

**PINAL COUNTY DEPARTMENT OF DEVELOPMENT SERVICES  
AIR QUALITY CONTROL DISTRICT  
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**Pinal County  
2007 First 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 first quarter of 2007, there were four days where Pinal County monitors exceeded the PM<sub>10</sub> 24-hr National Ambient Air Quality Standard (NAAQS). All four exceedance days can be shown “but for” each particular “exceptional/Natural event” each monitor would NOT have exceeded the PM<sub>10</sub> 24-hr NAAQS. Additionally, the March 27<sup>th</sup> event corresponds to an Arizona Department of Environmental Quality (ADEQ) Exceptional/Natural Event.

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 First 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
2/23/07	Stanfield (TEOM)	260	29 mph	Frontal passage
2/23/07	Stanfield (47 mm)	248.3		
2/23/07	PCH <sup>2</sup>	189.4		
3/4/07	PCH	241.7	30 mph	Trough
3/21/07	Combs	273.2	35 mph	Strong upper
3/21/07	PCH	184.3		level low
3/27/07 <sup>†</sup>	Stanfield	482.3	34 mph	Frontal passage
3/27/07	Maricopa	268.7		
3/27/07	Combs	170.1		

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

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

<sup>†</sup> Arizona Department of Environmental Quality exceptional/natural event.