

**PINAL COUNTY DEPARTMENT OF DEVELOPMENT SERVICES  
AIR QUALITY CONTROL DISTRICT  
POST OFFICE BOX 987, FLORENCE, ARIZONA 85232**

---

**Donald P. Gabrielson  
Director**

**Tel: (520) 866-6929  
Fax: (520) 866-6967**



---

**Pinal County  
2007 Third 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 third quarter of 2007, there were fourteen days where Pinal County monitors exceeded the PM<sub>10</sub> 24-hr National Ambient Air Quality Standard (NAAQS). Of the fourteen exceedance days, twelve 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, four 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 Third 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
7/5/07	Combs	211.6	24 mph	Monsoon Storm
7/5/07	PCH	196.7		
7/6/07	Combs	521.4	32 mph	Monsoon Storm
7/6/07	Stanfield	347.6		
7/6/07	Casa Grande	255.7		
7/6/07	Maricopa	232		
7/16/07	Stanfield	251	30 mph	Monsoon Storm
7/16/07	Combs	223.8		
7/16/07	PCH	199.3		

---

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

Pinal County 3<sup>rd</sup> Quarter 2007 Exceptional Events Executive Summary

Table (Continued)

Date	Site	24-hr Concentration (ug/m <sup>3</sup> )	Max. Wind (mph)	Exceptional Event
7/19/07 <sup>†</sup>	PCH	1,838.6	42 mph	Monsoon Storm
7/19/07	Stanfield	1,062.2		
7/19/07	Casa Grande	983.4		
7/19/07	Combs	866.9		
7/19/07	Maricopa	724.4		
7/23/07	Combs	160.9	24 mph	Monsoon Storm
8/13/07 <sup>†</sup>	Maricopa	331.7	32 mph	Monsoon Storm
8/13/07	Combs	248.4		
8/13/07	PCH	202.6		
8/16/07 <sup>†</sup>	Combs	969.5	39 mph	Monsoon Storm
8/16/07	Maricopa	249.4		
8/16/07	Stanfield (47 mm)	247.9		
8/16/07	PCH	184.4		
8/16/07	Casa Grande	163.6		
8/23/07 <sup>†</sup>	Combs	230.9	39 mph	Monsoon Storm
8/23/07	Stanfield	216.2		
8/23/07	Maricopa	203.8		
8/24/07	Combs	197.7	35 mph	Monsoon Storm
8/24/07	Casa Grande	188.2		
8/29/07	PCH	253.9	46 mph	Monsoon Storm
8/29/07	Stanfield	159.4		
8/30/07	Combs	283	48 mph	Monsoon Storm
8/30/07	Maricopa	158.5		
9/1/07	Maricopa	197.5	28 mph	Monsoon Storm

S:\pdf\admin.tek\Exceptional\_Events\2007\2007\_Q3\_Exc\_events\_Exec\_summary.doc

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