



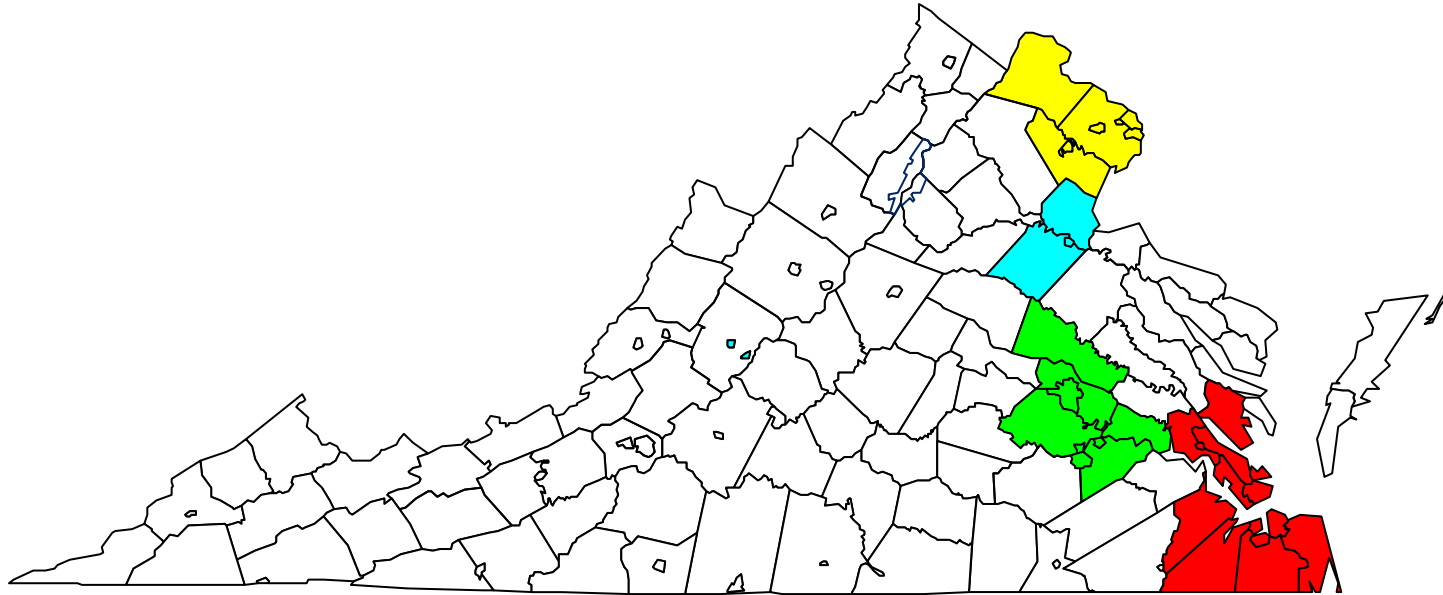
# **MOVES2010 and Virginia's Experiences with Maintenance Plan Updates**





**Northern Transportation & Air Quality Summit  
August 24-26, 2010**

**Jim Ponticello**

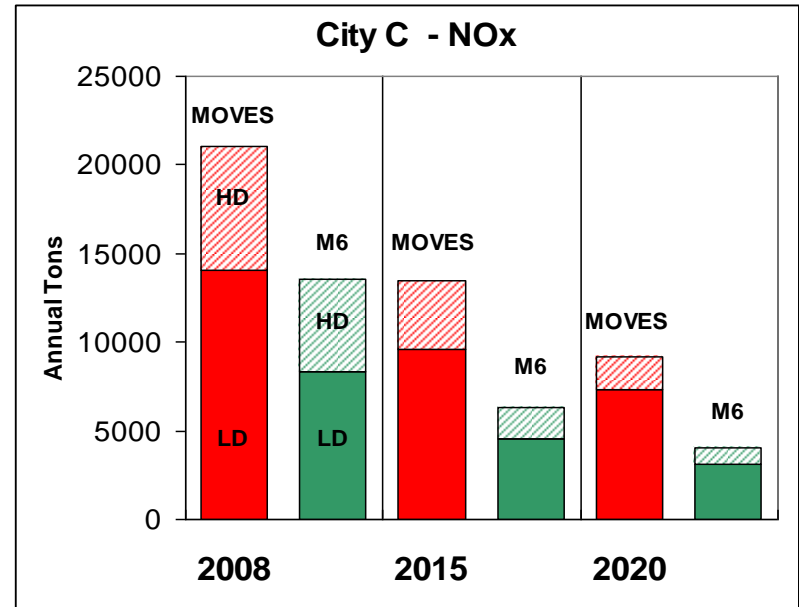
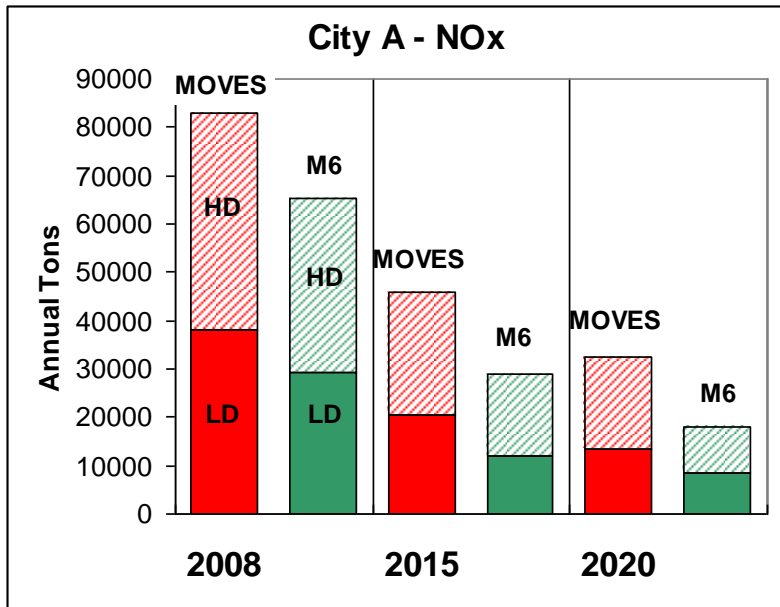
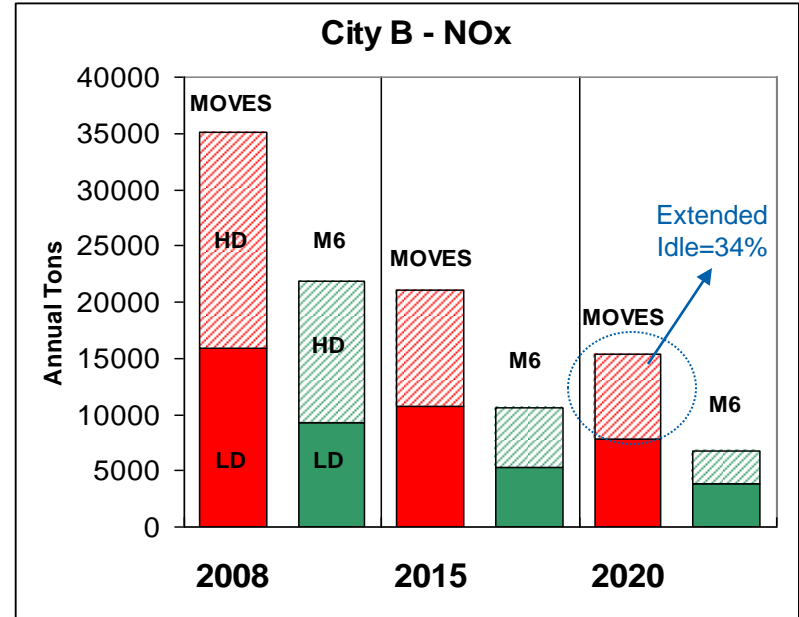
**Air Quality Program Manager**

# Virginia Air Quality Planning Areas



-  Northern Virginia PM<sub>2.5</sub> and 8-hour Ozone Nonattainment Area
-  Fredericksburg 8-hour Ozone Maintenance Area
-  Richmond 8-hour Ozone Maintenance Area
-  Hampton Roads 8-hour Ozone Maintenance Area

# EPA's MOVES vs. MOBILE6 NO<sub>x</sub> emissions comparison



## Maintenance Area Budget Years

Maintenance Area	Conformity Budget Years	
Fredericksburg	2009	2015
Richmond	2011	2018
Hampton Roads	2011	2018

- **Concerned about ability to meet conformity in budget years with MOVES**
- **This issue didn't exist for us in 2002 when we transitioned from M5b to M6**
  - **M5b budgets were high (no Tier II and HDDV rule credits)**

## Maintenance Plan Update Schedule

- **Air Agency agreed early on the need to update budgets**
- **With 2-year grace period in mind, originally set a lofty schedule**
  - **Started working with MOVES when released late December 2009**
  - **Update mobile inventory by July 2010 to verify need to update MVEBs**
  - **6 months to update SIP and get through regulatory and public review processes**
  - **Submit updated Maintenance Plans to EPA by January 2011, leaving 14 month for EPA to approve prior to the end of 2-year grace period (March 2, 2012)**
- **For various reasons, we're a little behind schedule**

## Issues Encountered Along the Way

- **Custom Domain vs. County Level**
- **Inventory vs. Emission Rates**
- **Extensive county level data requirements**
  - VMT by MOVES source type
  - Vehicle populations by source type, and growth assumptions
  - Source type age distributions (used converter)
  - VMT fractions by MOVES road type
  - Speed distributions by MOVES road type
  - Seasonal adjustment factors
  - Local fuel formulation data
- **Extensive QA/QC**
- **MOVES model issues**
  - Longer runtimes, need for faster computers
  - Fuel formulations
  - Updated database being released soon?
- **Maintenance SIP update questions**

# MOVES Policy Guidance

## Key Provisions related to the update of Maintenance plans

- **Ideally only the mobile inventories and MVEBs will need to be updated**
  - VDEQ concerned they may not be able to update the interim and out-year inventories for all sectors in all Maintenance areas in required timeframe
- **Areas can revise their motor vehicle emissions inventories and budgets using MOVES2010 without revising the entire SIP or completing additional modeling if:**
  - The SIP continues to meet applicable requirements when the previous motor vehicle emissions inventories are replaced with MOVES2010 base year and milestone, attainment, or maintenance year inventories; and,
  - The state can document that the growth and control strategy assumptions for non-motor vehicle sources continue to be valid and any minor updates do not change the overall conclusions of the SIP.

# MOVES Policy Guidance

## Key Provisions related to the update of Maintenance plans

- **First criteria satisfied if the relative emissions reductions between the base year and maintenance year are the same or greater using MOVES**
  - Early indications are positive
- **If using the latest planning assumptions for emissions estimates results in changes to other emissions categories (e.g., stationary or area emissions), the demonstration would apply to the entire inventory.**
  - Future planning assumptions have changed for emission categories
- **A state would not necessarily have to revise a non-motor vehicle emissions inventory just to account for a regulatory or permit change that reduces these emissions in a maintenance year relative to the existing SIP.**

## Additional Issues Related to the Update of Maintenance Plans

- **Vehicle Spillage and Vehicle Refueling**
  - Maintenance Plans reported vehicle refueling and spillage in area source inventory
  - MOVES Technical Guidance (pg. 14): “there are 11 separate pollutant processes in MOVES for hydrocarbon emissions; all 11 must be selected when estimating hydrocarbon emissions for SIPs or regional conformity analyses.”
  - Should revised MVEB’s include emissions from vehicle spillage and vehicle refueling, or can we continue to report these in the area source inventory?
- **Safety Margins**
  - A more rigorous reassessment of the SIP’s demonstration may be necessary if a state decides to reallocate the original SIP’s excess emission reductions to the MVEB as a safety margin.
  - This assessment would need to be sufficiently detailed to permit the requantification of any excess emissions.
  - What is considered “sufficient detail”?

## Closing Messages

- **Start looking at the impact of MOVES on existing SIPs and motor vehicle emissions budgets now**
- **Work closely with your Federal partners as issues arise**
- **2-year grace period for conformity will go by quick**
  - **Updated SIPs will need to be submitted to EPA and approved within the 2-year grace period in order to not disrupt the conformity process**