

To: Stakeholders  
 From: Scott DiBiase, Pinal County Air Quality  
 Date: 9/28/2016

**DRAFT** 2016 Pinal County PM<sub>10</sub> & PM<sub>2.5</sub> Exceedances **DRAFT**

**\*DRAFT\* Summary of 2016 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	
Casa Grande - 04-021-3001(3)	1				1
Combs - 04-021-3009 (3)	2				2
Eloy – 04-021-3014 (1) & (3)	2				2
Hidden Valley – 04-021-3015 (3)	8	10	8		26
Maricopa – 04-021-3010 (3)	2		1		3
Pinal Air Park – 04-021-3007 (3)					
PCH – 04-021-3011 (3)	2				2
Stanfield – 04-021-3008 (3)	7	3	2		12

To: Stakeholders  
 From: Scott DiBiase, Pinal County Air Quality  
 Date: 9/28/2016

**\*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>
1/31/16*	Sun	Stanfield	04-021-3008	236.1	N/A	Cold Front (Max. wind 48 mph, Max. sustained wind 21 mph)	Wind	Moderate/ High <sup>iv</sup>
		Casa Grande	04-021-3001	156.9	9.9	Cold Front (Max. wind 44 mph, Max. sustained wind 32 mph)		
		Eloy	04-021-3014 <sup>v</sup>	219.7	N/A	N/A		
3/17/16	Thu	Hidden Valley	04-021-3015	169.0	18.1	High pressure (Max. wind speed 14 mph, Max. sustained wind 7 mph)	Stagnation	Moderate/ Moderate
3/22/16*	Tue	Combs	04-021-3009	236.8	N/A	Cold Front (Max. wind 30 mph, Max. sustained wind 21 mph)	Wind	Moderate/ Moderate
3/25/16	Fri	Hidden Valley	04-021-3015	159.5	27.7	Trough (Max. wind 18 mph, Max. sustained wind 8 mph)	Stagnation	Moderate/ Moderate

To: Stakeholders  
 From: Scott DiBiase, Pinal County Air Quality  
 Date: 9/28/2016

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>vi</sup> , Transport	AQI Forecast/ Dust Risk Forecast
4/7/16*	Thu	Hidden Valley	04-021-3015	206.6	16.0	Upper Level Low (Max. wind 43 mph, Max. sustained wind 25 mph)	Combo	Moderate <sup>1</sup> / High
		Stanfield	04-021-3008	171.7	N/A			
		Maricopa	04-021-3010	171.4	N/A			
5/17/16*	Tue	Hidden Valley	04-021-3015	160.7	13.3	Upper Level Low (Max. wind 22 mph, Max. sustained wind 11 Mph)	Combo	Moderate/ Moderate
6/3/16	Fri	Stanfield	04-021-3008	207.4	N/A	High Pressure (Max. wind 16 mph, Max. sustained wind 10 Mph)	Stagnation	Moderate/ Moderate
6/4/16	Sat	Stanfield	04-021-3008	169.5	N/A	High Pressure (Max. wind 15 mph, Max. sustained wind 10 Mph)	Stagnation	Moderate/ Moderate
6/6/16	Mon	Hidden Valley	04-021-3015	252.6	34.4 <sup>2</sup>	High Pressure (Max. wind 18 mph, Max. sustained wind 9 Mph)	Stagnation	Moderate/ Moderate
6/8/16	Wed	Hidden Valley	04-021-3015	201.3	44.5 <sup>3</sup>	Trough (Max wind 21 mph, Max sustained wind 10 Mph)	Stagnation	Moderate/ Moderate

<sup>1</sup> PM<sub>10</sub> Health Watch

<sup>2</sup> BAM

<sup>3</sup> Hidden Valley Co-Located Filter (South), 1 in 3 sampler

To: Stakeholders  
 From: Scott DiBiase, Pinal County Air Quality  
 Date: 9/28/2016

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>vii</sup> , Transport	AQI Forecast/Dust Risk Forecast
6/17/16	Fri	Hidden Valley	04-021-3015	182.3	39.0	High Pressure (Max. wind 12 mph, Max. sustained wind 6 mph)	Stagnation	Moderate/High
6/18/16	Sat	Stanfield	04-021-3008	171.4	N/A	High Pressure (Max. wind 13 mph, Max. sustained wind 6 mph)	Stagnation	Moderate/High
6/23/16*	Thu	Stanfield	04-021-3008	211.2	N/A	Trough (Max. wind 27 mph, Max. sustained wind 16 mph)	Combo	Moderate/High
		Hidden Valley	04-021-3015	189.1	46.2 <sup>2</sup>			
6/24/16	Fri	Hidden Valley	04-021-3015	170.2	39.8 <sup>2</sup>	Trough (Max. wind 14 mph, Max. sustained wind 7 mph)	Stagnation	Moderate/High
6/27/16*	Mon	Hidden Valley	04-021-3015	188.3	31.3 <sup>2</sup>	Monsoon/Outflow (Max. wind 23 mph, Max. sustained wind 7 mph)	Combo	Moderate/High
6/28/16*	Tue	Hidden Valley	04-021-3015	174.5	23.8 <sup>2</sup>	Monsoon/Outflow (Max. wind 21 mph, Max. sustained wind 7 mph)	Combo	Moderate/High
6/29/16*	Wed	Hidden Valley	04-021-3015	167.9	17 <sup>2</sup>	Monsoon/Outflow (Max. wind 23 mph, Max. sustained wind 12 mph)	Combo	USG/High
6/30/16*	Thu	Hidden Valley	04-021-3015	357.7	32.2 <sup>2</sup>	Monsoon/Outflow (Max. wind 36 mph, (Max. sustained wind 17 mph)	Wind	Moderate/High
		Stanfield	04-021-3008	243.4	N/A			
7/16/16*	Sat	Stanfield	04-021-3008	210.3	N/A	Monsoon/Outflow (Max. wind 27 mph, (Max. sustained wind 12 mph)	Wind	Moderate/Moderate

To: Stakeholders  
 From: Scott DiBiase, Pinal County Air Quality  
 Date: 9/28/2016

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>viii</sup> , Transport	AQI Forecast/ Dust Risk Forecast
7/17/16	Sun	Hidden Valley	04-021-3015	189.6	23.8 <sup>2</sup>	High Pressure (Max. wind 18 mph, (Max. sustained wind 8 mph)	Stagnation	Moderate/High
7/18/16*	Mon	Hidden Valley	04-021-3015	187.9	17.0 <sup>2</sup>	Monsoon (Max. wind 30 mph <sup>4</sup> , (Max. sustained wind 8 mph)	Combo	Moderate/High
7/19/16*	Tue	Hidden Valley	04-021-3015	305.2	N/A	Monsoon (Max. wind 33 mph, (Max. sustained wind 13 mph)	Wind	Moderate/High
7/22/16*	Fri	PCH	04-021-3011	226.7	N/A	Monsoon (Max. wind 43 mph, (Max. sustained wind 21 mph)	Wind	Moderate/Moderate
7/23/16*	Sat	Stanfield	04-021-3008	165.3	N/A	Monsoon (Max. wind 28 mph, (Max. sustained wind 13 mph)	Wind	Moderate/High
7/27/16*	Wed	Hidden Valley	04-021-3015	174.0	19.2 <sup>2</sup>	Monsoon (Max. wind 29 <sup>5</sup> mph, (Max. sustained wind 12 mph)	Combo	Moderate/High
7/29/16	Fri	Hidden Valley	04-021-3015	1,368	TBD	Monsoon (Max. wind 61 mph, (Max. sustained wind 24 mph)	Wind	Moderate/High
		PCH	04-021-3011	666.2	n/a			
		Eloy	04-021-3014 <sup>6</sup>	435.5	n/a			
8/9/16*	Tue	Combs	04-021-3009	196.8	n/a	Monsoon (Max. wind 30 mph, (Max. sustained wind 20 mph)	Wind	Moderate/High
8/13/16*	Sat	Hidden Valley	04-021-3015	196.0	17.5 <sup>2</sup>	Monsoon (Max. wind 28 mph, (Max. sustained wind 21 mph)	Wind	Good/Low

<sup>4</sup> Casa Grande 7/18/16 sustained wind speed 30 mph, wind gust 37 mph

<sup>5</sup> 36 mph gust at Casa Grande airport

<sup>6</sup> Eloy TEOM POC (3)

To: Stakeholders  
 From: Scott DiBiase, Pinal County Air Quality  
 Date: 9/28/2016

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>ix</sup> , Transport	AQI Forecast/Dust Risk Forecast
8/16/16*	Tue	Stanfield	04-021-3008	268.9	n/a	Monsoon (Max. wind 46 mph, (Max. sustained wind 33 mph)	Wind	Moderate/Moderate
		Hidden Valley	04-021-3015	189.6	17.3 <sup>2</sup>			
8/19/16*	Fri	Stanfield	04-021-3008	209.7		Monsoon (Max. wind 28 mph, (Max. sustained wind 11 mph)	Wind	Moderate/Moderate
8/20/16*	Sat	Maricopa	04-021-3010	304		Monsoon (Max. wind 32 mph, (Max. sustained wind 19 mph)	Wind	Moderate/Moderate
8/24/16*	Wed	Maricopa	04-021-3010	164.5		Monsoon (Max. wind 32 mph, (Max. sustained wind 12 mph)	Wind	Good/Moderate
8/30/16*	Tue	Hidden Valley	04-021-3015	166.0	14.8	Pressure Gradient/Monsoon (Max. wind 39 mph, (Max. sustained wind 32 mph)	Wind	Moderate/Moderate
9/13/16	Tue	Hidden Valley	04-021-3015	173.6	7.3	Trough (Max. wind 30 mph, Max. sustained wind 15 mph)	Wind	Moderate/Moderate
9/17/16	Sat	Hidden Valley	04-021-3015	186.3	21.9	Trough (Max. wind 10 mph, Max. sustained wind 3 mph)	Stagnation	Moderate/Moderate
9/18/16	Sun	Hidden Valley	04-021-3015	156.0	22.1	Trough (Max. wind 11 mph, Max. sustained wind 4 mph)	Stagnation	Moderate/Moderate
9/19/16	Mon	Hidden Valley	04-021-3015	183.8	27.2	Trough (Max. wind 17 mph, Max. sustained wind 9 mph)	Stagnation	Moderate/Moderate
9/26/16*	Mon	Hidden Valley	04-021-3015	303.9	22.3	Upper Low (Max. wind 30 mph, Max sustained wind 17 mph)	Wind	Moderate/Moderate
		Stanfield	04-021-3008	285.6	n/a			

\* Planned to be flagged exceptional/natural event in AQS  
ADEQ flagged exceptional/natural event

To: Stakeholders  
From: Scott DiBiase, Pinal County Air Quality  
Date: 9/28/2016

---

<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 Health Watch (HW) is for forecasted PM10 AQI levels of 90-100 on the AQI scale. 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 by Pinal County Air Quality and issued by ADEQ – Risk categories (Low (L), Moderate (M), High (H)).

<sup>iv</sup> High Dust Risk forecast equates to a PM<sub>10</sub> Air Quality Index (AQI) forecast of 90 or higher

<sup>v</sup> Eloy filter POC (1)

DRAFT