

OZONE SEASON SUMMARY 2017

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MWAQC-Technical Advisory Committee
May 9, 2017

Peak 8-Hour Average Ozone Levels (ppb)

APRIL 2017							MAY 2017						
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
					1	2							
					39	56	35	55	49	48			
3	4	5	6	7	8	9	8	9	10	11	12	13	14
50	52	57	47	43	57	62							
10	11	12	13	14	15	16	15	16	17	18	19	20	21
68	71	61	54	64	55	52							
17	18	19	20	21	22	23	22	23	24	25	26	27	28
45	58	43	48	45	28	33	29	30	31				
24	25	26	27	28	29	30							
37	35	35	57	61	49	46							

1 Code Orange Day, 12 Code Yellow Days, 21 Code Green Days

Analysis is based on draft data as of May 5, 2017. Data is subject to change

2016 Ozone Exceedances

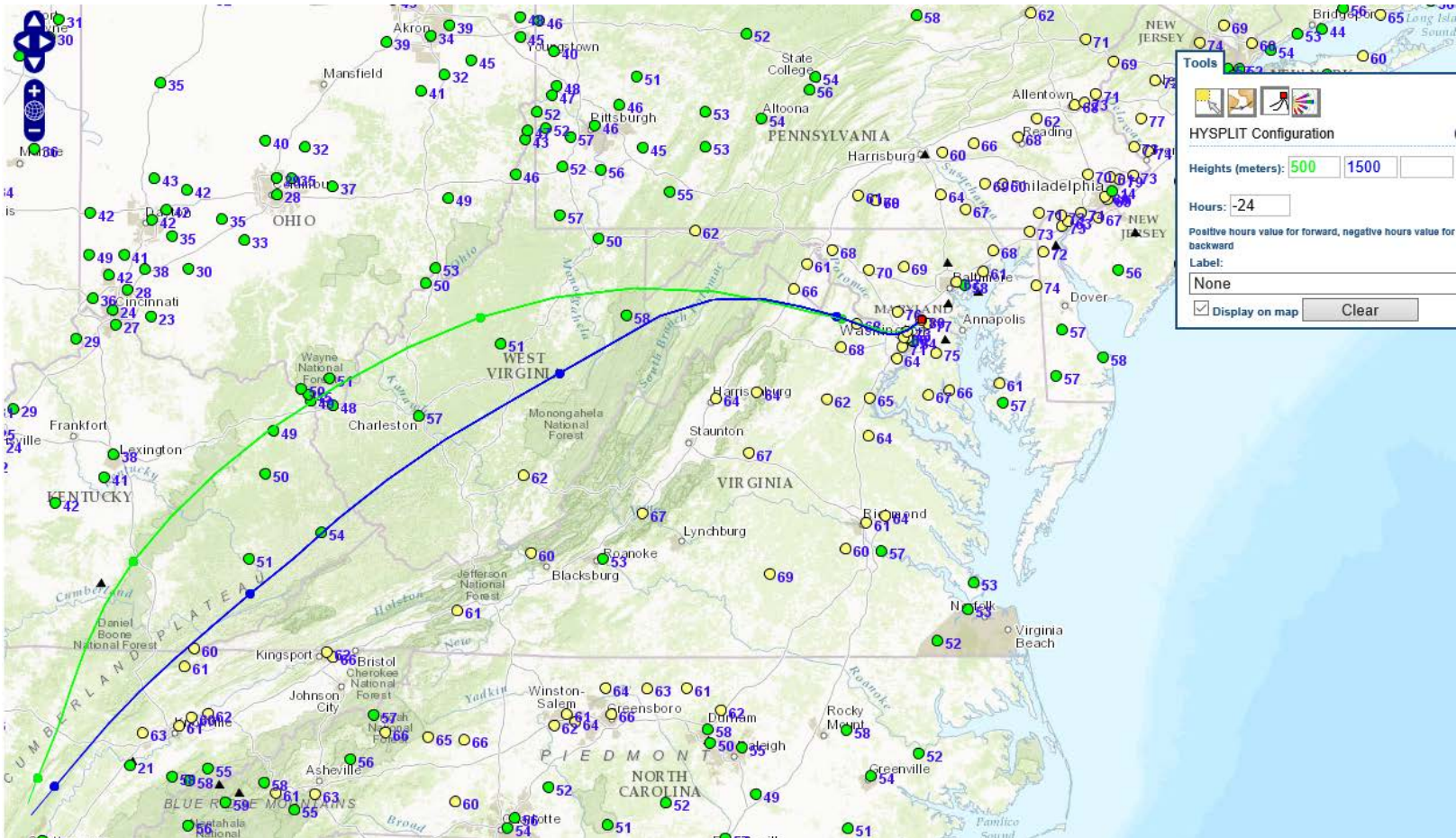
Date	Monitors Exceeding	Highest Monitor	8-Hr Max (ppb)
4/11	2	HU-Beltsville/Rockville	71

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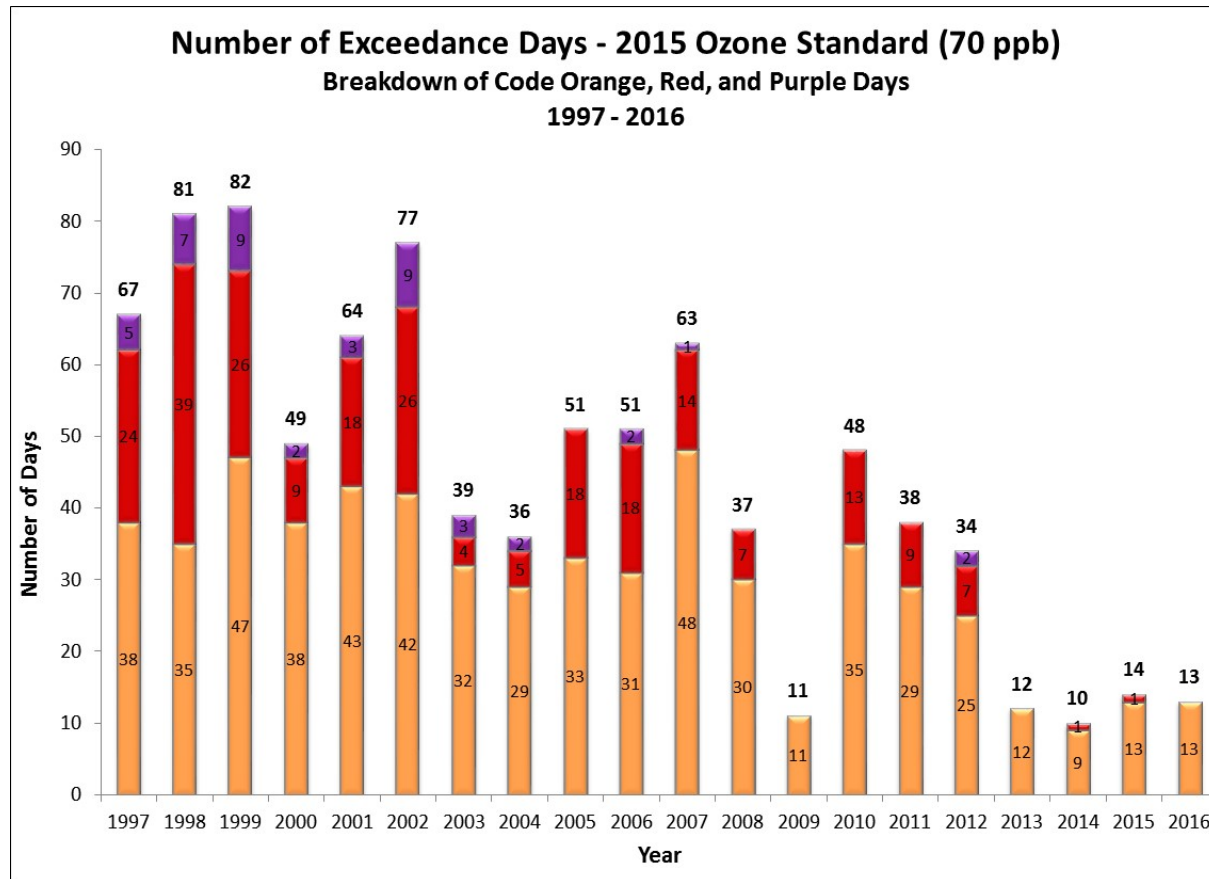
Meteorology on Exceedance Days

- April 11 (Seems mostly influenced by local emissions)
 - High Temperature: 86°F, Clear sky
 - Light south westerly winds brought some ozone from upstream areas
 - Ozone build up on previous days

Wind Trajectories (April 11)

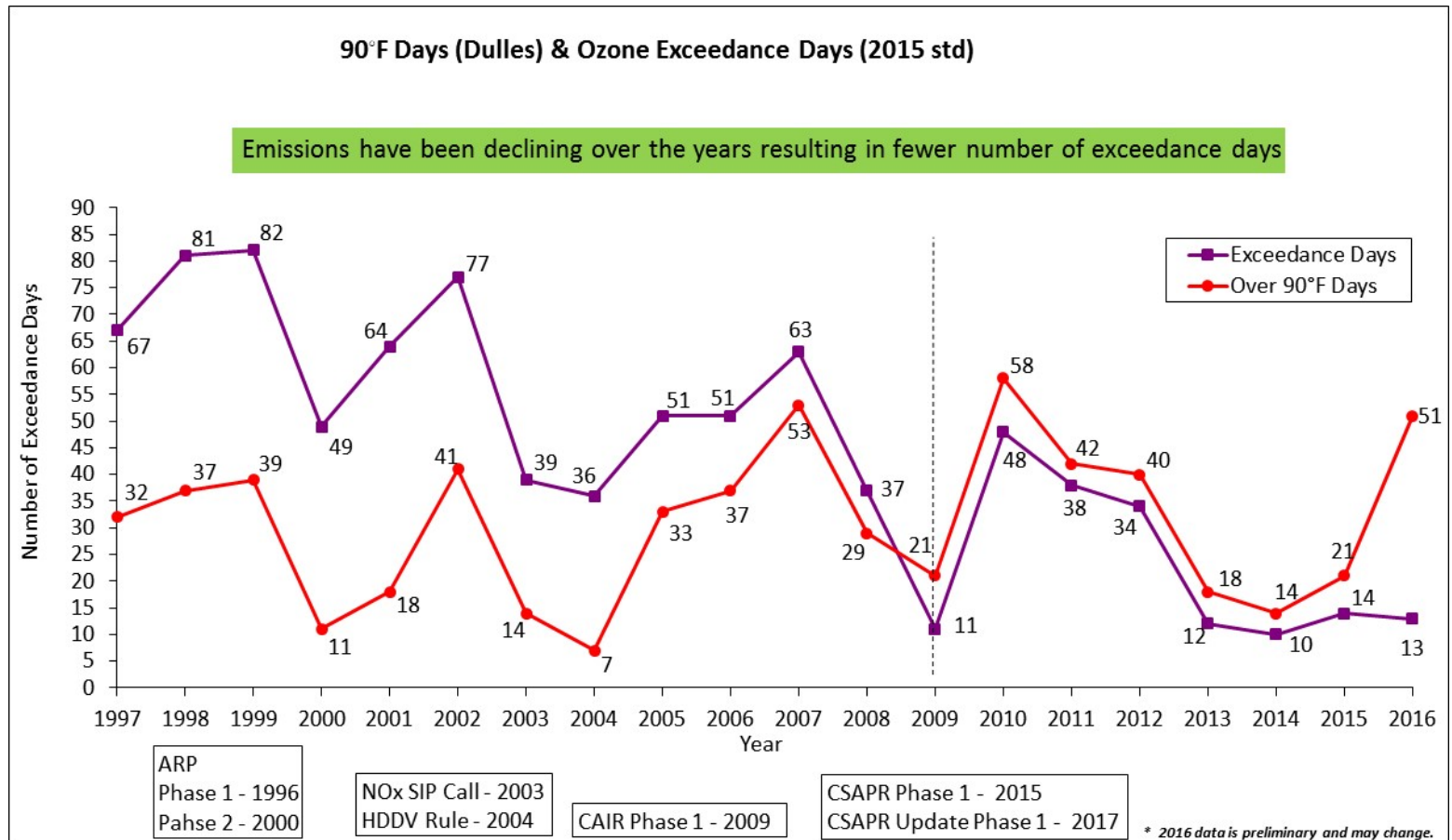


Ozone Exceedance Trend



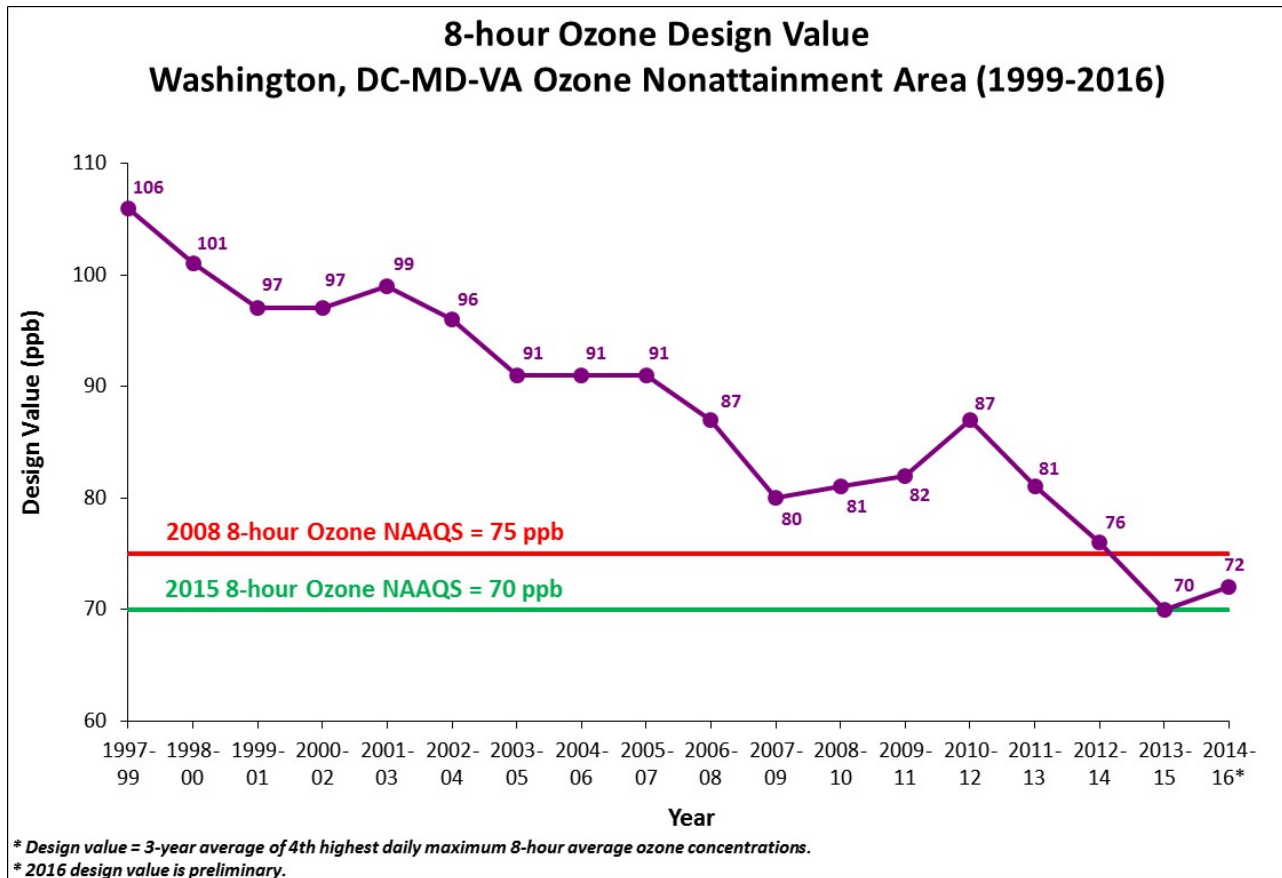
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Ozone & Temperature Trend



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Ozone Design Value Trend



Why Fewer Exceedance Days Now ?

Emission Control Programs

Federal	State	Local
Acid Rain Program (1996/2000)	Vehicle Inspection and Maintenance Programs	Renewable Energy Programs Regional Wind Power Purchase Program Clean Energy Rewards Program Renewable Portfolio Standards
Tier 2 (LD Vehicle) Rule (2004)	MD Healthy Air Act (2009/2012)	Energy Efficiency Programs LED Traffic Signal Retrofit Program Building Energy Efficiency Programs
HD Diesel Vehicle Rule (2004/2007)	VA CSAPR Rule	VRE Idling Reduction
NOx SIP Call (2004)		Low VOC Paint
Clean Air Interstate Rule/CSAPR (2009/2015)	Ozone Transport Commission Rules	Gas Can Replacement



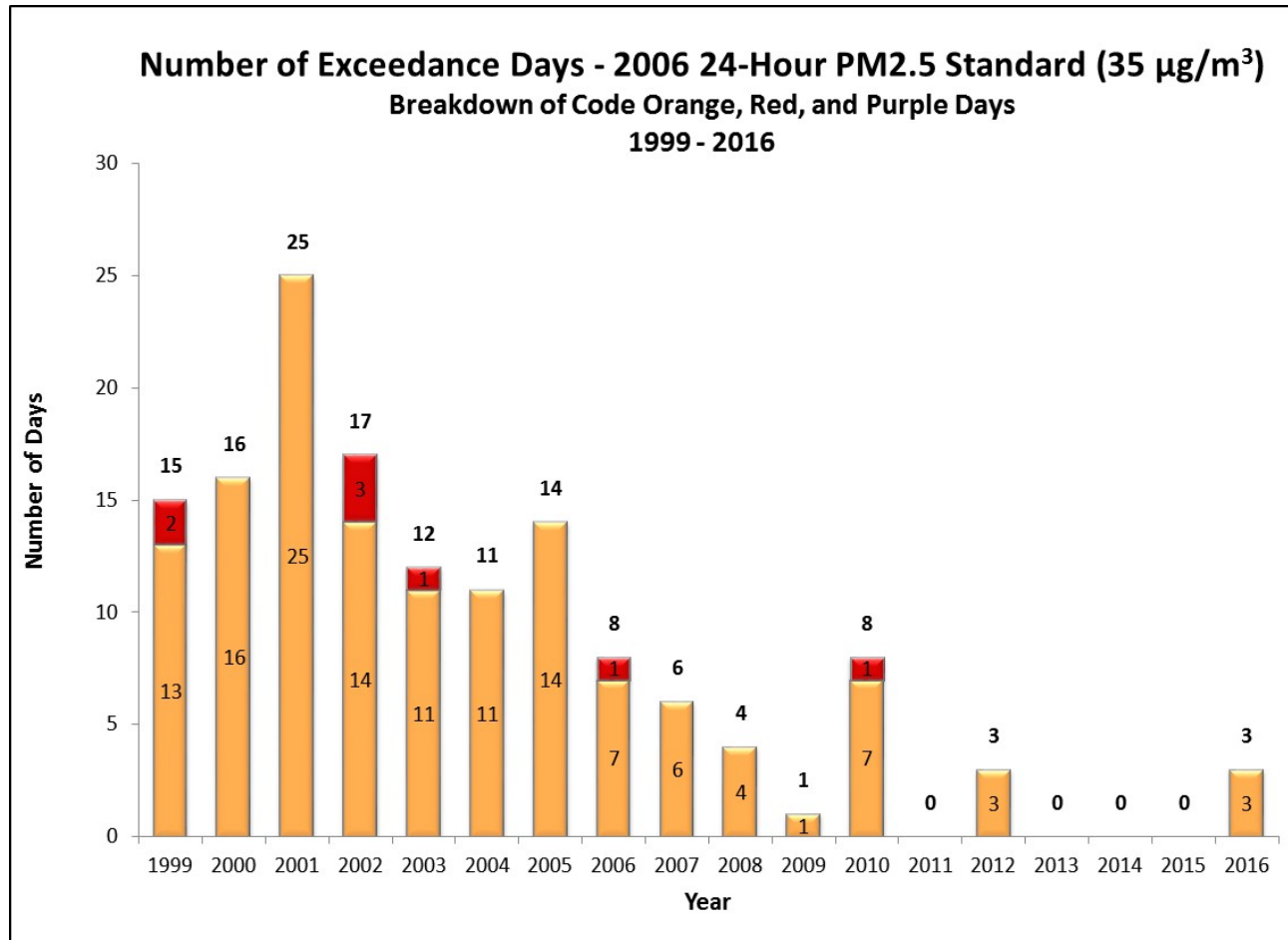
24-Hour Average PM2.5 Levels ($\mu\text{g}/\text{m}^3$)

APRIL 2017							MAY 2017						
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
					1	2							
					8.0	6.8	11.7	5.8	5.1	8.2	8.2	8.2	
3	4	5	6	7	8	9	8	9	10	11	12	13	14
8.1	6.3	6.0	7.7	2.6	4.7	8.8							
10	11	12	13	14	15	16	15	16	17	18	19	20	21
11.5	15.0	9.6	8.2	11.7	11.9	10.9							
17	18	19	20	21	22	23	22	23	24	25	26	27	28
8.6	8.2	7.5	8.5	18.6	12.5	4.9							
24	25	26	27	28	29	30	29	30	31				
6.0	5.8	7.2	18.7	17.3	18.7	18.0							

7 Code Yellow Days, 29 Code Green Days

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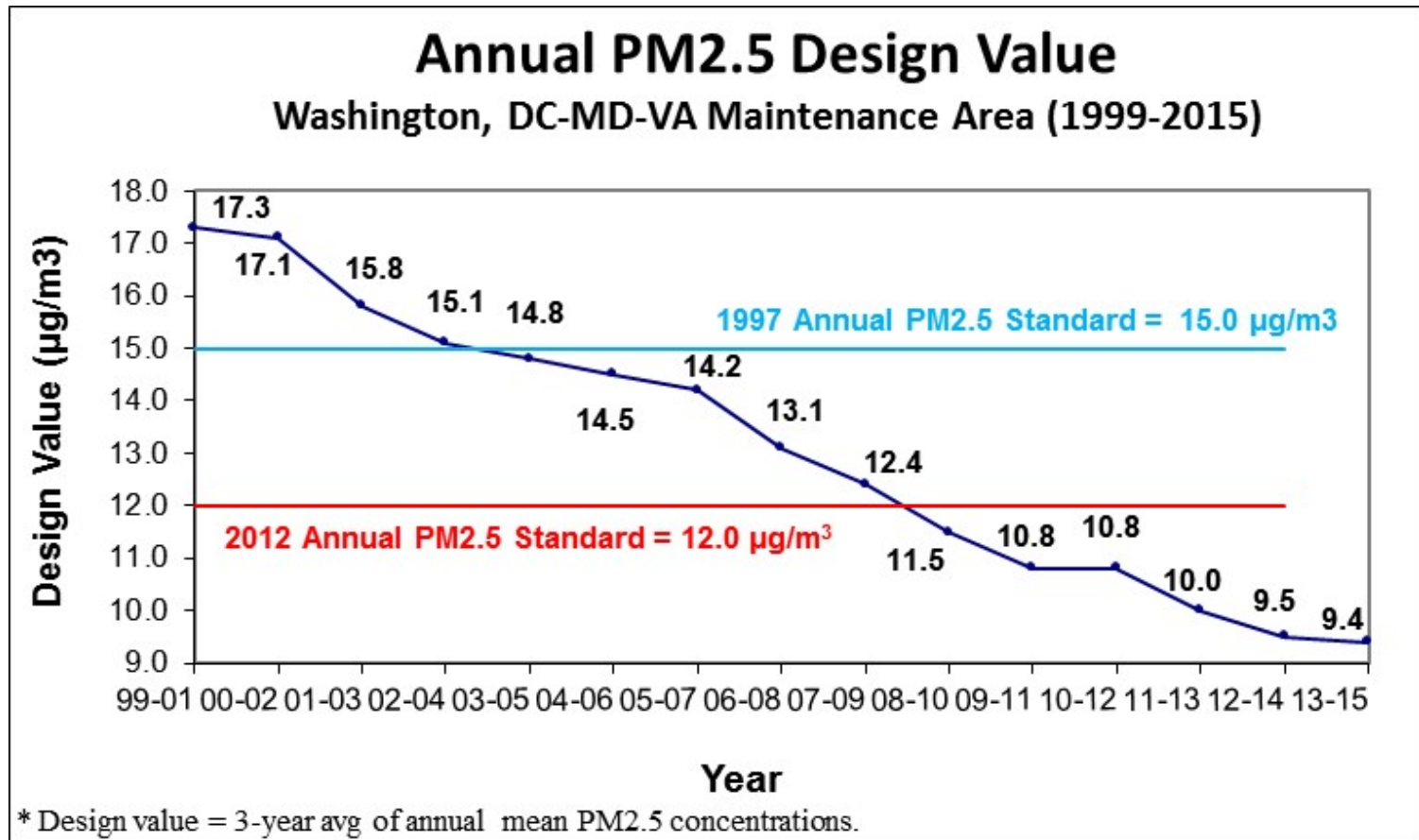
PM2.5 Exceedance Trend



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Annual PM2.5 Design Value Trend



24-Hour PM2.5 Design Value Trend

