

# Emissions Inventory Overview

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MARAMA

OTC SAS/Mobile/Modeling Stakeholder Meeting  
September 3, 2009  
Niagara Falls, NY

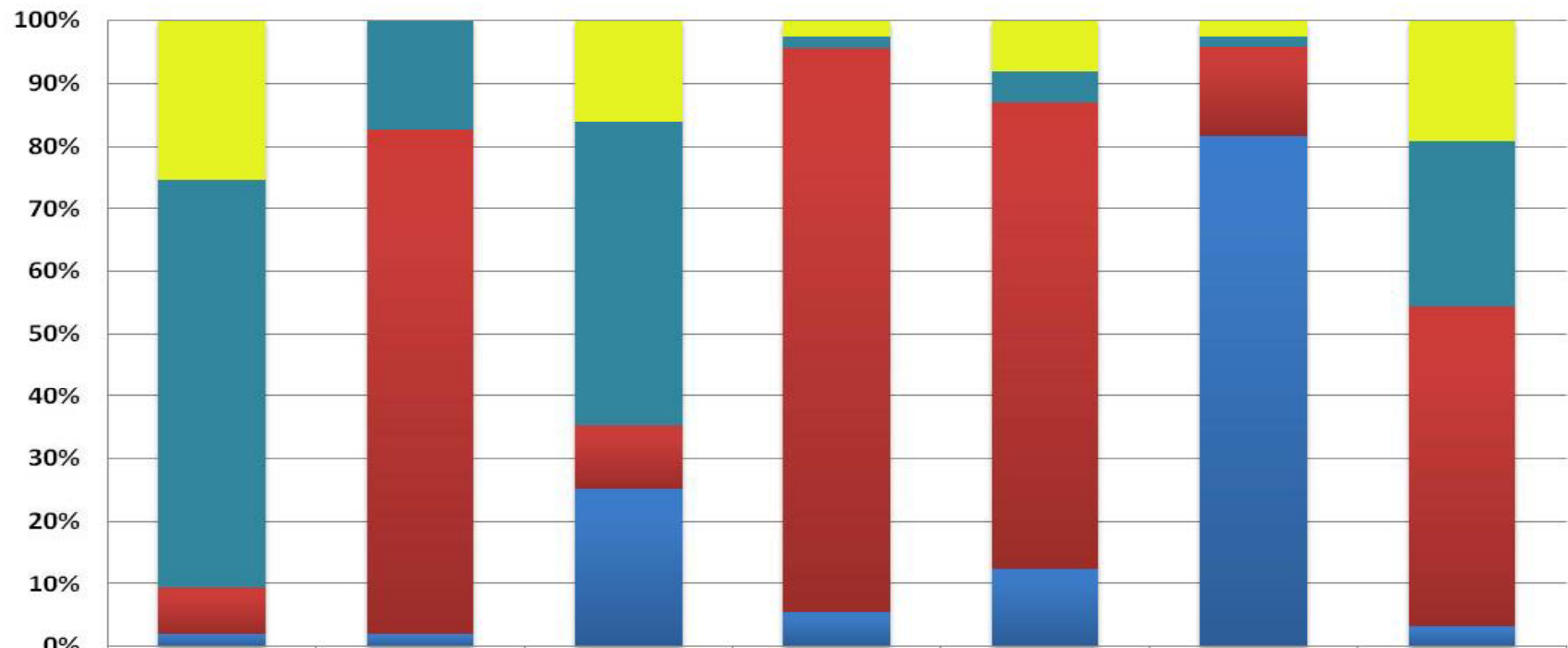
# Topics

- Planned Updates
- Stakeholder Outreach
- Where to find data



# 2002 Inventory Categories

2002 Version 3 Annual Source Comparison  
MANE-VU Region



|         | CO         | NH3     | NOX       | PM10      | PM2.5   | SO2       | VOC       |
|---------|------------|---------|-----------|-----------|---------|-----------|-----------|
| NonRoad | 4,553,123  | 287     | 431,631   | 40,114    | 36,084  | 57,257    | 572,751   |
| OnRoad  | 11,749,819 | 52,984  | 1,308,233 | 31,561    | 22,107  | 40,090    | 789,560   |
| Area    | 1,327,400  | 250,000 | 270,000   | 1,456,000 | 333,200 | 331,900   | 1,528,300 |
| Point   | 357,900    | 6,300   | 674,800   | 89,300    | 55,700  | 1,912,700 | 97,400    |

# Planned Updates

- Base year for modeling inventory: 2007
- Likely future modeling years: 2013/2015/2018
- Same pollutants and source sectors
- Target completion -- October 2010.



# General Philosophy

- Each State controls its emissions inventory
- MARAMA provides training and technical support
- MARAMA coordinates contractor assistance and state and stakeholder review



# 2007 Point Source Data Sources

- 2007 emissions from EPA CAMD
  - 12 month total for Acid Rain Pgm Units
  - 6 month total for NO<sub>x</sub> SIP Call Units
- States reviewed and provided total 2007 emissions for each point source unit.
- Initial focus -- annual emissions for 2007
  - Later will address temporal profiles

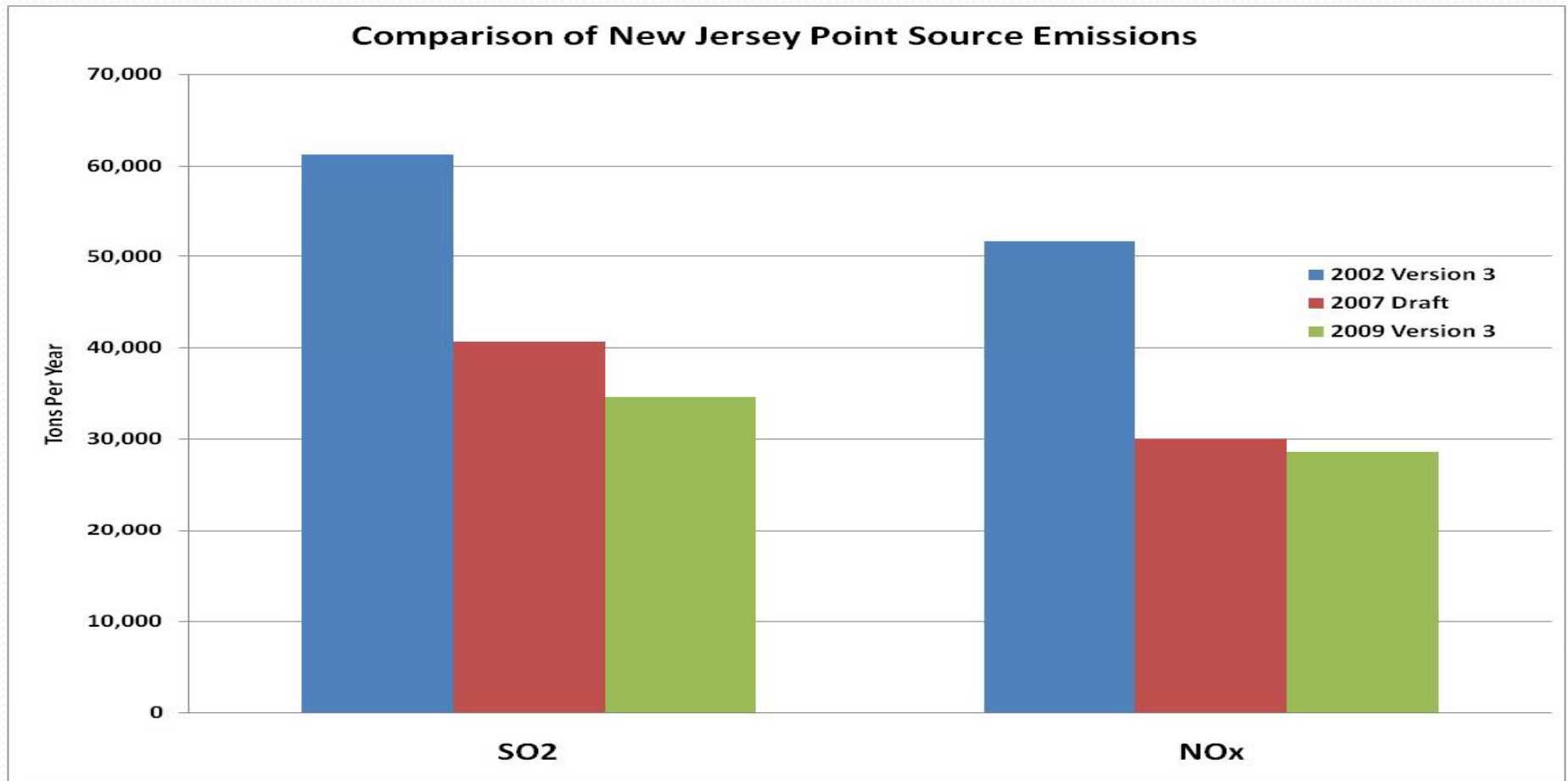


# Point Source Improvements

- **Start with EPA CAMD data**
  - Improved crosswalk between CAMD ID and State ID
- **Estimate PM<sub>2.5</sub> Condensable Emissions**
  - Using MARAMA's 2008 Condensable Study



# Comparison of Point Source Emissions





# 2007 Point Sources

## External Review of Annual Data

- **October 2, 2009**
  - Files posted by MARAMA for Stakeholder review.
- **October 21 at 10:00 A.M**
  - Conference call with states and stakeholders
- **Comments due by October 30, 2009**
- **November 2009**
  - Completion of 2007 point source inventory



# Area Source Improvements

- **Ag Ammonia**
  - Updated with 2007 Census of Agriculture.
- **Residential Wood Combustion**
  - EPA/PECHAN Microsoft Access Tool with 2007 population updates.
- **Wildfires**
  - EPA has offered a 2007 wildfire inventory (Oct)
- **Agricultural Burning**
  - States to provide





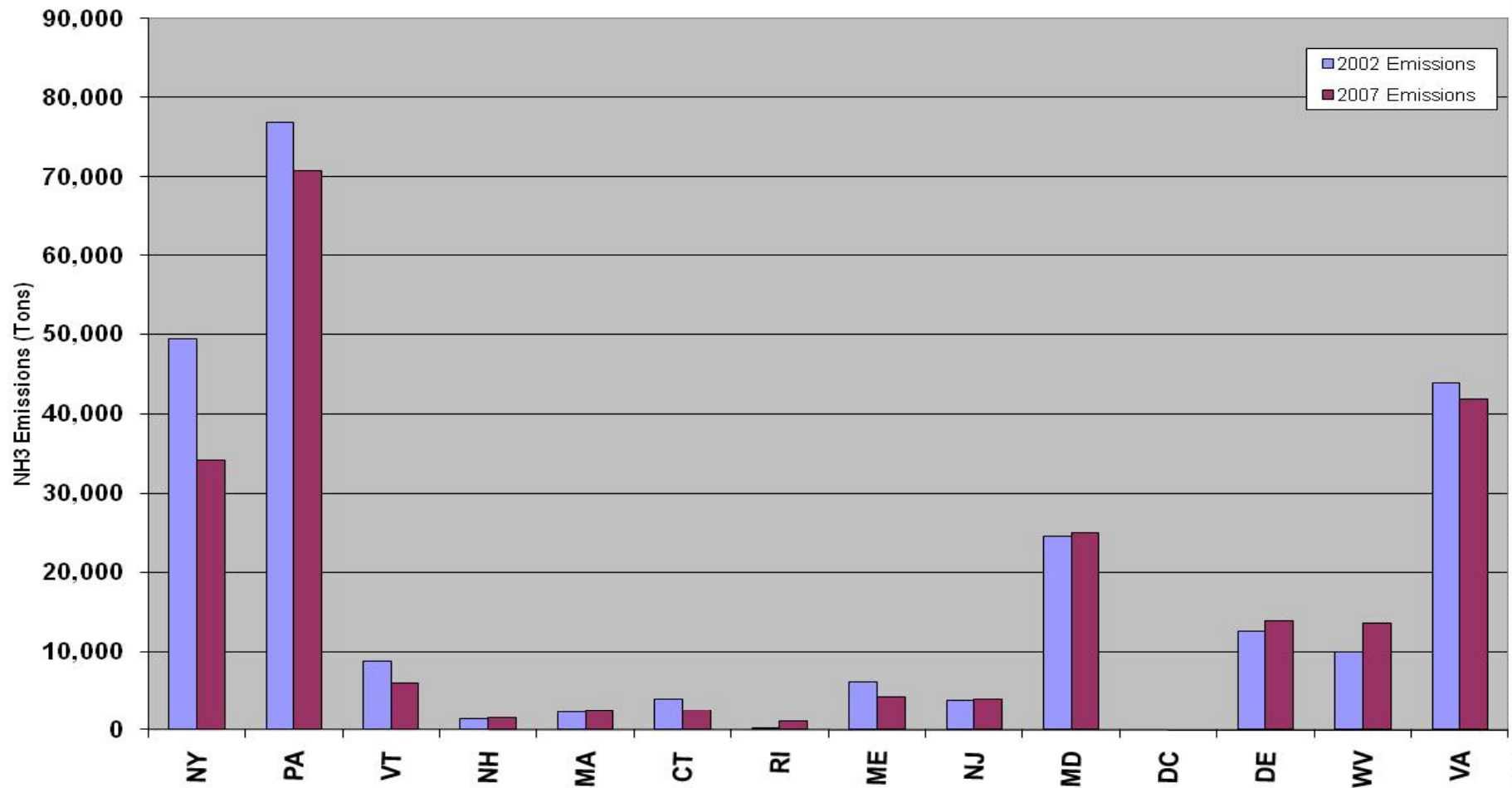
# Area Source Improvements

- **Other Area Sources**

- Inter-RPO (ERTAC) Area Source Comparability
- EPA contractor produced draft 2008 – starting point
- States provide data for 2007 or factors to back-cast 2007 using EPA's 2008 estimate

# Expected Ag Ammonia Changes

Comparison of 2002 and 2007 NH<sub>3</sub> Emissions from Livestock and Fertilizer





# Temporal Allocation – Point/Area

- Goal: reflect variability in emissions that affect air quality – may be seasonal, daily, hourly
- Default profiles to be reviewed
- Will work with other regions, EPA, and contractor to develop methods to use data to improve some profiles
  - CEM data for EGUs – opportunity to improve on default
  - Ammonia emissions – e.g., from fertilizer application
  - Residential wood combustion
  - High Electric Demand Days

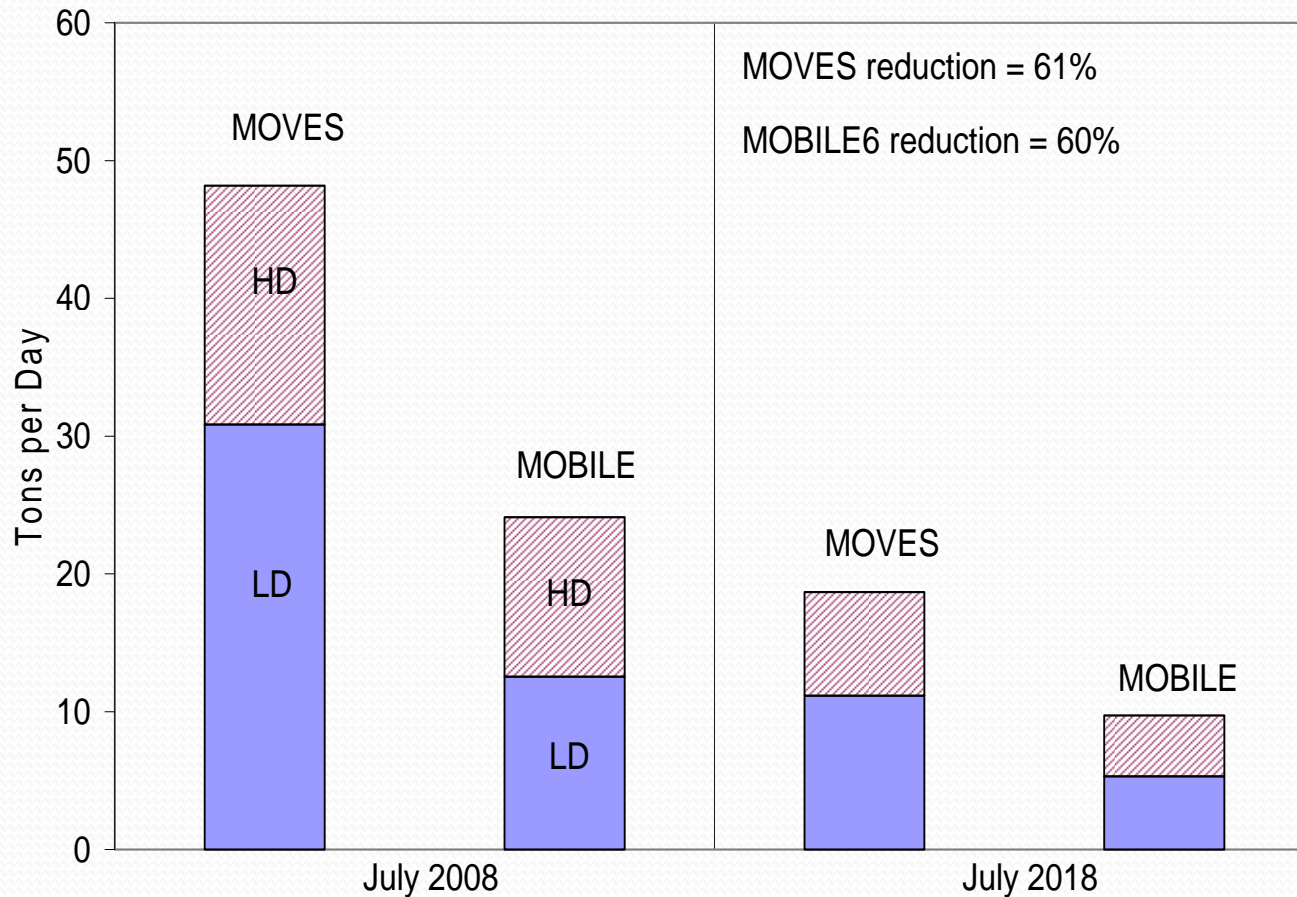
# Onroad Mobile Improvements

- **MOVES Model**
  - **Release expected late 2009**
  - **States preparing input data**



# Potential Emission Changes in MOVES

## Queens County, NY – NO<sub>x</sub>

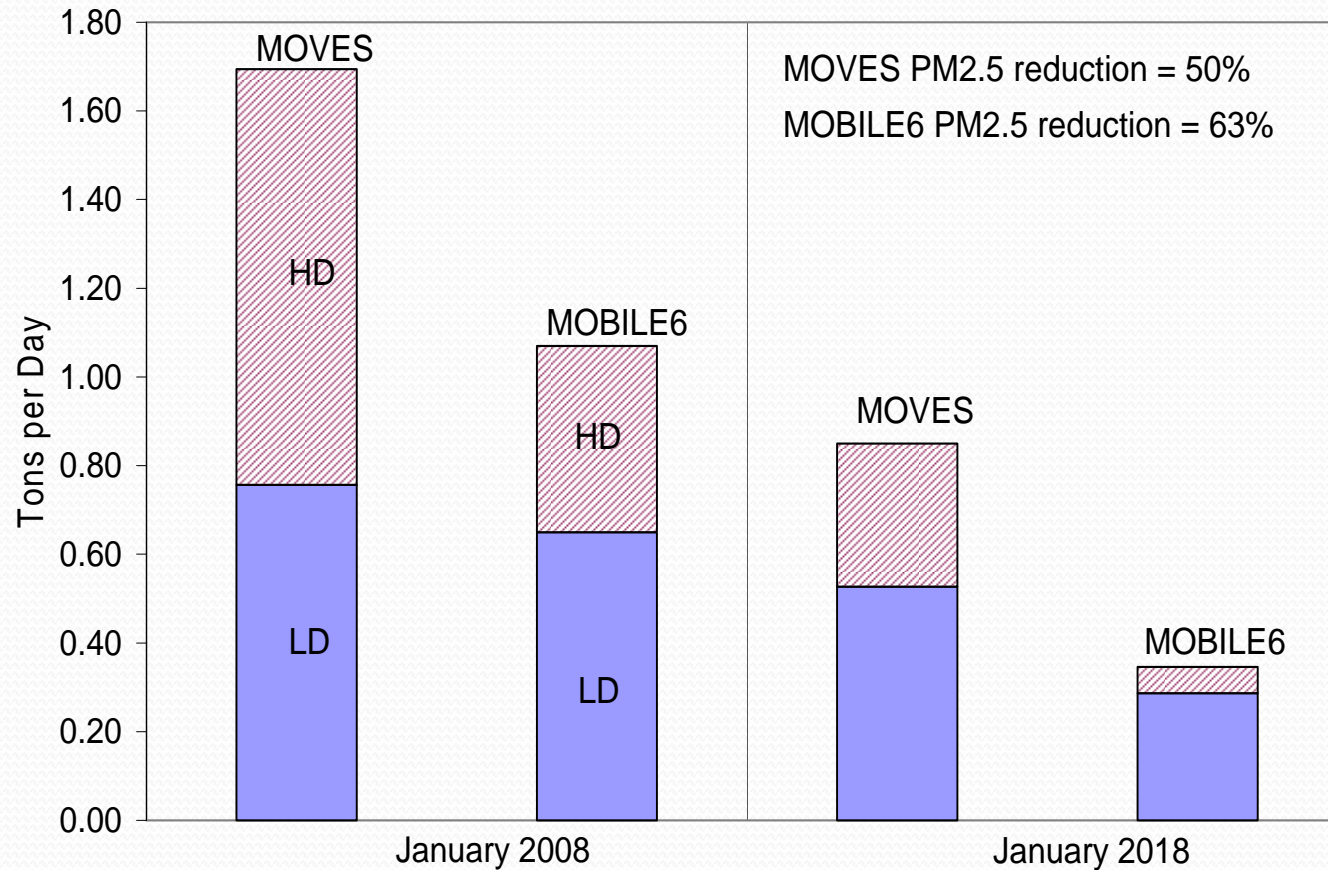


- NO<sub>x</sub> emissions and control effectiveness may increase

# Potential Emission Changes in MOVES

## Queens County, NY – PM2.5

Queens County PM2.5



- PM2.5 emissions may increase, especially for heavy duty vehicles, and control effectiveness may decline



# Issues related to MOVES

- **New Model**
- **Long run times**
- **Release Date is uncertain**
  - **The option to use MOBILE6.2 is still on the table if MOVES is not available in time.**



# Nonroad Mobile

- **Started with EPA 2007 NMIM run.**
  - States reviewed and modified the NMIM input data
  - 2002 Census information.
- **MACTEC is re-running the NMIM model**
  - 2007 household and population data
- **Marine, air, and rail categories**
  - Requesting marine data from EPA
  - RPOs updating rail data (ERTAC) – Class I RR data
  - States working on airports



# Stakeholder and Client Outreach

## Goals

- A good representation of emissions for the selected time period
- States and EPA approve of the methods and results used to develop the inventory
- Stakeholders have opportunity to express comments in a timely and helpful manner
- Substantive comments are addressed as early as possible to minimize costly changes



# Client and Stakeholder Groups

- State and local agencies
- US EPA Regions I, II, and III
- Federal Land Managers
- Owners of Electric Generating Units in the region
- Owners of other major stationary sources
- State transportation agencies
- Metropolitan Planning Organizations
- State agricultural agencies in PA, DE, VA



# Stakeholder Outreach Plan

- **Step I – Preliminary Outreach**
  - OTC Committee Meeting
- **Step II – Review of Draft Emissions Inventory**
  - MARAMA will post Draft Inventory, Summaries and provide a comment period.
  - MARAMA will summarize and respond to comments and hold conference calls for Point Sources and Mobile Sources.
- **Step III – Review of Draft Documentation**





# Key Stakeholder Dates

- **October 2, 2009**
  - Base Year point files out for stakeholder review.
- **October 21 at 10:00 a.m.**
  - Conference call with States and stakeholders
- **October 30, 2009**
  - Comments due to states and MARAMA
- **January, 2010**
  - Review of future year point source inventory

# Key Next Steps

- September '09 – States review contractor estimate for NMIM nonroad mobile sources
- October '09 – Stakeholders provide comments on 2007 point source annual emissions & stack parameters
- November '09 – Contractor finalizes 2007 Point Source Annual Inventory
- December '09 – States provide area source data/factors
- December '09 – EPA provides final MOVES model



# Where to find data

- Website link and download instructions will be included in the stakeholder announcement.
- The MARAMA Website ([www.marama.org](http://www.marama.org))
  - Links to documentation
  - FTP site link and download instructions



# Thank You!

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