



**MONTHLY AIR QUALITY REPORT FOR
NOVEMBER 2006**

AOI COLOR SCALE

GOOD 0-50	MODERATE 51-100	UNHEALTHY FOR SENSITIVE GROUPS 101-150	UNHEALTHY 151-200
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Calendar of maximum AQI values & their corresponding color for November 2006*

*Preliminary data

SAMPLE POLLUTANT REPORTING BOX

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

SUN			MON			TUES			WED			THU			FRI			SAT		
									1	41	34	2	38	33	3	40	38	4	43	43
										74	65		86	68		97	71		64	68
5	41	28	6	35	31	7	30	36	8	36	40	9	34	36	10	40	38	11	37	24
	58	62		96	80		98	79		95	75		82	65		81	61		68	56
12	42	22	13	37	27	14	36	30	15	37	32	16	35	34	17	36	48	18	35	51
	47	45		84	64		80	65		86	60		105	83		111	72		82	75
19	38	45	20	43	34	21	40	32	22	36	39	23	30	44	24	27	45	25	27	38
	65	76		86	69		85	66		99	86		77	78		70	80		60	63
26	35	31	27	34	30	28	30	17	29	33	10	30	32	23						
	50	63		105	59		72	42		97	34		67	38						

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

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

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 NOV 2006-

Total= 3	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
	11/16	105	PM-10	West Forty Third
	11/17	111	PM-10	West Forty Third
	11/27	105	PM-10	West Forty Third

Health Watches issued during NOV 2006-

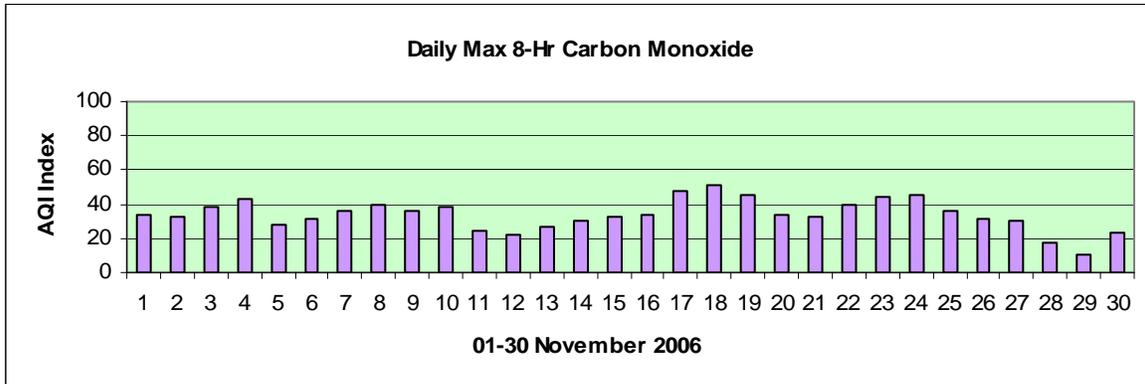
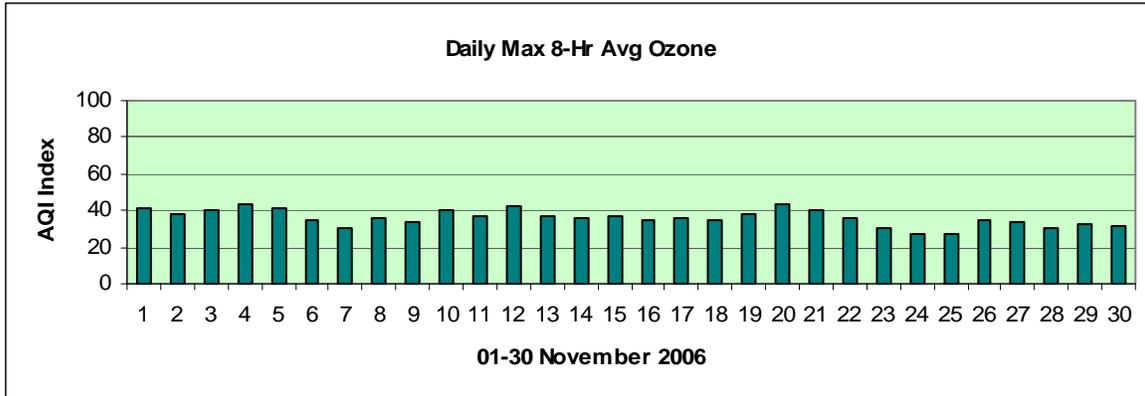
Total= 10	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
	11/01	74	PM-10	West Forty Third
	11/02	86	PM-10	Durango
	11/03	97	PM-10	West Forty Third
	11/07	98	PM-10	West Forty Third
	11/08	95	PM-10	Durango
	11/16	105	PM-10	West Forty Third
	11/17	72	PM-2.5	Durango
	11/18	82	PM-10	West Forty Third
	11/21	85	PM-10	Greenwood
	11/24	70	PM-10	West Forty Third
	11/29	97	PM-10	Buckeye

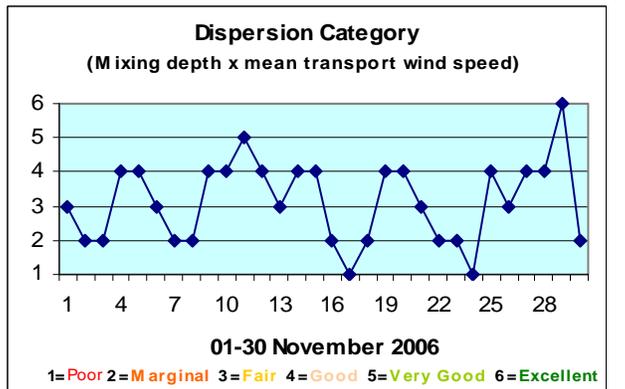
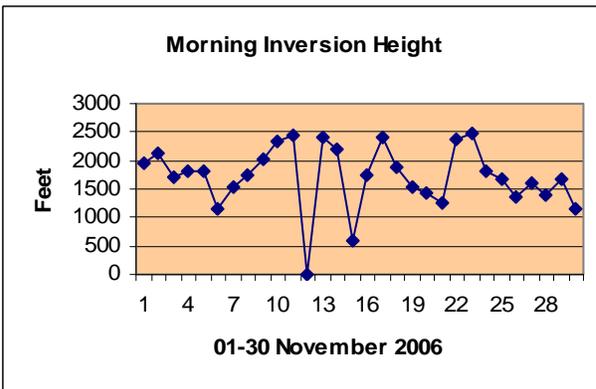
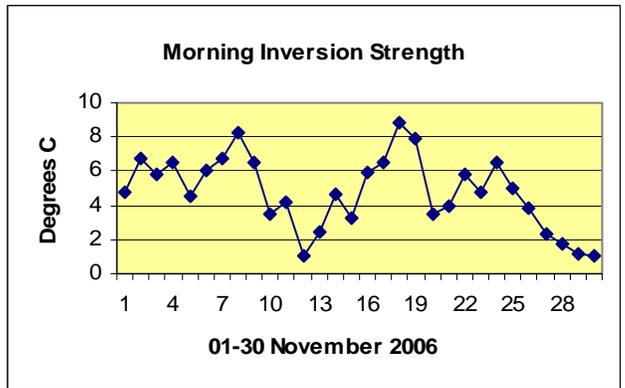
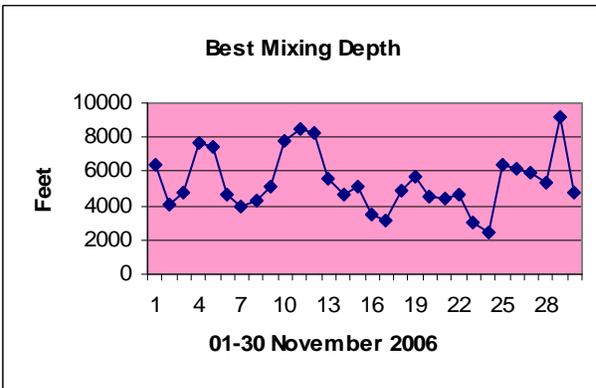
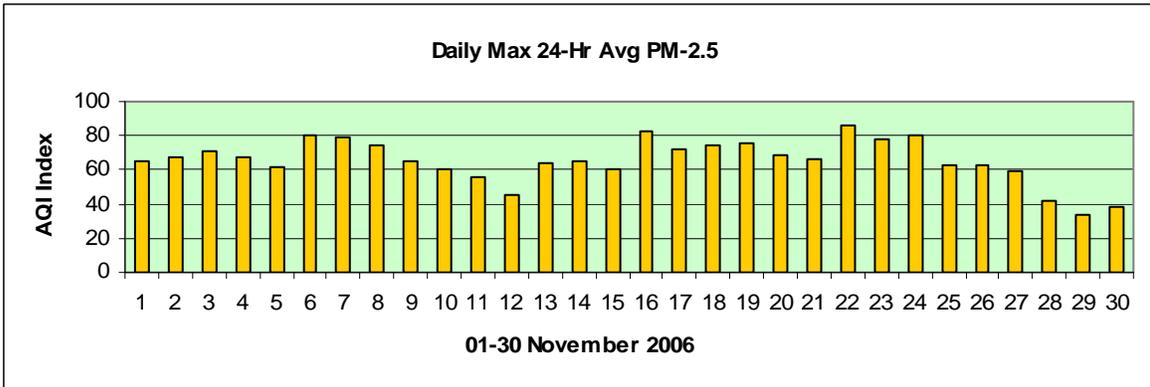
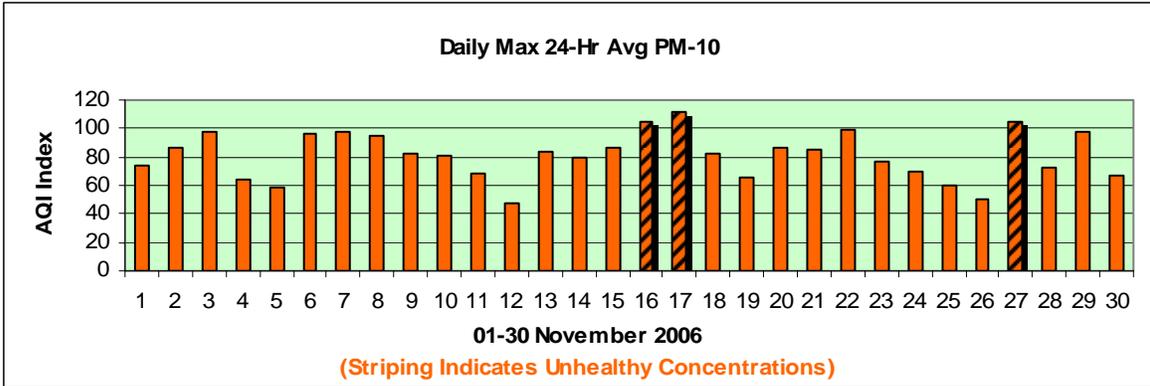
High Pollution Advisories issued during NOV 2006-

Total=	Date	Max AQI	Pollutant	Site/s
2	11/08	95	PM-10	Durango
	11/17	111	PM-10	West Forty Third

Concentration Recap:

Days in the Good category:	1
Days in the Moderate category:	26
Days in the Unhealthy for Sensitive Groups category:	3
Days in the Unhealthy category:	0
Total Forecast Days:	30





Narrative:

The mid-latitude storm track was not active at Arizona's latitude during most of November 2006, a factor that resulted in the formation of stagnant air masses over the Phoenix metro area, and contributed greatly to periods of degraded air quality due to trapped particle pollutants. A similar weather pattern during November 2005 played a role in nine site exceedances of the federal PM-10 (coarse particle) standard over seven days. Only two site exceedances occurred due to stagnation this month (17th and 18th), with a third due to blowing dust associated with gusty but not particularly high winds during a trough passage (27th). With the help from data derived from local ACARS soundings, the characteristics of stagnation have been documented and utilized as a forecast tool for the past several years. The four small graphs above this narrative show a set of time-series for four of these characteristics during November 2006: best mixing depth, morning inversion strength, morning inversion height, and category of dispersion. During a stable weather pattern, the episodes of peaks and valleys in these graphs correlate closely with the highest particle pollutant concentration during those episodes. For example, during the exceedances on the 16th and 17th best mixing depths and dispersion were low on the scales, while morning inversion heights and magnitudes were high on the scales. On the other hand, during the trough passage on the 12th the values were reversed with a high mixing depth and dispersion index versus a low inversion height and strength. For the most part, the highest concentration of PM-10 and PM-2.5 occurred on days during which dispersion was either marginal or poor. –Reith