



**MONTHLY AIR QUALITY REPORT FOR
JUNE 2004**

AQI 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 June 2004*

*Preliminary data

SAMPLE POLLUTANT REPORTING BOX

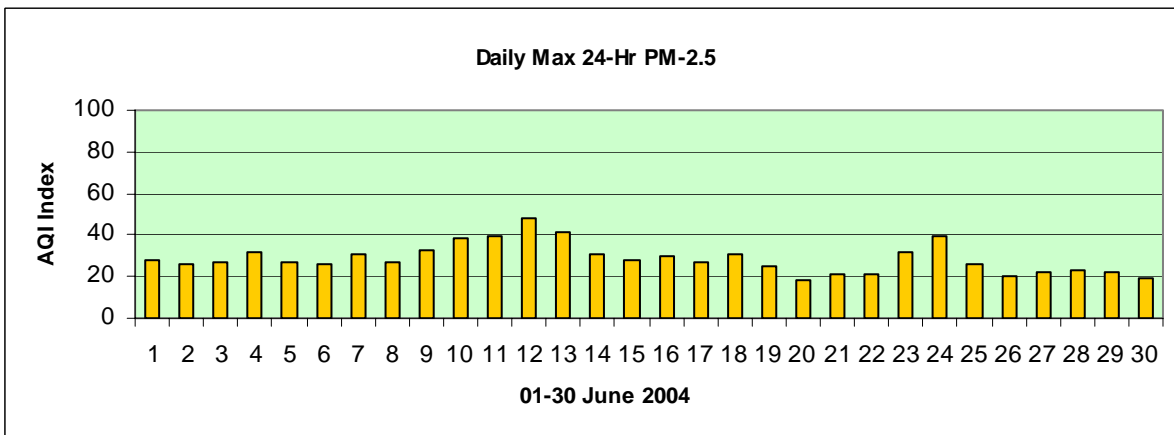
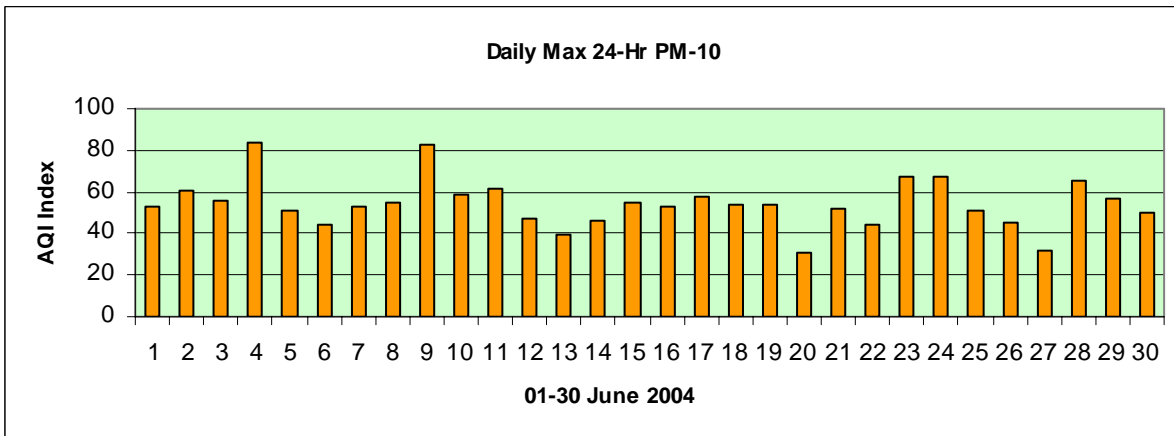
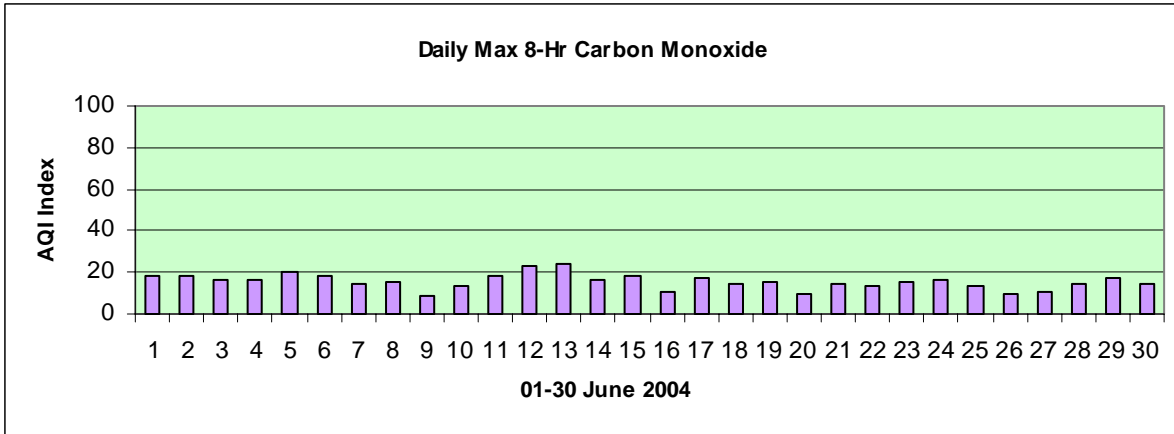
1 (day of month)	O3	CO
	PM10	PM2.5

SUN			MON			TUES			WED			THU			FRI			SAT		
						1	56	18	2	61	18	3	61	16	4	48	16	5	49	20
							53	28		61	26		56	27		84	32		51	27
6	54	18	7	48	14	8	44	15	9	56	09	10	90	13	11	92	18	12	82	23
	44	26		53	31		55	27		83	33		59	38		62	39		47	48
13	61	24	14	69	16	15	50	18	16	49	11	17	47	17	18	47	14	19	42	15
	39	41		46	31		55	28		53	30		58	27		54	31		54	25
20	42	10	21	48	14	22	49	13	23	61	15	24	61	16	25	56	13	26	51	10
	31	18		52	21		44	21		67	32		67	39		51	26		45	20
27	48	11	28	40	14	29	43	17	30	40	14									
	32	22		65	23		57	22		50	19									

Narrative:

For the fourth straight month carbon monoxide (CO) and fine particles (PM-2.5) were in the good range every day, which is typical of the warm season due to warm temperatures, large mixing depths, and dispersive diurnal winds. Two days of rather high coarse particle concentrations (PM-10) deserve special note. On the 4th outflow winds from overnight pre-monsoon storms to the east and southeast of the metro area brought with them a high volume of thick smoke, most likely from the "KP" wildfire. The smoke arrived before daybreak and was sufficiently dense to obscure nearby mountain peaks and create an indefinite and artificial ceiling over the entire area. Visibility was in the 25 to 30 mile range initially but by 1000 hrs the smoke layer had mixed to the surface and

proceeded to limit local visibility to 3 to 5 miles for the next four hours. It was at 1100 hrs that the Durango site recorded its highest PM-10 concentration of nearly 400ug/m³. The other episode occurred on the 9th when a strong trough passage occurred that produced strong and gusty winds statewide. During the afternoon, winds were in the 20-30 mph range over the Phoenix metro area and visibility was reduced due to blowing and suspended dust. At 1500 hrs the Durango site recorded a PM-10 level of 661ug/m³.



DETAILED OZONE SECTION

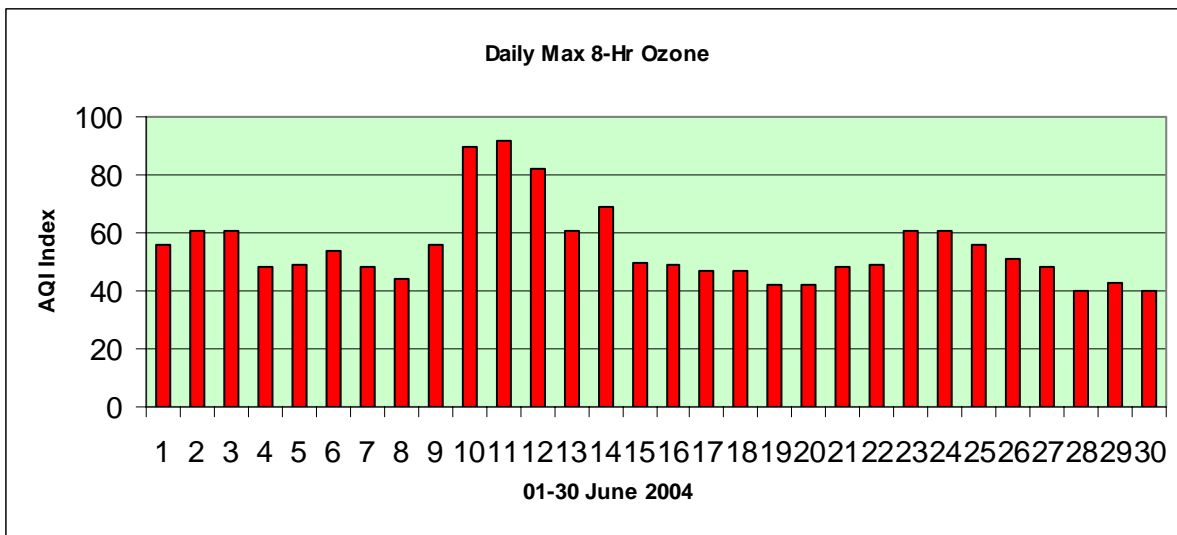
GOOD	MODERATE	UNHEALTHY FOR SENSITIVE GROUPS	UNHEALTHY
0-50	51-100	101-150	151-200

SUMMARY OF MAXIMUM 8-HR OZONE AQI VALUES FOR JUN 2004*

*Preliminary data

SUN		MON		TUES		WED		THU		FRI		SAT	
				1	56	2	61	3	61	4	48	5	49
6	54	7	48	8	44	9	56	10	90	11	92*	12	82
13	61	14	69	15	50	16	49	17	47	18	47	19	42
20	42	21	48	22	49	23	61	24	61	25	56	26	51
27	48	28	40	29	43	30	40						

*HIGHEST AQI OF MONTH



Exceedance days in JUN: Total= 0 Date Max ppb/AQI Site/s

Total number of exceedance days since APR 01: 0

Total number of exceedance sites since APR 01: 0

Ozone Health Watches in JUN: Total= 1 Date Max ppb/AQI Site/s
(Forecast max value 80-84 ppb) 6/01 56/67 Blue Point

Ozone Health Watches since APR 01: Total= 10

High Pollution Advisories in JUN: Total= 1 6/02 61/69 Humboldt Mtn
(Forecast max value 85+ppb)

High Pollution Advisories since APR 01: Total= 1

Concentration Recap: Jun days in the **Good** category: 16
Jun days in the **Moderate** category: 14
Jun days in the **Unhealthy for Sensitive Groups** category: 0
Jun days in the **Unhealthy** category: 0
Total Forecast Days: 30

Jun maximum 8-Hr value: Date Hour Site ppb/AQI DOW
6/11 1200 Humboldt Mtn 81/92 Fri

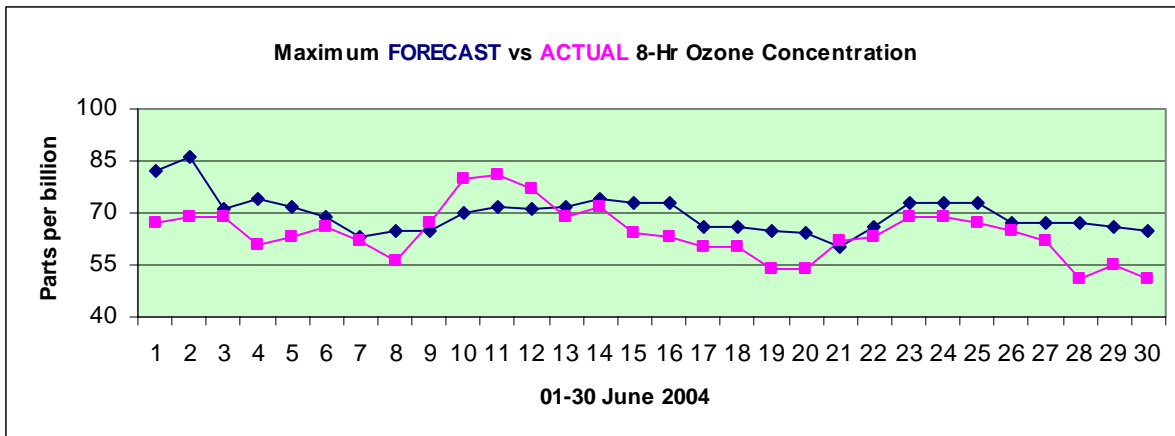
Jun maximum 1-Hr value: Date Hour Site ppb/AQI DOW
6/12 1500 Humboldt Mtn 88/73 Sat

Jun average daily max 8-Hr concentration (ppb): 64.3

Jun deviation from 1996-2003 average (ppb): -8.6

JUN Climatology: Average number of 8-Hr exceedances: 3.8
(1996-2003) Maximum number of 8-Hr exceedances: 9 in 1998, 2002
Minimum number of 8-Hr exceedances: 0 in 2003
Average daily max 8-Hr concentration (ppb): 72.9
Record high max 8-Hr concentration (ppb): 102 on the 1st, 1996
Record low max 8-Hr concentration (ppb): 45 on the 10th, 2003

Forecast Verification: Jun days that maximum concentration was over-forecast: 25
Jun days that maximum concentrations was under-forecast: 5
Jun days that maximum concentrations was correctly forecast: 0
Jun average forecast accuracy (ppb): 7.3
Jun average forecast bias (ppb): +5.4



Narrative:

Much lower than normal maximum ozone concentrations continued during June 2004 and for the third consecutive month no exceedances of the 8-hour standard were recorded. This is unprecedented in recent history. From 1996 thru 2003 there was a yearly average of just over eight exceedances that occurred during the April through June timeframe. Every year had at least two exceedances with as many as ten as recently as 2002. A search for the possible cause(s) of this anomaly is being conducted as of this writing. One contributing factor may be that during June 2004 maximum daytime temperatures were not excessive; on only two days did they reach 110 degrees F. Ironically, the two highest 8-hour and second highest 1-hour ozone readings of the month all occurred on days when the maximum temperature at Sky Harbor Airport was only in the middle 90's. A strong mid-latitude trough passage took place on the 9th and this dropped the daytime high to 95 degrees from 103 degrees the day prior. On the 10th and 11th the wind component aloft was very favorable for the import of ozone and its precursors from not only Southern California but also from the San Joaquin Valley. As has been seen on numerous prior occasions, the 24-hour change in the maximum local ozone concentration jumped dramatically – almost twenty per cent (13ppb) in this instance. The rest of the month ozone levels were held below the middle range of the moderate category. Once again the anticipation of higher ozone concentrations got the best of ADEQ forecasters, who as a group tallied a strongly positive forecast bias. -Reith