Item #3

Ozone Season Summary 2012

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MWAQC Meeting, COG

June 28, 2012

Ozone Season Summary

[As of June 26, 2012]

Peak 8-Hour Ozone Concentrations (ppb)

Data based on the 8-hour standard set at 75 ppb. Since April 1, 2012, there have been:

- 1 Code Red Days
- 5 Code Orange Days
- 27 Code Yellow Days
- 53 Code Green Days

April

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1	2	3	4	5	6	7
46	68	55	59	43	52	55
8	9	10	11	12	13	14
62	54	59	33	41	52	63
15	16	17	18	19	20	21
67	61	50	31	56	65	65
22	23	24	25	26	27	28
64	40	57	61	54	65	52
29	30					
58	58					

May

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
		57	45	53	49	57
6	7	8	9	10	11	12
48	50	49	61	61	58	70
13	14	15	16	17	18	19
64	47	47	70	55	64	75
20	21	22	23	24	25	26
65	34	47	52	68	58	55
27	28	29	30	31		
47	49	46	69	80		

June

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
					1	2
					53	52
3	4	5	6	7	8	9
58	42	44	50	53	57	74
10	11	12	13	14	15	16
88	65	35	56	59	62	63
17	18	19	20	21	22	23
53	33	84	86	96	77	65
24	25	26	27	28	29	30
72	65					

•**Analysis is based on draft data until June 26, 2012. Data is subject to change.**

2012 Ozone Exceedances (As of June 26)

Date	# of Monitors Exceeding	Highest Monitor	Highest Concentration (ppb)
5/31/2012	1	Calvert	80
6/10/2012	8	McMillan	88
6/19/2012	5	Arlington	86
6/20/2012	8	Alexandria	86
6/21/2012	9	Alexandria / Franconia	96
6/22/2012	2	Southern Maryland	77

*** Analysis is based on draft data until June 26, 2012. Data is subject to change.**

What Caused Code Orange & Red Days ?

❖ High pressure system caused the following in our region -

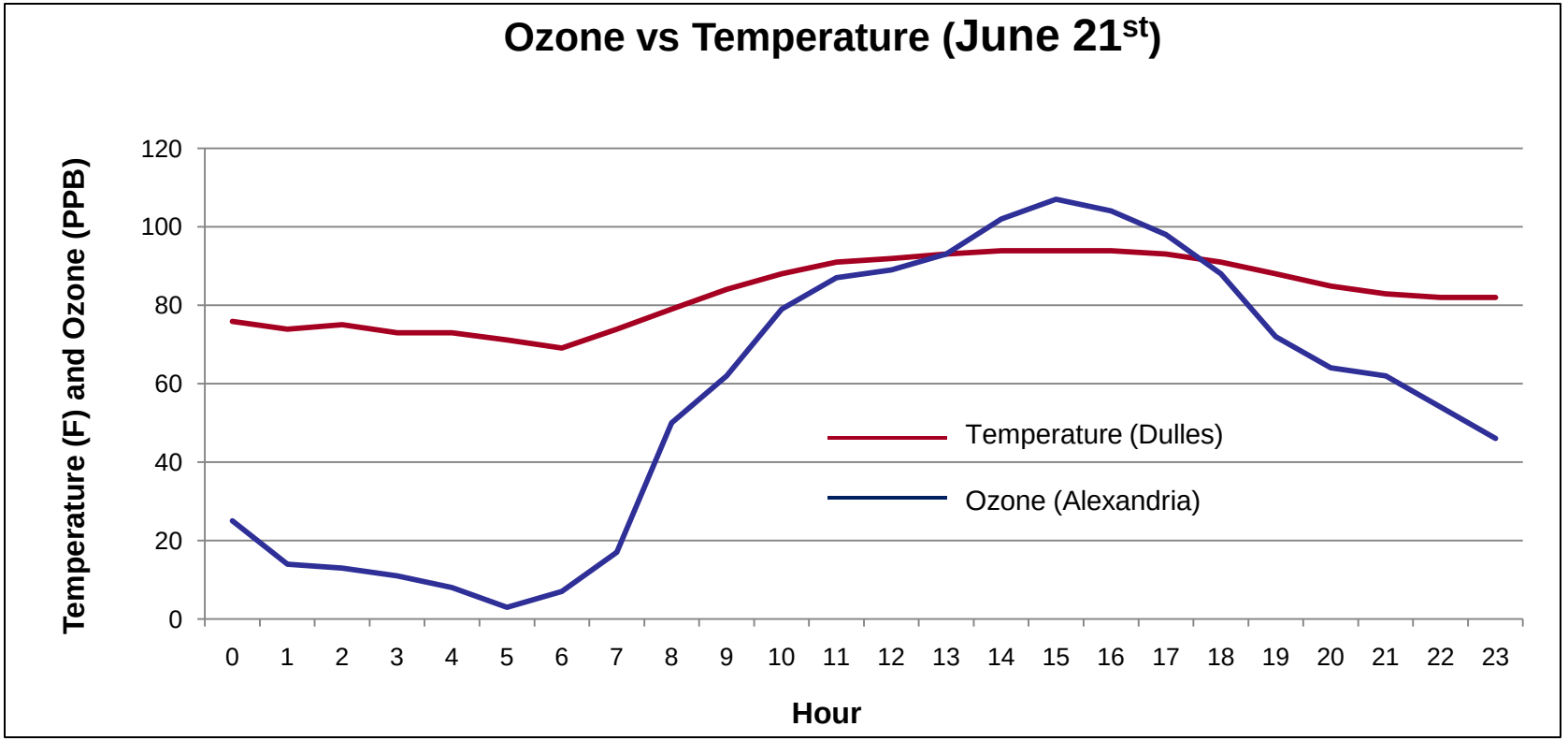
- Warm air
- Limited winds
- Limited or no clouds
- Favorable meteorological conditions for ozone production

❖ Winds coming from Ohio River Valley brought ozone and its precursors (VOC & NOx) into our region.

❖ Local production of ozone combined with its transport from outside the region caused significant ozone build-up resulting in exceedances of ozone standard (75 ppb) on those days.

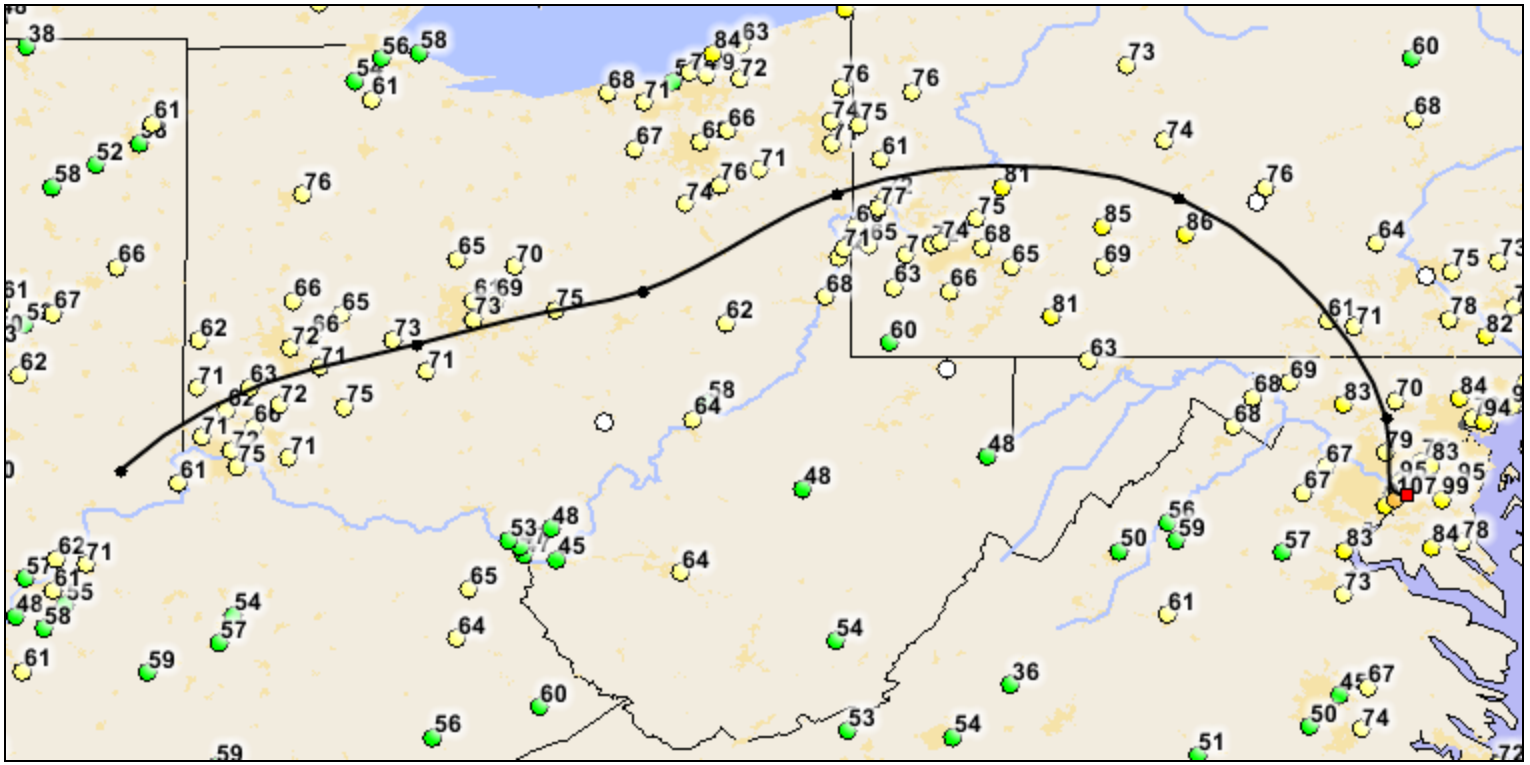
June 21st Code Red

of Monitors in Exceedance: 9
Maximum 8-Hour Ozone: 96 ppb (Alexandria)



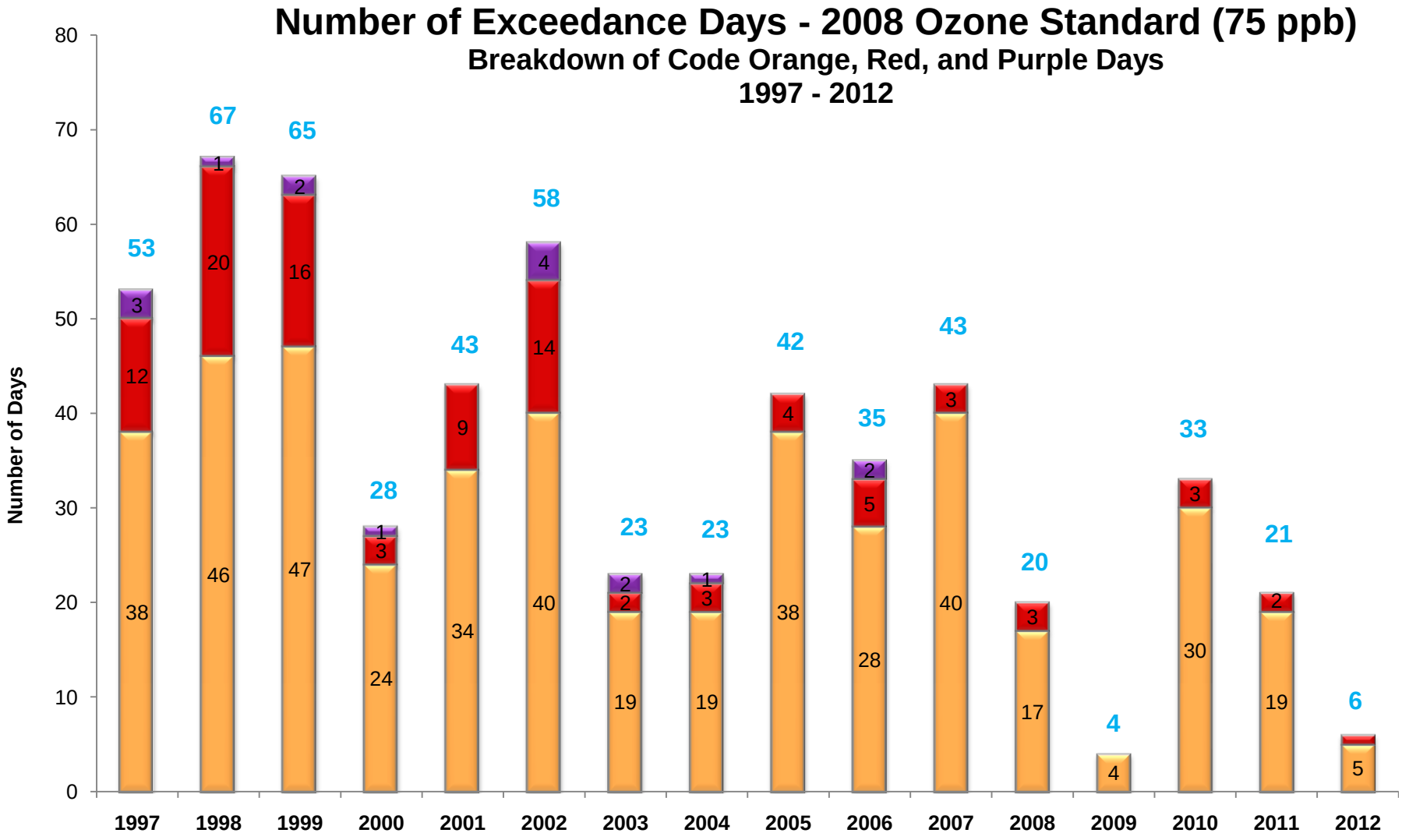
June 21st Code Red

❖ Winds came into Washington region from several polluted areas including the Ohio River Valley



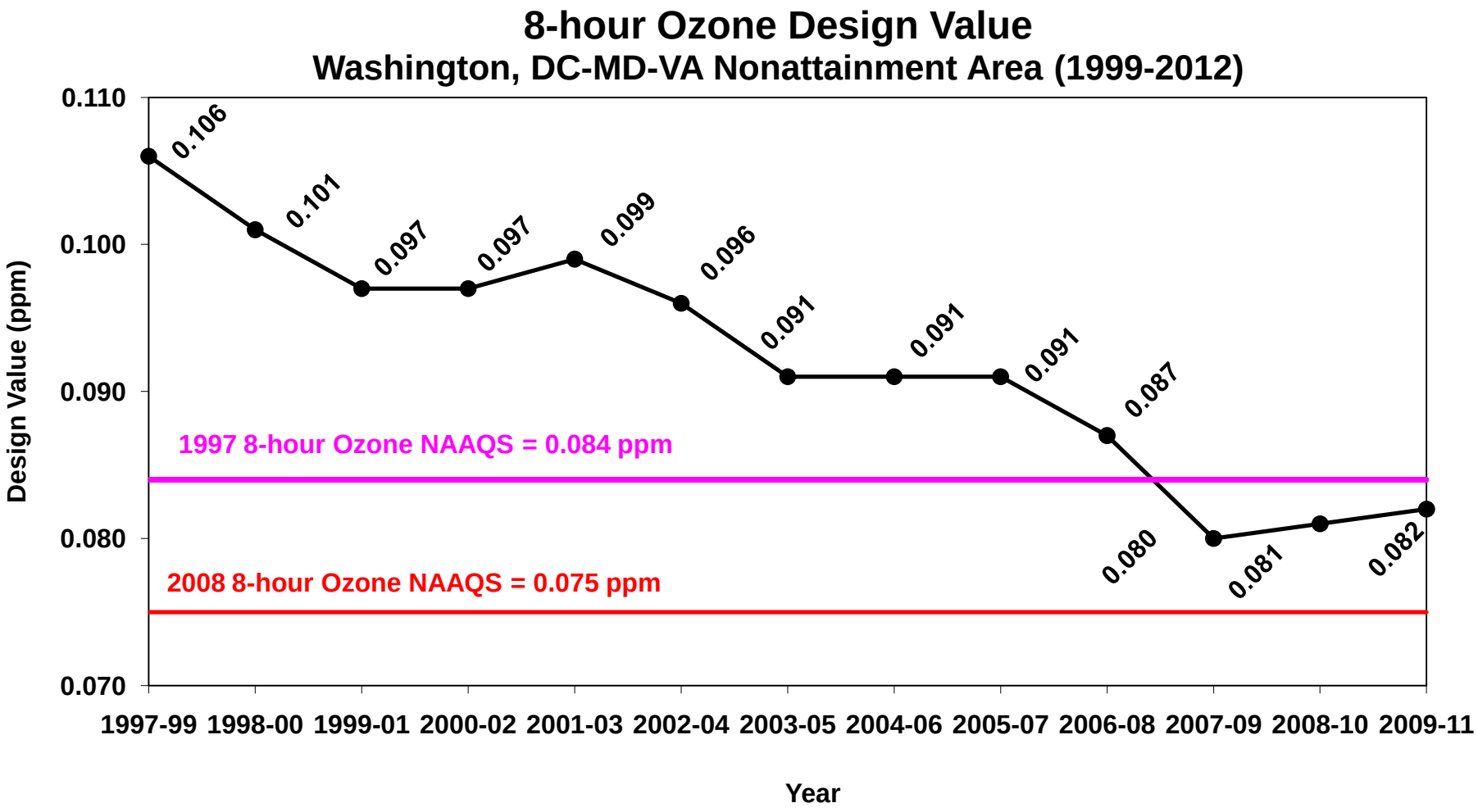
1-Hour Avg Ozone concentrations at 5:00 PM
(Avg of 4 PM – 5 PM)

Ozone Exceedance Trend



*** 2012 analysis is based on draft data as of June 26, 2012 and is subject to change.**

Ozone Design Value Trend



* Design value = 3-year average of 4th highest daily maximum 8-hour average ozone concentrations. ***2012 data is draft and may change.***

Fine Particle Summary

[As of June 26, 2012]

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

Data based on the 24-hour standard set at 35.5 ug/m3. Since April 1, 2012, there have been:

12 Code Yellow Days

74 Code Green Days

April

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1	2	3	4	5	6	7
12.0	7.2	6.0	9.3	6.0	5.4	5.7
8	9	10	11	12	13	14
6.7	6.3	7.0	6.8	5.7	6.9	10.9
15	16	17	18	19	20	21
18.9	21.3	7.5	8.2	15.0	11.9	10.4
22	23	24	25	26	27	28
3.8	4.5	6.5	7.9	13.0	6.5	7.5
29	30					
10.3	9.5					

May

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
		11.3	17.4	14.5	15.3	15.5
6	7	8	9	10	11	12
9.8	7.0	10.2	13.7	7.7	7.2	9.9
13	14	15	16	17	18	19
15.6	11.1	8.7	15.8	10.7	8.4	7.5
20	21	22	23	24	25	26
7.7	6.5	10.5	14.0	14.4	14.5	11.3
27	28	29	30	31		
8.9	10.6	8.8	10.0	10.3		

June

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
					1	2
					12.4	8.2
3	4	5	6	7	8	9
10.7	6.8	5.0	6.8	10.2	11.1	12.9
10	11	12	13	14	15	16
20.2	20.4	10.6	9.3	10.0	8.9	8.1
17	18	19	20	21	22	23
11.9	10.2	19.2	28.5	30.2	25.1	12.7
24	25	26	27	28	29	30
14.3	13.0					

*** Analysis is based on draft data until June 26, 2012. Data is subject to change.**

Proposed PM2.5 NAAQS

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- Currently two standards for fine particles (PM2.5) –
  - Annual =15.0 µg/m^3 (set in 1997)
  - Daily = 35 µg/m^3 (set in 2006)

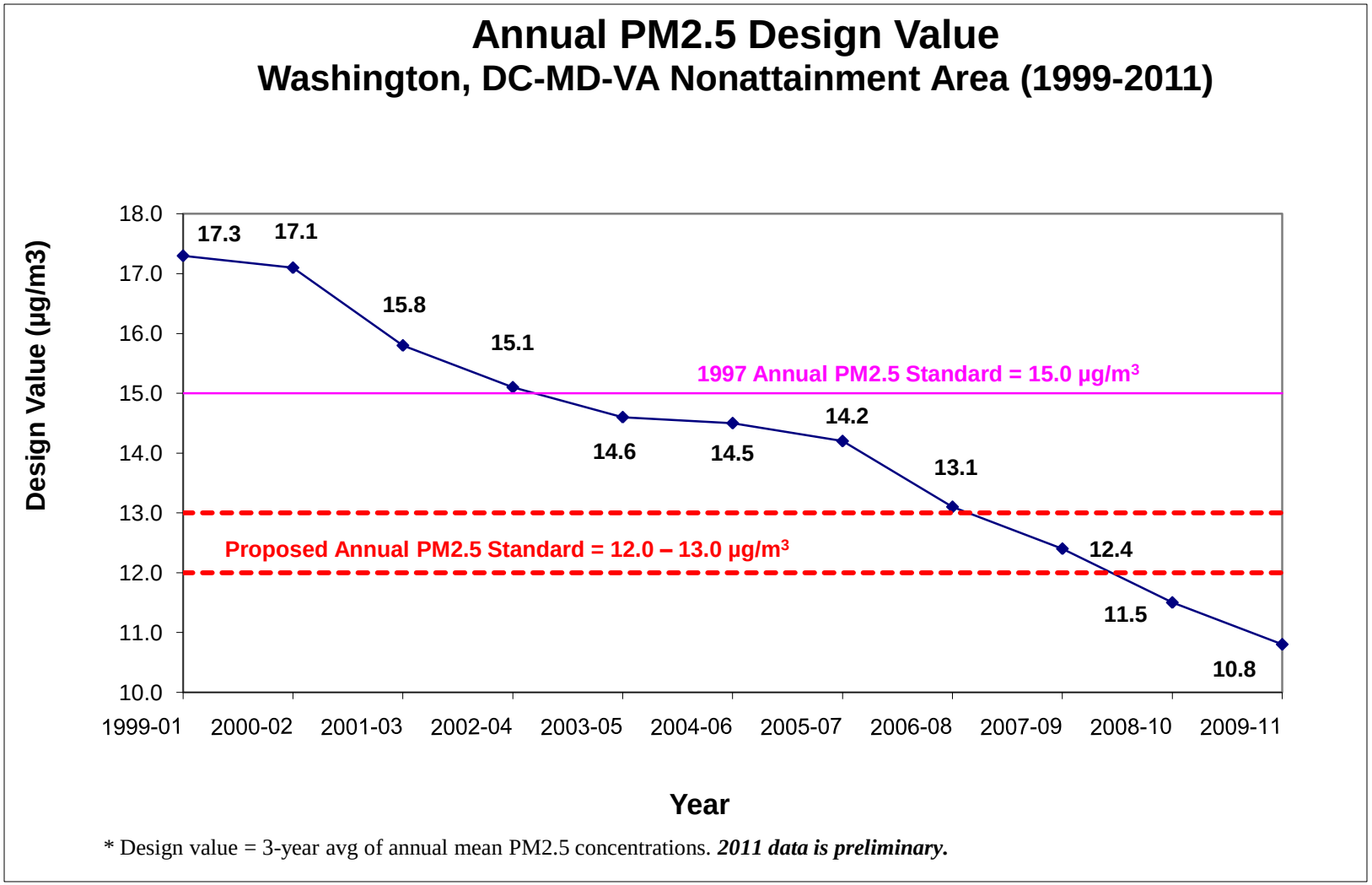
- June 15 - EPA proposed to strengthen the current annual PM2.5 standard

- **Proposed range – 12.0 µg/m^3 to 13.0 µg/m^3**

- Also seeking comments on alternative levels of the standard, down to 11.0 µg/m^3

- No proposal to change daily standard (35 µg/m^3)

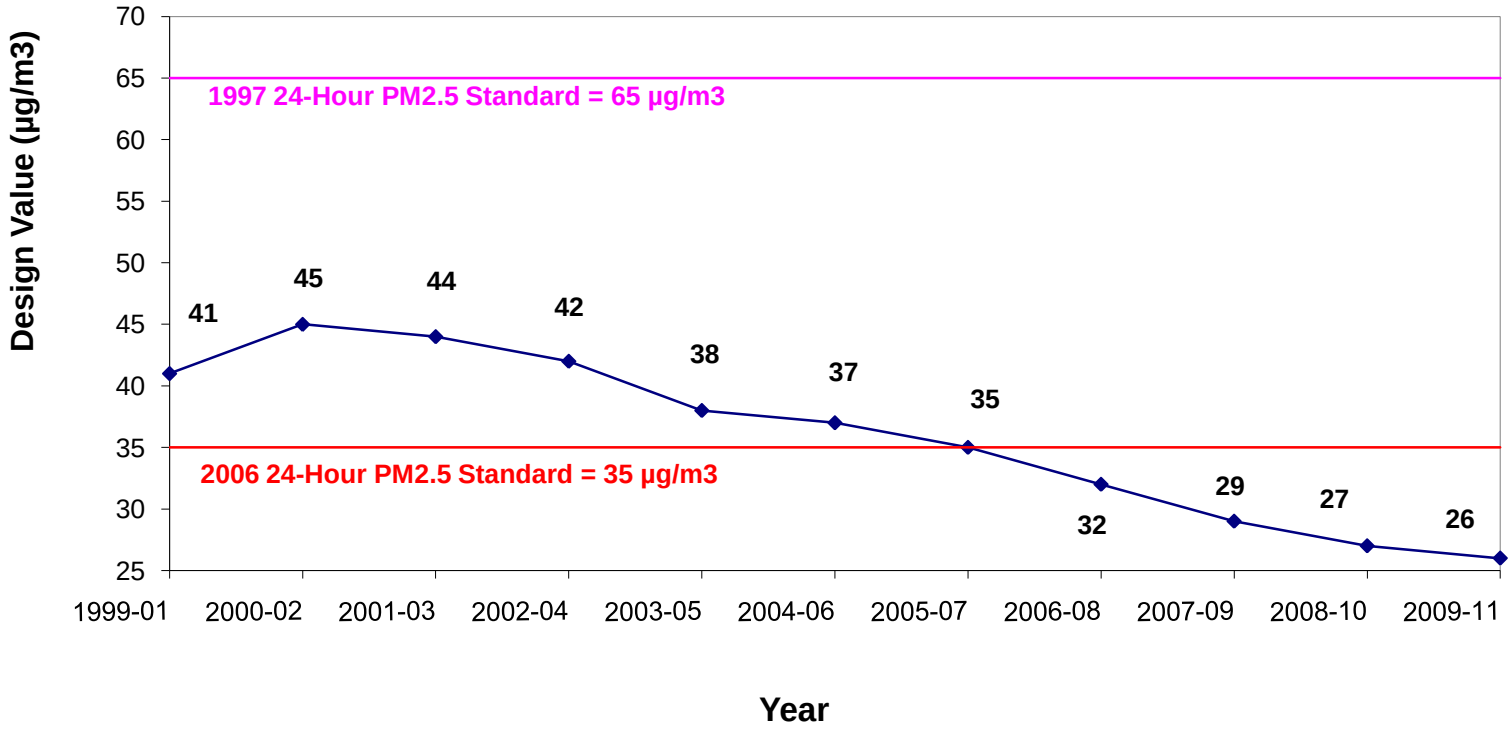
Proposed PM2.5 NAAQS



* Design value = 3-year avg of annual mean PM2.5 concentrations. ***2011 data is preliminary.***

Proposed PM2.5 NAAQS

24-Hour PM2.5 Design Value
Washington, DC-MD-VA Nonattainment Area
(1999-2011)



* Design value = 3-year average of 98th Percentile of PM2.5 concentrations. ***2011 data is preliminary.***

Proposed PM2.5 NAAQS

- Proposal for a secondary standard for improving visibility in urban areas
  - Two proposed standards - 30 deciviews or 28 deciviews
- Proposal for near-road PM2.5 monitoring in large urban areas (CBSA population > 1 m) by Jan 1, 2015
- Existing PM2.5 monitors will be relocated to heavily travel roads along with near-road NO2 and CO monitors
- Proposal to update AQI for the new standard
- Public comment period – 63 days from publication in federal register
- Final standard – December 14, 2012

Court Ruling - EPA GHG Rule

Summary of Court Ruling

- DC Circuit Court of Appeals on June 26th
  - Upheld EPA's endangerment finding for Greenhouse Gases (GHGs)
    - Through endangerment finding in 2009, EPA was able to establish that GHGs are also air pollutants and therefore need to be controlled like other criteria pollutants such as, VOC, NOx, PM2.5, SO2, etc.
  - Upheld EPA approved limits on GHG emissions from new cars and trucks
  - Dismissed challenges to EPA's tailoring rule for permitting of major industrial facilities, including power plants and refineries
  - Upheld EPA's interpretation of the Clean Air Act to find that the Prevention of Significant Deterioration (PSD) program applies to GHG emissions
  - Industry groups – Full DC Circuit review or direct appeal to US Supreme Court