

AIR QUALITY IN TRANSPORTATION PLANNING

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Metropolitan Washington Air Quality Committee
February 27, 2019

Agenda Item # 4



National Capital Region
Transportation Planning Board

Presentation Outline

- About TPB
- TPB and Air Quality Planning

MWAQC

- State Implementation Plan(s)
- Transportation Air Quality Conformity
- Technical Consultation / Coordination

CEEPC

- Climate Change Goals
- CEEPC Action Plan

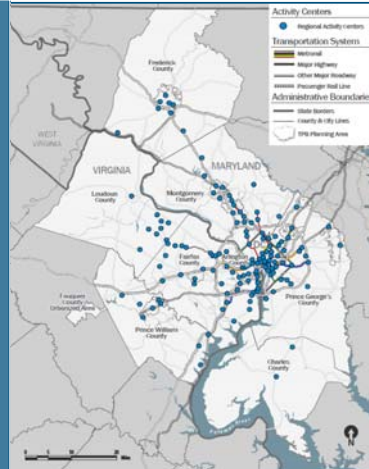


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TPB Planning Area

- Federally designated Metropolitan Planning Organization (MPO) for the Washington region
- District of Columbia, Northern Virginia, Suburban Maryland
 - 24 local jurisdictions and WMATA
 - 3,500 sq.mi. (Core/IS/OS)
 - 5.7M people / 3.3M jobs
 - 141 Activity Centers
- 45 members (Voting-39, Ex-Officio-6)
- Funded by Feds (80%), State (10%), Localities (10%)

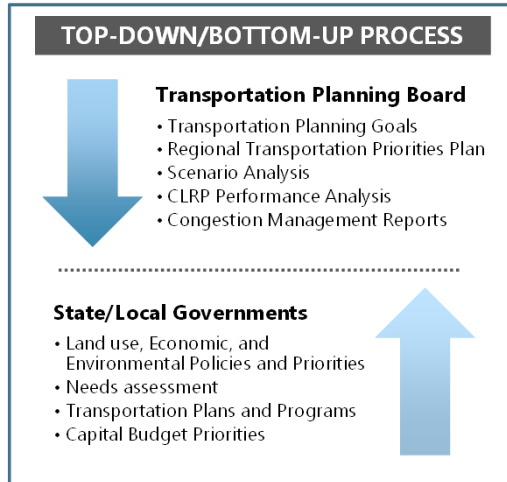


Federal Mandates for MPOs

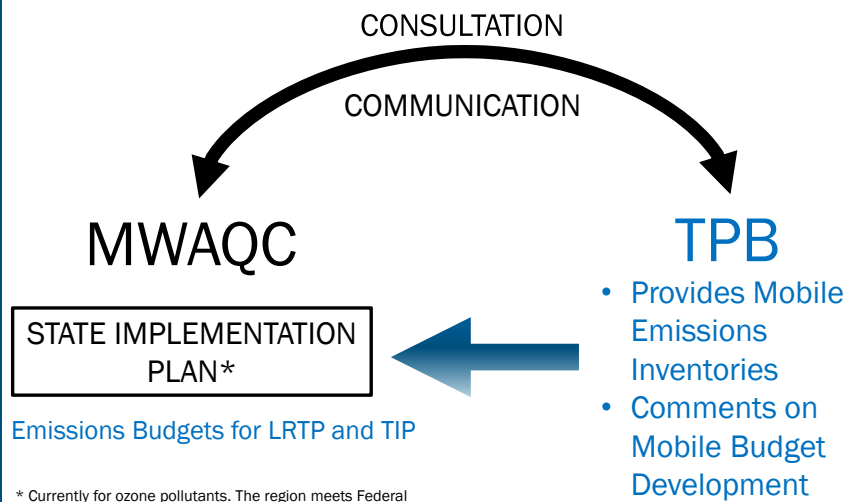
- Carry out a “continuing, cooperative, comprehensive” planning process among local, state, regional, and federal transportation partners
- Develop and approve a financially constrained Long-Range Transportation Plan (LRTP) and six-year Transportation Improvement Program (TIP)
- Collect and report data about the regional transportation system related to congestion mitigation, air quality, safety, freight, and more
- In Non-Attainment or Maintenance areas:
 - Coordinate the development of the Long Range Transportation Plan with the State Implementation Plan (SIP) development process
 - Approve only those transportation plans or programs which conform with the SIP and/or develop transportation control measures for the SIP, as needed



TPB Process



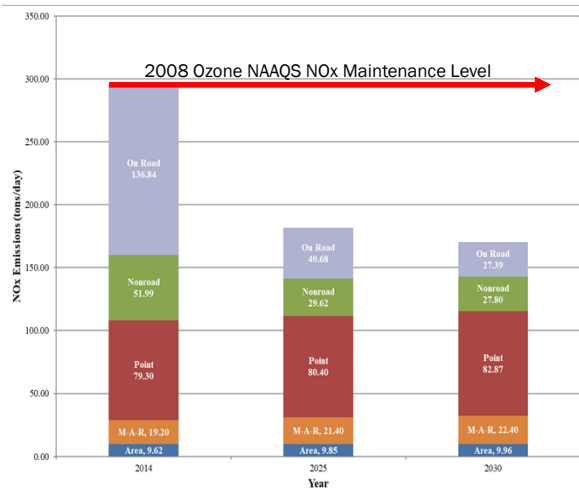
State Implementation Plans



* Currently for ozone pollutants. The region meets Federal Standards for the remaining five criteria pollutants



State Implementation Plans: NOx



Source: MWCOG 2008 Ozone NAAQS Maintenance Plan: NOx Emissions for all sectors

- Nitrogen oxide (NOx) emissions inventories from all sectors
- On Road inventories are used to establish mobile budgets for the transportation sector
- Only the transportation sector is required to develop future plans and conform to emissions budgets

NOTE: M-A-R = marine, air, rail



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State Implementation Plans: VOC



Source: MWCOG 2008 Ozone NAAQS Maintenance Plan: VOC Emissions for all sectors

- Volatile Organic Compounds (VOC) emissions inventories from all sectors
- On Road inventories are used to establish mobile budgets for the transportation sector
- Only the transportation sector is required to develop future plans and conform to emissions budgets

NOTE: M-A-R = marine, air, rail

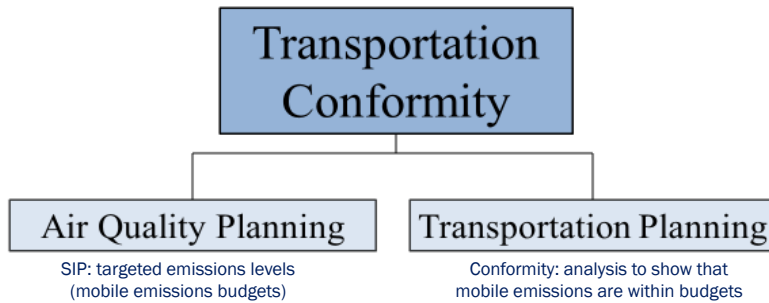


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Transportation Air Quality Conformity

Transportation Conformity: A link between
Air Quality and Transportation Planning

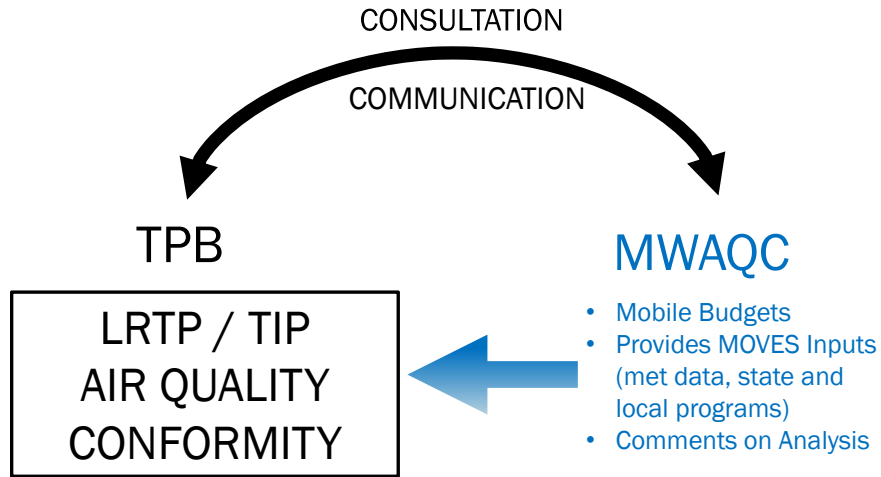


Transportation Air Quality Conformity

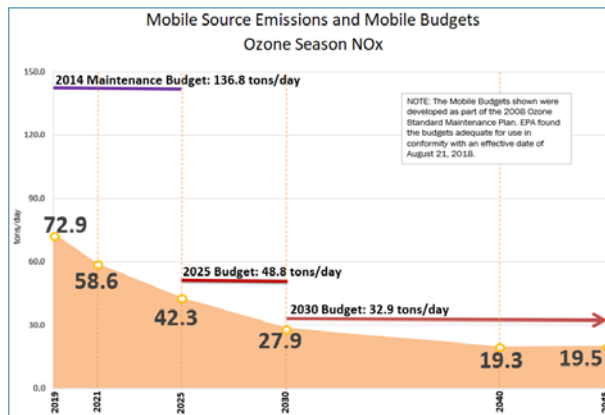
- Required by Clean Air Act (CAA) Section 176(c)
- Requires evaluation of emissions from fiscally constrained long range transportation plans (LRTP), transportation improvement programs (TIP), and projects before they are federally funded or approved
- Ensures that Federal (FHWA/FTA) funding and approval are given to transportation (transit/highway) activities that are consistent with air quality plans



Transportation Air Quality Conformity



Air Quality Conformity: LRTP and TIP



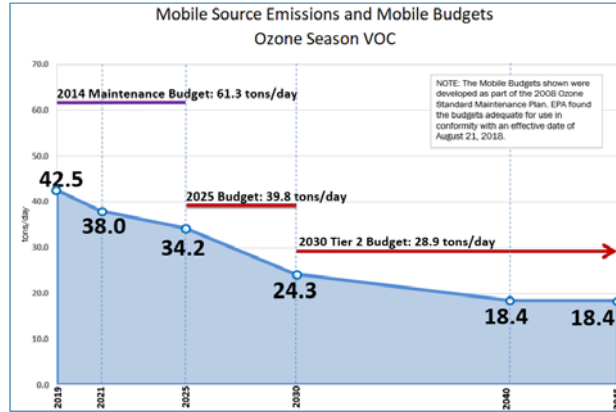
MWAQC develops mobile budgets

TPB analyzes LRTP and TIP to demonstrate adherence to mobile budgets

Current LRTP is called **Visualize 2045**

- TPB adoption- Oct 2018
- Federal approval- Dec 2018

Air Quality Conformity: LRTP and TIP



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Source: Visualize 2045 Air Quality Conformity Analysis

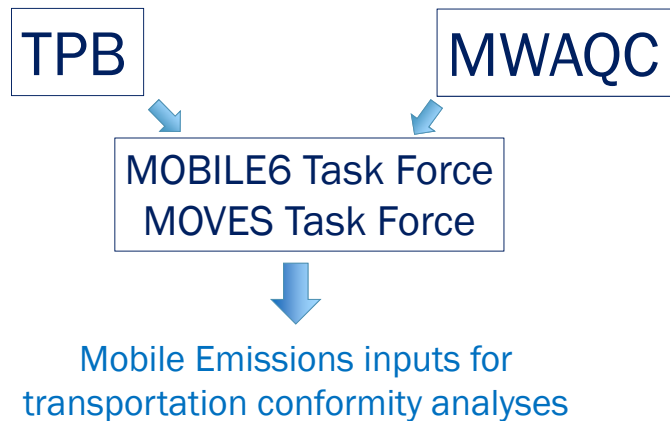


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Technical Consultation: Emissions Model

TPB and MWAQC Work Together to Define Inputs for EPA's Mobile Emissions Model



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Consultation: Transportation and Air Quality

TPB

- Updates to latest planning assumptions (land activity, vehicle fleet data, transportation projects, etc.)
- Air Quality Conformity Results
- Monthly Consultation Mailout (announcing updates to Transportation Plan, TIP, or Conformity)
- TCMs/TERMs (projects, programs, benefits, etc.)
- Public Comment Opportunities



MWAQC

- Mobile Budget Development
- Regional Monitor Data
- NAAQS Implications / Requirements
- State and Local Measures
- Public Comment Opportunities



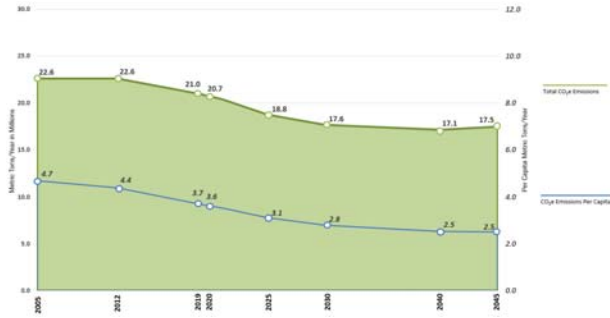
TPB And COG-CEEPC: Climate Change

- 2008 COG Climate Change Report
- 2009 COG establishes CEEPC
- 2010 TPB conducts What Would it Take analysis
TPB begins documenting Greenhouse Gas (GHG) levels in LRTP and TIP
- 2012 TPB begins to provide estimates of GHG from mobile sector at local levels
- 2017 TPB/MWAQC/CEEPC Multi Sector Working Group (Identify strategies to reduce GHGs- including mobile sector)
Joint TPB/MWAQC/CEEPC letter on EPA's reconsideration of GHG standards for light duty vehicles
- 2018 Joint TPB/MWAQC/CEEPC letter on SAFE Rule



Greenhouse Gases: LRTP and TIP

Visualize 2045
Greenhouse Gas
Mobile Source Emissions
CO₂ and CO₂ e Per Capita



- Since 2010 the TPB has reported mobile source greenhouse gas emissions in the long range transportation plan

Source: Visualize 2045 Air Quality Conformity Analysis



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