitoring Site**

Monitoring Site - AQS # (POC))	# PM ₁₀ 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	7	2		12
Maricopa – 04-021-3016 (3)	1				1
Pinal Air Park – 04-021-3007 (3)					
PCH – 04-021-3011 (3)					
Stanfield – 04-021-3008 (3)	2				2

***DRAFT* Summary of 2022 24-hour Average PM_{2.5} Exceedance Day(s) by Monitoring Site**

Monitoring Site - AQS # (POC))	# PM _{2.5} 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)					

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

Date	Day of Week	Site	AQS #	PM ₁₀ 24-hr Average Concentration (ug/m ³)	PM _{2.5} 24-hr Average Concentration (ug/m ³)	Weather Type (Cold Front, Monsoon, etc.)	Exceedance(s) Related to Wind, Stagnation, Combo ⁱ , Transport	AQI Forecast ⁱⁱ / Dust Risk Forecast ⁱⁱⁱ
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
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 ¹ mph)	Combo	USG/High
6/24/22	Fri	Hidden Valley	04-021-3015	157	13.3	Monsoon outflows (Max. wind 37 mph)	Wind	Low/Low

¹ Pinal Air Park Max wind speed

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Date	Day of Week	Site	AQS #	PM ₁₀ 24-hr Average Concentration (ug/m ³)	PM _{2.5} 24-hr Average Concentration (ug/m ³)	Weather Type (Cold Front, Monsoon, etc.)	Exceedance(s) Related to Wind, Stagnation, Combo ^{iv} , Transport	AQI Forecast ^v / Dust Risk Forecast ^{vi}
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 52² 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 ² mph)	Wind	Moderate/Moderate

Bold text means the PM₁₀ and/or PM_{2.5} data may be flagged as exceptional/natural event in AQS

² Hidden Valley

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ⁱ Combination of stagnation and winds (i.e. light winds in the morning with elevated PM₁₀ levels and higher winds in afternoon/evening with elevated PM₁₀ levels attributed to windblown dust).

ⁱⁱ 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+.

ⁱⁱⁱ 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)).

^{iv} Combination of stagnation and winds (i.e. light winds in the morning with elevated PM₁₀ levels and higher winds in afternoon/evening with elevated PM₁₀ levels attributed to windblown dust).

^v 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+.

^{vi} 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)).