

Air Quality Planning in Metropolitan Washington

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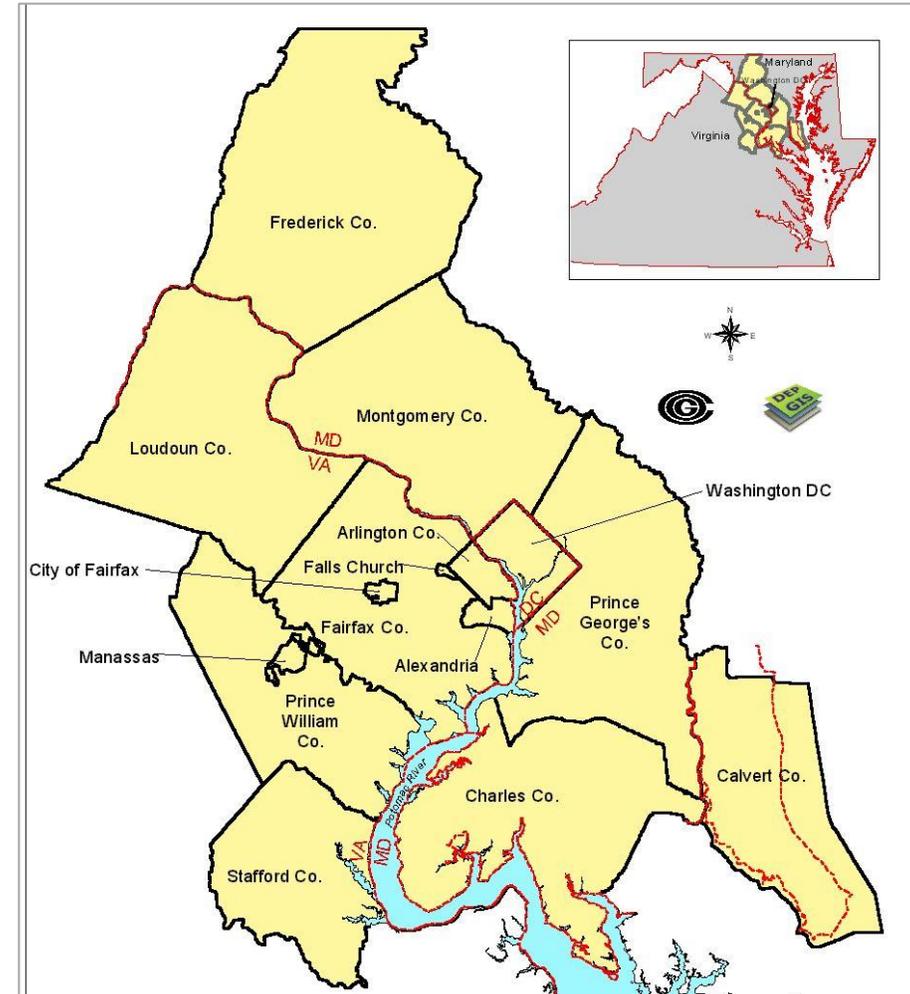
Air and Climate Public Advisory Committee (ACPAC)
March 16, 2026

Clean Air Legislative History

- Regulates emission of air pollutants from human sources
 - Classifies areas that do not meet the federal health standard as nonattainment areas (marginal, moderate, severe)
 - Criteria pollutants include Ozone, PM, CO, NO₂, SO₂, Pb
 - Stationary and mobile source controls; interstate transport
 - Monitoring, research & assistance to states
- Legislation
 - Air Pollution Control Act of 1955
 - Clean Air Act of 1963
 - Motor Vehicle Air Pollution Control Act of 1965
 - Air Quality Act of 1967
 - Clean Air Act of 1970
 - Clean Air Act Amendments of 1977
 - Clean Air Act Amendments of 1990

Metropolitan Washington Air Quality Committee

- Designated body for air quality planning for the Washington nonattainment Region
- Created in 1992
- Authority derived from certification from the Mayor/Governors as the region's air quality planning entity



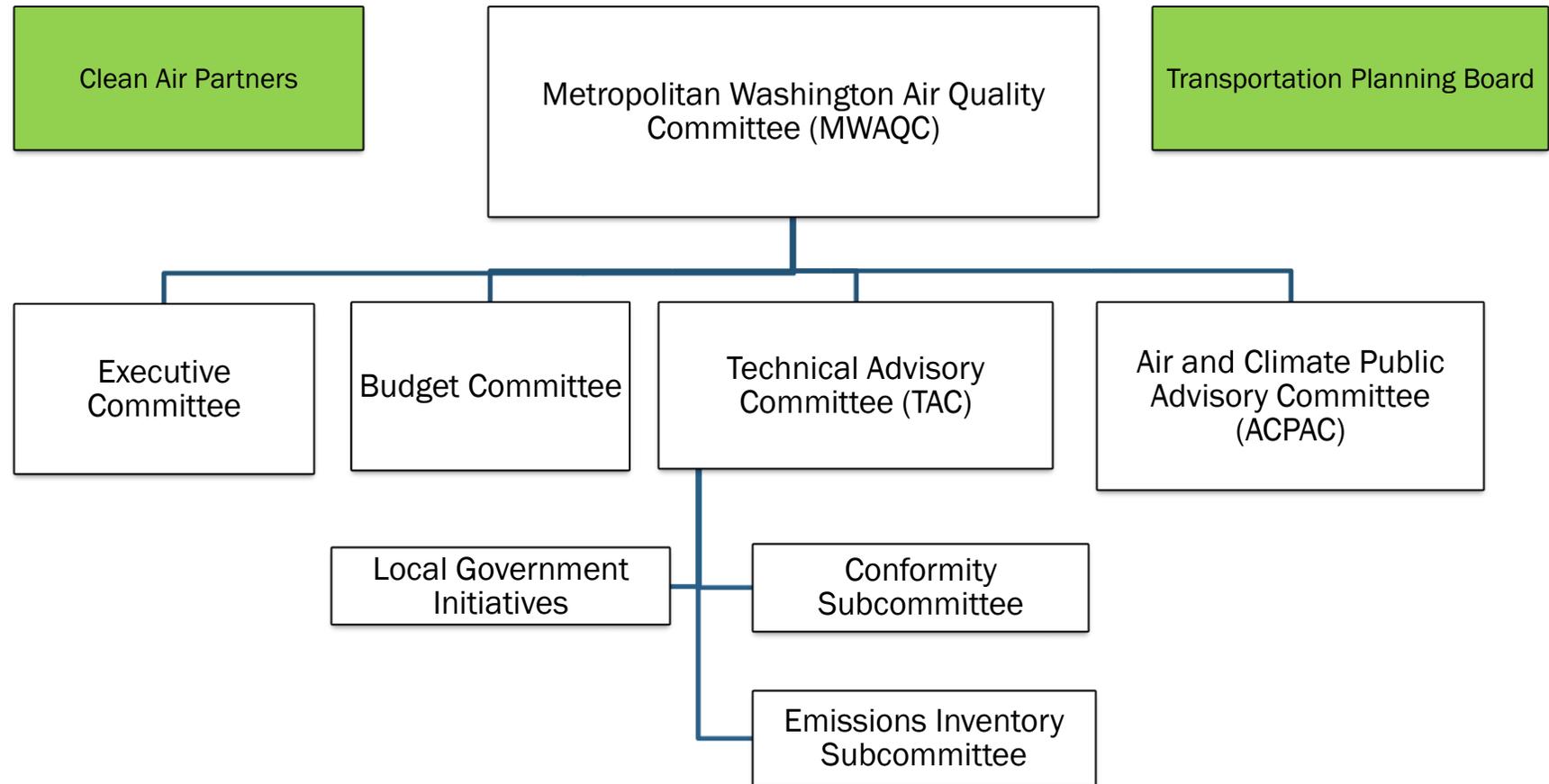
Role of MWAQC

- Prepare/revise region-wide State Implementation Plans (SIP)
 - Demonstrate attainment of federal national ambient air quality standards (NAAQS) for criteria pollutants
 - Demonstrate rate of progress reducing criteria air pollutants
 - Include inventories & onroad mobile emission budgets
 - Provide a maintenance plan after the region attains compliance
- Perform other functions to improve regional air quality
- Cooperate with other committees
 - TPB, COG Board of Directors, policy committees (CEEPC/CBPC)
 - Tri-County Council for Southern Maryland
 - State air & transportation agencies and local governments
- Develop and maintain a public participation & education program
- Advocate for plan elements

Membership

District of Columbia (6)	
Mayor (2), Council (2)	
District Department of Energy and Environment	
District Department of Transportation	
Maryland (20)	Virginia (17)
City of Bowie	City of Alexandria
City of College Park	City of Fairfax
City of Frederick	City of Falls Church
City of Gaithersburg	City of Manassas
City of Greenbelt	City of Manassas Park
City of Rockville	Arlington County
City of Takoma Park	Fairfax County (3)
Frederick County	Loudoun County
Montgomery County (1 Executive, 2 Council)	Prince William County (2)
Prince George's County (1 Executive, 2 Council)	Stafford County (1-hour ozone issues only)
Calvert County	Virginia General Assembly (2)
Charles County	Virginia Department of Environmental Quality
Maryland General Assembly (2)	Virginia Department of Transportation
Maryland Department of the Environment	Other (1)
Maryland Department of Transportation	Transportation Planning Board Chair or Designee

Organizational Structure



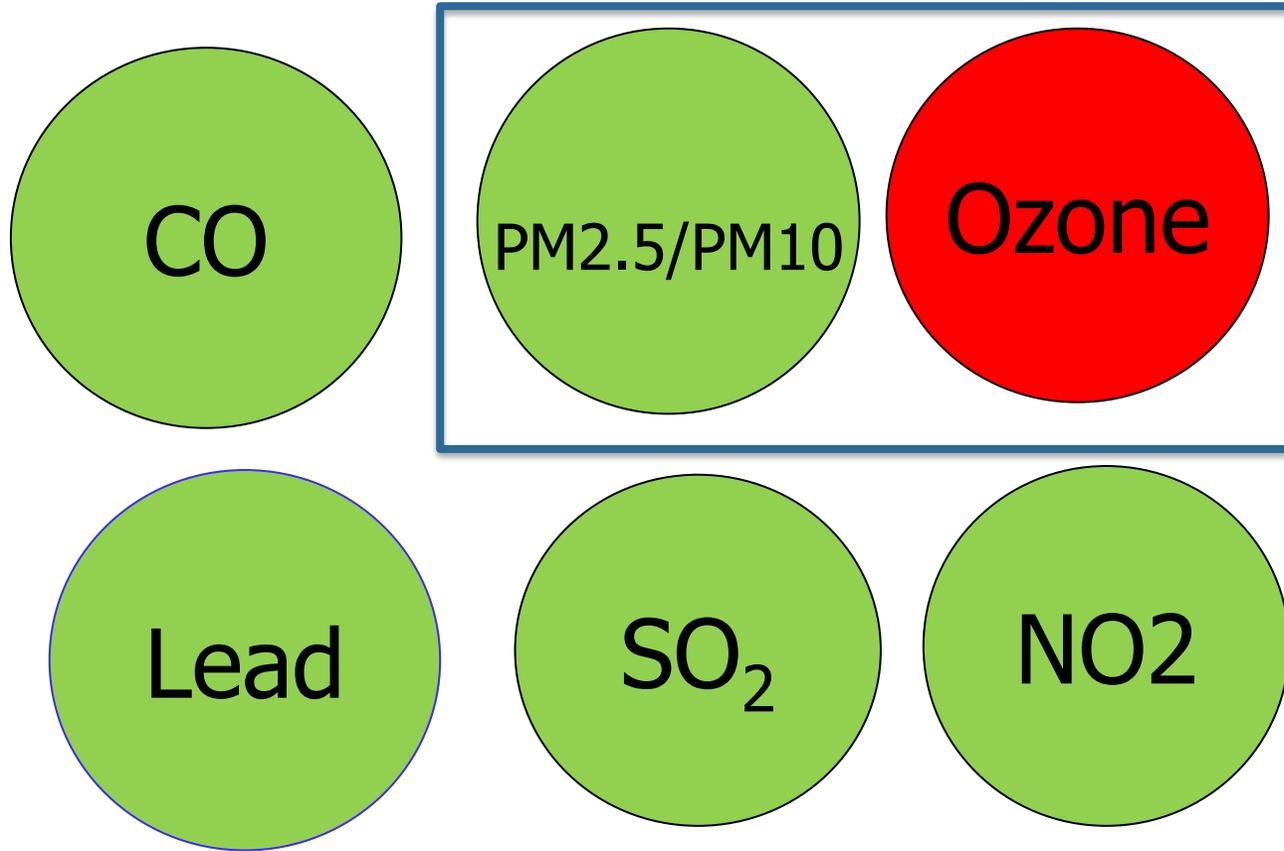
MWAQC and State Air Quality Planning

- COG
 - MWAQC – Region-wide air quality planning
 - Develop regional air quality plans
 - Develop regional emissions inventories
 - Implement regional control measure programs
 - Coordinate with TPB on transportation conformity
 - Forecast & report regional air quality
 - Clean Air Partners
 - Serve metropolitan Washington and Baltimore
 - Educate on air quality risks & individual actions to improve air quality
 - Air Quality Index & notices
- State air agencies
 - Statewide air quality planning and permit facilities
 - Issue individual source permits
 - Develop state level emissions inventories
 - Develop & enforce state regulations
 - Develop & implement state-wide measures for area, mobile, and point sources – i.e. emissions & inspection programs



MWAQC & Planning of Criteria Air Pollutants

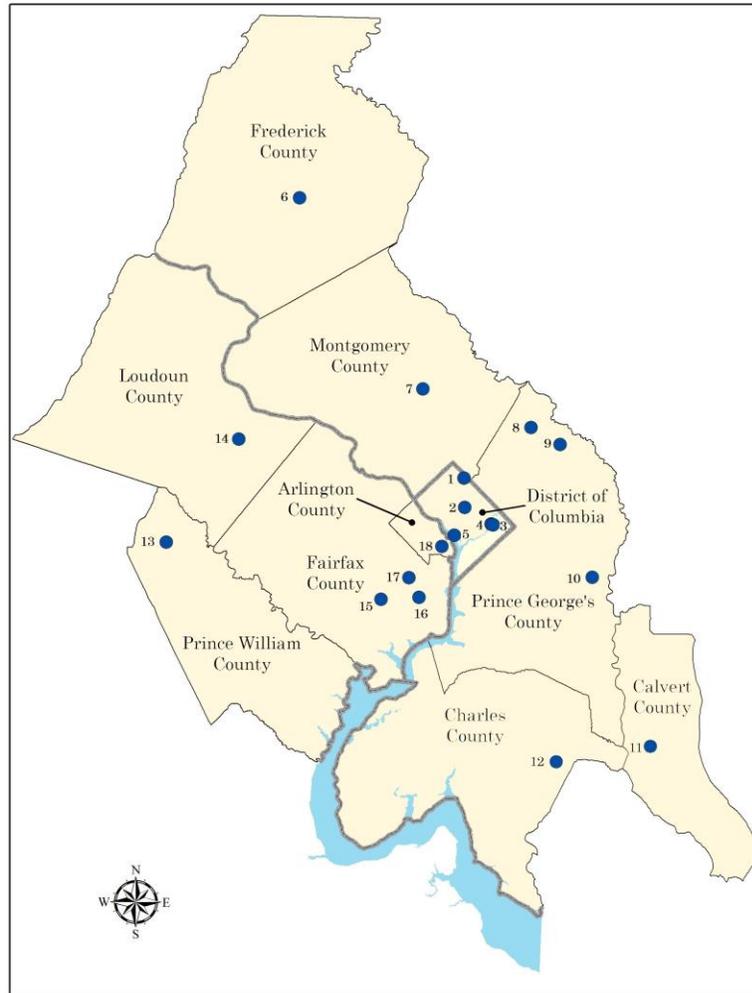
EPA has identified 6 different pollutants and set standards for them. Those are called criteria pollutants.



MWAQC is responsible for planning for ozone and fine particles (PM2.5). The Washington region currently is in nonattainment of ozone standard.

Clean Air Act Amendments 1990

Air Quality Monitors



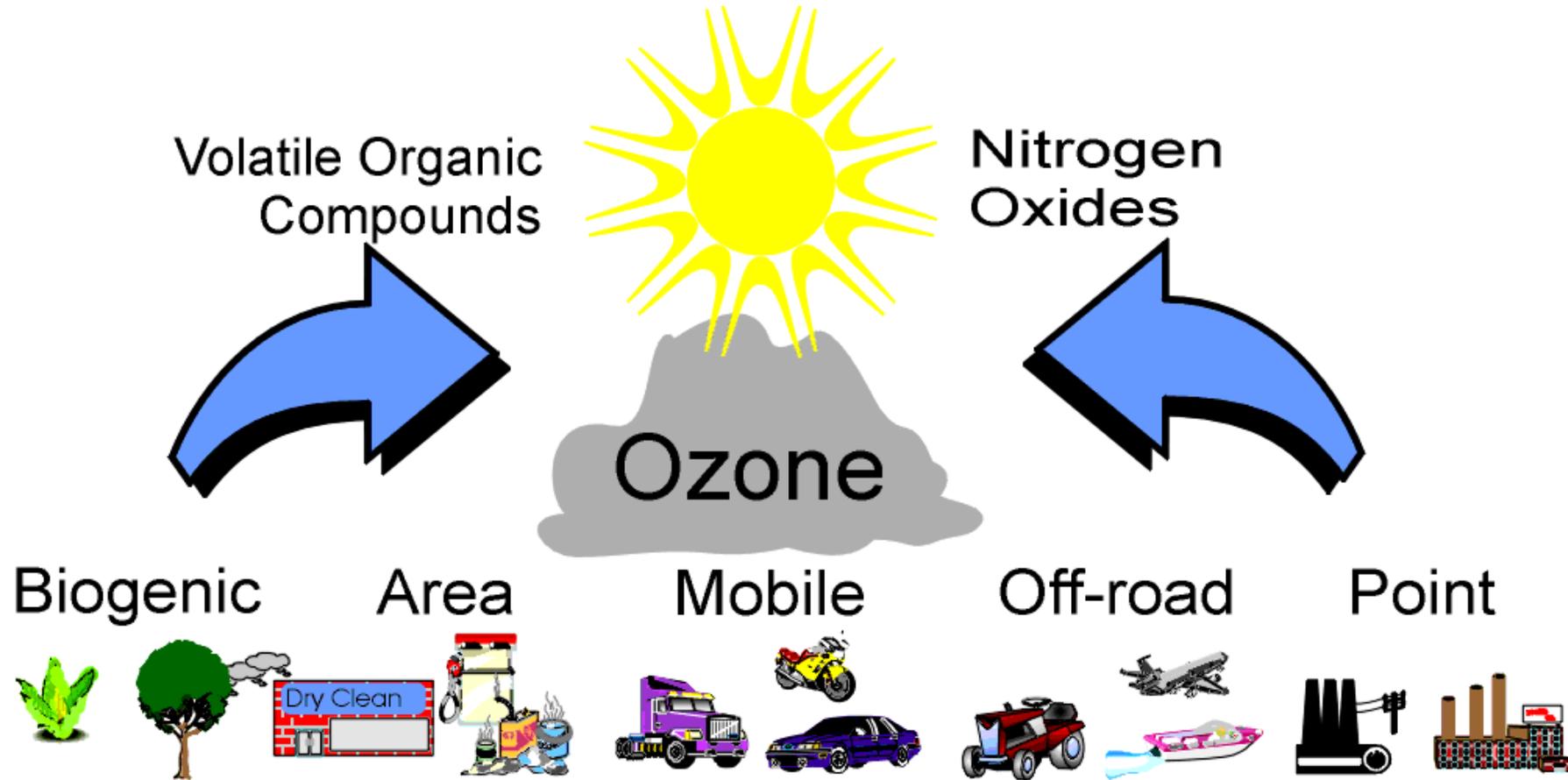
Monitor Name		Pollutants Currently Monitored					
		O ₃	PM _{2.5}	PM ₁₀	CO	NO ₂	SO ₂
1.	Takoma Rec Center	•				•	
2.	McMillan NCore	•	•	•	•	•	•
3.	DC Near Road		•		•	•	
4.	River Terrace	•	•			•	
5.	King Greenleaf		•				
6.	Frederick Airport	•					
7.	Rockville	•	•				
8.	Beltville(Howard University site)	•	•	•	•	•	•
9.	Beltville	•					•
10.	Prince George's Equestrian Center	•					
11.	Calvert	•					
12.	Southern Maryland	•					
13.	James S. Long Park	•				•	
14.	Ashburn	•	•			•	
15.	Springfield Near Road		•		•	•	
16.	Lee District Park	•	•	•			•
17.	Tucker Elementary School			•			
18.	Aurora Hills	•	•		•	•	



The Air Quality Index (AQI)

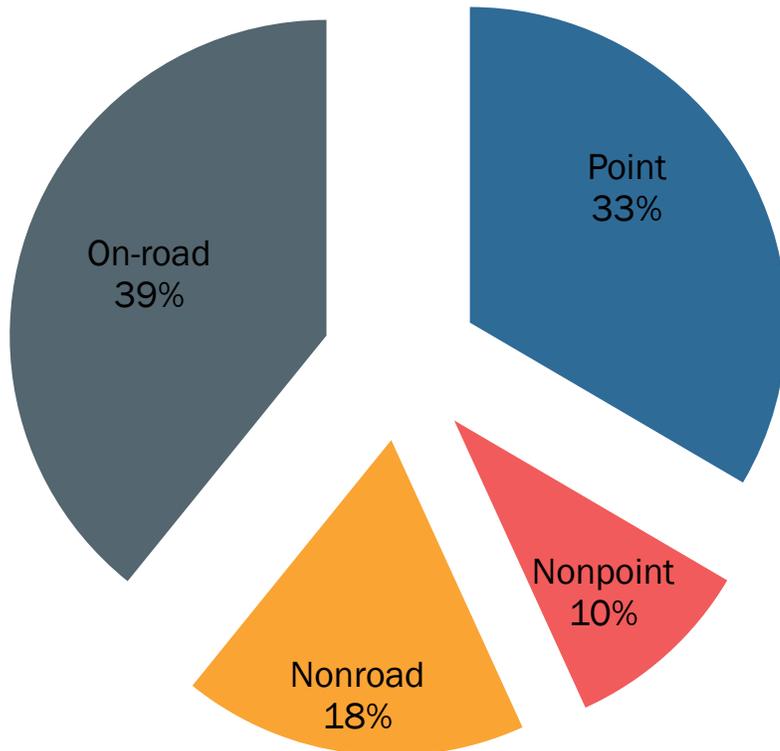
8-Hour O ₃ (ppb) ^a	1-Hour O ₃ (ppb) ^a	24-Hour PM _{2.5} (µg/m ³) ^a	AQI Color	AQI Range	Health Descriptor
0 - 54	-	0 – 9.0	GREEN	0- 50	Good
55 - 70	-	9.1 - 35.4	YELLOW	51 - 100	Moderate
71 - 85	125 - 164	35.5 – 55.4	ORANGE	101 - 150	Unhealthy for Sensitive Groups
86 - 105	165 - 204	55.5 – 125.4	RED	151 - 200	Unhealthy
106 - 200	205 - 404	125.5 – 225.4	PURPLE	201 - 300	Very Unhealthy
201-	405+	225.5+	MAROON	301+	Hazardous

Ground-Level Ozone

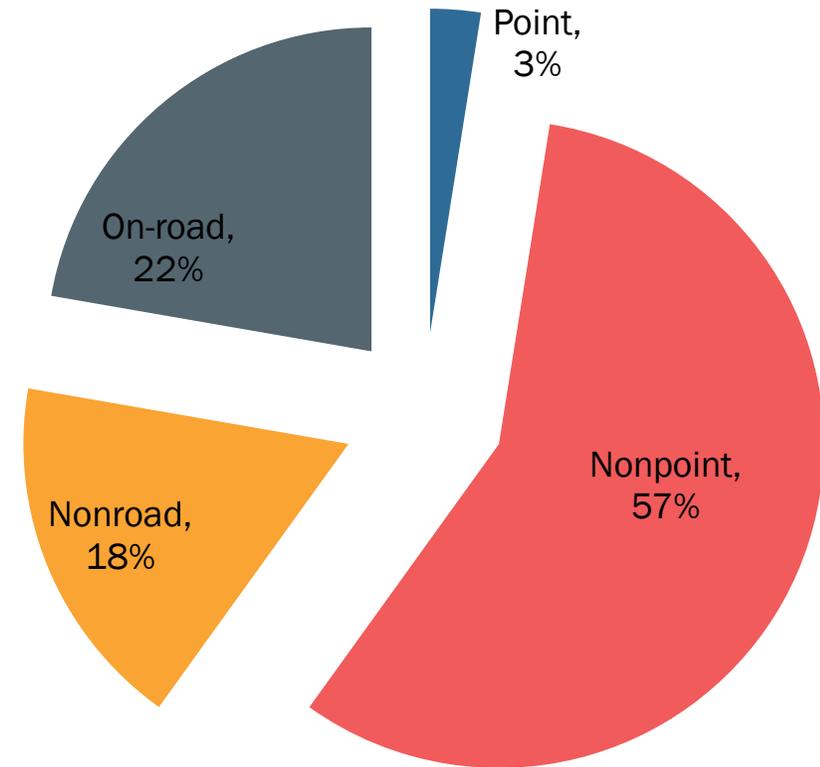


Sources of Ozone Forming Emissions

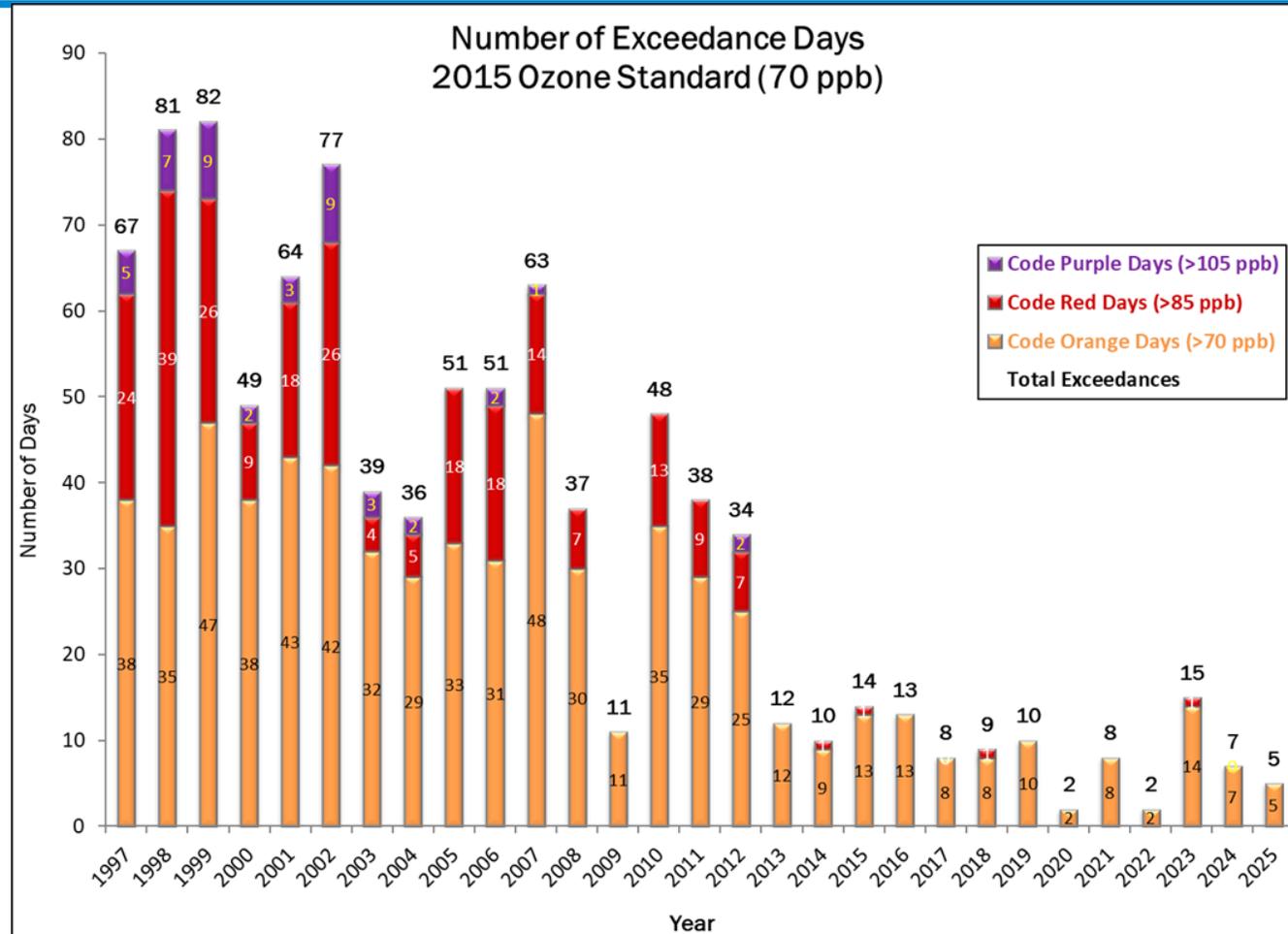
2017 **NO_x** Emissions (tpd)
(Washington DC-MD-VA 2015 Ozone NAAQS NAA)



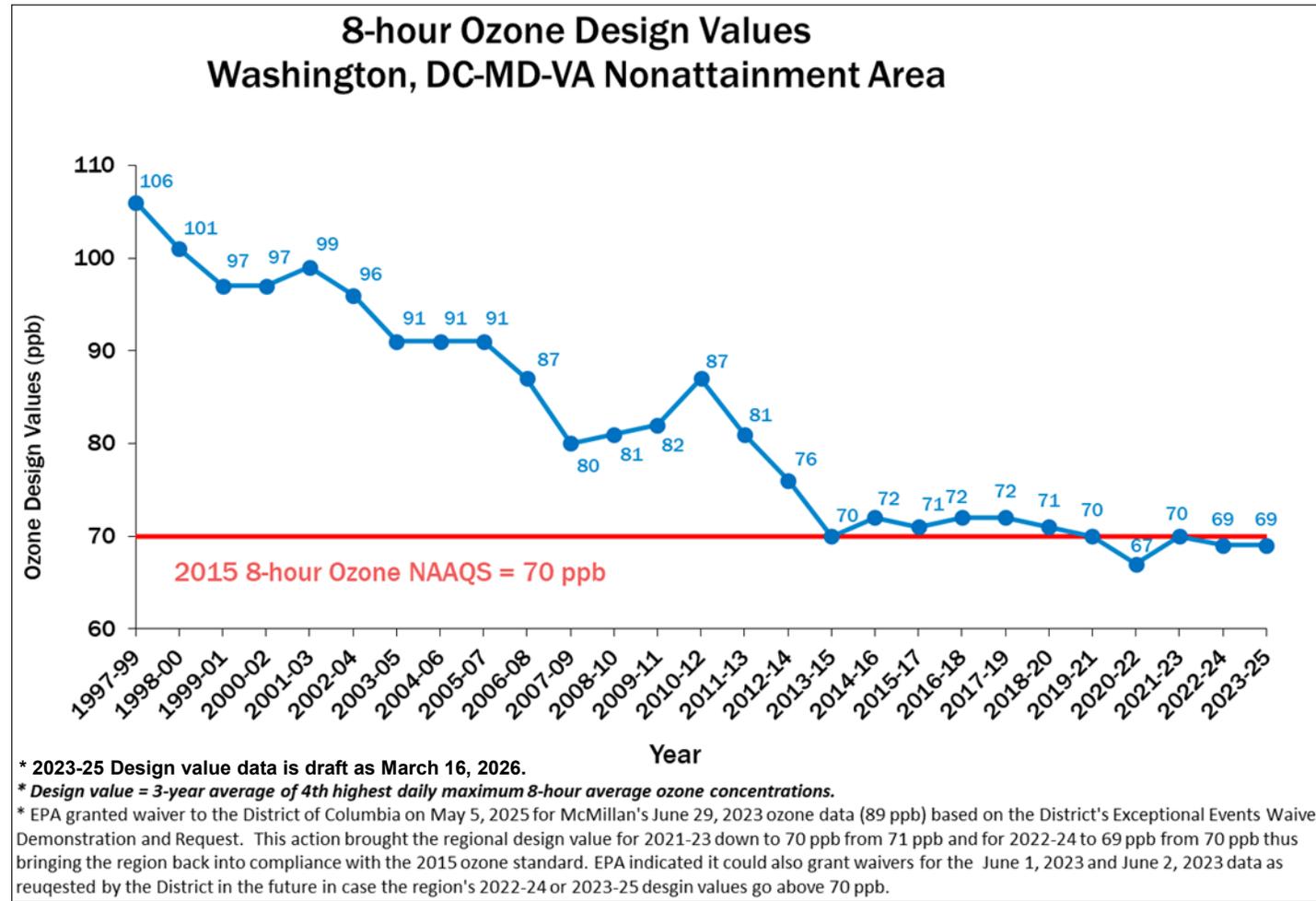
2017 **VOC** Emissions (tpd)
(Washington DC-MD-VA 2015 Ozone NAAQS NAA)



Metropolitan Washington Ozone Standard Exceedance Trends

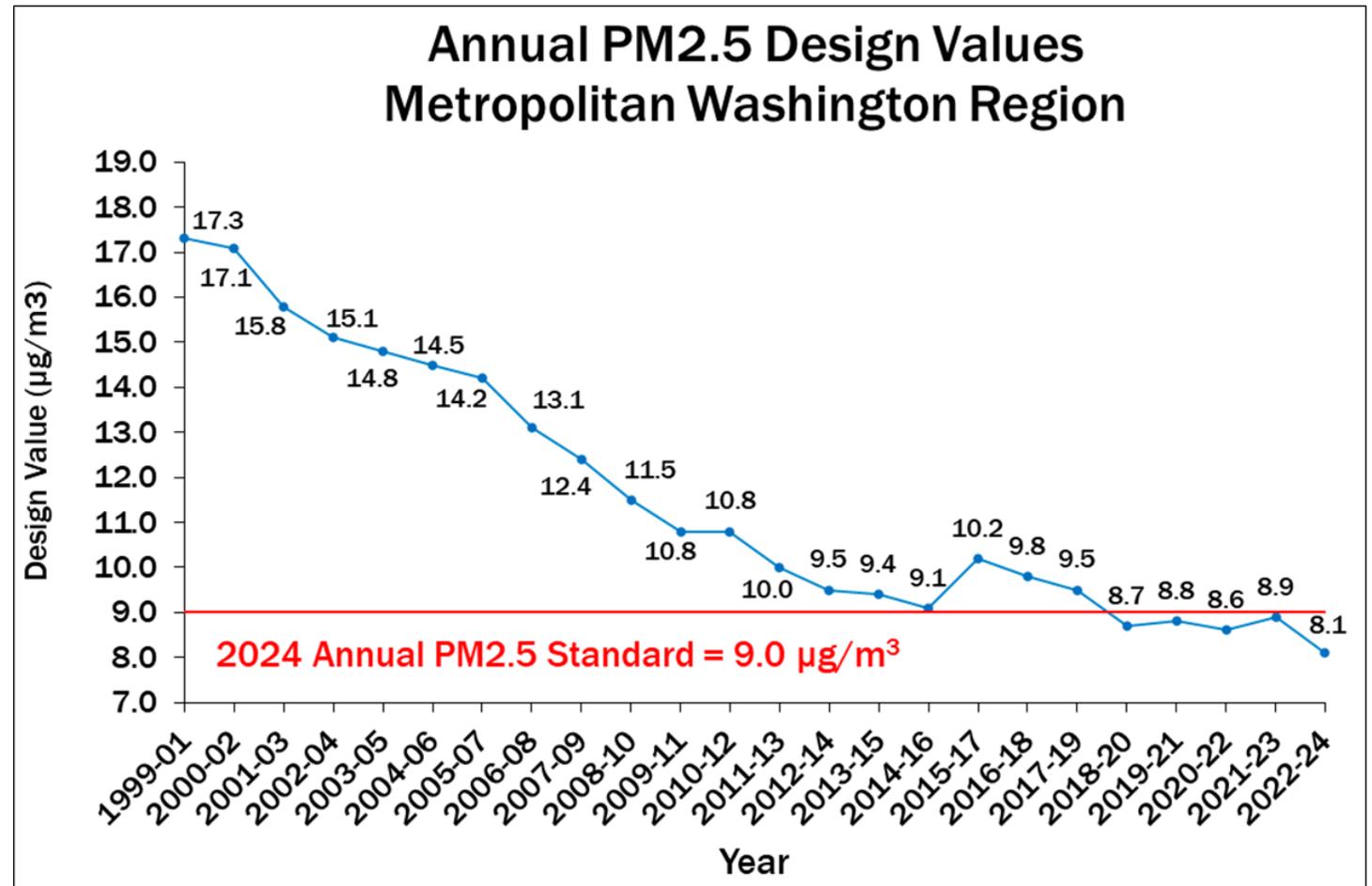


Metropolitan Washington Ozone Design Value Trends



Fine Particles (PM_{2.5})

- Chemical, particulate matter or aerosol
- From combustion, cars & trucks, construction, power plants, industry
- Causes respiratory problems, impairs visibility
- COG/state forecasting & reporting



Air Quality Resources

MWAQC Committee Page

- <https://www.mwcog.org/committees/metropolitan-washington-air-quality-committee/>

Air Quality Trends Report

- <https://www.mwcog.org/documents/2024/02/02/air-quality-trends-air-quality-air-quality-data-featured-publications/>

Current Air Quality Data & Forecasts

- <https://www.mwcog.org/environment/planning-areas/air-quality/air-quality-forecast/>
- <http://www.cleanairpartners.net/>

Historical Air Quality Data

- <https://www.mwcog.org/environment/planning-areas/air-quality/air-quality-data/>
- <http://www.cleanairpartners.net/>

Download the free Air Quality App and Sign Up for EnviroFlash

- <http://www.cleanairpartners.net/>

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