



Ozone Season Summary

2010

Sunil Kumar

TAC Meeting, COG

July 13, 2010



Ozone Season Summary (2010)

Daily Peak 8-hour Ozone Concentration (PPB) Washington Area-2010

Peak 8-Hour Ozone Concentrations (ppb)

Data based on the 8-hour standard set at 75 ppb.

1 Code Red Day

16 Code Orange Days

20 Code Yellow Days

35 Code Green Days

MAY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
						1
						74
						8
37	31	63	75	75	60	55
9	10	11	12	13	14	15
50	55	52	46	42	50	61
16	17	18	19	20	21	22
57	44	43	35	67	76	50
23	24	25	26	27	28	29
34	39	41	70	87	49	55
30	31					
67	57					

JUNE

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
		55	80	70	77	53
		6	7	8	9	10
43	47	56	50	63	75	82
13	14	15	16	17	18	19
56	59	50	44	62	83	74
20	21	22	23	24	25	26
65	82	87	76	64	80	76
27	28	29	30			
65	54	69	58			

JULY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	3
				53	57	82
				4	5	6
86	82	90	100	93	70	47
11	12	13	14	15	16	17
65						
18	19	20	21	22	23	24
25	26	27	28	29	30	31

* Analysis is based on draft data until July 12, 2010. Data is subject to change.



2010 Ozone Exceedances

Date	# of Monitors Exceeding	Highest Monitor	Highest Concentration (ppb)
5/21/2010	1	Rockville	76
5/27/2010	4	HU-Beltsville	87
6/2/2010	1	HU-Beltsville	80
6/4/2010	1	HU-Beltsville	77
6/12/2010	1	Rockville	82
6/18/2010	2	Franconia	83
6/21/2010	3	Calvert Co.	82
6/22/2010	5	HU-Beltsville	87
6/23/2010	1	Calvert Co.	76
6/25/2010	1	Prince Georges Co.	80
6/26/2010	1	HU-Beltsville	76
7/3/2010	3	HU-Beltsville	82
7/4/2010	5	River Terrace	86
7/5/2010	3	Calvert Co.	82
7/6/2010	10	Prince Georges Co.	90
7/7/2010	13	McMillan Reservoir	100
7/8/2010	3	Frederick Co.	93

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Fine Particle Summary (2010)

24-Hour PM2.5 Concentrations (ug/m3)

Data based on the 24-hour standard set at 35.5 ug/m3.

3 Code Orange Days

18 Code Yellow Days

51 Code Green Days

Daily 24-Hour Particle Concentration (ug/m3) Washington Area-2010

MAY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
						1
						16
2	3	4	5	6	7	8
20	13	10	10	11	6	10
9	10	11	12	13	14	15
4	5	5	15	12	15	8
16	17	18	19	20	21	22
9	7	3	8	10	15	9
23	24	25	26	27	28	29
5	6	8	11	18	10	14
30	31					
11	16					

JUNE

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
		8	15	13	17	15
6	7	8	9	10	11	12
11	7	7	13	13	12	18
13	14	15	16	17	18	19
14	19	15	20	13	11	18
20	21	22	23	24	25	26
17	16	23	19	21	17	29
27	28	29	30			
28	15	13	7			

JULY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	3
				7	7	11
4	5	6	7	8	9	10
17	39	38	39	27	9	9
11	12	13	14	15	16	17
10						
18	19	20	21	22	23	24
25	26	27	28	29	30	31

* Analysis is based on draft data until July 12, 2010. Data is subject to change.



Poor Air Quality Event (July 3 - July 8)

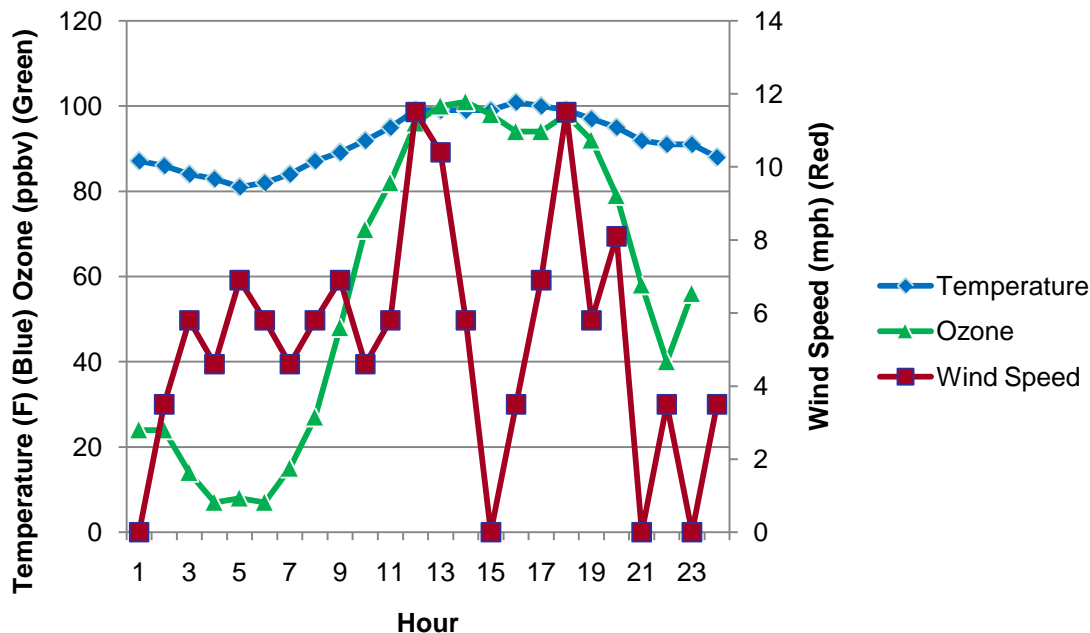
- ❖ High pressure led to conditions favorable to high ozone levels.
- ❖ Winds were light and usually re-circulating polluted air back into the region.
- ❖ Clouds were limited, allowing for intense sunlight (and record temperatures).
- ❖ The jet stream during this period was flowing from the South West up into Canada, guiding low pressure systems to our north where they were unable to clean out the air mass that remained overhead.



July 7th Code Red

of Monitors in Exceedance: 13
Maximum 8-Hour Ozone: 100 ppbv
2 Monitors: Code Red

July 7th Temperature, Wind Speed (Reagan) and Ozone (River Terrace)



Back Trajectory at 3 PM (500 & 1000 m)

