



Arizona Department of Environmental Quality

Janet Napolitano, Governor
Stephen A. Owens, ADEQ Director

MONTHLY AIR QUALITY REPORT FOR
MARCH 2006

AQI COLOR SCALE

GOOD	MODERATE	UNHEALTHY FOR SENSITIVE GROUPS	UNHEALTHY
0-50	51-100	101-150	151-200

Calendar of maximum AQI values & their corresponding color for March 2006*

*Preliminary data

SAMPLE POLLUTANT REPORTING BOX

1 (day of month)	O3	CO
	PM10	PM2.5

SUN		MON		TUE		WED		THU		FRI		SAT	
						1	28 08	2	34 19	3	38 25	4	36 17
							65 37		76 58		72 56		57 50
5	37 23	6	32 24	7	36 19	8	37 07	9	38 08	10	40 05	11	34 11
	56 52		79 60		77 44		66 32		56 26		153 54		12 n/a
12	38 09	13	41 13	14	45 19	15	45 15	16	43 26	17	37 25	18	38 13
	09 25		25 40		43 55		45 62		62 61		61 48		41 31
19	35 08	20	38 08	21	34 10	22	41 10	23	44 19	24	45 22	25	48 26
	17 34		21 33		38 35		44 44		64 45		62 40		44 37
26	43 09	27	39 11	28	34 13	29	38 07	30	43 15	31	37 17		
	25 30		44 37		48 32		59 25		45 35		48 33		

Calendar of High Pollution Advisories and Health Watches issued during March 2006

SUN			MON			TUE			WED			THU			FRI			SAT		
								1				2			3			4		
5			6			7			8			9			10			11		
12			13			14			15			16			17			18		
19			20			21			22			23			24			25		
26			27			28			29			30			31					

LEGEND

HIGH POLLUTION ADVISORIES

- A** = PM-10 High Pollution Advisory
- B** = PM-2.5 High Pollution Advisory
- C** = Ozone High Pollution Advisory

HEALTH WATCHES

- D** = PM-10 Health Watch
- E** = PM-2.5 Health Watch
- F** = Ozone Health Watch

Exceedance days during MAR 2006-

Total=	1	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
		03/10	153	PM-10	West Forty Third
			143	PM-10	Durango
			106	PM-10	Greenwood

High Pollution Advisories issued during MAR 2006-

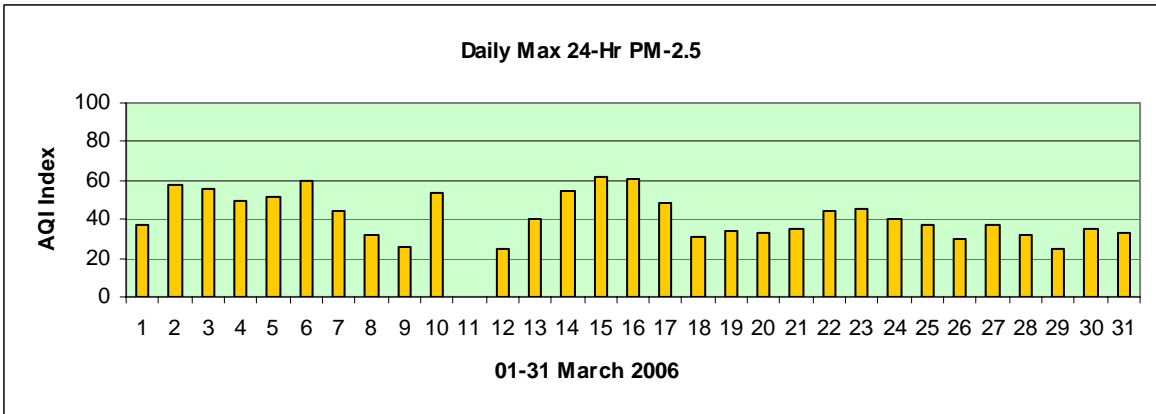
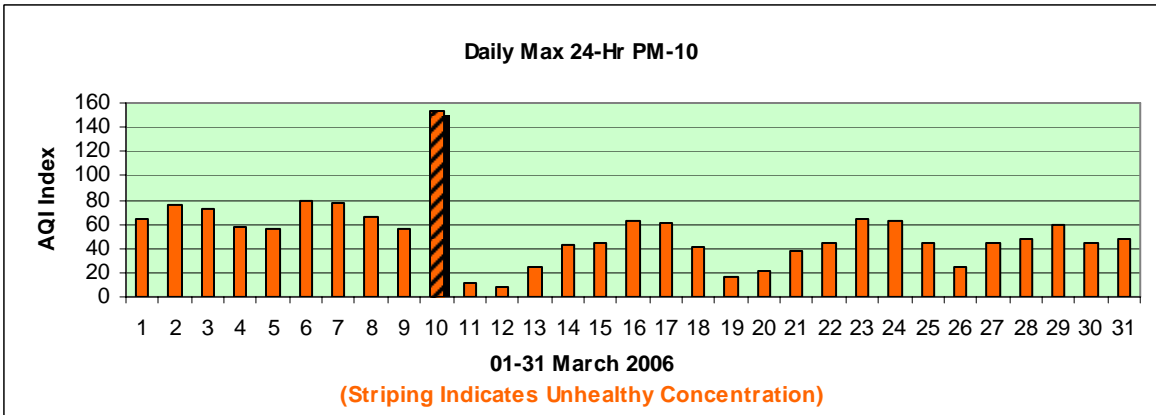
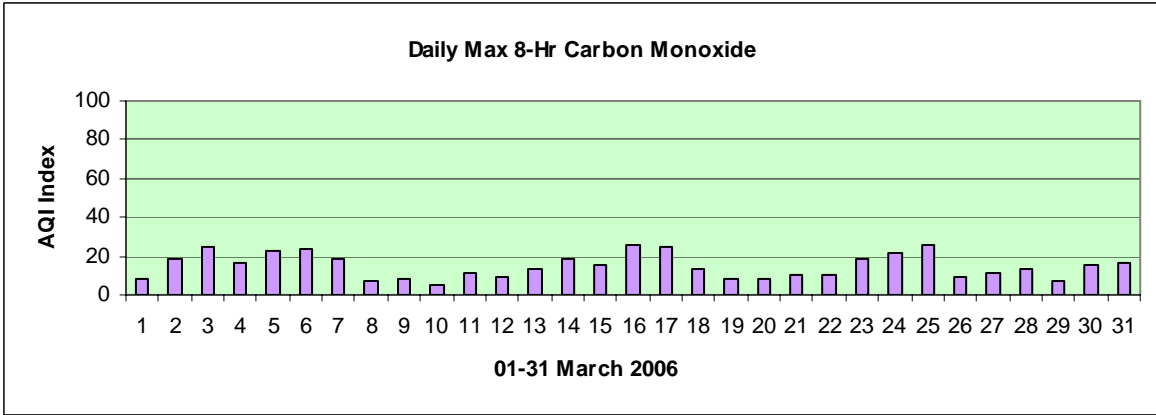
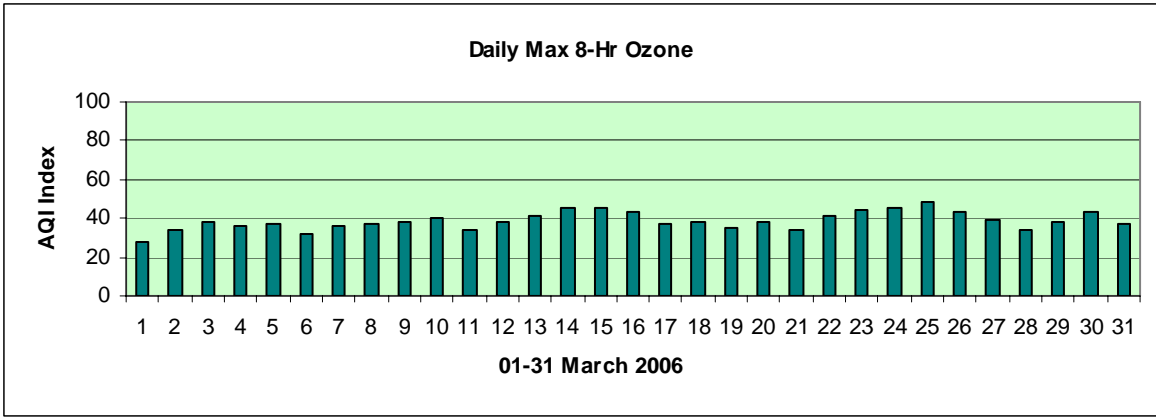
Total=	1	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
		03/10	153	PM-10	West Forty Third

Health Watches issued during MAR 2006-

Total=	1	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
		03/03	72	PM-10	West Forty Third

Concentration Recap:

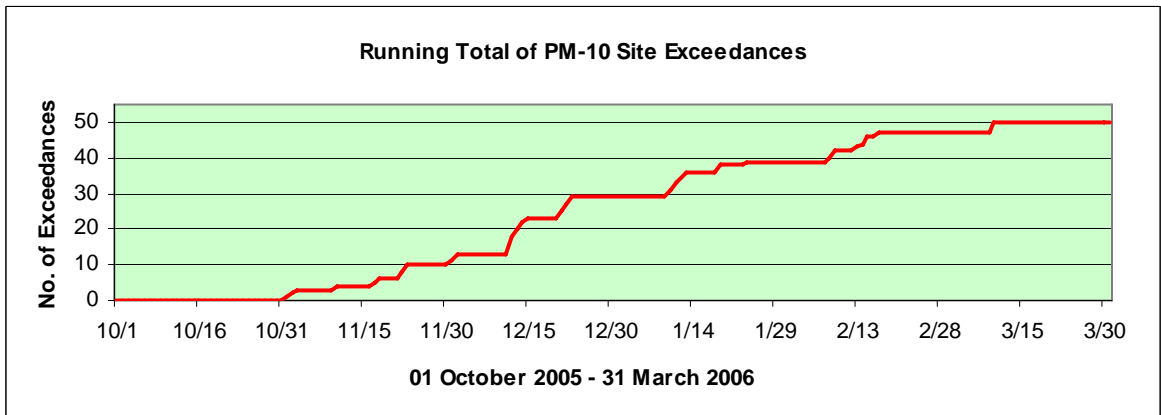
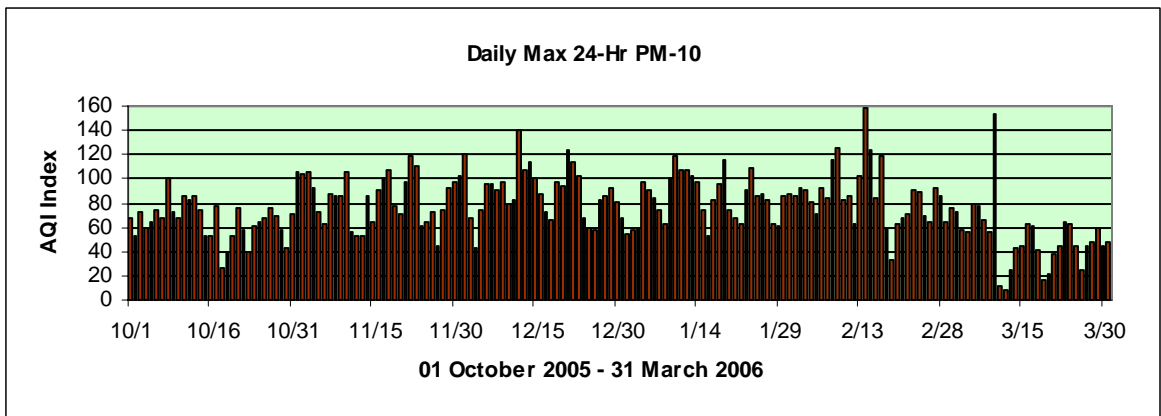
Days in the Good category:	14
Days in the Moderate category:	16
Days in the Unhealthy for Sensitive Groups category:	0
Days in the Unhealthy category:	$\frac{1}{31}$
Total Forecast Days:	31



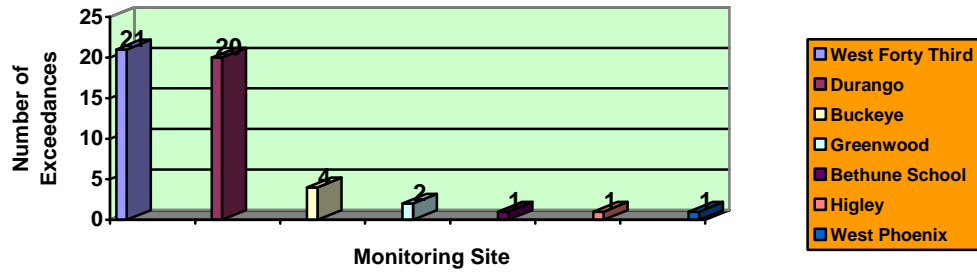
Narrative:

During March 2006 highest 8-hr ozone concentrations trended upward, while carbon monoxide and fine (PM-2.5) particle concentrations trended downward from February levels; all were expected and no significant or unusual episodes occurred with those pollutants. On the other hand, the primary PM-10 forecast season came to a blessed but spectacular end with yet another exceedance episode – this time due to strong winds and blowing dust; however, that incident (on the 10th) was followed by a statewide rain event (on the 11th) that dropped large amounts of rain over the heretofore parched and destabilized desert soils of Southern Arizona in general, and over the Phoenix metro area in particular. (The rain was so heavy and persistent on the 11th that no reliable PM-2.5 data was captured from monitoring equipment that day). The rainfall total of 1.40” on March 11th ended in fine fashion the record 143 days without any rain at Phoenix Sky Harbor Airport. Particle pollutant concentrations thereafter through the end of the month were relatively low, despite periods of both stagnant and windy weather. It is obvious that during the November 2005 thru mid-March 2006 interval both the drought and local weather conditions exacerbated the already high amounts of local PM-10 emissions. By all accounts the ensuing 50 site exceedances spread over 30 days was the most severe “outbreak” of PM-10 since the serious non-attainment area designation for much of Maricopa County was made on June 10 1996. -Reith.

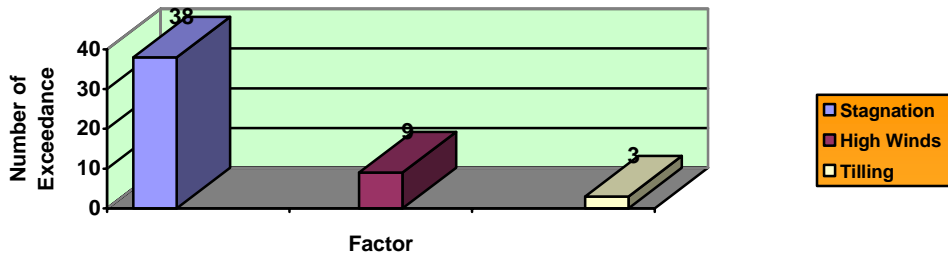
The tables and graphs that follow provide detail about the PM-10 exceedances that occurred during the October 2005 to March 2006 forecast season.



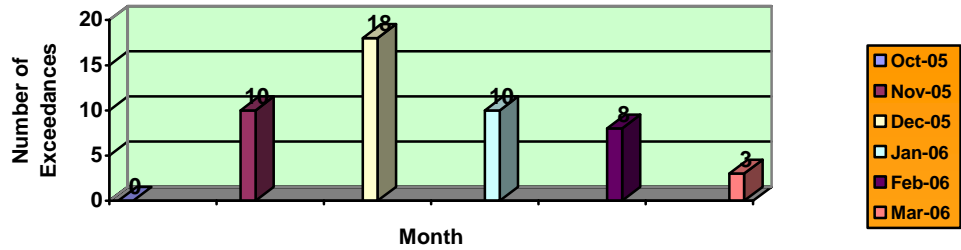
PM-10 Exceedances by Site (Total = 50)
01 October 2005 - 31 March 2006



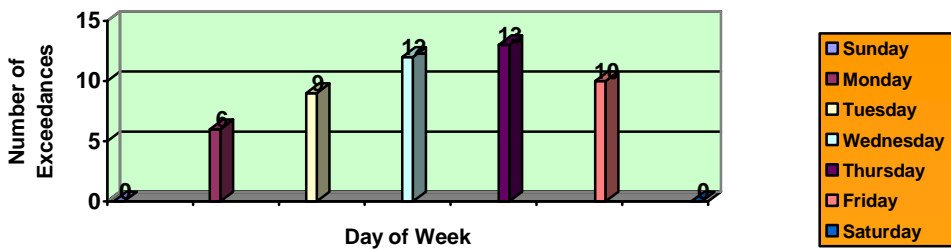
PM-10 Site Exceedances by Contributing Factor (Total = 50)
01 October 2005 - 31 March 2006



PM-10 Site Exceedances by Month (Total = 50)
01 October 2005 - 31 March 2006



PM-10 Site Exceedances by Day of Week (Total = 50)
01 October 2005 - 31 March 2006



PART I – EXCEEDANCES* BY DATE

***Preliminary data = 24-hr average 154.5 ug/m3 or greater
(Final Version)**

<u>Date</u>	<u>Site(s)</u>	<u>UG/m3/AOI</u>	<u>Equipment</u>	<u>Weather Type</u>
Nov 01	West Forty Third	166.4/106	Continuous	Stagnation
Nov 02	West Forty Third	162.6/104	Continuous	Stagnation
Nov 03	Durango	163.8/105	Continuous	Stagnation
Nov 10	West Forty Third	166.2/106	Continuous	Stagnation
Nov 17	Durango	156.2/101	Continuous	Stagnation
Nov 18	Buckeye	169.7/108	Continuous	Winds
Nov 22	Durango	189.6/118	Continuous	Stagnation
	West Forty Third	173.4/110	Continuous	Stagnation
Nov 23	Durango	165.1/106	Continuous	Stagnation
	West Forty Third	175.5/111	Continuous	Stagnation
Dec 01	Durango	158.9/102	Continuous	Stagnation
Dec 02	Durango	165.1/106	Continuous	Stagnation
	West Forty Third	195.2/121	Continuous	Stagnation
Dec 12	Bethune School	198.1/122	Filter-based	Stagnation
	Durango	206.9/126	Continuous	Stagnation
	Greenwood	172.7/109	Filter-based	Stagnation
	West Forty Third	233.1/140	Continuous	Stagnation
	West Phoenix	155.0/101	Filter-based	Stagnation
Dec 13	Durango	166.1/106	Continuous	Stagnation
	West Forty Third	167.7/107	Continuous	Stagnation
Dec 14	Durango	181.3/114	Continuous	Stagnation
	West Forty Third	174.7/110	Continuous	Stagnation
Dec 15	Durango	156.9/101	Continuous	Stagnation
Dec 21	Durango	200.4/123	Continuous	Stagnation
	West Forty Third	200.6/123	Continuous	Stagnation
Dec 22	Durango	179.1/113	Continuous	Stagnation
	West Forty Third	168.4/107	Continuous	Stagnation
Dec 23	Durango	157.6/102	Continuous	Stagnation
	West Forty Third	156.7/101	Continuous	Stagnation
Jan 10	Durango	155.6/101	Continuous	Stagnation
	West Forty Third	190.5/118	Continuous	Stagnation
Jan 11	Durango	169.3/108	Continuous	Stagnation
	West Forty Third	165.7/106	Continuous	Stagnation
Jan 12	Durango	165.8/106	Continuous	Stagnation
	West Forty Third	169.8/108	Continuous	Stagnation
Jan 13	West Forty Third	157.2/102	Continuous	Stagnation
Jan 19	Durango	183.9/115	Continuous	Winds
	West Forty Third	184.0/115	Continuous	Winds
Jan 24	Higley	170.5/108	Continuous	Winds
Feb 08	West Forty Third	184.0/115	Continuous	Stagnation
Feb 09	Durango	171.7/109	Continuous	Stagnation
	West Forty Third	204.6/125	Continuous	Stagnation
Feb 13	Buckeye	159.7/103	Continuous	Stagnation/Tilling
Feb 14	Buckeye	272.9/159	Continuous	Stagnation/Tilling
Feb 15	Durango	157.6/102	Continuous	Winds
	West Forty Third	202.2/124	Continuous	Winds
Feb 17	Buckeye	191.9/119	Continuous	Stagnation/Tilling
Mar 10	Greenwood	166.5/106	Continuous	Winds
	Durango	240.8/143	Continuous	Winds
	West Forty Third	260.8/153	Continuous	Winds

TOTAL: 50

PART II – EXCEEDANCES* BY SITE

***Preliminary data = 24-hr average 154.5 ug/m3 or greater
(Final Version)**

<u>Site</u>	<u>Date(s)</u>	<u>UG/m3/AOI</u>	<u>Equipment</u>	<u>Weather Type</u>
Bethune School (1)	Dec 12	198.1/122	Filter-based	Stagnation
Buckeye	Nov 18	169.7/108	Continuous	Winds
Buckeye	Feb 13	159.7/103	Continuous	Stagnation/Tilling
Buckeye	Feb 14	272.9/159	Continuous	Stagnation/Tilling
Buckeye (4)	Feb 17	191.9/119	Continuous	Stagnation/Tilling
Durango	Nov 03	163.8/105	Continuous	Stagnation
Durango	Nov 17	156.2/101	Continuous	Stagnation
Durango	Nov 22	189.6/118	Continuous	Stagnation
Durango	Nov 23	165.1/106	Continuous	Stagnation
Durango	Dec 01	158.9/102	Continuous	Stagnation
Durango	Dec 02	165.1/106	Continuous	Stagnation
Durango	Dec 12	206.9/126	Continuous	Stagnation
Durango	Dec 13	166.1/106	Continuous	Stagnation
Durango	Dec 14	181.3/114	Continuous	Stagnation
Durango	Dec 15	156.9/101	Continuous	Stagnation
Durango	Dec 21	200.4/123	Continuous	Stagnation
Durango	Dec 22	179.1/113	Continuous	Stagnation
Durango	Dec 23	157.6/102	Continuous	Stagnation
Durango	Jan 10	155.6/101	Continuous	Stagnation
Durango	Jan 11	169.3/108	Continuous	Stagnation
Durango	Jan 12	165.8/106	Continuous	Stagnation
Durango	Jan 19	183.9/115	Continuous	Winds
Durango	Feb 09	171.7/109	Continuous	Stagnation
Durango	Feb 15	157.6/102	Continuous	Winds
Durango (20)	Mar 10	240.8/143	Continuous	Winds
Greenwood	Dec 12	172.7/109	Filter-based	Stagnation
Greenwood (2)	Mar 10	166.5/106	Continuous	Winds
Higley (1)	Jan 24	170.5/108	Continuous	Winds
West Forty Third	Nov 01	166.4/106	Continuous	Stagnation
West Forty Third	Nov 02	162.6/104	Continuous	Stagnation
West Forty Third	Nov 10	166.2/106	Continuous	Stagnation
West Forty Third	Nov 22	173.4/110	Continuous	Stagnation
West Forty Third	Nov 23	175.5/111	Continuous	Stagnation
West Forty Third	Dec 02	195.2/121	Continuous	Stagnation
West Forty Third	Dec 12	233.1/140	Continuous	Stagnation
West Forty Third	Dec 13	167.7/107	Continuous	Stagnation
West Forty Third	Dec 14	174.7/110	Continuous	Stagnation
West Forty Third	Dec 21	200.6/123	Continuous	Stagnation
West Forty Third	Dec 22	168.4/107	Continuous	Stagnation
West Forty Third	Dec 23	156.7/101	Continuous	Stagnation
West Forty Third	Jan 10	190.5/118	Continuous	Stagnation
West Forty Third	Jan 11	165.7/106	Continuous	Stagnation
West Forty Third	Jan 12	169.8/108	Continuous	Stagnation
West Forty Third	Jan 13	157.2/102	Continuous	Stagnation
West Forty Third	Jan 19	184.0/115	Continuous	Winds
West Forty Third	Feb 08	184.0/115	Continuous	Stagnation
West Forty Third	Feb 09	204.6/125	Continuous	Stagnation
West Forty Third	Feb 15	202.2/124	Continuous	Winds
West Forty Third (21)	Mar 10	260.8/153	Continuous	Winds
West Phoenix (1)	Dec 12	155.0/101	Filter-based	Stagnation

TOTAL: 50