2008 OZONE NAAQS MAINTENANCE PLAN UPDATE

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Agenda Item 5

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Background

- Washington region is submitting the revision to the 2008 ozone NAAQS maintenance plan in order to have updated motor vehicle emissions budgets (MVEBs) developed using EPA's latest onroad vehicle emission model (MOVES3.0.4). Old MVEBs were developed using MOVES2014a model.
- TPB is currently required to use MOVES3.0.4 to demonstrate transportation conformity.
- TPB's preliminary analysis shows MOVES3.0.4 produces more NOx emission compared to MOVES2014a.
- This could pose issues for demonstrating conformity as higher NOx emissions in the Washington region would likely exceed MVEBs.

Public Hearing & Comment

- District, Maryland, and Virginia completed their public hearing and comment processes.
- District and Virginia received comments. Maryland did not.
- Comments were received on following three main issues:
  - Environmental Justice
  - Use of Safety Margins in MVEBs
  - Public access to criteria pollutant and greenhouse gas emissions data developed as part of transportation conformity analysis

Environmental Justice

- Comment
  - The draft revision to the District's State Implementation Plan (SIP) does not include any requirements to ensure that implementation of the control measures that are in the full SIP will not create environmental justice (EJ) problems or make existing EJ problems worse. EPA is now required by the President to ensure that EJ issues are addressed in SIPS and other actions that require federal approval.

Environmental Justice

- Response
  - MWCOG and state air agencies reviewed and followed all established and EPA-approved technical guidance available during the development of this SIP revision. As of now, EPA has not established technical guidance for incorporating EJ into SIPs. The document, "EPA Legal Tools to Advance Environmental Justice", identifies a wide array of opportunities and EPA's legal authorities to advance EJ. However, according to this document, Legal Tools is, "not intended to prescribe when and how the Agency should undertake specific actions." It merely lists possible options for how EPA and states can incorporate EJ into air quality planning goals. Staff will continue to monitor any developments related to specific SIP technical guidance and EJ.
  - MDE is currently prioritizing EJ through multiple voluntary initiatives to examine air quality related EJ issues in Maryland. MDE is currently working on projects in Cheverly, Turner Station, and Curtis Bay. These projects include hyper-local air monitoring networks; collaborations with the communities (holding regular conference calls and sharing data), Johns Hopkins University and the University of Maryland; targeted inspections from compliance officers; and meetings with emission sources. The Curtis Bay project also included the first of its kind monitoring from a rolling laboratory called NOAA's ARC operated by University of Maryland atmospheric scientists. MDE also continues to track developments from EPA and evaluate EJ tools to improve EJ-related processes.

Environmental Justice

- Response
  - **VDEQ** is committed to incorporating the principles of EJ into its policies and practices by enhancing public participation in the regulatory, permitting, and compliance process. DEQ has established the Office of Environmental Justice to ensure the fair and meaningful involvement of all people into the development, implementation, and enforcement of environmental laws, regulations, and policies across all DEQ programs. The 2020 General Assembly underscored the Commonwealth's and DEQ's commitment to environmental justice by establishing the Environmental Justice Act. Additionally, DEQ is working to finalize guidance that creates procedures to ensure fair treatment and meaningful involvement throughout DEQ's permitting processes. Finally, the state CO2 carbon trading rule devotes 50% percent of all RGGI auction proceeds to low-income energy efficiency projects. This has amounted to $364 million dedicated to these programs to date.
  - **DOEE** "acknowledges that the District's urban and natural environments are constructed and managed in ways that have not benefitted the capital's communities equally. District residents that continue to suffer the effects of environmental hazards—and their compounding impacts—are disproportionately people of color and people experiencing poverty."* Specific to air quality DOEE is pursuing a variety of grant partnerships in overburdened communities to build community capacity, increase the network of federal and low-cost sensors, and reduce pollution by focusing electrification and mobile pollution funds in them.

* District of Columbia Department of Energy and Environment "Equity Framework"- https://doee.dc.gov/sites/default/files/dc/sites/ddoe/service_content/attachments/DOEE%20Equity%20Framework_Oct%202021.pdf

Use of Safety Margins in MVEBs

- Comment
  - Safety margins included in the MVEBs in the SIP make no sense. They have the potential to place residents at risk because of unhealthy exposures to ozone air pollution. Safety margins are being used to protect the transportation planning process, not public health. With code purple air pollution levels being measured in the Washington area and the clear understanding that a new more protective ozone standard is in the works, it appears that public health is being sacrificed so that new emissions from transportation projects can be accommodated. If the MVEBs are to include safety margins, they should be set to protect public health, not transportation projects.
  - Transportation community has argued that the safety margins are only needed because of model changes and other strictly technical reasons. There are other ways to address those kinds of technical corrections with streamlined SIP revisions that would require public participation and comment before a truly technical adjustment to a transportation conformity budget could be made. The currently proposed alternative transportation conformity budgets (with the safety margin) can be implemented without public participation or comment on the specific technical issue that may be driving a need for a technical correction to the budgets.
  - In 2023, mobile sources are the number one contributor to the Washington region's and the nation's ozone air pollution and climate change problems. Safety margin is simply a bad EPA policy that is both illogical and unnecessary.
  - Hyper-local air monitoring data across the country often shows that air quality is worse in and around EJ communities of color. Reducing ozone air pollution to levels below the standard will provide significant additional risk reduction.

Use of Safety Margins in MVEBs

- Response
  - Conformity regulations allow for the use of “safety margins”.
  - The rationale behind using safety margins was presented to MWAQC-TAC in February 2023. State air and transportation agencies agreed to move forward with the plan (with 20% safety margins).
  - Safety margins were recommended for use when setting MVEBs because of the inherent uncertainties regarding methods and input data used to estimate mobile emissions. Because the MVEBs are developed using one set of input assumptions and then the transportation conformity analyses have updated input assumptions, it is necessary to provide a safety margin when setting MVEBs to account for changes in future conformity analyses that are not known or quantified at the time when the MVEBs are set. These include changes to the vehicle fleet, changes to the land activity assumptions (Cooperative Forecasts), changes to emission model inputs such as Inspection/Maintenance programs, and changes to the travel demand model, among others. Historically, a 20% margin has been shown to be appropriate for the Washington region.
  - Safety margins were used in developing MVEBs for a Fine Particles Maintenance Plan (in 2012) and the 2008 ozone NAAQS maintenance plan which was approved by MWAQC in 2017. Federal agencies approved these SIPs and subsequent air quality conformity analyses that included safety margins.

Public access to criteria pollutant and GHG emissions data developed as part of transportation conformity analysis

- Comment
  - The models used to complete transportation conformity analyses generate both criteria pollutant and GHG emissions results. At this time, GHG emissions increases or decreases associated with a new transportation plan are not made available to the public (or the elected officials) during the process where the transportation plan is being debated and finalized. GHG emissions information is provided after the transportation plan is finalized. GHG emission benefits or disbenefits should be made available during the policy discussion over what is included in new transportation plans.
- Response
  - There is no federal requirement to include GHG estimates in the conformity process, but TPB has voluntarily estimated GHG emissions for the constrained element of its LRTP since 2010. GHG emissions are estimated for conformity analysis years and are calculated each time a conformity analysis is conducted.
  - Historic GHG emissions estimates for 2005 and 2012 are also included. These GHG emissions estimates are made available to TPB prior to the LRTP approval. TPB has made GHG reductions one of its policy priorities and is the first MPO to voluntarily adopt GHG reduction targets for the on-road sector (50% below 2005 levels by 2030 and 80% below 2005 levels by 2050). In addition, TPB staff have recently expanded the climate element of the plan by addressing resilience and modified the project solicitation process to address GHG emissions ("zero-based budgeting").