



**Pinal County  
2008 Third Quarter  
PM<sub>10</sub> Exceptional/Natural Events  
Executive summary**

Pinal County is located between Maricopa County (Phoenix) and Pima County (Tucson) in South central Arizona. Pinal county has an estimated population of 324,962<sup>1</sup> and has experienced significant growth since the last census in 2000 (179,727). Central and western portions of Pinal County include significant PM<sub>10</sub> sources such as dirt roads, feedlots, agriculture and construction. Additionally, central Arizona experiences periods of significant winds associated with frontal passages and summer monsoon storms. Pinal County Air Quality Control District (PCAQCD) currently runs several continuous Tapered Element Oscillating Microbalance (TEOM) and filter based (47 mm & Hi-Vol) monitors in central and western Pinal County.

In the third quarter of 2008, there were seven days where Pinal County monitors exceeded the PM<sub>10</sub> 24-hr National Ambient Air Quality Standard (NAAQS). All seven of the exceedance days can be shown “but for” the particular “exceptional/Natural event” each monitor would NOT have exceeded the PM<sub>10</sub> 24-hr NAAQS.

The table below briefly outlines the exceedance, wind speed and exceptional/natural event data. More details of the events can be found in the Technical Support Documentation (TSD) which is in Microsoft PowerPoint (PPT). The TSDs should be viewed in their entirety in order to get a complete picture of the events which justify flagging each exceedance day as an “exceptional event”. This executive summary combined with the TSDs will be sent to the Environmental Protection Agency (EPA) requesting that EPA concur with PCAQCD’s flagging of these PM<sub>10</sub> 24-hr concentrations as “exceptional events” and thus not be used for compliance determination with the PM<sub>10</sub> 24-hr NAAQS.

Table of Third Quarter 2008 Pinal County PM<sub>10</sub> 24-hr Exceedances Associated with Exceptional Events

Date	Site	AQS Site Number (POC)	24-hr Concentration (ug/m <sup>3</sup> )	Max. Wind (mph)	Event
7/1/08	PCH	04-021-3011(3)	159.2	31 mph	Outflow winds
7/3/08	Stanfield	04-021-3008 (3)	157.8	27 mph	Outflow winds
8/7/08	Stanfield	04-021-3008 (3)	364.3	41 mph	Outflow winds
8/7/08	Maricopa	04-021-3010 (3)	213.3		
8/15/08	PCH	04-021-3011(3)	204.1	40 mph	Outflow winds
9/8/08	Stanfield	04-021-3008 (3)	264.2	22 mph	Outflow winds

<sup>1</sup> Central Arizona Association of Governments (CAAG) July 1, 2007 estimate.

Ken Buchanan  
Assistant County  
Manager



PINAL COUNTY  
*wide open opportunity*

Terry Doolittle  
County Manager

Development  
Services

Table of Third Quarter 2008 Pinal County PM<sub>10</sub> 24-hr Exceedances Associated with Exceptional Events  
(Continued)

Date	Site	AQS Site Number (POC)	24-hr Concentration (ug/m <sup>3</sup> )	Max. Wind (mph)	Event
9/11/08	PCH	04-021-3011(3)	217.1	43 mph	Outflow winds
9/11/08	Casa Grande	04-021-0001 (3)	202.5		
9/11/08	Combs	04-021-3009 (3)	194.7		
9/11/08	Stanfield	04-021-3008 (3)	178.2		
9/11/08	Maricopa	04-021-3010 (3)	170.4		
9/29/08	Combs	04-02103009 (3)	192.1	28 mph	Pressure gradient

**Air Quality Control District**