MONTHLY AIR QUALITY REPORT FOR JULY 2010

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 July 2010*

*Preliminary data

SAMPLE POLLUTANT REPORTING BOX

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

SUN	MON	TUES	WED	THU	FRI	SAT
				1 84 06 39 27	2 67 06 51 51	3 48 06 40 40
4 49 06 33 42	5 49 06 31 32	6 71 08 40 39	7 84 07 44 44	8 61 08 54 50	9 58 07 52 35	10 93 08 36 40
11 47 07 35 38	12 51 07 39 61	13 48 07 40 35	14 64 08 41 52	15 90 09 59 40	16 84 05 52 38	17 67 05 65 37
18 61 05 40 36	19 74 05 32 33	20 67 06 55 38	21 71 07 52 35	22 50 05 48 30	23 47 07 24 33	24 100 07 27 37
25 77 06 24 20	26 58 06 24 31	27 61 05 36 31	28 51 07 27 33	29 43 08 24 33	30 48 08 17 24	31 39 07 20 29

Calendar of High Pollution Advisories and Health Watches issued during July 2010

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

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

Calendar of Meteorological Conditions observed in Metro Phoenix during July 2010

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

LEGEND

ELECTROMETEORS
A = Thunderstorm

HYDROMETEORS
B = Rain/Drizzle/Hail/Snow
C = Fog

LITHOMETEORS
D = Blowing Dust
E = Haze (vsby <10SM)
F = Smoke

Non-Ozone Exceedance days during JUL 2010-

Total=	0	Date	Max AQI	Pollutant	Site/s

Non-Ozone Health Watches issued during JUL 2010-

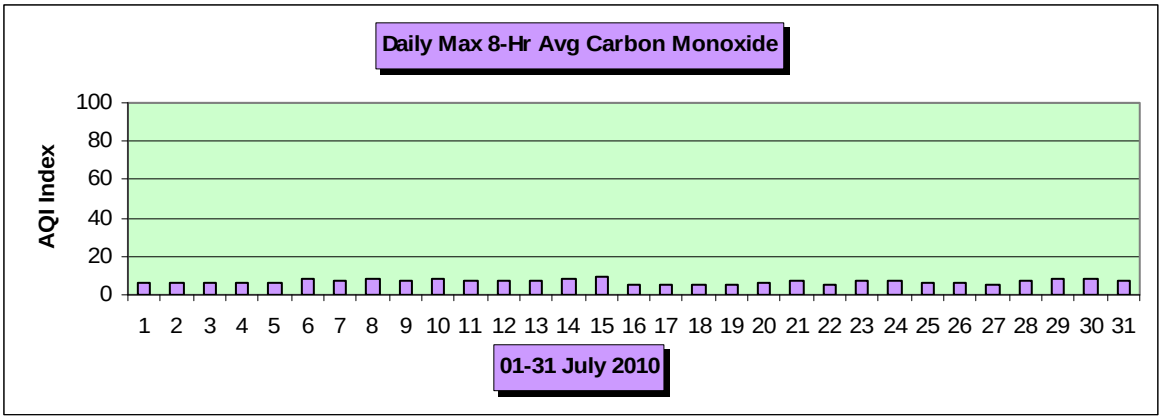
Total=	0	Date	Max AQI	Pollutant	Site/s

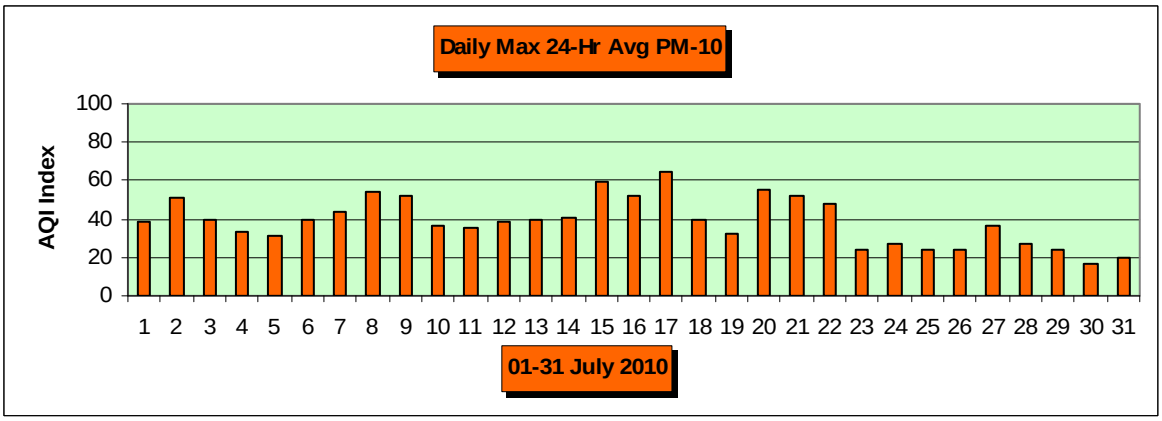
Non-Ozone High Pollution Advisories issued during JUL 2010-

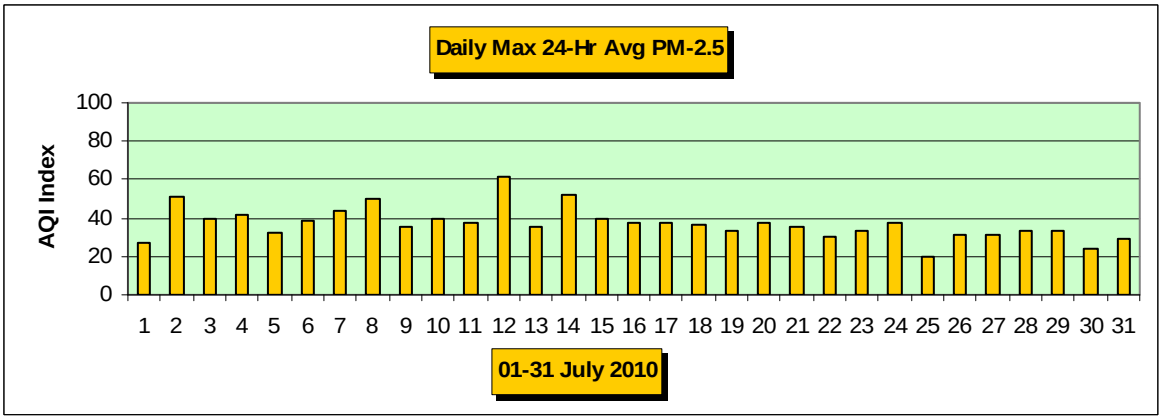
Total=	0	Date	Max AQI	Pollutant	Site/s

Concentration Recap:

Days in the Good category:	10
Days in the Moderate category:	21
Days in the Unhealthy for Sensitive Groups category:	0
Days in the Unhealthy category:	0
Total Forecast Days:	31







Narrative: The mid-latitude storm track remained active during the first week of July as a large upper level trough made an eastward progression over the western U.S. This was followed by the rapid migration of the 500mb "monsoon" high to the Four Corners region; the anticyclonic circulation around this feature ushered in sufficient moisture to fuel thunderstorm development over the higher terrain on the Valley periphery by the 8th. During the remainder of the month outflow from this activity produced gusty winds and blowing dust in the Phoenix metro area on five occasions and local rainfall on 15 days. This culminated in the heavy rain event on the 31st that produced rainfall totals of nearly two inches at some Valley locations and a daily record 1.33" at Sky Harbor Airport. These precipitation occurrences were beneficial for many reasons, including helping to keep PM-10 (coarse particle) levels below their summer thunderstorm season potential. In fact, highest AQI levels for both PM-10 (coarse particles) and PM-2.5 (fine particles) were both in the low-moderate range during the entire month – no easy feat. -Reith

DETAILED OZONE SECTION

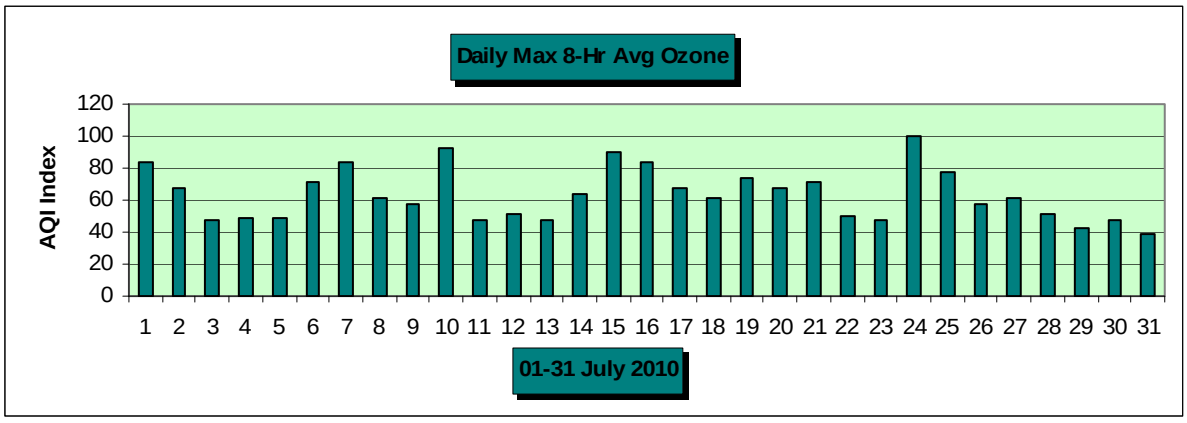
(Based on the 2008 EPA Revised 8-Hour Ozone Standard)

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

SUMMARY OF MAXIMUM 8-HR OZONE AQI VALUES FOR JULY 2010*

*Preliminary data

SUN		MON		TUES		WED		THU		FRI		SAT	
								1	84	2	67	3	48
4	49	5	49	6	71	7	84	8	61	9	58	10	93
11	47	12	51	13	48	14	64	15	90	16	84	17	67
18	61	19	74	20	67	21	71	22	50	23	47	24	100
25	77	26	58	27	61	28	51	29	43	30	48	31	39



8-hr Ozone exceedance days in JUL	Total=	0	Date	Max ppb/AQI	Site/s

Total number of exceedance days since APR 01: 7
Total number of exceedance sites since APR 01: 35

Ozone Health Watches in JUL:	Total=	7	Date	Max ppb/AQI	Site/s
(Forecast max value 72-75 ppb)			7/08	61/54	North Phoenix
			7/09	58/62	Dysart
			7/10	93/73	West Chandler
			7/14	64/64	South Scottsdale
			7/15	90/72	Cave Creek
			7/25	77/68	Central Phoenix
				77/68	North Phoenix
				77/68	West Phoenix
			7/26	58/62	South Scottsdale

Ozone Health Watches since APR 01:	Total=	24

High Pollution Advisories in JUL:	Total=	0	Date	Max ppb/AQI	Site/s
(Forecast max value 76+ppb)					

High Pollution Advisories since APR 01:	Total=	4

Concentration Recap:

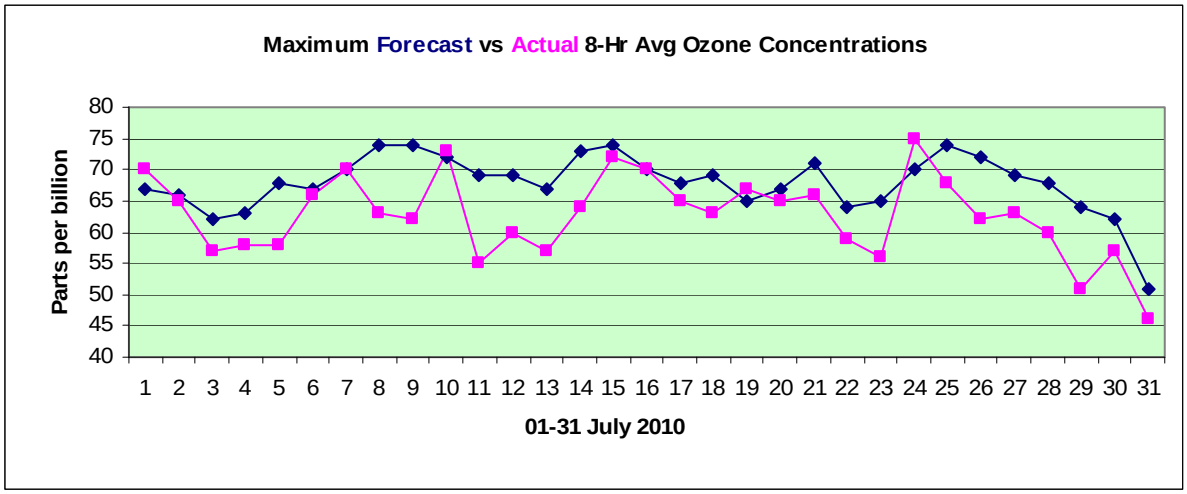
Days in the Good category:	10
Days in the Moderate category:	21
Days in the Unhealthy for Sensitive Groups category:	0
Days in the Unhealthy category:	0
Total Forecast Days:	31

	Date	Hour	Site	ppb/AQI	DOW
Maximum 8-Hr value:	7/24	1000	West Phoenix	75/100	Sat
Maximum 1-Hr value:	7/27	2000	North Phoenix	95/79	Tue

Average daily max 8-Hr concentration (ppb):	62.7
Deviation from the 1996-2009 average (ppb):	**-8.2**

JUL Climatology: (Period 1996-2007 using 1997 85ppb standard & 2008-2009 using 76ppb standard)	Average number of 8-Hr exceedance days:	3.9
	Maximum number of 8-Hr exceedance days:	10 in 1996
	Minimum number of 8-Hr exceedance days:	0 in 1997, 1999, 2007
	Average daily max 8-Hr concentration (ppb):	70.9
	Record high max 8-Hr concentration (ppb):	109 on the 9th, 2002
	Record low max 8-Hr concentration (ppb):	40 on the 29th, 1997

Forecast Verification:	# of days maximum concentrations were over-forecast:	25
	# of days maximum concentrations were under-forecast:	11
	# of days maximum concentrations were correctly forecast:	2
	Jul average forecast accuracy (ppb):	+/-6.2
	Jul average forecast bias (ppb):	+5.5



Narrative:

As detailed in the previous section, particle pollution in the Phoenix metro area was atypically low during the month of July. The same can be said of ozone since no exceedances of the 8-hour standard occurred, and for the month the average daily peak concentration was over eight parts per billion below the 14-year average (1996-2009). Although precursor emissions my have been below normal due to the current economic downturn, local weather conditions undoubtedly also played a role. Even though daytime temperatures over the downtown area reached 110+ deg F on ten days during the month, afternoon cloud cover appeared to be more prevalent. This would follow the fact that it was a very active month "monsoonally" speaking, especially during the second half of July during which strong outflow winds followed or were accompanied by rainfall nearly every day between the 16th and 31st. In addition, the classic deep easterly wind flow regime of previous years was a rare commodity during July 2010. This type of wind regime is well recognized for facilitating some of the highest ozone readings measured in Phoenix over the years by countering the usual terrain-induced southwest to westerly upslope winds that set up each afternoon. -Reith