REDESIGNATION REQUEST & MAINTENANCE PLAN (2008 OZONE NAAQS)

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MWAQC-TAC July 20, 2017

Agenda Item 2



Background

- May 27, 2008 EPA published and made effective revised 8hour ozone standard (0.075 ppm/75 ppb).
- Previous 8-hour standard of 0.08 ppm/84 ppb published in 1997 was revoked.
- EPA designated the Washington, DC-MD-VA area as "Marginal Nonattainment Area" for the 2008 standard on July 20, 2012.
- Washington, DC-MD-VA area attained the standard starting 2015.



Redesignation Request & Maintenance Plan

Redesignation Request

- Base Year 2011, Attainment Year 2014
- Demonstrate decline in ozone from 2011-2014

Maintenance Plan

- Demonstrate compliance ten years into future 2014, 2025, 2030
- Contingency triggers, Contingency measures



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What's in the Ozone Maintenance Plan?

• Air Quality Data

- Air quality data to show compliance with the 2008 ozone standard

Emissions Inventories

- Demonstrate even lower emissions in future

Mobile Budgets

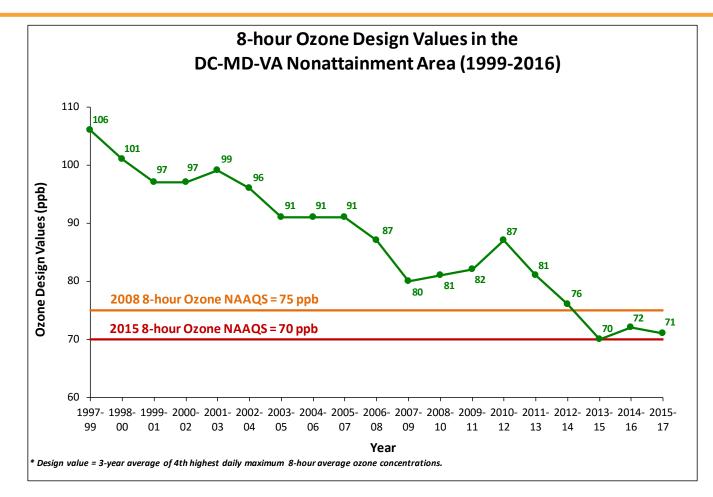
- Mobile emissions ceiling for transportation conformity purposes

Contingency Measures

In case region exceeds 2008 ozone standard in future, these measures would be implemented



Trend in Ozone Design Value



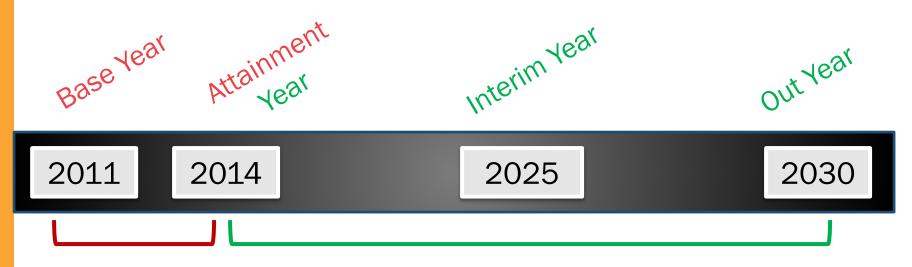
* 2016 data is a draft as of July 20th, 2017.

* 2017 data is incomplete and preliminary as of July 20th, 2017



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Redesignation Request & Maintenance Plan Timeframe



Redesignation RequestMaintenance Plan



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Emissions Inventories 2002, 2007, 2017, 2025



Point Source (Electric Generating Units & Non-EGU)



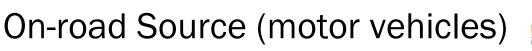
Area Source (Woodstove, Portable fuel container)





Nonroad Source (lawn mowers, marine engine, airport, railroad)



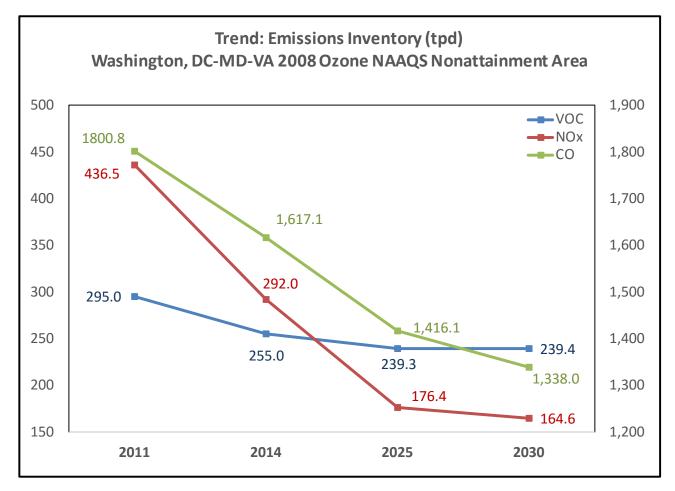






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Emissions – Lower in Future



* 2011 Data – Base Year Emissions Inventory (Approved May 2015)

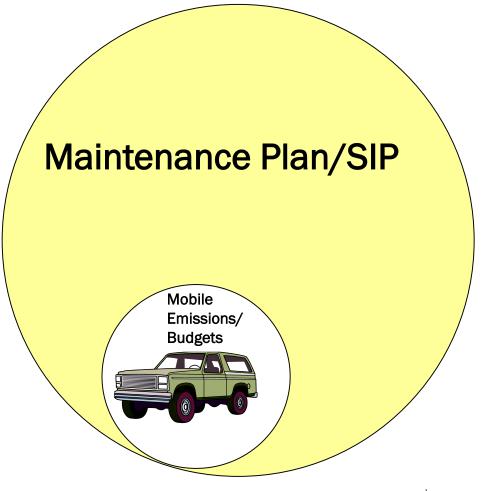


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How Do Transportation Plans Relate to the SIP?

• The SIP sets the Motor Vehicle Emissions Budgets (MVEBs) or *mobile budget*, the maximum allowable emissions from vehicles.

• TPB must ensure that the regional transportation plan does not result in emissions above this level.





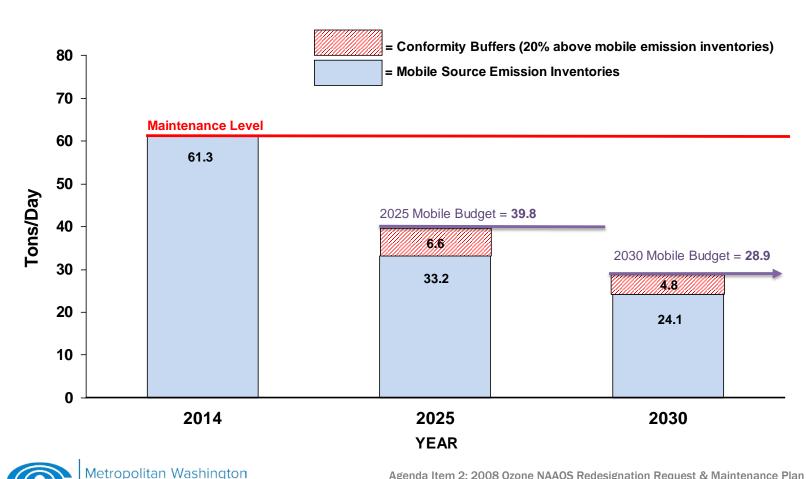
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Maintenance Plan: Mobile Budgets

- The Maintenance Plan sets mobile emissions ceilings ("budgets") for 2014, 2025 & 2030 for
 - VOC
 - NOx
- Mobile budgets
 - Two sets of mobile budgets:
 - Without Conformity Buffers
 - With Conformity Buffers



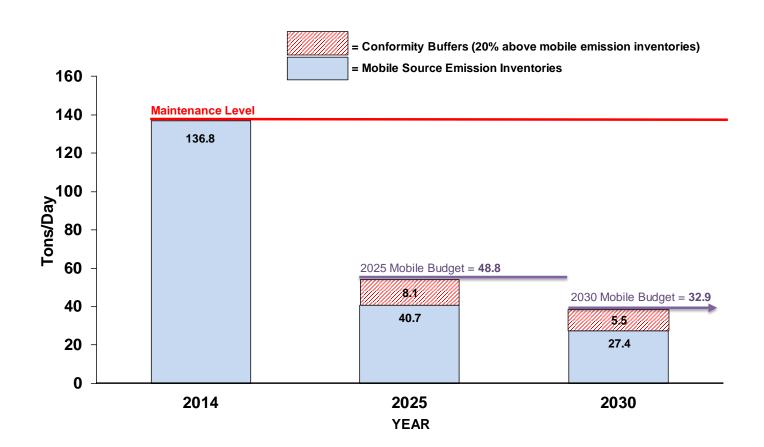
On-Road Mobile VOC Emission (Washington, DC-MD-VA 2008 Ozone NAAQS NAA)





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On-Road Mobile NOx Emission (Washington, DC-MD-VA 2008 Ozone NAAQS NAA)





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Which mobile budget is used?

- Without Conformity Buffers Applicable when maintenance plan budgets are determined to be adequate or are approved.
- With Conformity Buffers Applicable if changes in data, model, or planning assumptions lead to mobile emissions exceeding the mobile budgets.
- Need to use mobile budgets with conformity buffers
 - To be fully documented in the conformity analysis and follow Interagency consultation procedures



Maintenance Plan: Contingency Measures

Contingency Measures

- Emissions controls to be implemented if region exceeds 2008 ozone standard in future
 - OTC 2009-2014 model rule for VOC for consumer products (VA)
 - OTC 2009-2014 model rule for VOC for architectural and industrial maintenance coatings (VA)
 - SNCR controls (or equivalent) for NOx on Unit #5 at Possum Point Power Station latest by ozone season, 2021 (VA)
 - NO_X Rule Phase I (MD)
 - On-road engine idling rule (DC)



2008 Ozone NAAQS Redesignation Request and Maintenance Plan

https://www.mwcog.org/events/2017/7/20/mwaqc-tac-call/

