

**PINAL COUNTY DEPARTMENT OF DEVELOPMENT SERVICES  
AIR QUALITY CONTROL DISTRICT  
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**Pinal County  
2007 Second Quarter  
PM<sub>10</sub> Exceptional 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 326,398<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 anthropogenic PM<sub>10</sub> sources such as construction and agriculture. 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 second quarter of 2007, there were thirteen days where Pinal County monitors exceeded the PM<sub>10</sub> 24-hr National Ambient Air Quality Standard (NAAQS). Of the thirteen exceedance days, seven days can be shown “but for” each particular “exceptional event” each monitor would NOT have exceeded the PM<sub>10</sub> 24-hr NAAQS. Additionally, two of the exceedance days were also flagged by the Arizona Department of Environmental Quality (ADEQ) as Exceptional/Natural Events.

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 Second Quarter 2007 Pinal County PM<sub>10</sub> 24-hr Exceedances Associated with Exceptional Events

Date	Site	24-hr Concentration (ug/m <sup>3</sup> )	Max. Wind (mph)	Exceptional Event
4/12/07 †	PCH <sup>2</sup>	447.7	33 mph	Frontal Passage
4/12/07	PCH <sub>East</sub> (Hi-Vol)	341		
4/12/07	PCH <sub>West</sub> (Hi-Vol)	224.1		
4/12/07	Stanfield (47 mm)	349.9		
4/12/07	Stanfield (TEOM)	347.7		
4/12/07	Maricopa	259.9		
4/12/07	Casa Grande	221.1		
4/12/07	Combs	160.2		
4/15/07	PCH	221.4	29 mph	Frontal Passage

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

† ADEQ Exceptional/Natural Event

<sup>2</sup> Pinal County Housing (PCH)

Pinal County 2<sup>nd</sup> Quarter 2007 Exceptional Events Executive Summary

Table (Continued)

Date	Site	24-hr Concentration (ug/m <sup>3</sup> )	Max. Wind (mph)	Exceptional Event
4/28/07	Maricopa	525.1	44 mph	Low Pressure
4/28/07	Stanfield	360.1		
5/1/07	PCH	2,252.8	50 mph	Strong Pacific Low Pressure
5/1/07	Combs	214.6		
5/8/07	PCH	434.0	36 mph	Monsoon Dust Storm
5/8/07	Combs	326.2		
5/8/07	Stanfield	206.1		
6/6/07 <sup>†</sup>	PCH	414.2	28 mph	Frontal Passage
6/6/07	Combs	360.5		
6/6/07	Stanfield	273.4		
6/6/07	Maricopa	213.4		
6/11/07	Stanfield (47 mm)	291.8	28 mph	Strong Pacific Low Pressure
6/11/07	Stanfield (TEOM)	285.5		
6/11/07	Combs	237.4		
6/11/07	Maricopa	158.3		

<sup>†</sup> ADEQ Exceptional/Natural Event