



# AIR QUALITY PROGRESS in the Washington Region

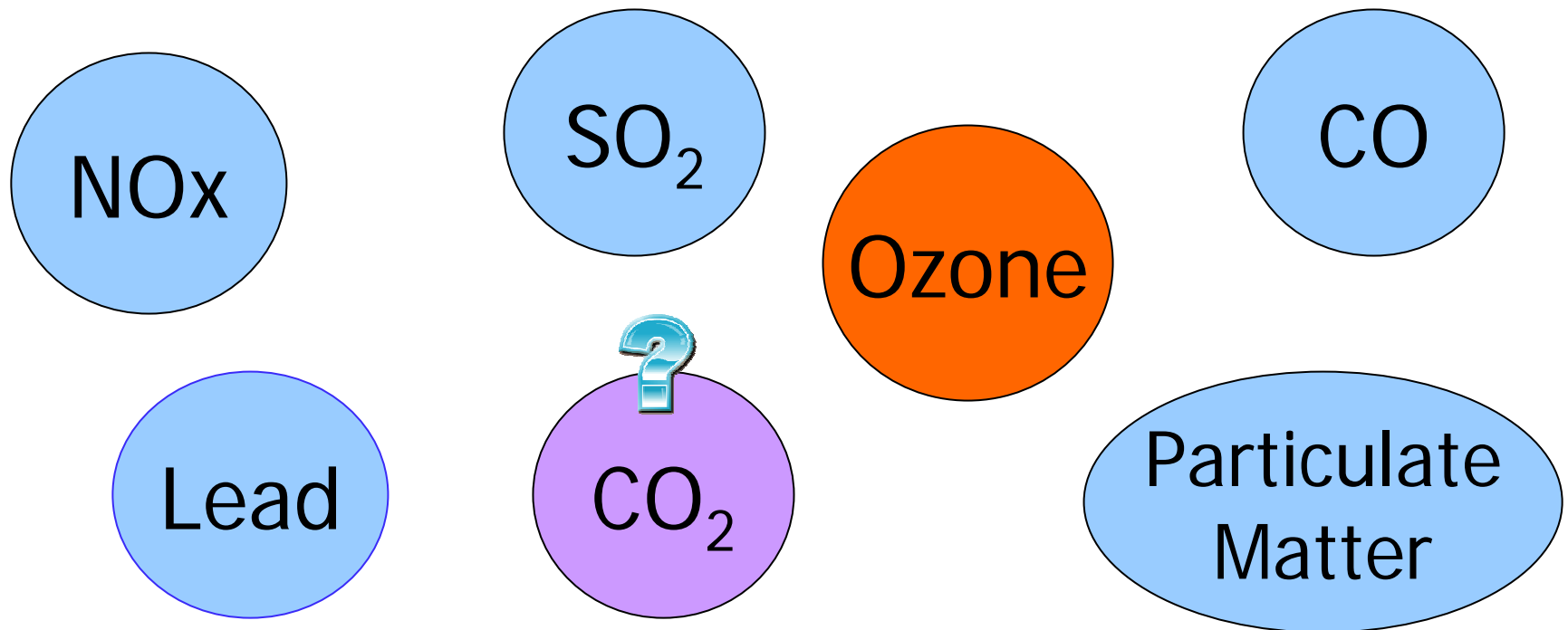
Joan Rohlfs

MWAQC

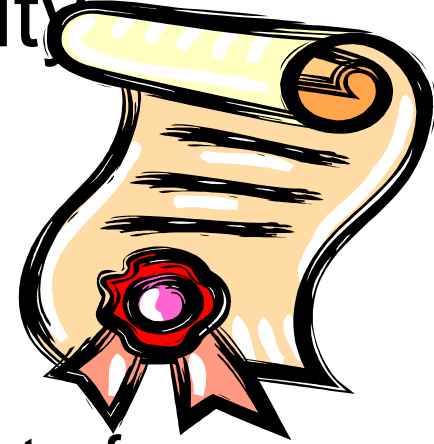
May 27, 2009

# Clean Air Act Amendments 1990

EPA set federal health standards for ambient pollutants

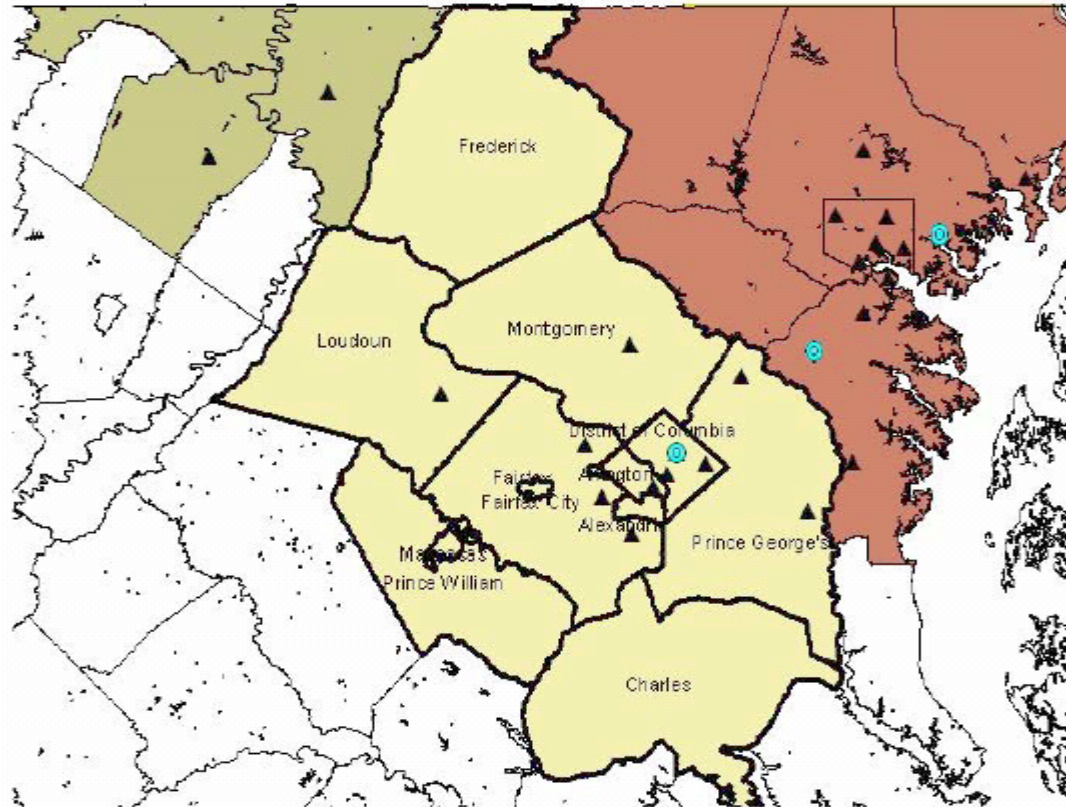



# Metropolitan Washington Air Quality Committee (MWAQC)



- Certified in 1992 by Mayor of the District of Columbia and governors of MD and VA
- Purpose: to prepare regional air quality plans
- Membership includes local government elected officials, state air and transportation planning officials, and the Transportation Planning Board chair

# Washington DC-MD-VA PM2.5 NAA



 Speciation Monitor (STN)

 FRM Monitor

 DC NAA

# AIR QUALITY INDEX

AQI Range	AQI Color	8-Hr O <sub>3</sub> Range (ppb)	24-Hr PM <sub>2.5</sub> Range (µg/m <sup>3</sup> )
201-300	<b>Purple</b>	125-374	150.5-250.4
151-200	<b>Red</b>	105-124	65.5-150.4
101-150	<b>Orange</b>	85-104	40.5-65.4
51-100	<b>Yellow</b>	65-84	15.5-40.4
0-50	<b>Green</b>	0-64	0-15.4

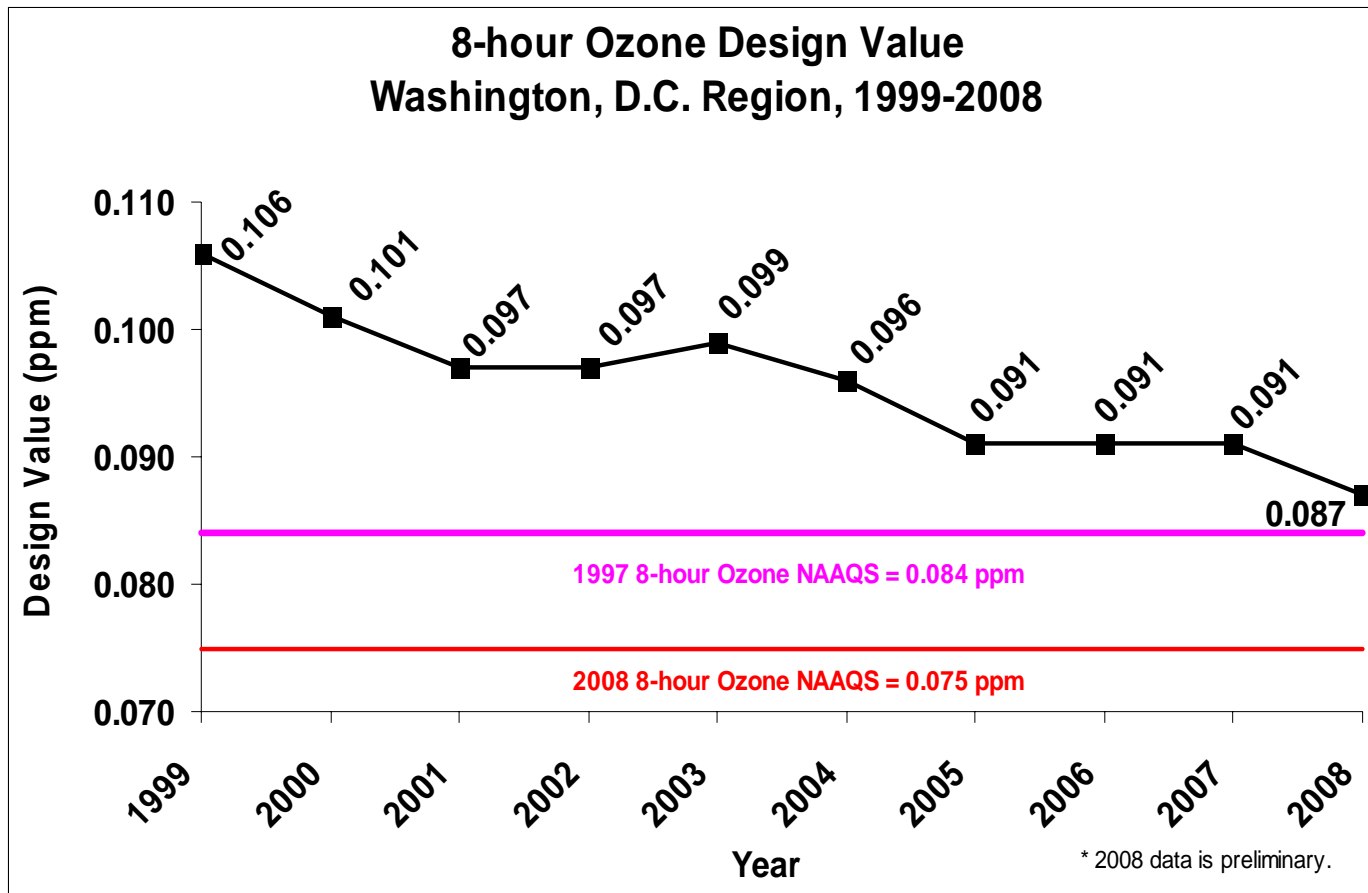
Federal Health Standard

100





## Declining Ozone Levels, 1999-2008





# Ozone Season Summary (2008)

## Peak 8-Hour Ozone Concentrations (ppb)

### MAY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1 59	2 72	3 57
4 58	5 61	6 74	7 75	8 57	9 38	10 48
11 48	12 45	13 53	14 57	15 59	16 49	17 58
18 51	19 44	20 41	21 51	22 47	23 41	24 49
25 56	26 66	27 51	28 50	29 68	30 74	31 44

### JUNE

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1 57	2 60	3 67	4 50	5 82	6 71	7 81
8 54	9 73	10 85	11 74	12 102	13 94	14 74
15 60	16 57	17 57	18 50	19 52	20 60	21 80
22 67	23 66	24 56	25 66	26 72	27 62	28 54
29 53	30 49					

### JULY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1 50	2 64	3 74	4 64	5 58
6 52	7 61	8 72	9 40	10 64	11 75	12 76
13 69	14 64	15 85	16 92	17 112	18 97	19 66
20 69	21 70	22 69	23 62	24 53	25 69	26 67
27 55	28 73	29 89	30 73	31 57		

### AUGUST

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
					1 75	2 59
3 51	4 57	5 61	6 65	7 61	8 47	9 50
10 55	11 47	12 58	13 71	14 62	15 63	16 56
17 60	18 68	19 77	20 66	21 80	22 71	23 51
24 50	25 78	26 49	27 56	28 43	29 27	30 61
31 57						

### SEPTEMBER

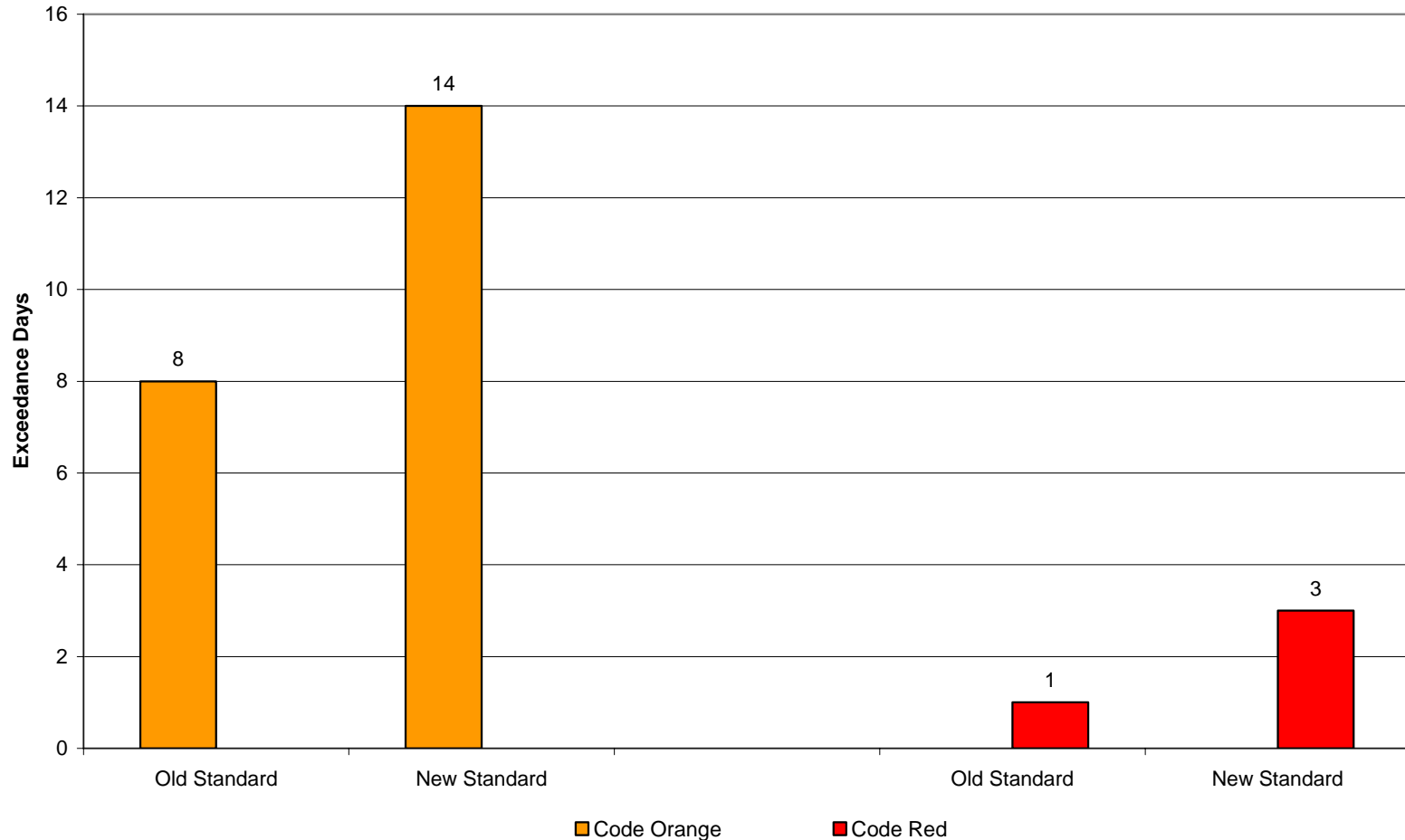
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1 57	2 71	3 87	4 82	5 62	6 32
7 49	8 67	9 37	10 42	11 46	12 30	13 42
14 43	15 46	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

\* Analysis is based on draft data until September 15, 2008. Data is subject to change.



# Comparison of Orange and Red Days

Code Orange and Red Days  
Old vs. New Standard  
2008



\* Analysis is based on draft data until September 15, 2008. Data is subject to change.





# Daily Peak Fine Particle Concentrations (2008)

## 24-Hour PM<sub>2.5</sub> Concentrations (ug/m<sup>3</sup>)

### MAY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	3
				15.4	18.3	21.4
4	5	6	7	8	9	10
13.7	11.4	16.0	19.0	19.2	7.8	5.2
11	12	13	14	15	16	17
7.6	3.9	4.2	8.2	15.8	11.0	8.4
18	19	20	21	22	23	24
10.5	8.2	7.7	8.7	8.0	5.2	5.7
25	26	27	28	29	30	31
7.8	16.0	19.4	6.8	9.6	17.8	18.4

### JUNE

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
1	2	3	4	5	6	7
10.6	9.0	16.3	12.9	15.2	34.3	34.2
8	9	10	11	12	13	14
20.6	23.7	27.1	9.4	17.5	28.8	35.8
15	16	17	18	19	20	21
13	15.9	12.1	9	13.4	14.8	19.3
22	23	24	25	26	27	28
19.7	13.2	11.5	19.1	23.7	19.3	13.5
29	30					
9.7	10.7					

### JULY

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
		8.3	15.5	20.7	21.6	25.9
6	7	8	9	10	11	12
22.0	15.8	17.2	14.4	15.4	25.2	34.5
13	14	15	16	17	18	19
16.2	13.5	28.4	31.7	34.7	38.2	15.1
20	21	22	23	24	25	26
18.7	21.2	13.9	12.6	13.0	16.1	23.2
27	28	29	30	31		
23.3	31.5	39.0	29.5	25.0		

### AUGUST

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
					1	2
					26.3	17.1
3	4	5	6	7	8	9
10.0	20.5	28.2	23.6	17.3	12.5	6.2
10	11	12	13	14	15	16
14.1	8.6	13.7	17.8	18.1	21.5	14.6
17	18	19	20	21	22	23
13.6	25.5	22.7	10.0	10.9	7.8	6.7
24	25	26	27	28	29	30
6.4	14.2	8.9	9.0	7.1	6.6	23.5
31						
15.3						

### SEPTEMBER

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1	2	3	4	5	6
	10.7	10.1	22.2	25.6	12.8	6.3
7	8	9	10	11	12	13
10.9	18.8	16.5	4.7	7.2	8.6	11.4
14	15	16	17	18	19	20
13.2	7.9					
21	22	23	24	25	26	27
28	29	30				

3 Exceedances under the New Standard:

June 14 – 35.8 ug/m<sup>3</sup>

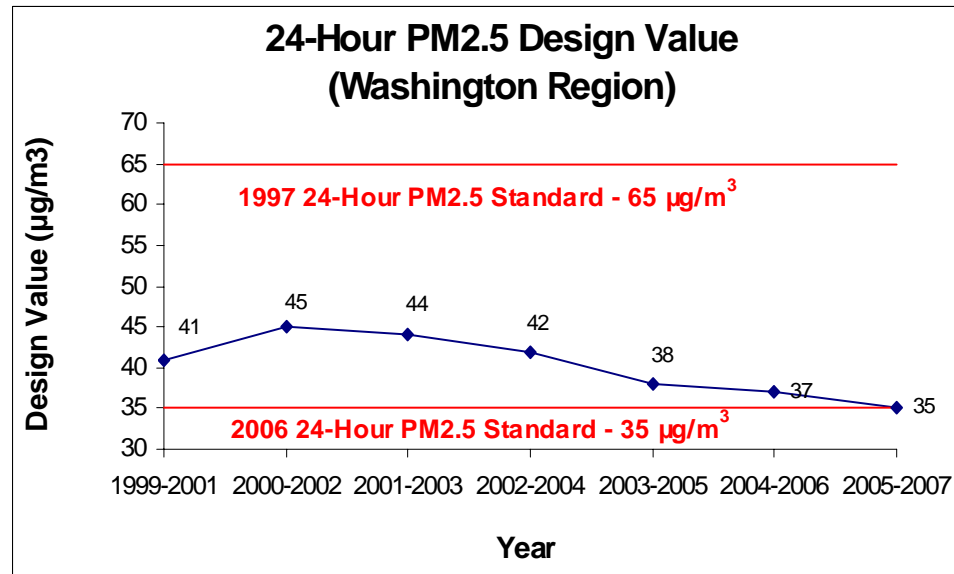
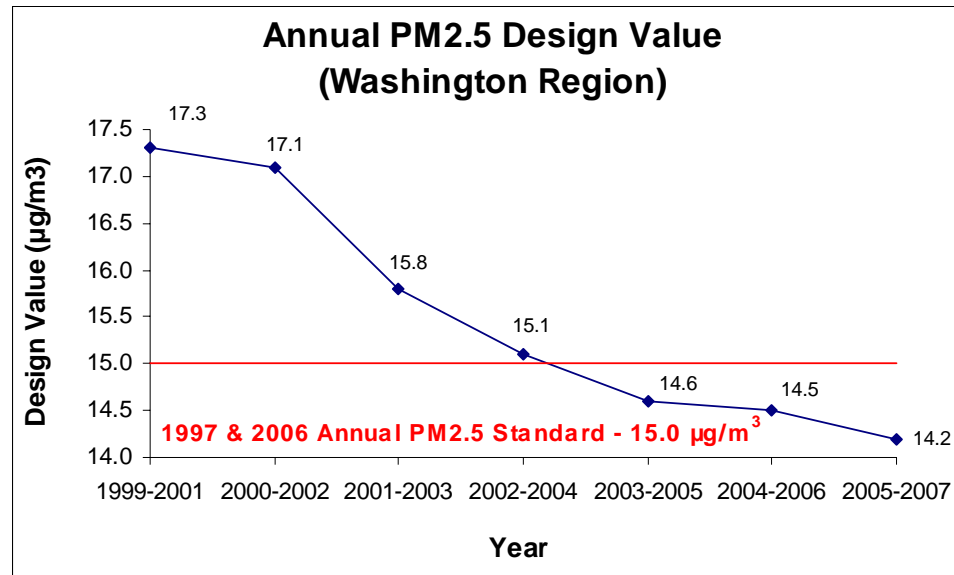
July 18 – 38.2 ug/m<sup>3</sup>

July 29 – 39.0 ug/m<sup>3</sup>

\* Analysis is based on draft data until September 15, 2008. Data is subject to change.



# Progress with Fine Particles





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Fighting for Air

## STATE OF THE AIR REPORT

**2008: 2009**

WASHINGTON-BALTIMORE-NO.VIRGINIA-DC-MD-VA-WV  
COMBINED STATISTICAL AREA

### Comparison of ALA Rankings (Top 25 Most Polluted City)

Ozone		24-Hour PM2.5		Annual PM2.5	
2008 Report	2009 Report	2008 Report	2009 Report	2008 Report	2009 Report
<b>9</b>	<b>14</b>	<b>10</b>	<b>14</b>	<b>22</b>	<b>Not listed</b>



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## STATE OF THE AIR REPORT

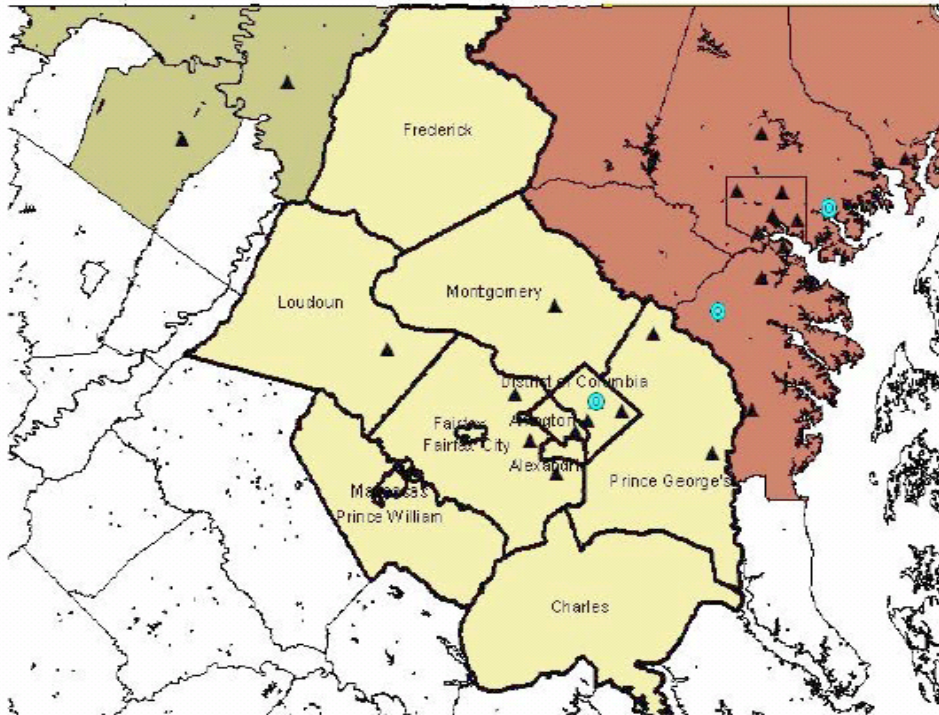
**2008: 2009**




FAIRFAX COUNTY

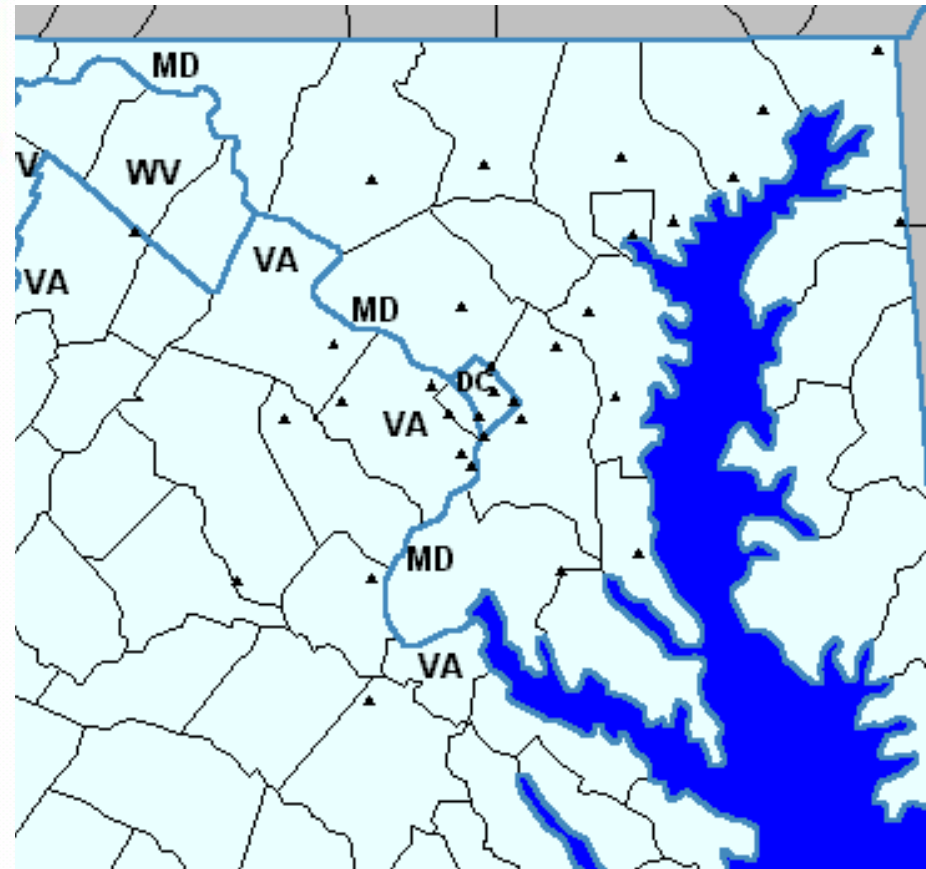
### Comparison of ALA Rankings (Top 25 Most Polluted County)

Ozone		24-Hour PM2.5		Annual PM2.5	
2008 Report	2009 Report	2008 Report	2009 Report	2008 Report	2009 Report
<b>19</b>	<b>23</b>	<b>Not listed</b>	<b>Not listed</b>	<b>Not listed</b>	<b>Not listed</b>

# WASHINGTON-BALTIMORE-NO.VIRGINIA-DC-MD-VA-WV COMBINED STATISTICAL AREA



-  Speciation Monitor (STN)
-  FRM Monitor
-  DC NAA



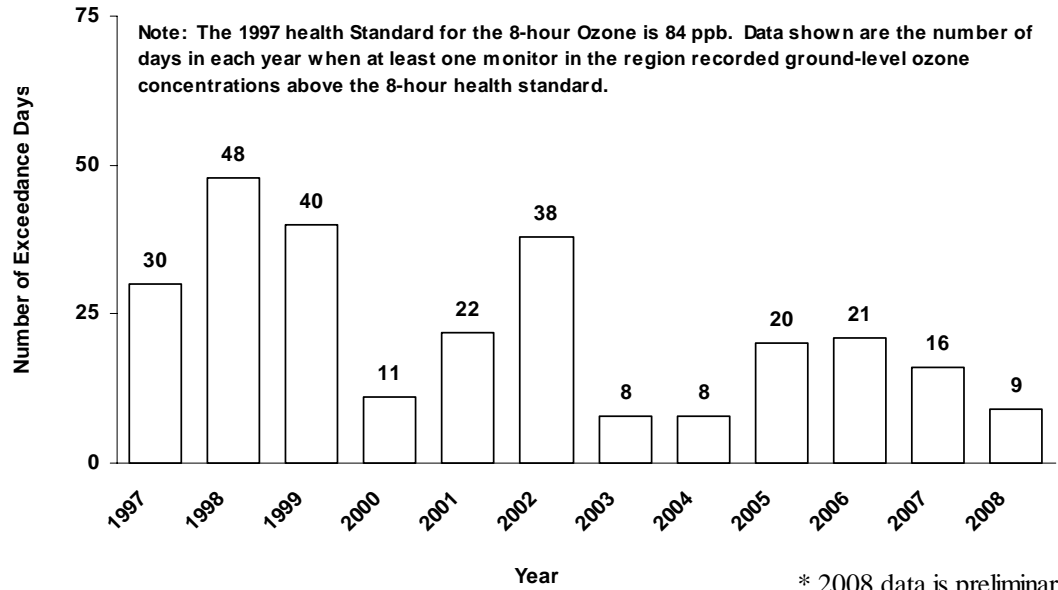


## Exceedances of Ozone and Fine Particle Standards, Washington Region

<b>Ozone</b>		<b>24-Hour PM2.5</b>	
<b>2007</b>	<b>2008</b>	<b>2007</b>	<b>2008</b>
42	19	6	3

•2008 data is preliminary as of April 24, 2009 and may change.  
•2008 PM2.5 analysis based on TEOM (real-time hourly) data as full year data not yet available from EPA AQS site (official data source).

### Exceedances of 1997 8-hour Ozone Standard Washington, D.C. Region, 1997-2008





## Air Alerts and Forecasts

- Air Alerts are available by email:  
[www.cleanairpartners.net](http://www.cleanairpartners.net)
- [www.mwcog.org/environment/air](http://www.mwcog.org/environment/air)