MONTHLY AIR QUALITY REPORT FOR
NOVEMBER 2003

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 November 2003*

*Preliminary data

SAMPLE POLLUTANT REPORTING BOX

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

SUN		MON		TUES		WED		THU		FRI		SAT	
												1	38
													54
2	34	3	37	4	38	5	37	6	34	7	31	8	31
	36		31		49		52		57		67		62
9	35	10	31	11	25	12	24	13	26	14	26	15	32
	61		58		41		14		14		28		33
16	31	17	25	18	28	19	31	20	30	21	31	22	34
	24		31		40		43		38		55		68
23	34	24	32	25	27	26	32	27	34	28	34	29	34
	25		43		51		68		39		44		38
30	33												
	44												

SUN		MON		TUES		WED		THU		FRI		SAT	
												1	18
													51
2	22	3	10	4	24	5	24	6	38	7	34	8	35
	42		32		41		44		47		52		47
9	43	10	39	11	16	12	19	13	19	14	23	15	36
	42		62		48		n/a		45		45		68
16	36	17	20	18	31	19	40	20	40	21	43	22	47
	58		48		53		44		46		55		50
23	25	24	35	25	30	26	35	27	38	28	19	29	36
	43		54		58		59		45		43		49
30	49												
	52												

Exceedance days during NOV2003-

Total= 0 Date Max AQI Pollutant Site/s

Health Watches issued during NOV2003-

Total= 0 Date Max AQI Pollutant Site/s

High Pollution Advisories issued during NOV2003-

Total= 0 Date Max AQI Pollutant Site/s

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:	0
	Total Forecast Days:	30

Narrative:

Overall good air quality was a common occurrence during November 2003. Ozone and carbon monoxide concentrations both stayed in the good range all month while PM-10 and/or PM-2.5 concentrations were in the moderate range about one day in two.
Of interest were two episodes of vastly differing meteorological conditions during which elevated PM concentrations occurred. The "Valley Brown Cloud" made its appearance during the first episode under a stabilizing weather pattern. On the 3rd an upper level trough passage occurred followed by weak zonal flow and warming aloft on the 4th thru the 7th. Stagnation of the air mass increased and dispersion decreased as the following table illustrates:

Day	Mix Height(ft)	Dispersion Rating	Max PM2.5 AQI	Max PM10 AQI
11/3	9100	Excellent	**32**	**31**
11/4	7400	Fair	**41**	**49**
11/5	5900	Marginal	**44**	**52**
11/6	4700	Marginal	**47**	**57**
11/7	unknown	unknown	**52**	**67**

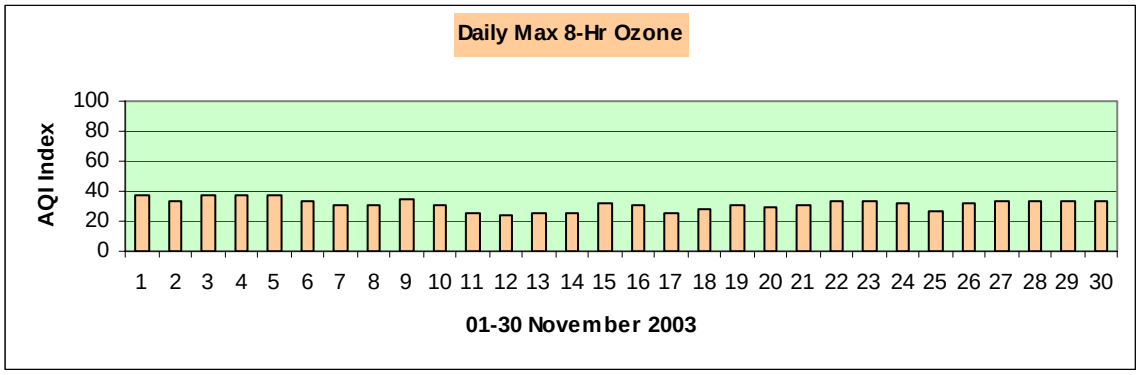
Under these conditions PM concentrations rose slowly; future similar situations will be scrutinized for pattern recognition and subsequent forecasting tool purposes.

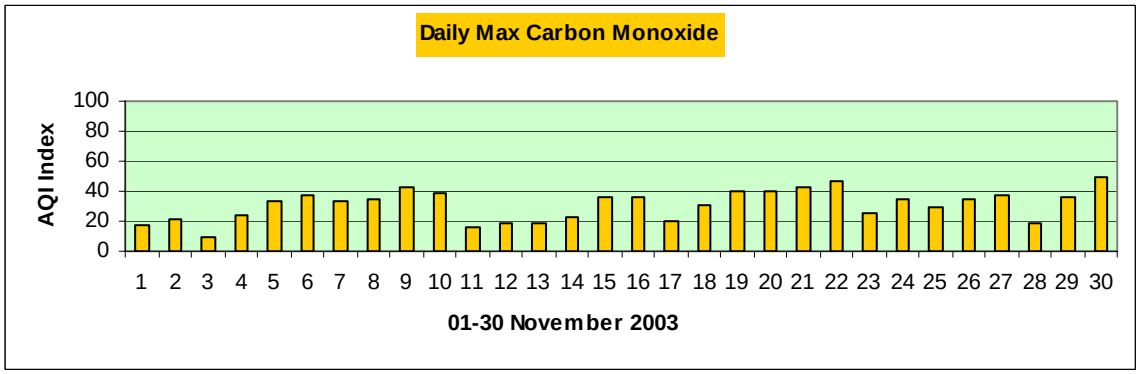
The second episode featured the rapid approach and passage of a strong upper level trough and surface cold front from the 21st thru the 23rd. Some relevant data for these days follows:

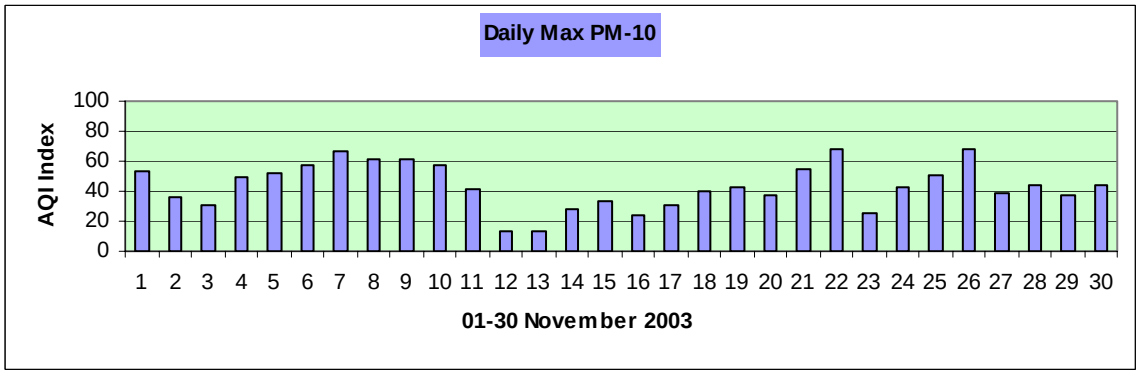
Day	Peak Wind Gusts (mph)	Max PM2.5 AQI	Max PM10 AQI
11/21	10-15	**55**	**55**
11/22	35-40 (wind advisory)	**50**	**68**
11/23	10-15	**43**	**25**

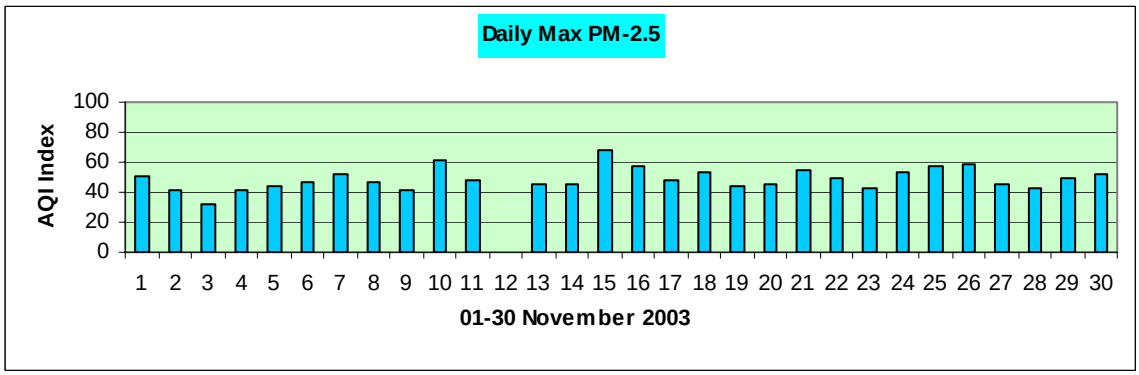
Under these conditions PM-10 concentrations rose rapidly due to local blowing dust and then fell drastically after the trough had passed and a new air mass was in place.

The very low PM-10 concentrations on the 12th and 13th were due to a significant rain event. The highest simultaneous concentrations of PM-10 and PM-2.5 occurred on the 26th when the strongest a.m. radiation inversion of the month formed. -Reith


Daily Max 8-Hr Ozone
AQI Index
100
80
60
40
20
0
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
01-30 November 2003


Daily Max Carbon Monoxide
AQI Index
100
80
60
40
20
0
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
01-30 November 2003


Daily Max PM-10
AQI Index
100
80
60
40
20
0
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
01-30 November 2003


Daily Max PM-2.5
AQI Index
100
80
60
40
20
0
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
01-30 November 2003