

# Air Quality Planning in Metropolitan Washington

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Air and Climate Public Advisory Committee  
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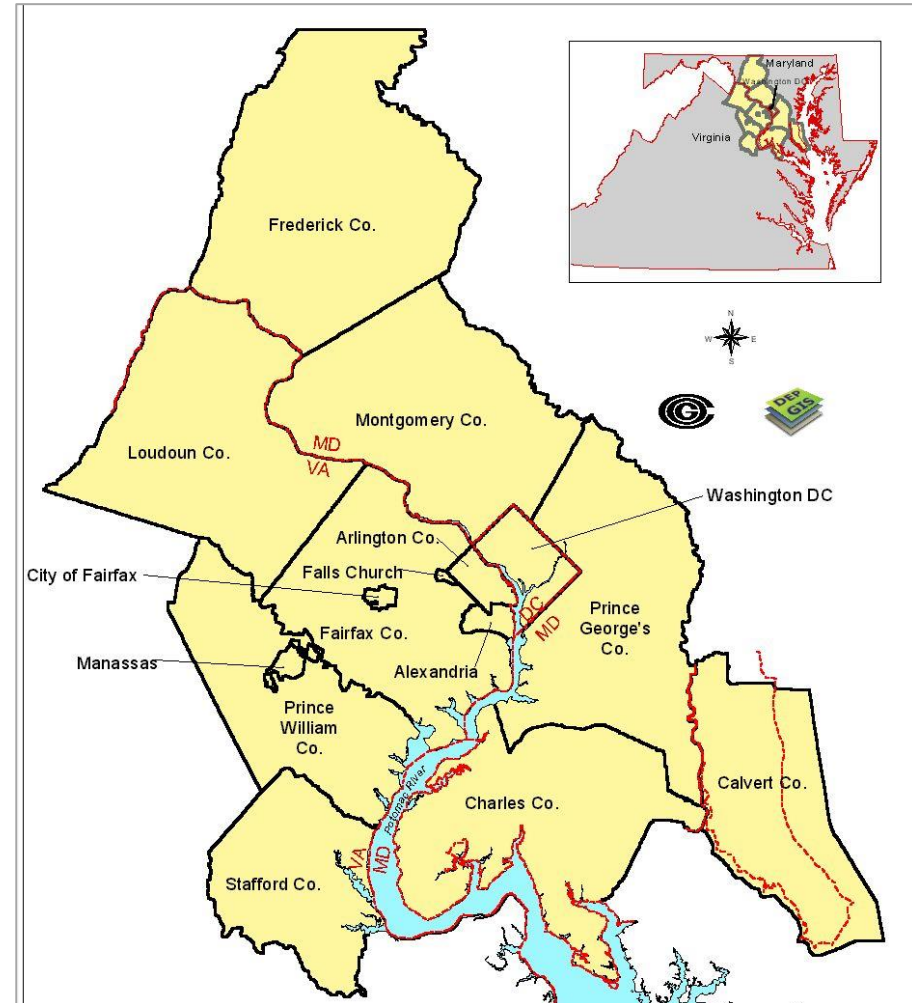
# Clean Air Legislative History

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- 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, NO<sub>2</sub>, SO<sub>x</sub>, 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

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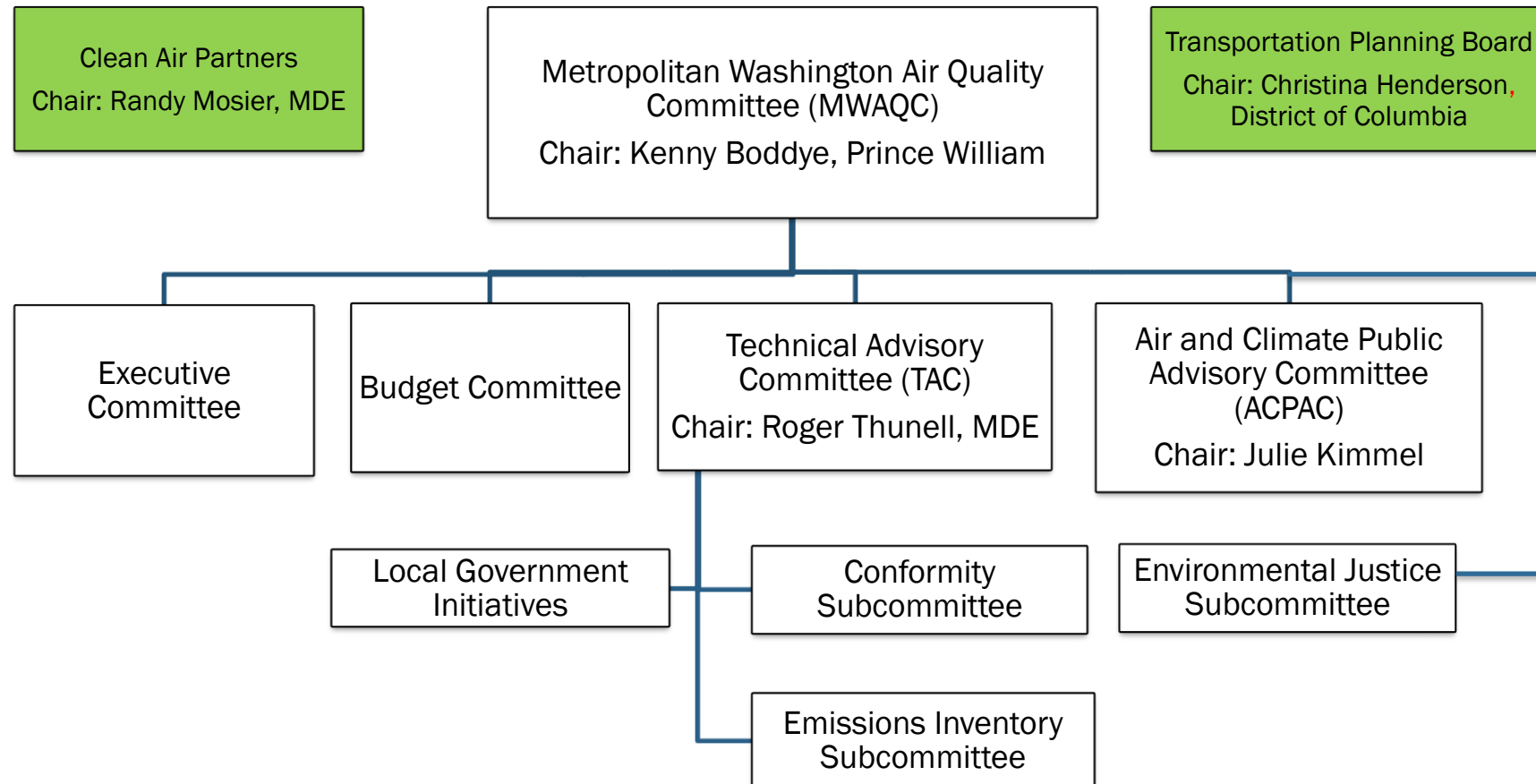
- Prepare/revise region-wide State Implementation Plans (SIP)
  - Demonstrate attainment of federal national ambient air quality standards (NAAQS) for criteria pollutants
  - Demonstrate rate of progress reducing criteria air pollutants
  - Include inventories & onroad mobile emission budgets
  - Provide 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

<b>District of Columbia (6)</b>	
Mayor (2), Council (2)	
District Department of Energy and Environment	
District Department of Transportation	
<b>Maryland (20)</b>	<b>Virginia (17)</b>
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	<b>Other (1)</b>
Maryland Department of Transportation	Transportation Planning Board Chair or Designee



# Organizational Structure



# MWAQC and State Air Quality Planning

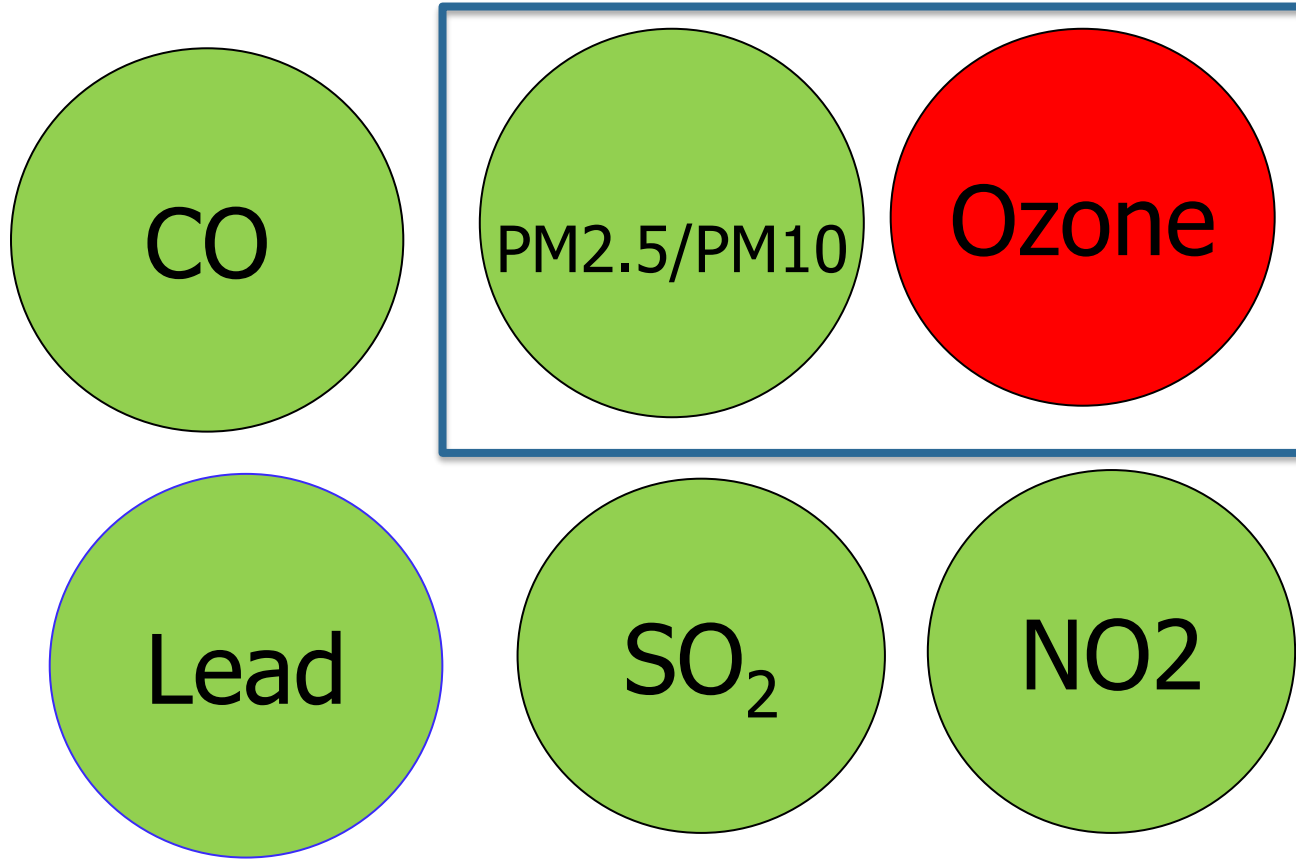
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- COG
  - MWAQC – Region-wide air quality planning
    - Develop regional air quality plans
    - Develop regional emissions inventories
    - Implement regional control measure programs
    - Coordinate with TPB on transportation conformity
    - 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.

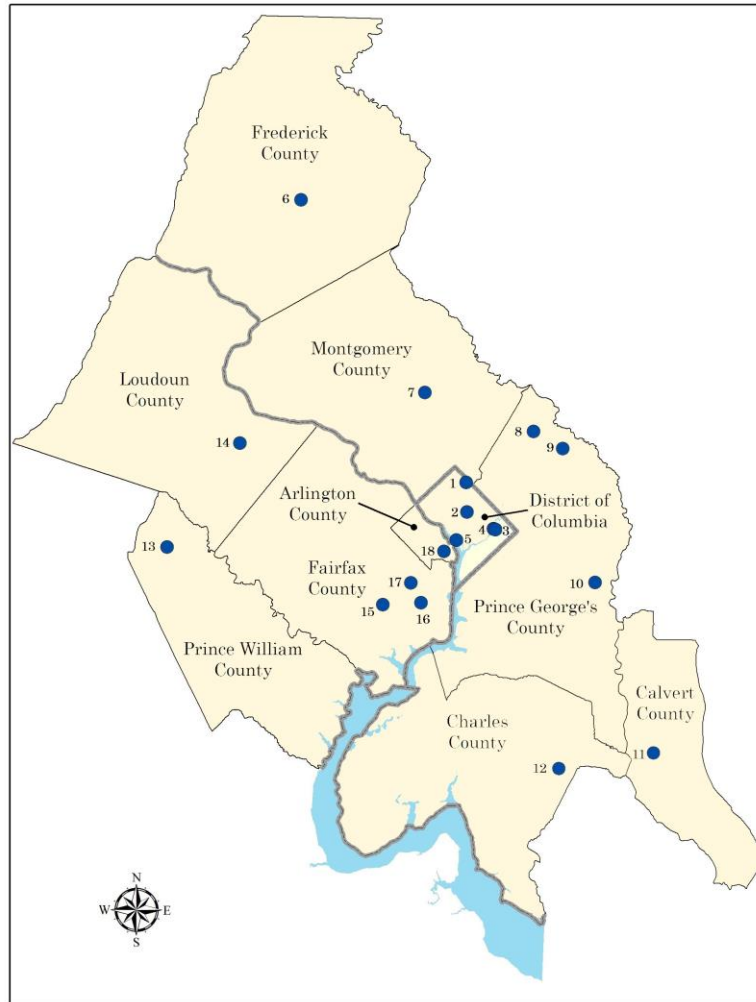


**Clean Air Act Amendments 1990**

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



# Air Quality Monitors



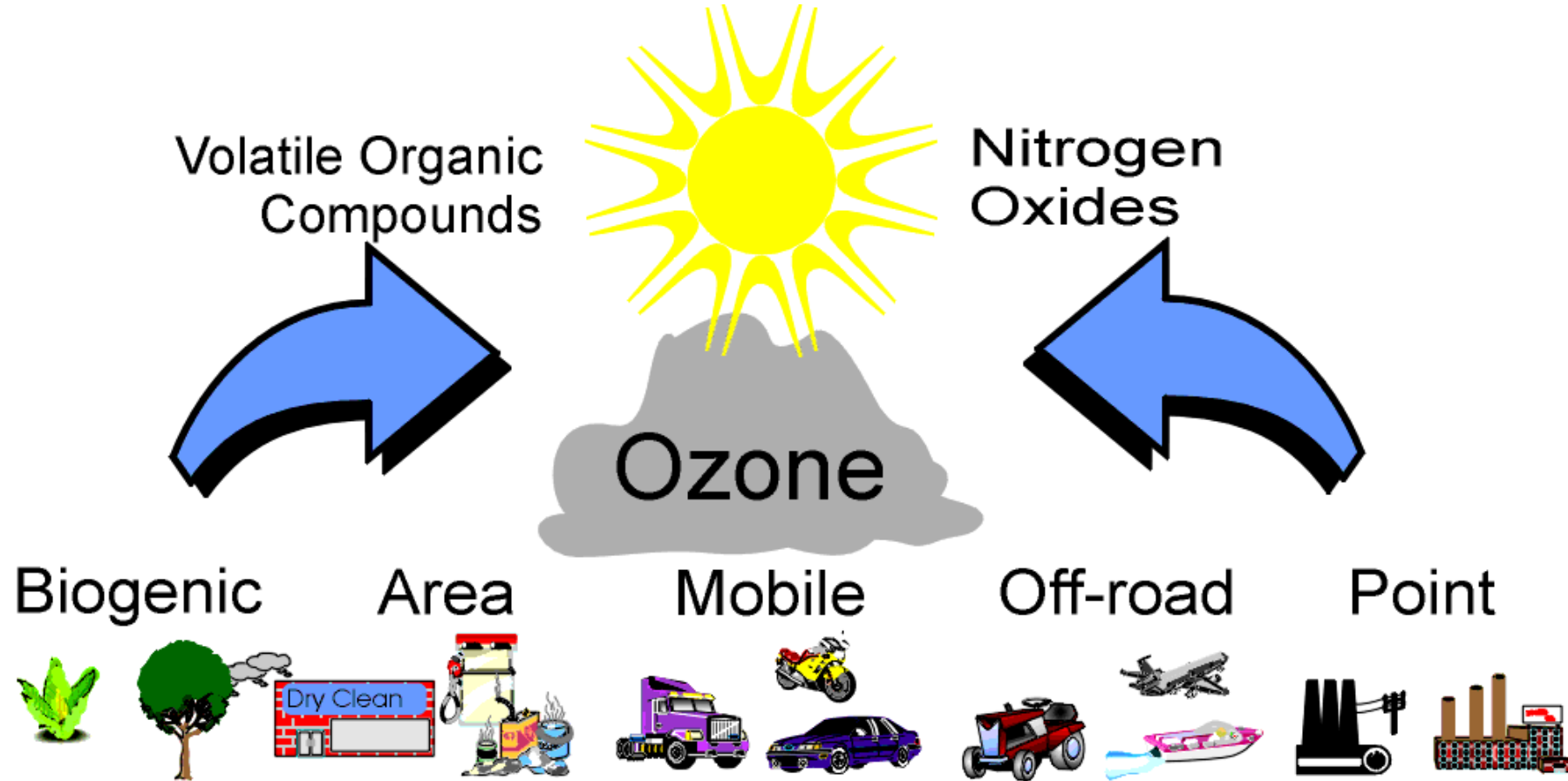
Monitor Name		Pollutants Currently Monitored					
		O <sub>3</sub>	PM <sub>2.5</sub>	PM <sub>10</sub>	CO	NO <sub>2</sub>	SO <sub>2</sub>
1.	Takoma Rec Center	•				•	
2.	McMillan NCore	•	•	•	•	•	•
3.	DC Near Road		•		•	•	
4.	River Terrace	•	•			•	
5.	King Greenleaf		•				
6.	Frederick Airport	•					
7.	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)

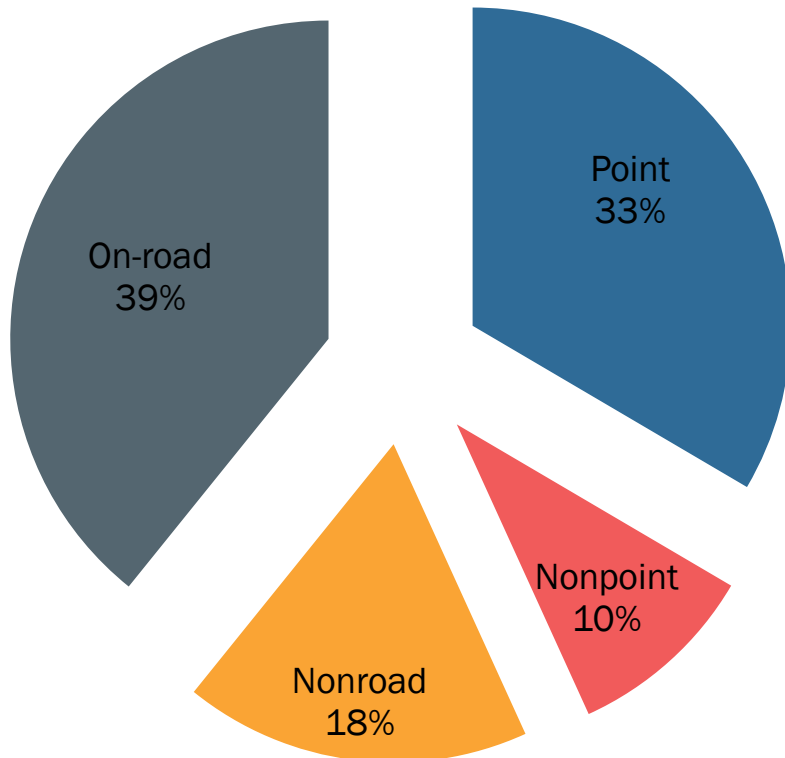
AQI Range	AQI Color	Health Descriptor
0- 50	GREEN	Good
51 - 100	YELLOW	Moderate
101 - 150	ORANGE	Unhealthy for Sensitive Groups
151 - 200	RED	Unhealthy
201 - 300	PURPLE	Very Unhealthy

# Ground-Level Ozone

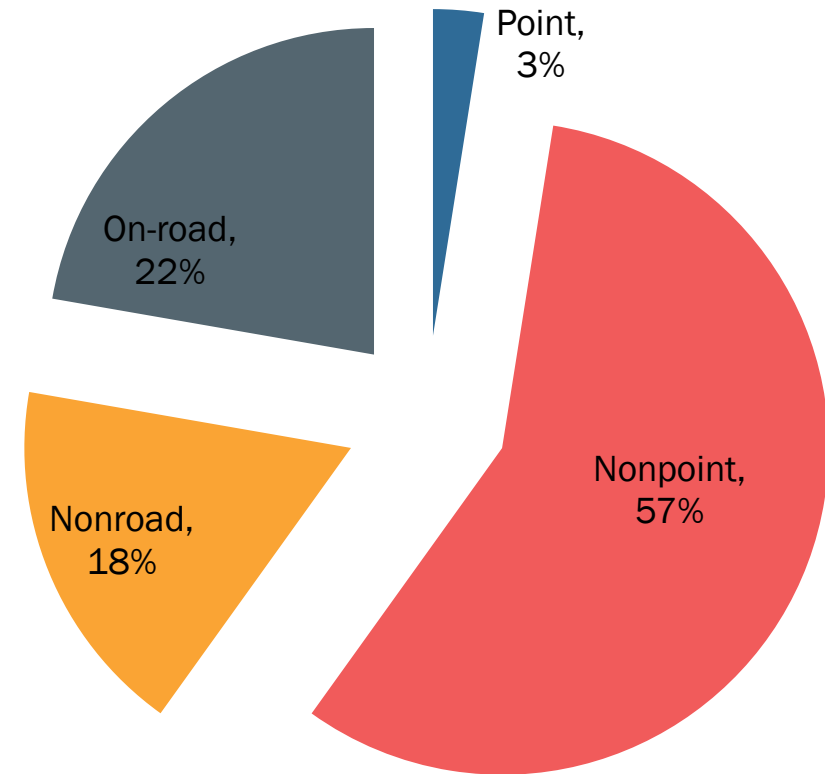


# Sources of Ozone Forming Emissions

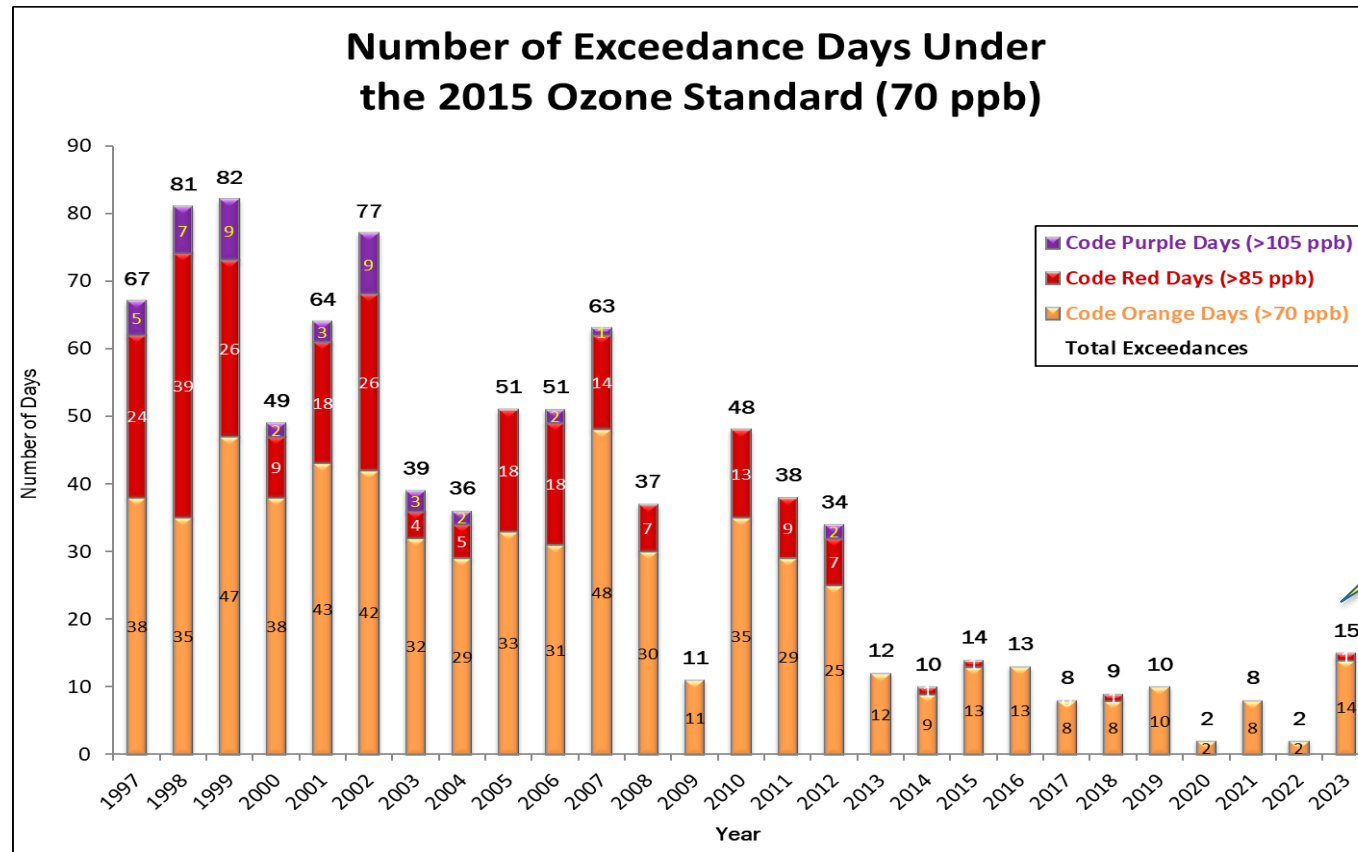
2017 **NO<sub>x</sub>** Emissions (tpd)  
(Washington DC-MD-VA 2015 Ozone NAAQS NAA)



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



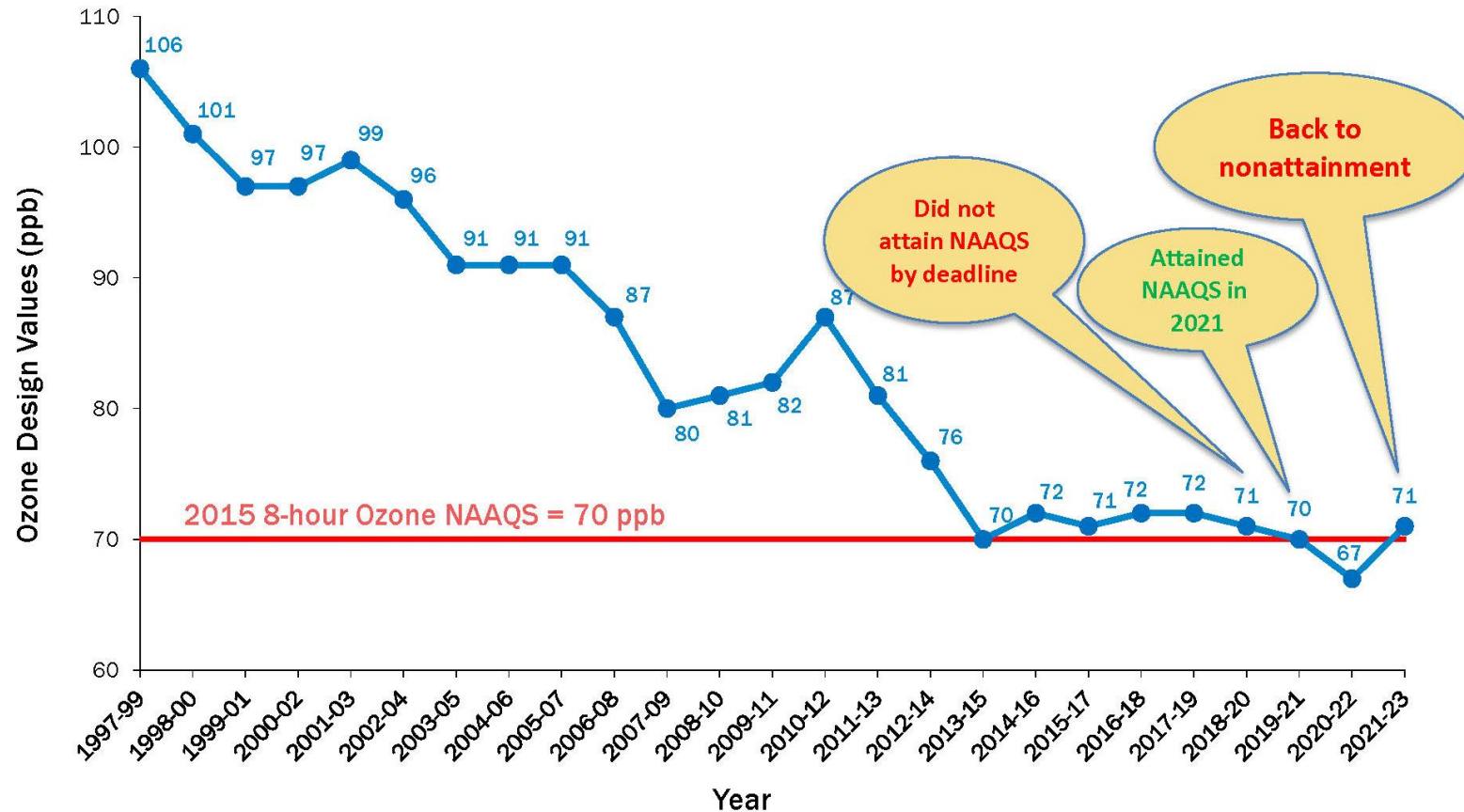
# Metropolitan Washington Ozone Standard Exceedance Trends



Wildfire smoke partly responsible for uptick

\* 2023 data is preliminary.

# Metropolitan Washington Ozone Design Value Trends



\* 2021-23 data is preliminary.



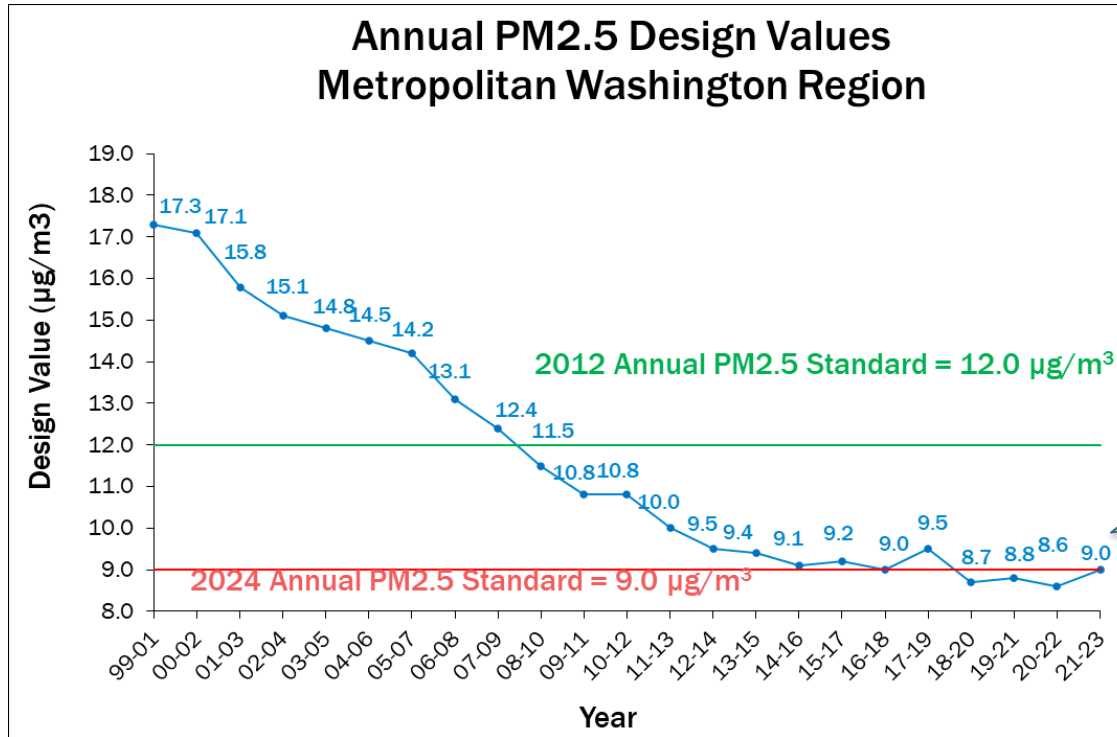
# Status - 2015 Ozone NAAQS Attainment

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- Washington DC-MD-VA marginal nonattainment area designation issued August 3, 2018
- Reclassified to moderate nonattainment area on November 7, 2022 following failure to attain by deadline
- Current draft 2023 data shows nonattainment largely due to smoke originating from wildfires in Canada (States requesting waiver for smoke influenced high ozone days)
- If waiver granted, then Redesignation Request & Maintenance Plan need to be submitted for redesignation to attainment/maintenance area

# Fine Particles (PM<sub>2.5</sub>)

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



New annual PM<sub>2.5</sub> standard (9.0 ug/m<sup>3</sup>) announced on February 7, 2024

Wildfire smoke partly responsible for uptick



# Air Quality Resources

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## 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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