

Modeling Update

OTC Stakeholder's Meeting

March 16th, 2011
Linthicum, MD



OZONE TRANSPORT COMMISSION

Overview

1. Ozone NAAQS
2. Screening Modeling Proposal
3. Schedule
4. Expanded Weight-Of-Evidence



Ozone NAAQS

- 2008 NAAQS = 75ppb
 - Has not been revoked, nor fully implemented
 - Form = 3 year average of 4th maximum
 - Secondary NAAQS equal to Primary
- Reconsidered NAAQS = 60 – 70ppb (TBD)
 - Now set for announcement by July 31, 2011
 - Form = 3 year average of 4th maximum
 - Secondary NAAQS 7-15ppm-hours (TBD)



Ozone Standard Timelines

• Old (75 ppb) Standard Final	03/2008
• Proposed Levels for Reconsidered Standard	01/2010
• Final Level for Reconsidered Standard	~7/31/2011
• Proposed Implementation Rule	~7/31/2011
• State Designation Recommendations	1/2012 – 8/2012
• Final Reconsidered Standard Designation	8/2012 – 8/2013
• Old (75 ppb) Date SIPs Due	12/2013
• Reconsidered Standard SIPs Due	12/2014 – 8/2016

Level 2 Screening Recommendations

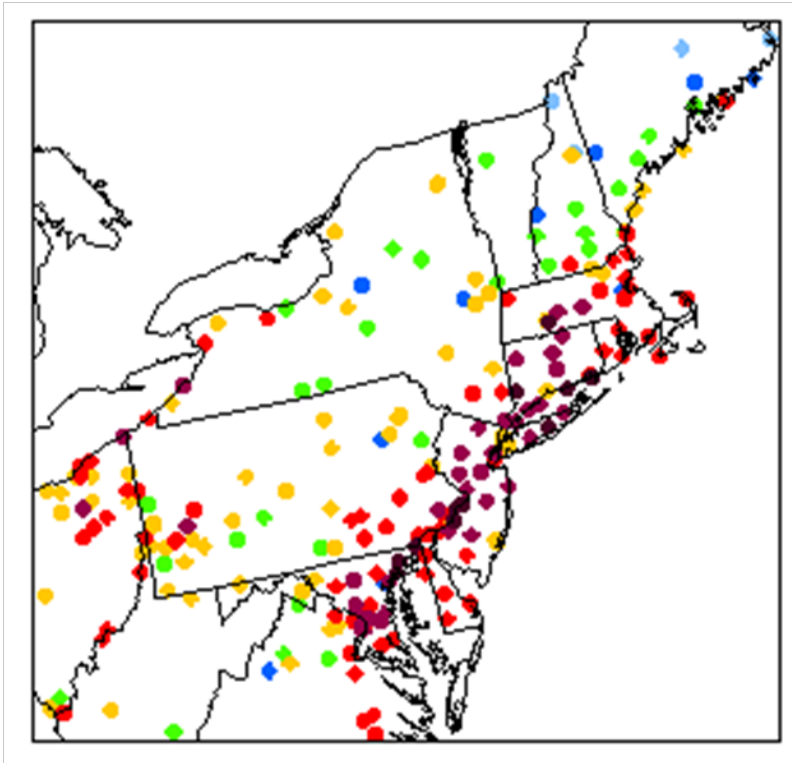
Shift the future year modeled case from 2017 to 2020

Use a 2020 proxy edition of “Scenario 3” as the future control case

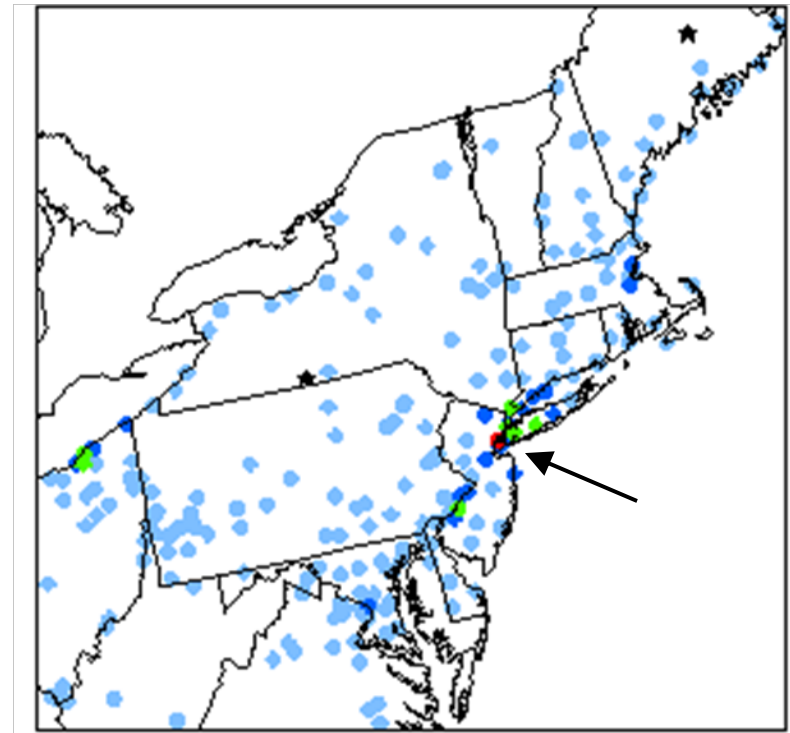
Reminder: Level 1 Screening “Scenario 3”

Screening of OTC Recommended Measures Predicted Nearly Full Attainment!

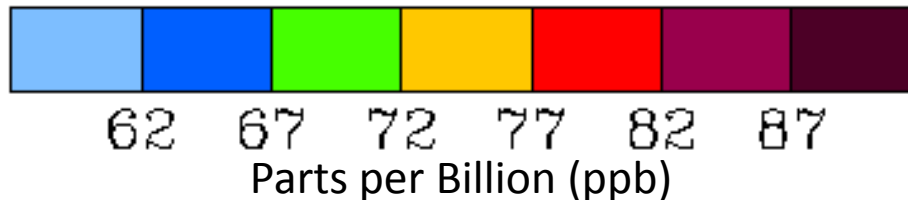
Observed 2005 - 2009



OTC Recommendations “Scenario 3”

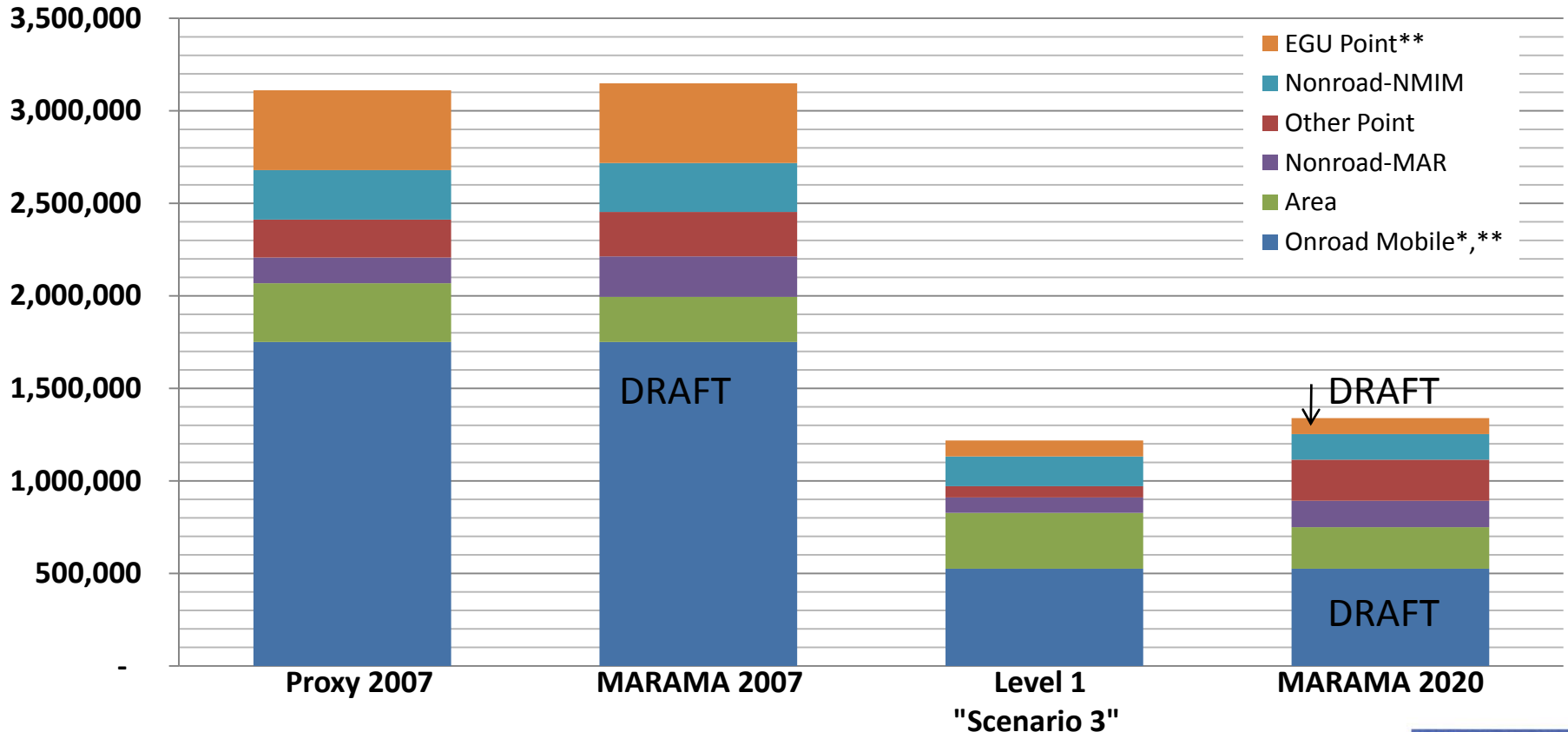


Model predicted future design values



Comparison of Level 1 Screening Inventories with New MARAMA Inventories

Annual NO_x Emissions



*MARAMA 2007 Mobile Emissions are the same as the proxy inventory. MOVES results are not ready.

**MARAMA 2020 Mobile and EGU estimates are the same as "Scenario 3." Neither estimate has been prepared yet.

Screening Modeling

Level 1 Screening with CMAQ

- Used 2007 proxy emissions inventory
- Conducted with 2007 ozone season meteorology

Level 2 Screening with CMAQ

- Level 2A: MARAMA 2007 base case and MARAMA 2020 and proxy emission Control case
- Level 2B: MARAMA 2020 projected emission inventory with proxy EGU emissions

Level 3 Screening

- Full MARAMA 2020 projected emission inventory with ERTAC projected EGU emissions with CMAQ
- Additional bounding runs with CMAQ, CAMx, and/or CALGRID



Modeling Schedule

Level 1 Screening (2007 Inventory)

- Completed

Level 2A Screening (2007 and Proxy 2020 Inventories)

- For Summer 2011
Data by late Spring 2011

Level 2B Screening (2020 Inventory)

- For Fall 2011
Data by late Summer 2011

Level 3 Screening (2020 Inventory)

- For Spring 2012

SIP Quality

- For SIP submission deadline TBD



Expanded Weight-Of-Evidence

- Goal: Recommendation to EPA on expanding Weight-of-Evidence in revised modeling guidance.
- The recommendation supports:
 - Analyzing whether there is a reasonable probability of attaining standards
 - Requiring implementation of all feasible control programs for entry into the program
 - Including nontraditional programs in analysis:
 - ✓ Smart Growth
 - ✓ Energy Efficiency
 - ✓ Transportation Measures
 - ✓ Voluntary Programs
 - ✓ Marketing Campaigns

Questions

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