

AIR & CLIMATE PUBLIC ADVISORY COMMITTEE

Air Quality Planning in Metropolitan Washington

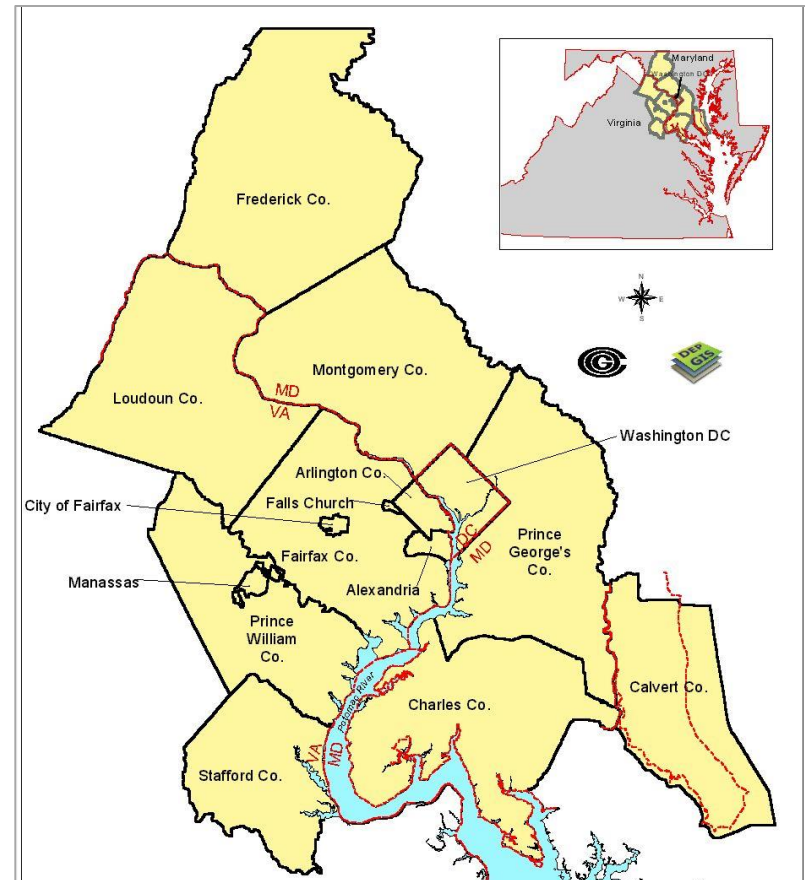
New Member Briefing

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
 - NAAQS, SIP, NSPS, PSD, NESHAPs
 - Stationary and mobile source controls; interstate pollution 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

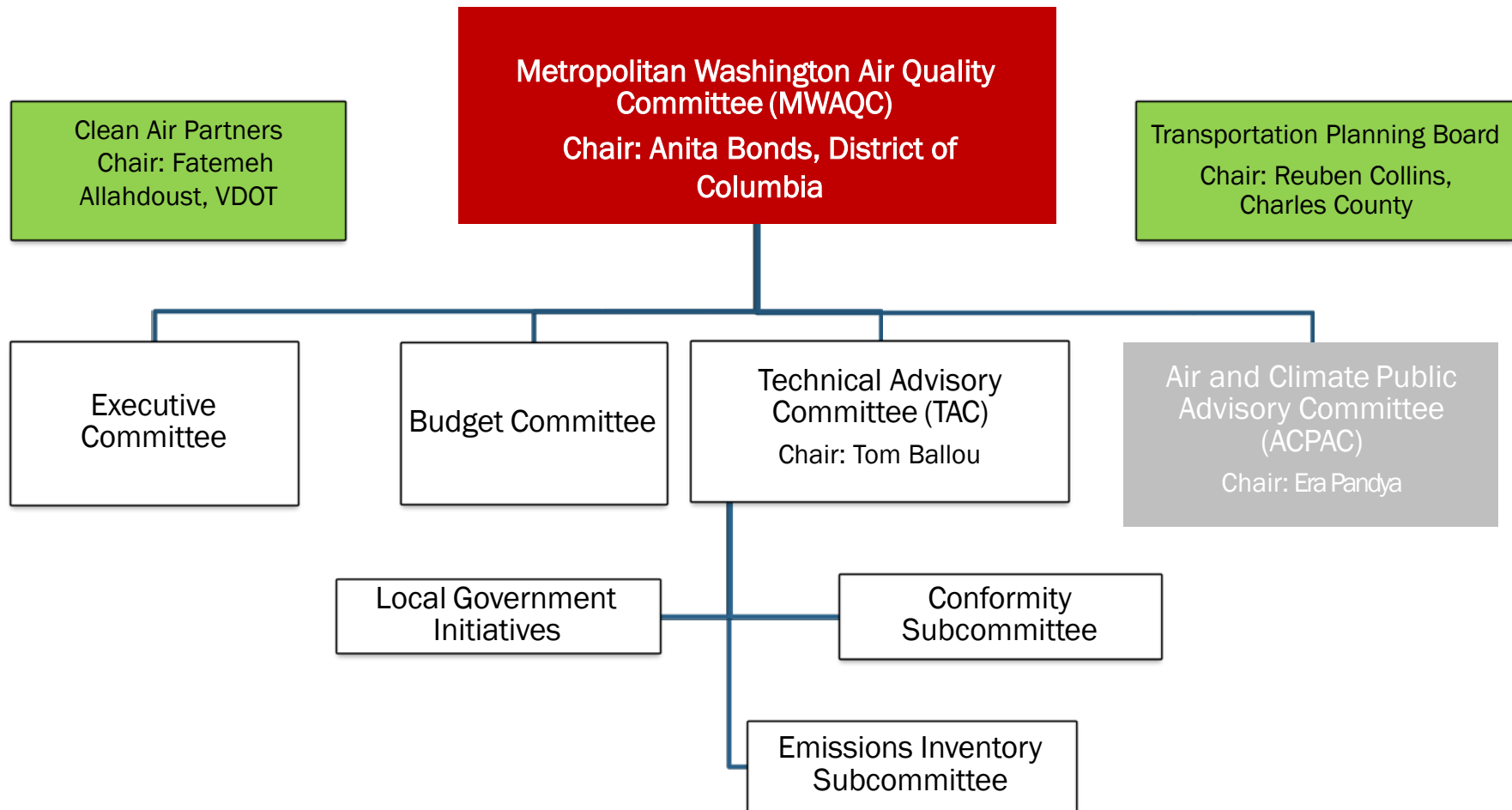
- Prepare/revise region-wide State Implementation Plans (SIP)
 - Demonstrate attainment of federal national ambient air quality standards (NAAQS) for criteria pollutants (Ozone & Fine Particles)
 - Demonstrate rate of progress reducing criteria air pollutants
 - Include inventories & emission budgets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



MWAQC Organizational Structure

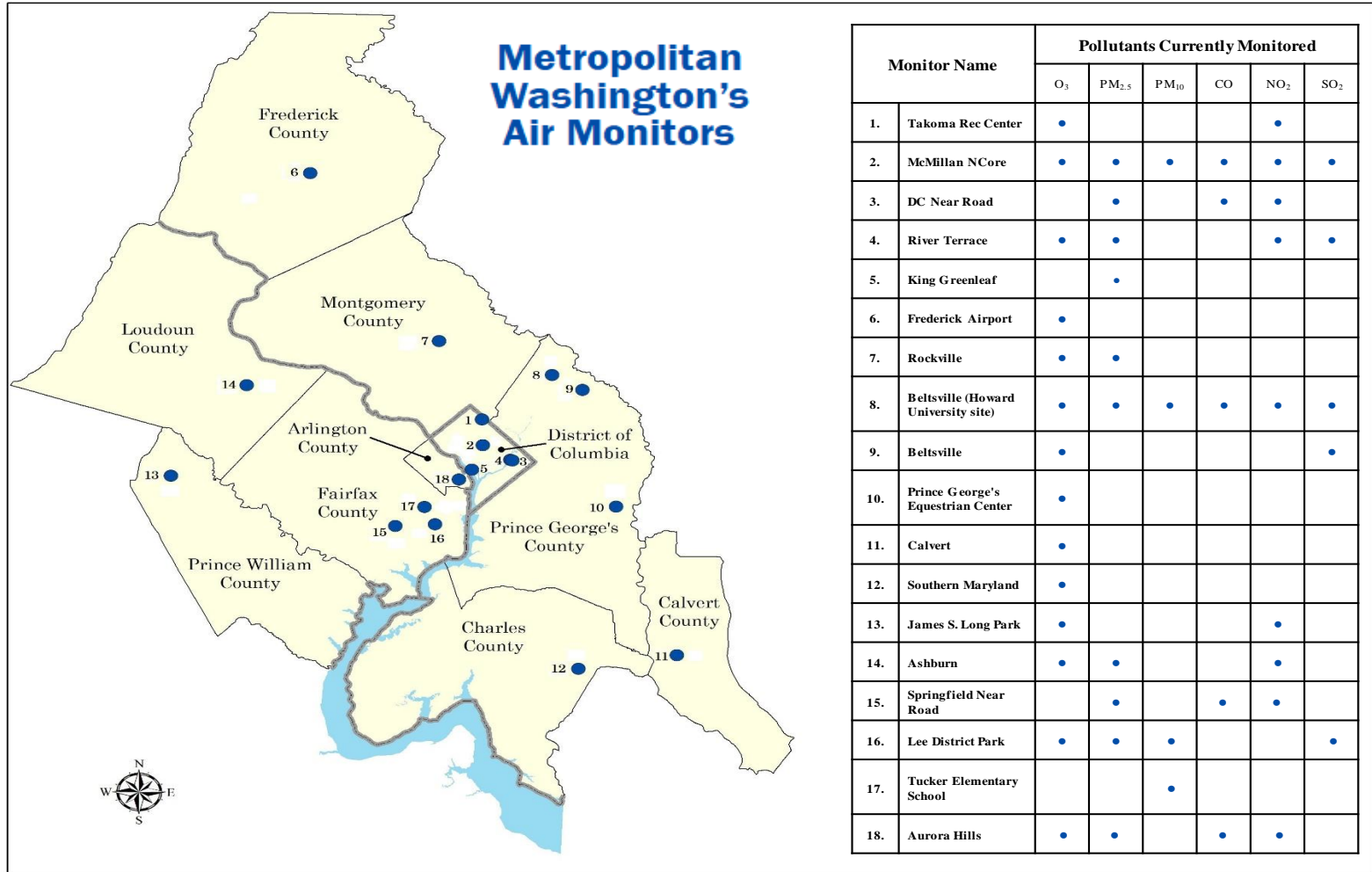


MWAQC and State Air Quality Planning

- 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



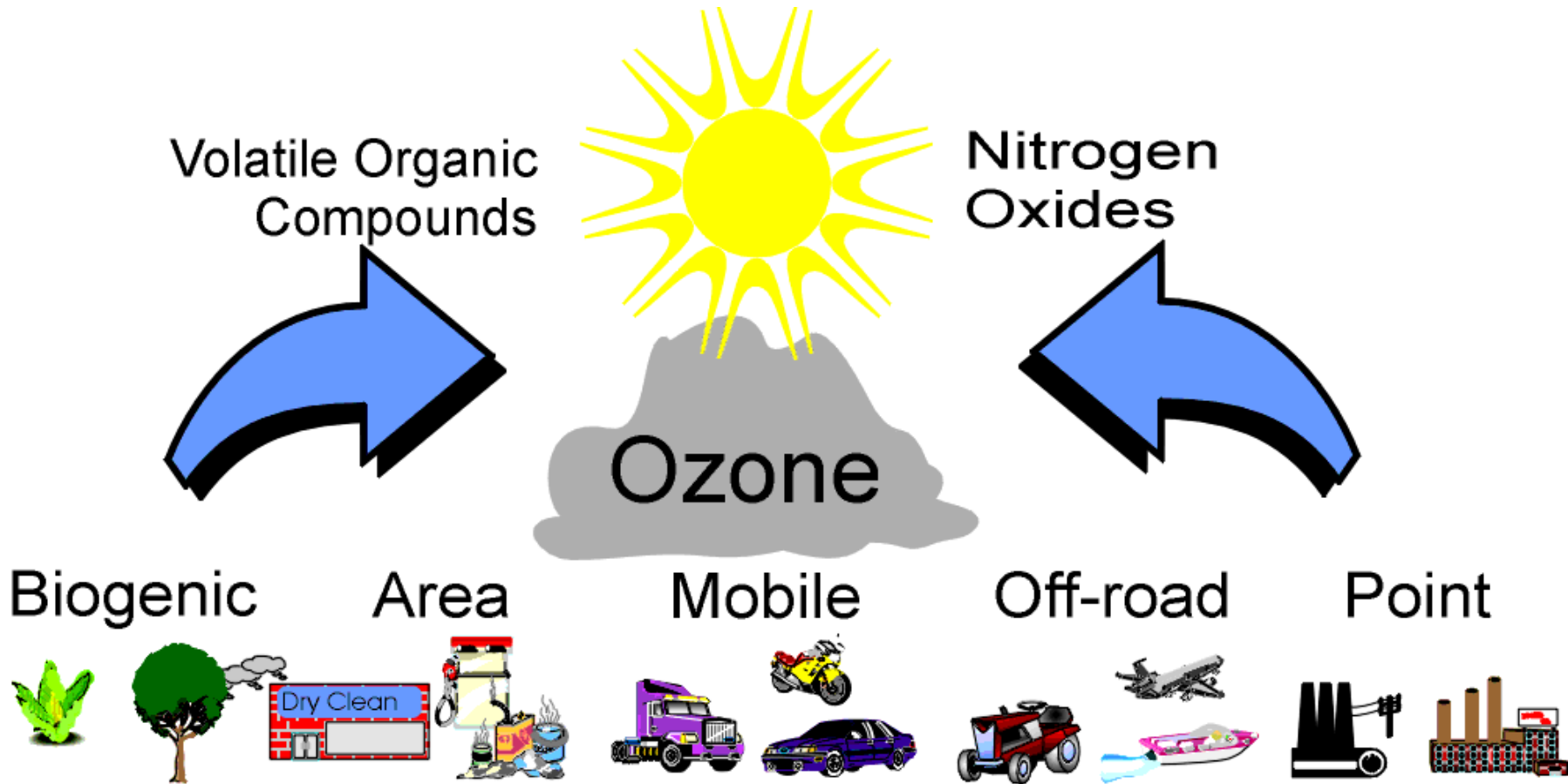
Monitors



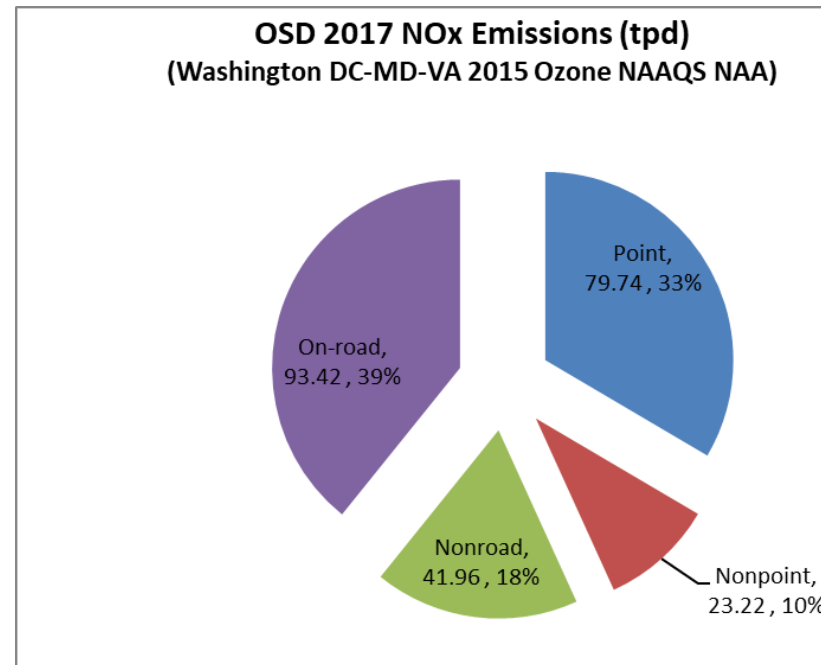
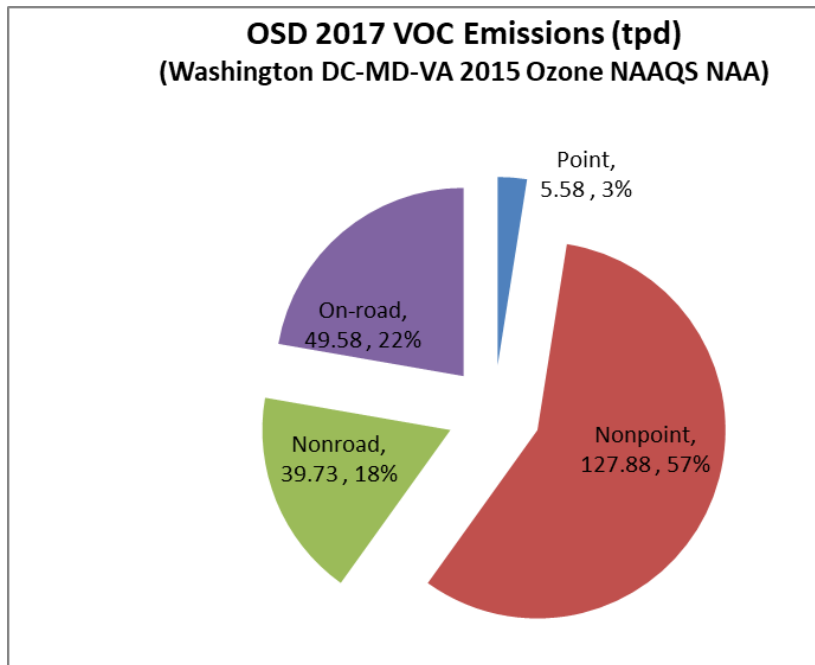
The Air Quality Index (AQI)

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

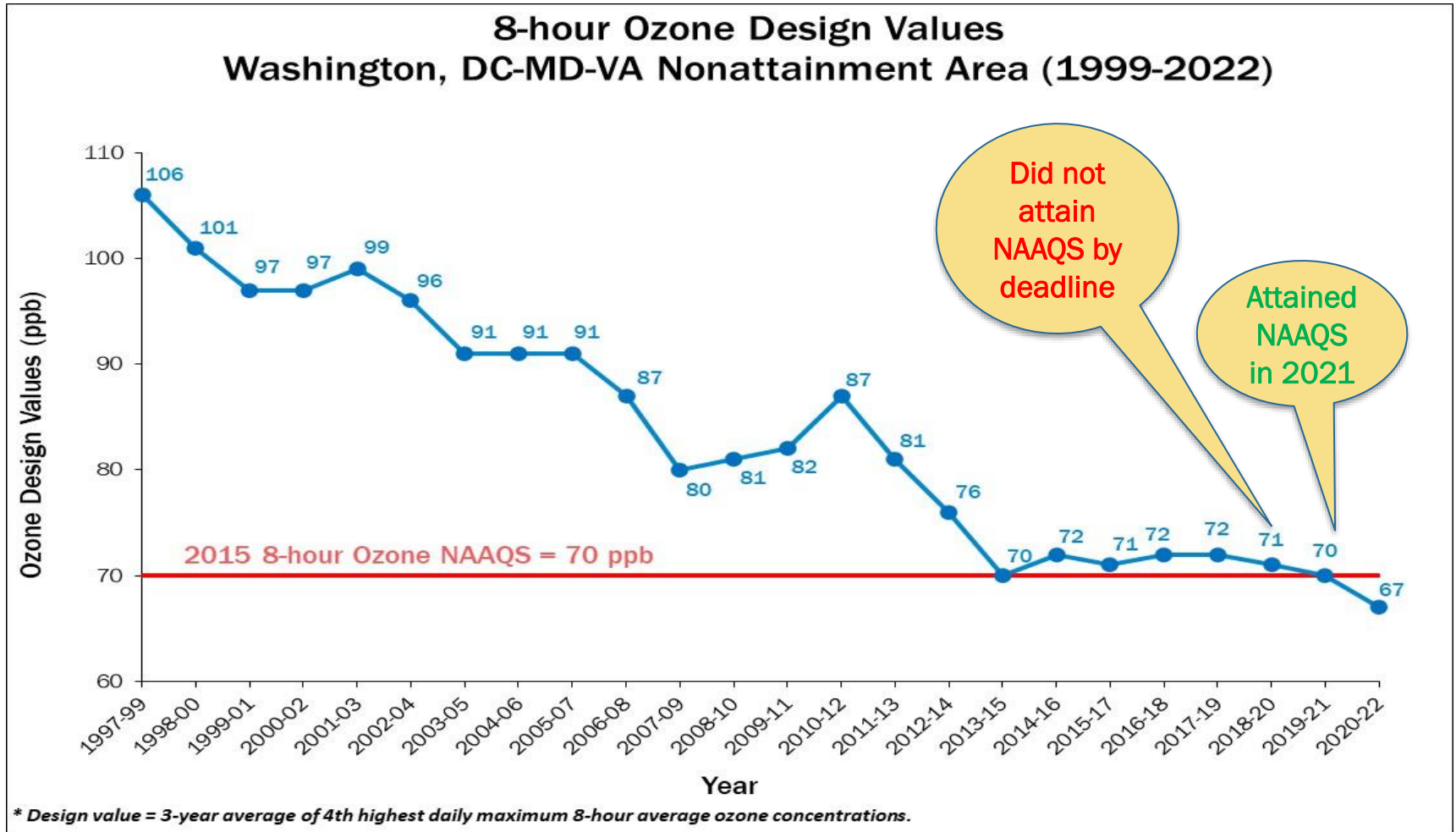


Sources of Ozone Forming Emissions



Source: Base Year 2017 Emissions Inventory

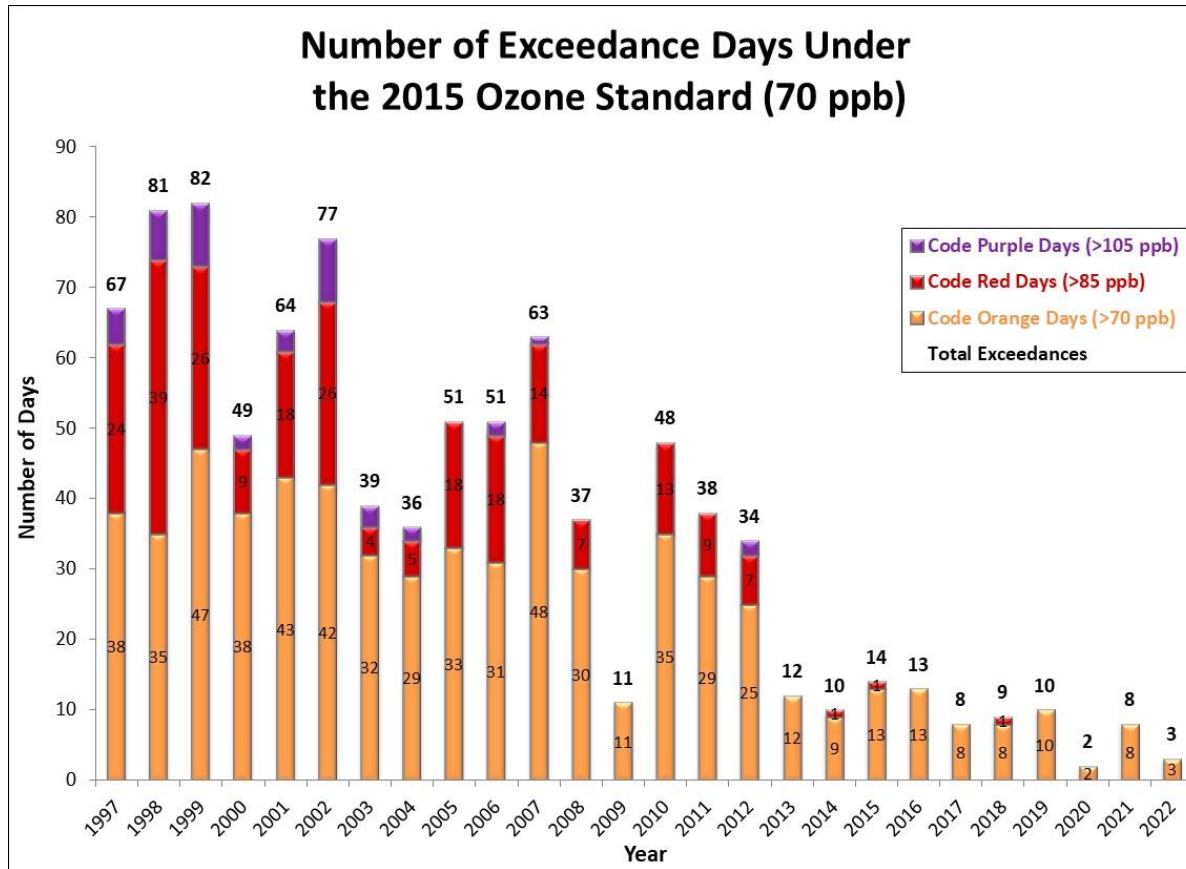
Metropolitan Washington Ozone Trends



* 2022 data is draft.

Metropolitan Washington Ozone Trends

- Striving for no unhealthy air days



* 2022 data is draft.

Current Air Quality Planning Efforts

- Two ozone plans
 - Currently underway – Update of 2008 ozone NAAQS maintenance plan
 - Planned to be undertaken shortly (End of 2023) – 2015 ozone NAAQS maintenance plan

2008 Ozone NAAQS Maintenance Plan Update

- Washington region is currently working on updating its 2008 Ozone Standard Maintenance Plan.
- MVEBs (motor vehicle emissions budgets) are emissions limits set in an air quality plan and vehicle emissions are expected to be below those limits in the future. Current MVEBs in the above plan were developed using MOVES2014a model, which has since been replaced by EPA with a new MOVES3 model. MOVES3 emissions estimates are much higher compared to MOVES2014a. As a result, future mobile NO_x emissions estimates could go above MVEBs resulting in a failure to demonstrate conformity with the 2008 ozone standard.

2008 Ozone NAAQS Maintenance Plan Update

- For this reason, motor vehicle emissions inventories and MVEBs are being updated for years 2025 and 2030. This will allow the Washington region to successfully demonstrate conformity in the upcoming analyses.
- No changes are expected to be made to inventories for other sources (point, nonpoint, and marine, airport, and railroad). States and MWAQC staff are coordinating with EPA on this.
- MWAQC will be requested to approve the updated draft maintenance plan document on its May 24th meeting for public hearing and comment purposes.

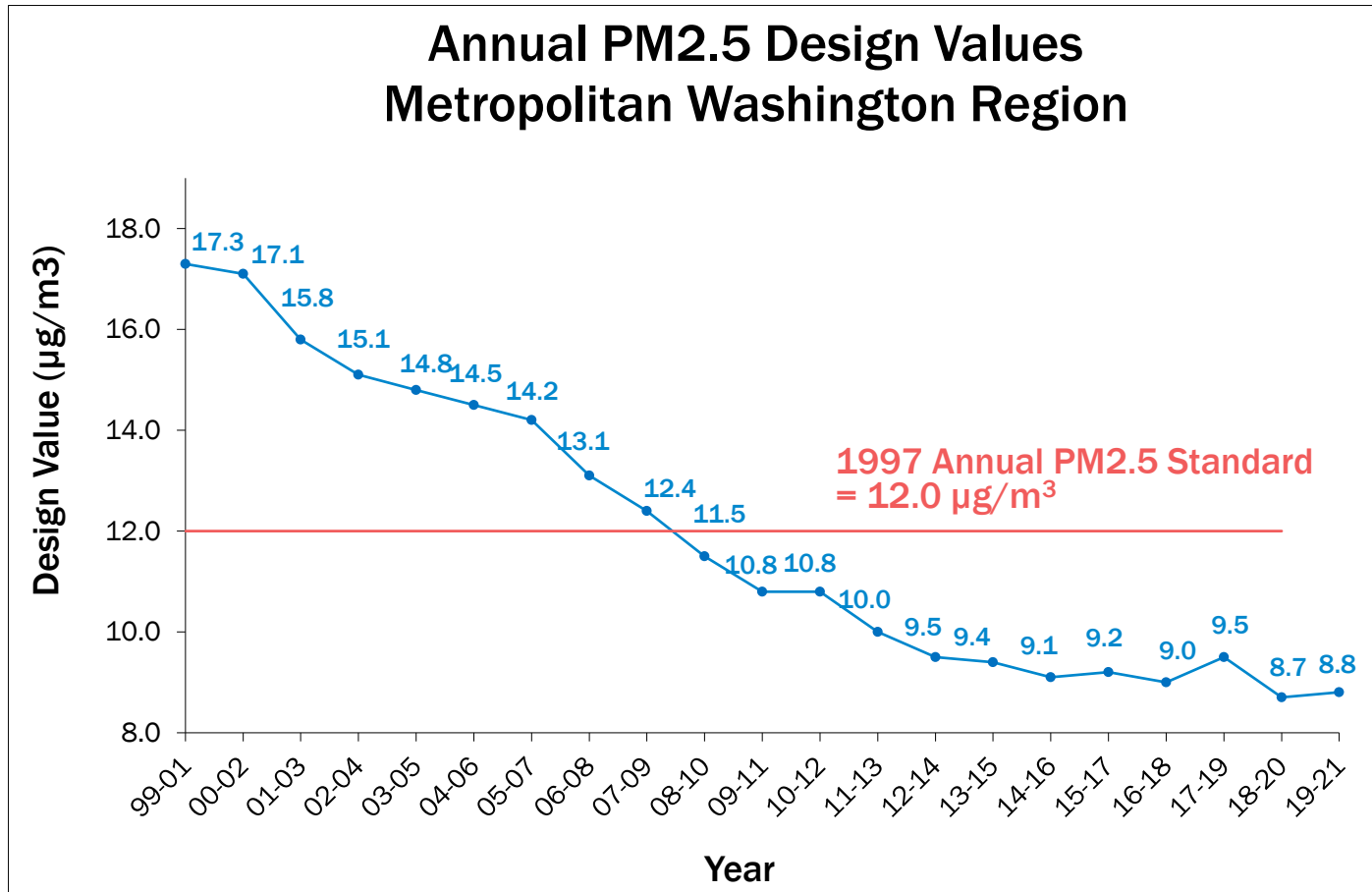
2015 Ozone NAAQS Maintenance Plan

- The Washington region's 2021 and 2022 data shows compliance with the 2015 ozone standard.
- EPA proposed clean data determination (CDD) on February 1, 2023.
- CDD allows the region to submit a redesignation request for attainment.
- The region will begin developing a maintenance plan later this year.
- The 2015 ozone standard maintenance plan will provide the region with a new set of MVEBs applicable to the above standard and closes the book on this standard.

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
- Region is in attainment of both daily and annual standards
- EPA recently proposed to revise the primary annual standard for PM_{2.5} from 12 µg/m³ to within the range of 9 – 10 µg/m³.
 - EPA is soliciting comment on revising the level as low as 8.0 µg/m³ and up to 11.0 µg/m³.

Fine Particles (PM_{2.5})



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/2017/09/27/air-quality-trends-air-quality-air-quality-data/>

Current Air Quality Data & Forecasts

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

Historical Air Quality Data

- <https://www.cleanairpartners.net/historical-air-quality>

Download the free Air Quality App and Sign Up for EnviroFlash

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

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Metropolitan Washington
Council of Governments