

Air Quality Planning in Metropolitan Washington

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Metropolitan Washington Air Quality Committee
February 28, 2024

Agenda Item #7



Metropolitan Washington
Council of Governments

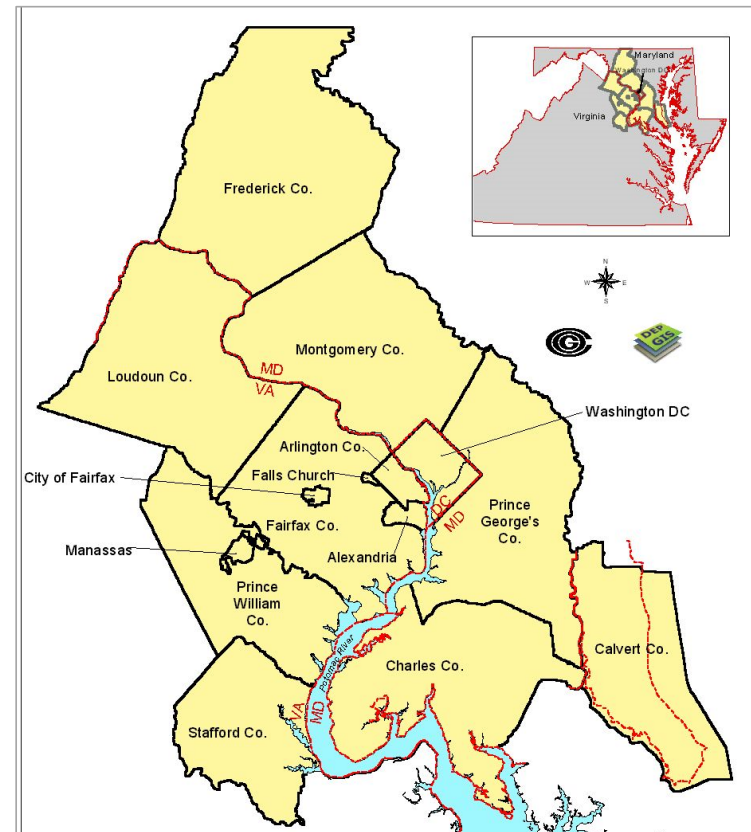
Clean Air Legislative History

- 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, SO_x, Pb
 - NAAQS, SIPs, NSPS, PSD, NESHAPs
 - Stationary and mobile source controls; interstate transport
 - Acid rain, toxics regulation
 - 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



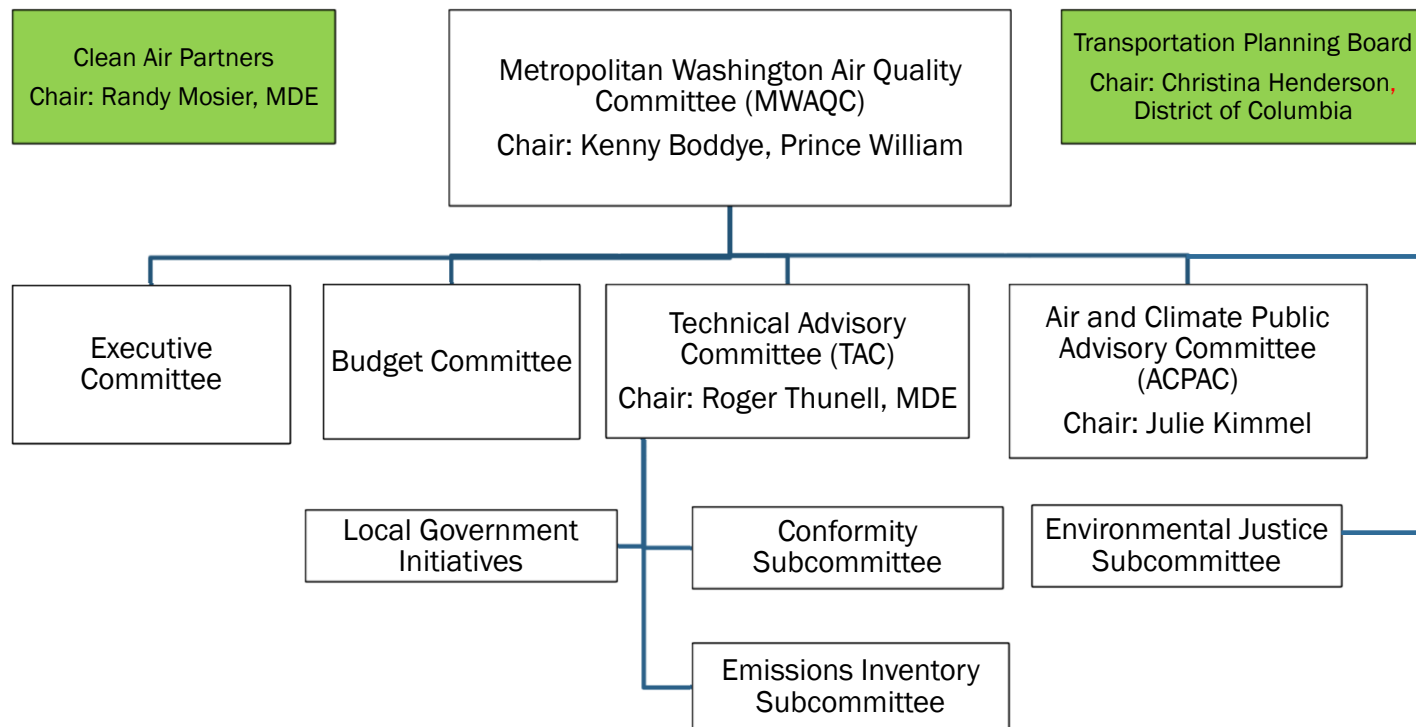
Role of MWAQC

- 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& 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



Air Quality Monitors



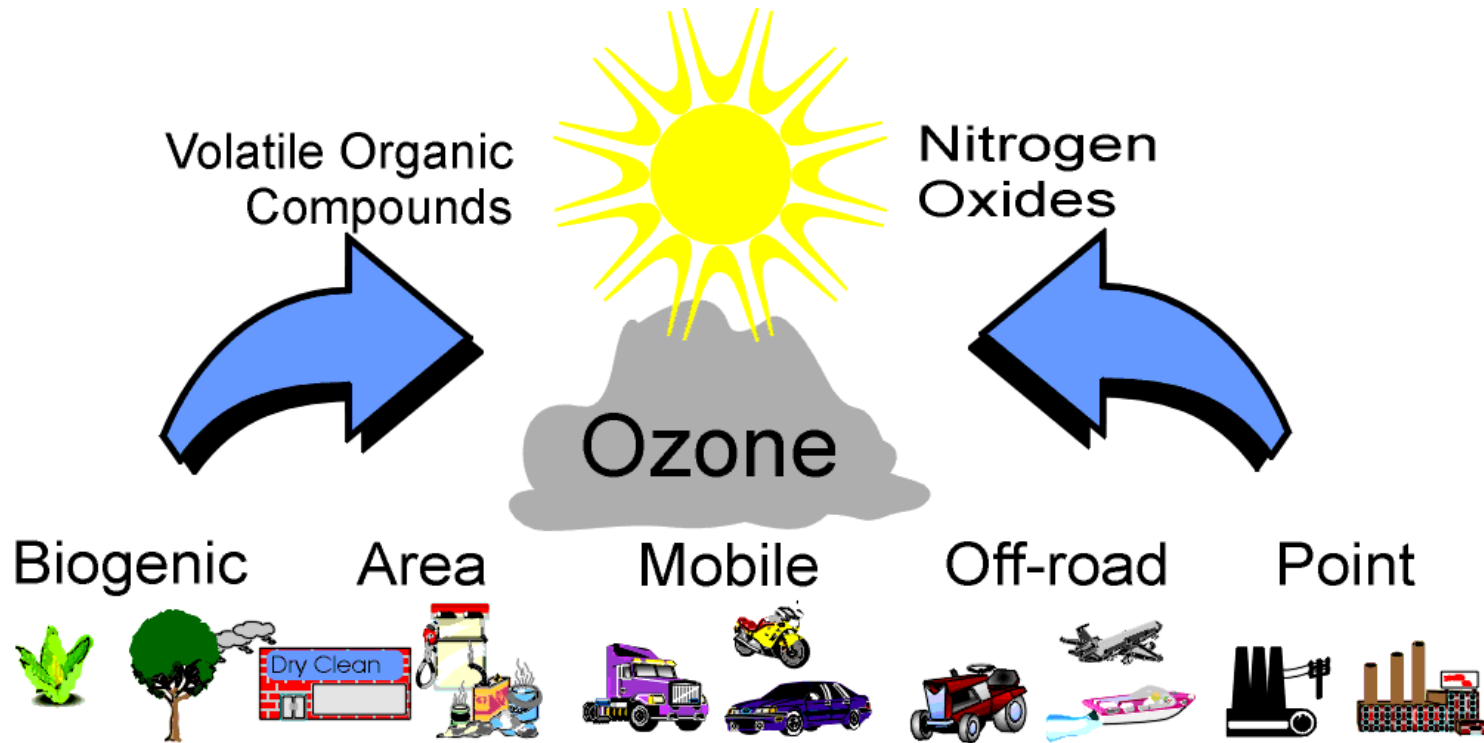
| Monitor Name | Pollutants Currently Monitored | | | | | |
|--|--------------------------------|-------------------|------------------|----|-----------------|-----------------|
| | O ₃ | PM _{2.5} | PM ₁₀ | CO | NO ₂ | SO ₂ |
| 1. Takoma Rec Center | • | | | | • | |
| 2. McMillan NCore | • | • | • | • | • | • |
| 3. DC Near Road | | • | | • | • | |
| 4. River Terrace | • | • | | | • | |
| 5. King Greenleaf | | • | | | | |
| 6. Frederick Airport | • | | | | | |
| 7. Rockville | • | • | | | | |
| 8. Beltsville (Howard University site) | • | • | • | • | • | • |
| 9. Beltsville | • | | | | | • |
| 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)

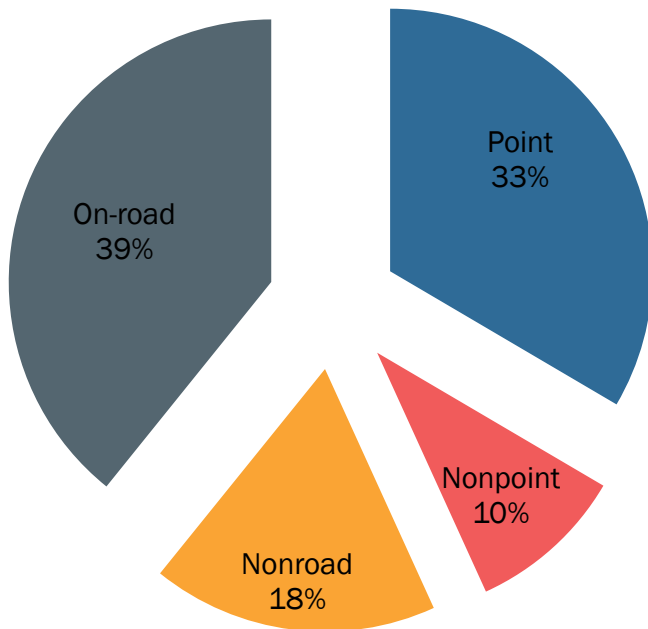
| AQI Range | AQI Color | Health Descriptor |
|-----------|-----------|--------------------------------|
| 0- 50 | GREEN | Good |
| 51 - 100 | YELLOW | Moderate |
| 101 - 150 | ORANGE | Unhealthy for Sensitive Groups |
| 151 - 200 | RED | Unhealthy |
| 201 - 300 | PURPLE | Very Unhealthy |

Ground-Level Ozone

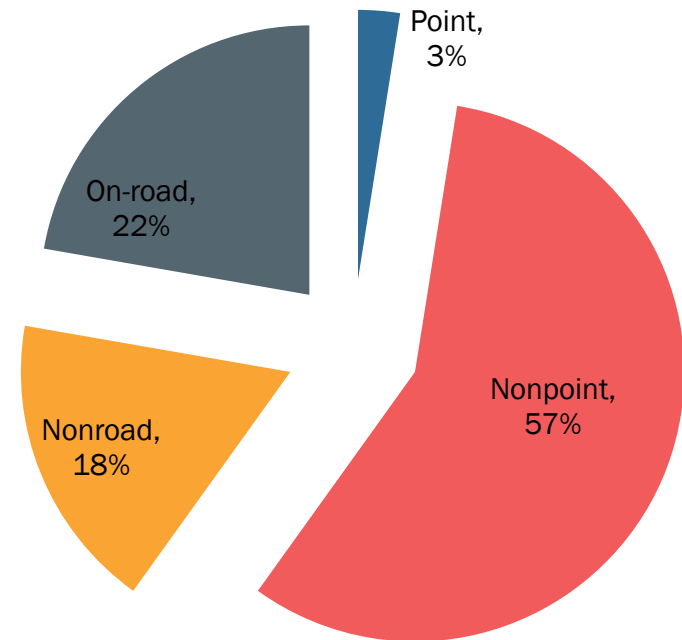


Sources of Ozone Forming Emissions

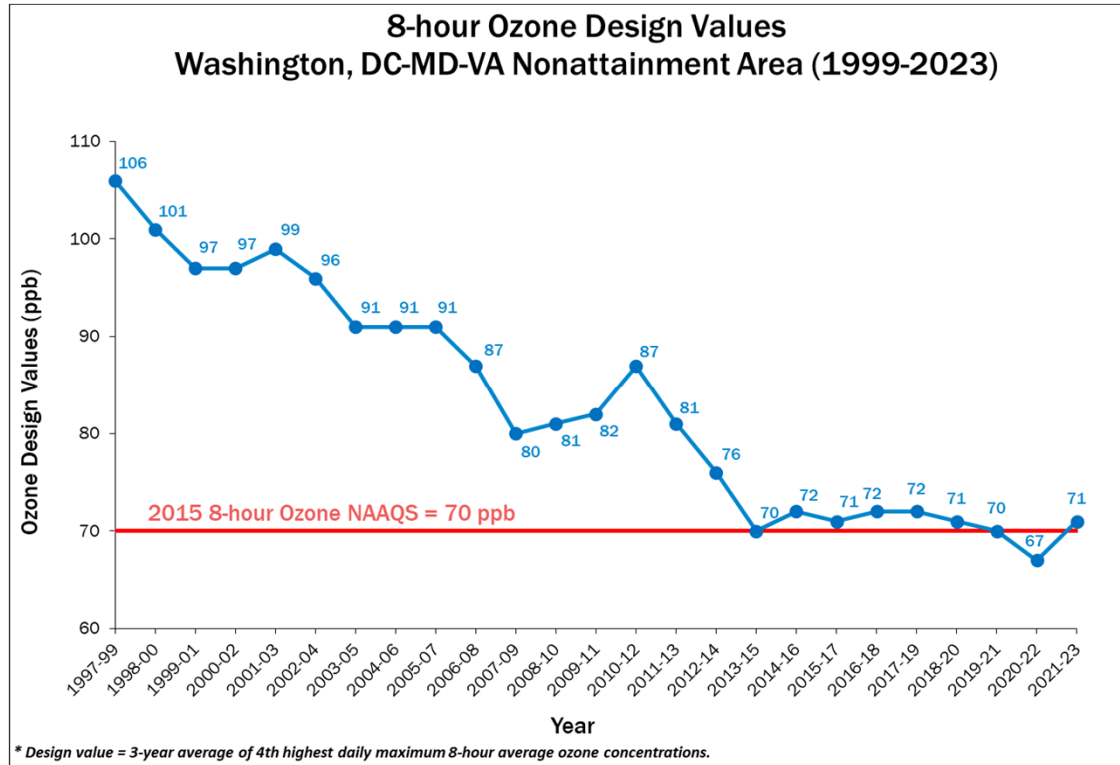
2017 **NO_x** Emissions (tpd)
(Washington DC-MD-VA 2015 Ozone NAAQS NAA)



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

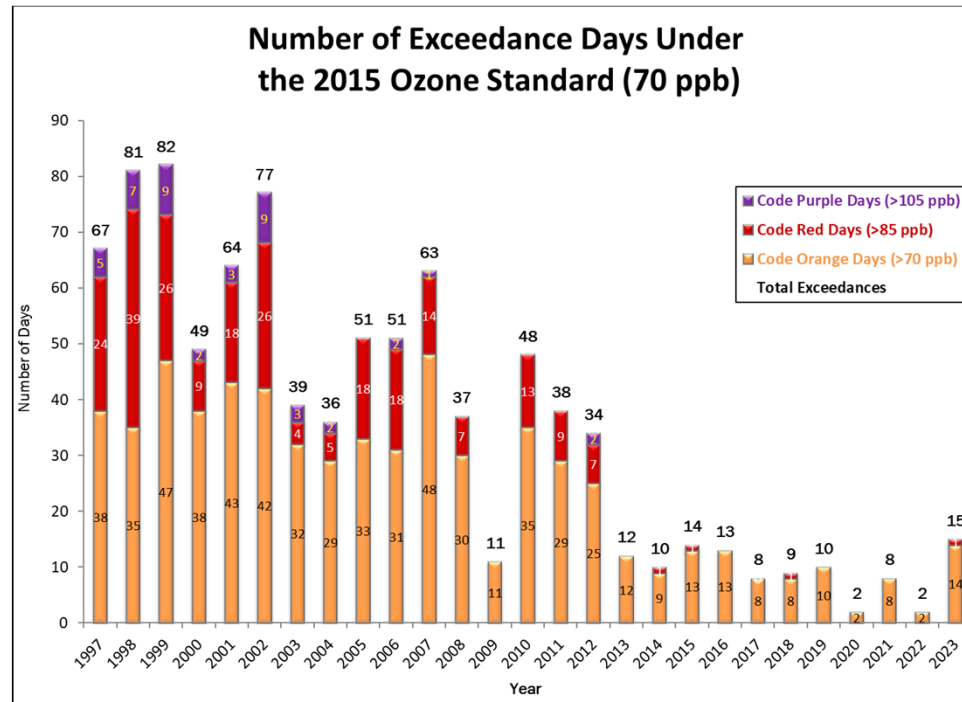


Metropolitan Washington Ozone Design Value Trends



2021-23 data is preliminary.

Metropolitan Washington Ozone Standard Exceedance Trends



* 2023 data is preliminary.

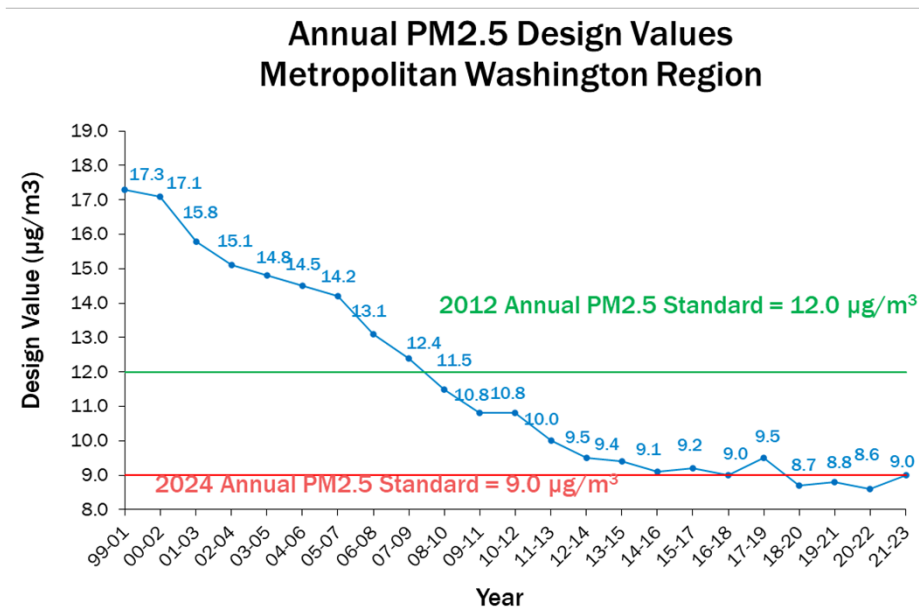


Status - 2015 Ozone NAAQS Attainment

- 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_{2.5})

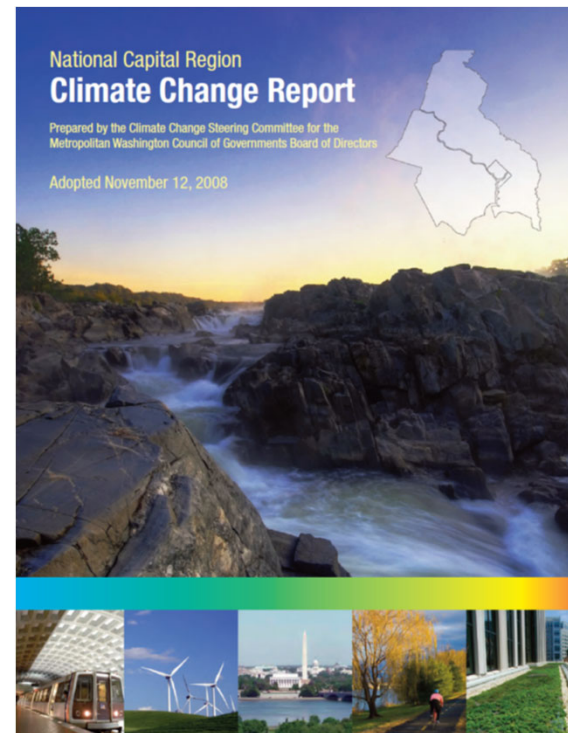
- Chemical, particulate matter or aerosol
- From combustion, cars & trucks, construction, power plants, industry
- Causes respiratory problems, impairs visibility
- COG/state forecasting & reporting



New annual PM_{2.5} standard (9.0 ug/m³) announced on February 7, 2024

Climate, Energy, Environment, & Policy Committee (CEEPC)

- Principal policy advisor on climate change, energy, green building, alternative fuels, solid waste & recycling issues.
- Help support area governments work together to meet the goals in the 2008 *National Capital Region Climate Change Report* and the 2030 *Climate and Energy Action Plan*.



Climate, Energy, Environment, & Policy Committee (CEEPC)

- 2030 Climate & Energy Action Plan
 - Reduce energy consumption
 - Increase share of renewables
 - Advance sustainable regional mobility
 - Increase sustainable urban development
 - Move towards zero waste
 - Build regional resilience
 - Protect equity & health
 - Grow the regional clean economy
- Activities
 - Built Environment & Energy Advisory Committee (BEEAC)
 - Regional Electric Vehicle Deployment Workgroup (REVD)
 - Regional Tree Canopy Subcommittee (RTCS)
 - Climate and Energy Action Plan support and Resource Guide
 - Climate and Energy Awards Program
 - Technical assistance and Grant support, Cooperative purchasing



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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