Ozone Season Summary 2010

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MWAQC-TAC Call, COG

September 14, 2010

Ozone Season Summary (2010)

Peak 8-Hour Ozone Concentrations (ppb)

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

3 Code Red Days

30 Code Orange Days

43 Code Yellow Days

56 Code Green Days

*** Analysis is based on draft data until September 10, 2010. Data is subject to change.**

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

MAY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
						1: 74
2: 37	3: 31	4: 63	5: 75	6: 75	7: 60	8: 55
9: 50	10: 55	11: 52	12: 46	13: 42	14: 50	15: 61
16: 57	17: 44	18: 43	19: 35	20: 67	21: 76	22: 50
23: 34	24: 39	25: 41	26: 70	27: 87	28: 49	29: 55
30: 67	31: 57					

JUNE

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1: 55	2: 80	3: 70	4: 77	5: 53
6: 43	7: 47	8: 56	9: 50	10: 63	11: 75	12: 82
13: 56	14: 59	15: 50	16: 44	17: 62	18: 83	19: 74
20: 65	21: 82	22: 87	23: 76	24: 64	25: 80	26: 76
27: 65	28: 54	29: 69	30: 58			

JULY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1: 53	2: 57	3: 82
4: 86	5: 82	6: 90	7: 100	8: 93	9: 70	10: 47
11: 65	12: 59	13: 58	14: 56	15: 78	16: 70	17: 71
18: 58	19: 54	20: 60	21: 54	22: 67	23: 75	24: 62
25: 54	26: 65	27: 72	28: 77	29: 55	30: 60	31: 73

AUGUST

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1: 55	2: 56	3: 50	4: 68	5: 65	6: 66	7: 77
8: 68	9: 79	10: 92	11: 97	12: 67	13: 35	14: 43
15: 30	16: 66	17: 89	18: 52	19: 88	20: 81	21: 75
22: 53	23: 61	24: 30	25: 46	26: 62	27: 65	28: 76
29: 81	30: 98	31: 88				

SEPTEMBER

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
			1: 86	2: 83	3: 83	4: 42
5: 53	6: 61	7: 69	8: 60	9: 47	10:	11:
12:	13:	14:	15:	16:	17:	18:
19:	20:	21:	22:	23:	24:	25:
26:	27:	28:	29:	30:		

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
7/16/2010	3	Aurora Hills	78

Date	# of Monitors Exceeding	Highest Monitor	Highest Concentration (ppb)
7/28/2010	1	HU-Beltsville	77
8/7/2010	1	River Terrace	77
8/9/2010	1	HU-Beltsville	79
8/10/2010	11	River Terrace	92
8/11/2010	10	Calvert Co.	97
8/17/2010	6	Aurora Hills	89
8/19/2010	4	River Terrace	88
8/20/2010	6	McMillan Reservoir	81
8/28/2010	1	Aurora Hills	76
8/29/2010	2	River Terrace	81
8/30/2010	10	Calvert Co.	98
8/31/2010	8	McMillan Reservoir	88
9/1/2010	5	McMillan Reservoir	86
9/2/2010	4	Frederick Co.	83
9/3/2010	1	Frederick Co.	83

*** Analysis is based on draft data until September 10, 2010. Data is subject to change.**

August 28th to September 3rd Poor Air Quality Event

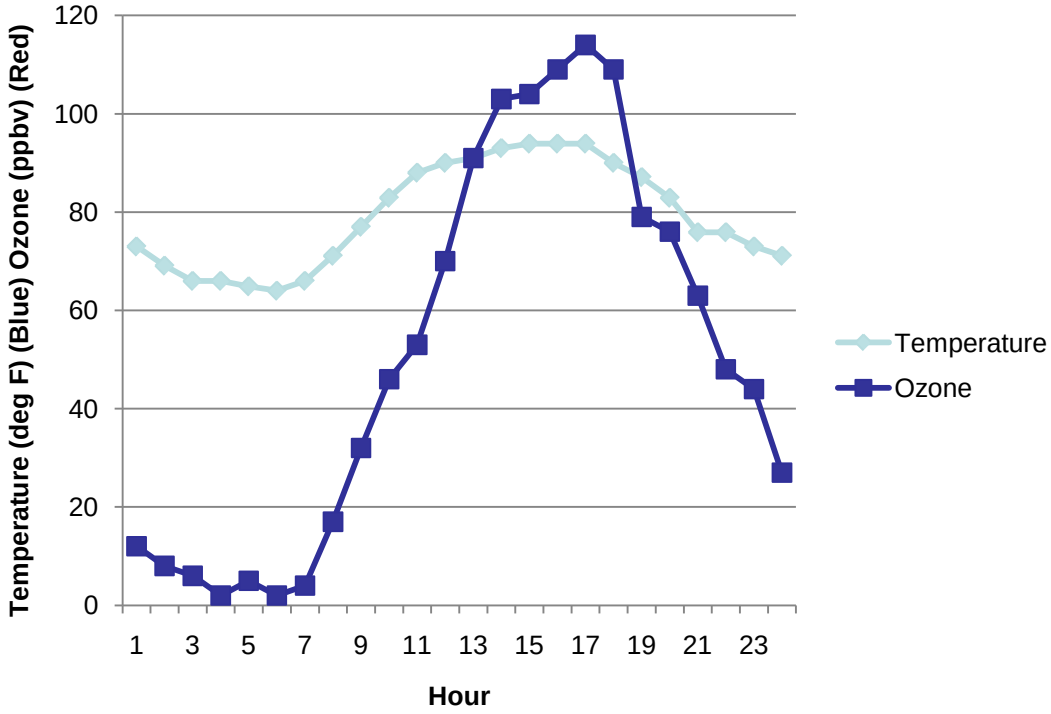
- Week long high pressure & temperature event.
- Limited clouds allowed for intense sunlight (and record temperatures.
- Usually re-circulating light winds kept bringing polluted air back into the region.
- All three factors above led to conditions favorable to high ozone levels.

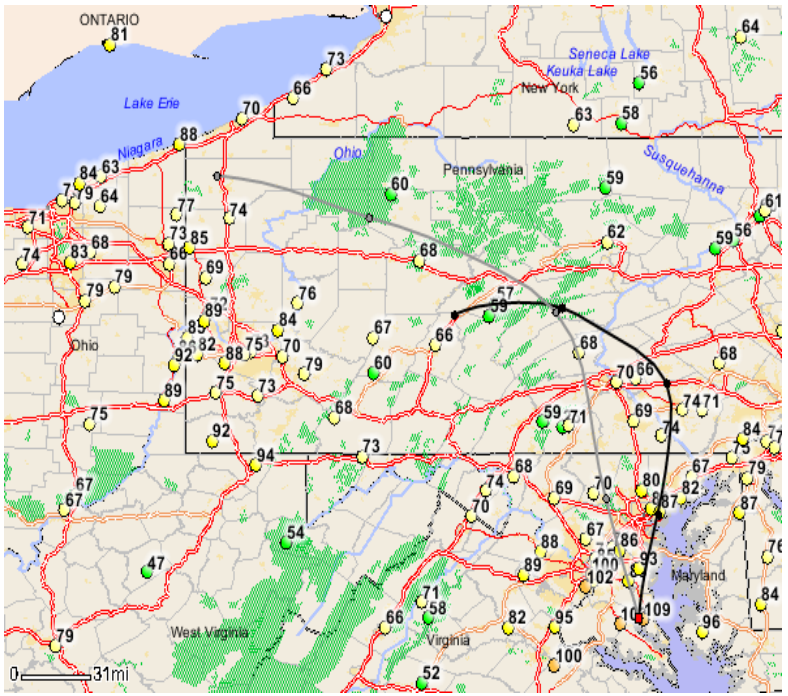
August 30th Code Red

of Monitors in Exceedance: 10
1 Monitor in Code Red (Calvert Co., MD)
Maximum 8-Hour Ozone: 98 ppb (Calvert Co., MD)

Wind Trajectory at 3 PM (August 30th) (500 &1000 m)

August 30th Temperature (Dulles) and Ozone (Calvert)



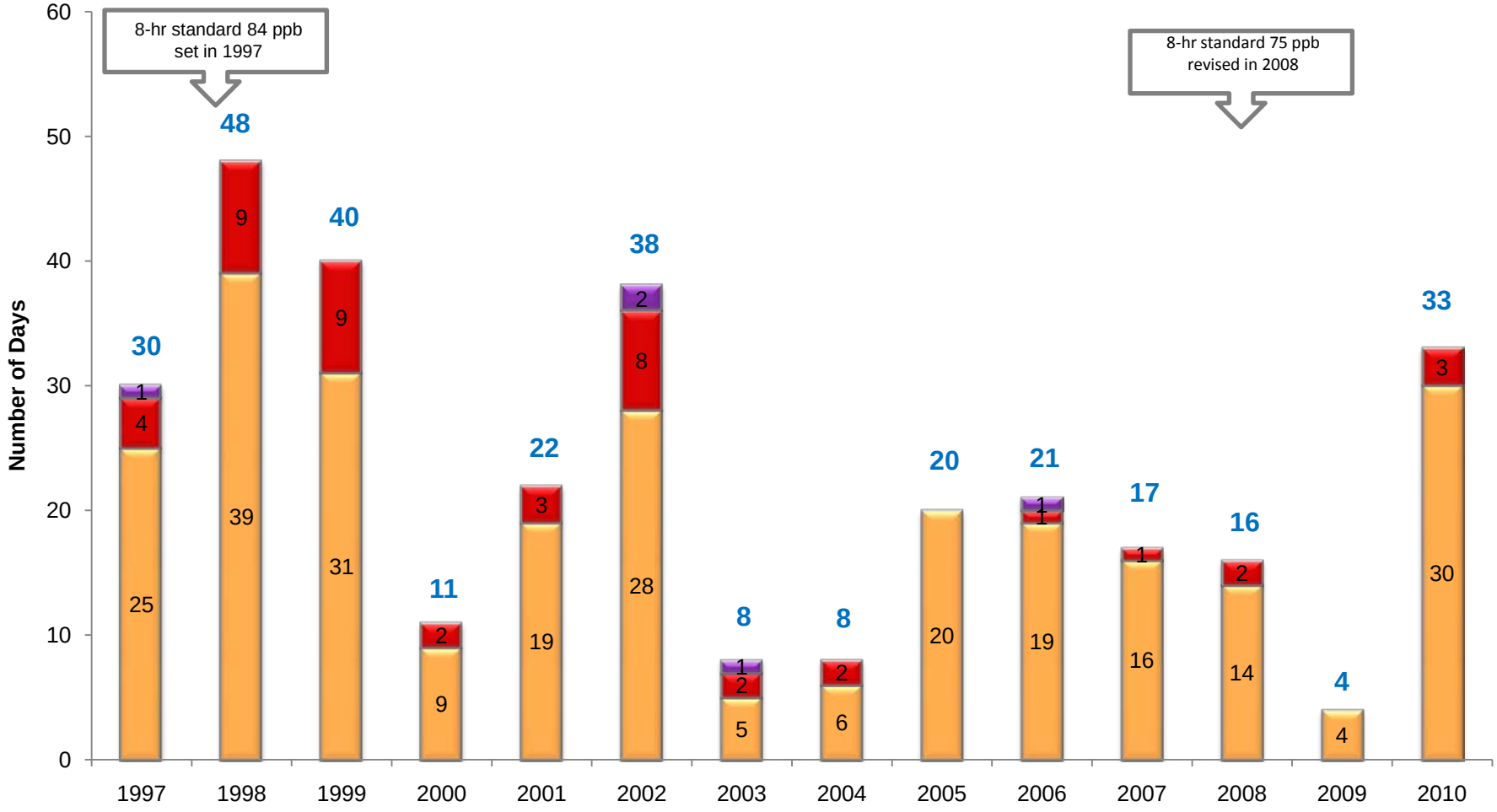


Ozone Exceedance Trend

Number of Exceedance Days - Ozone Standard

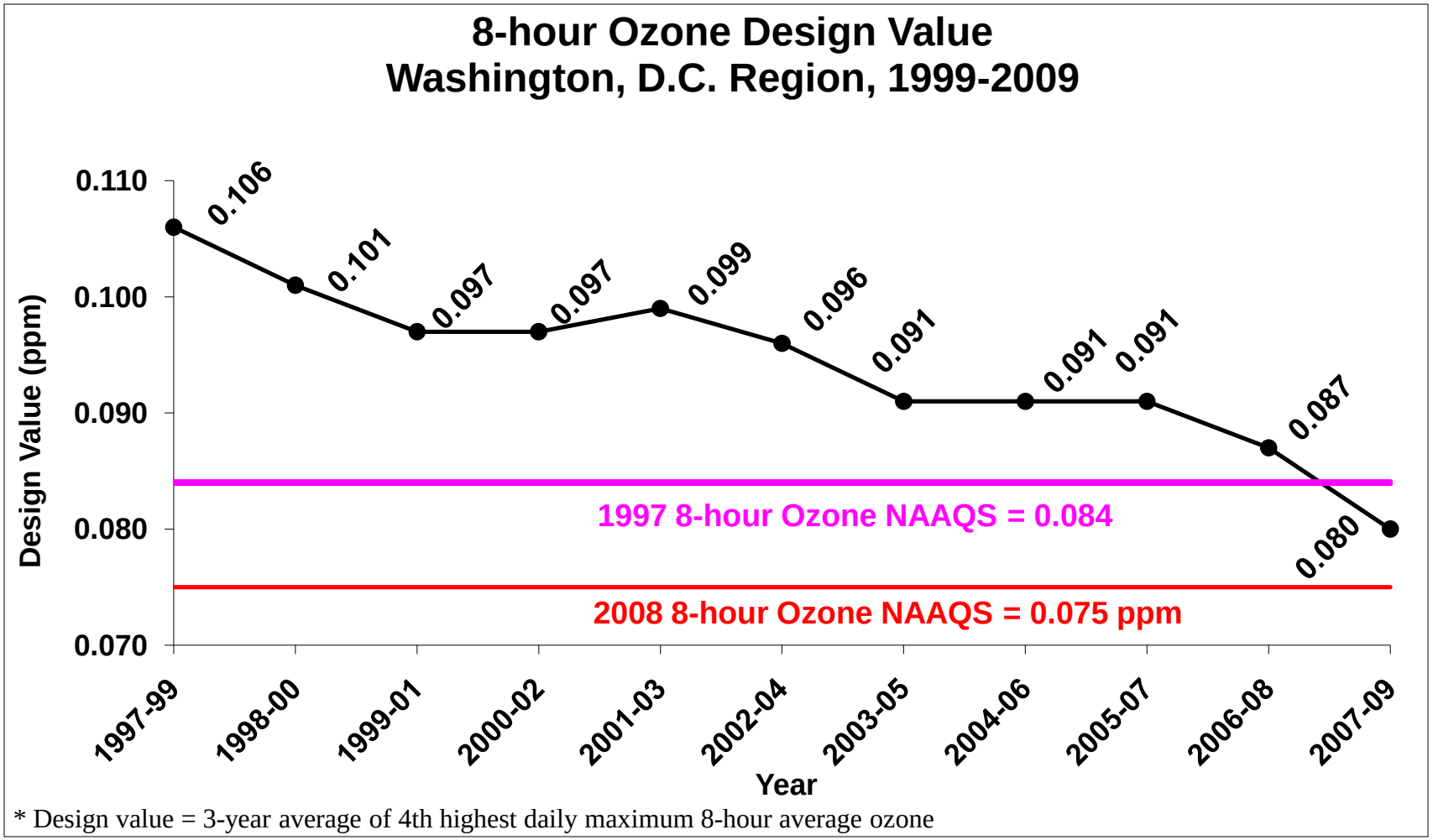
Breakdown of Code Orange, Red, and Purple Days

1997 - 2010



*** 2010 analysis is based on draft data as of 09.10.10 and is subject to change.**

Ozone Design Value Trend



* Design value = 3-year average of 4th highest daily maximum 8-hour average ozone

Fine Particle Summary (2010)

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

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

4 Code Orange Days

51 Code Yellow Days

77Code Green Days

*** Analysis is based on draft data until September 10, 2010. Data is subject to change.**

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	15	12	11	21	28	23
18	19	20	21	22	23	24
17	15	21	11	16	34	29
25	26	27	28	29	30	31
24	8	18	29	20	14	22

AUGUST

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1	2	3	4	5	6	7
13	9	12	25	14	25	24
8	9	10	11	12	13	14
27	39	29	33	20	8	6
15	16	17	18	19	20	21
9	14	17	16	21	22	27
22	23	24	25	26	27	28
16	9	7	8	11	10	17
29	30	31				
20	19	19				

SEPTEMBER

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