MARYLAND

Department of the Environment

Changes to the Proposed MDE "Long-Range Environmental Planning for Transportation Plans" Regulation

AQCAC Meeting

Tad Aburn, MDE - September 10, 2012

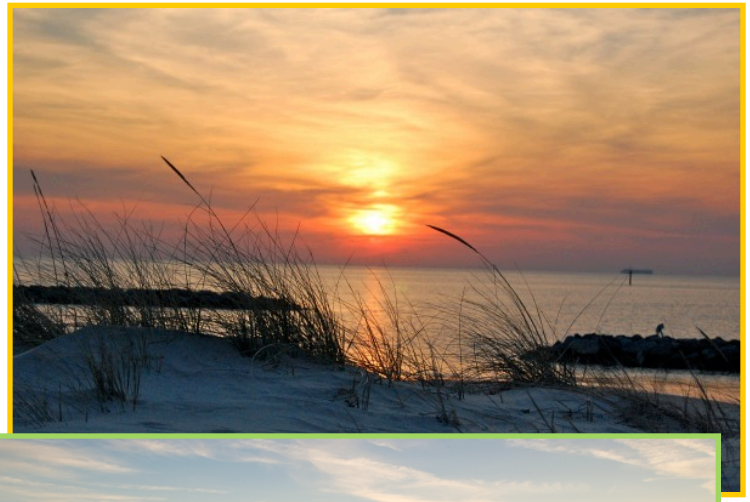
MDE

Topics Covered

- Thanks to the stakeholders for the comprehensive comments
- The process so far
- How the regulation works
- Basic Changes to the regulation
  - Separate, but linked, to transportation conformit requirements
  - Progress Report – Qualitative – not quantitative
  - Voluntary, aspirational "What Will It Take" analysis added
  - Issues on setting LRPTs
  - No penalty for failure to meet target
  - Interstate compliance issues

The Process

- Introduced as a briefing to AQCAC on May 14, 2012
- Two formal stakeholder meetings
  - June 1, 2012
  - July 20, 2012
- Multiple 1-on-1 meetings or briefings
  - Metropolitan Planning Organizations
  - Individual Counties
  - Washington area air quality and climate change committees
  - Environmental groups
  - Other states
- Another briefing to AQCAC today
  - Opportunity for stakeholder input
- More stakeholder meetings
- Back to AQCAC for a vote by the end of 2012



What is Transportation Conformity?

- The Basic Concept
  - When state and local governments add projects to their transportation plans (called Transportation Improvement Programs or "TIPs" or Constrained Long Range Plans or "CLRPs") …
    - They must demonstrate that emissions stay below emission "budgets" set in the state's clean air plan (or SIP/State Implementation Plan)
    - A formal demonstration (the conformity analysis) is submitted to show that the "new" transportation plan will keep emissions under the SIP "budget"
- Conformity failure places federal transportation dollars at risk
  - Federal funds provide a large portion of the money we use to fund transportation plans in Maryland and other states and have a tremendous influence on what and how many projects we can develop

New Regulation - Environmental Drivers

- Maryland and the Washington/ Baltimore region have some of the toughest air quality problems in the East
  - Ozone
  - Fine particles
  - Other pollutants
- About 1/3 of the Chesapeake Bay's nitrogen problem comes from air pollution sources
- Maryland is the fourth most vulnerable state to sea level rise, one of the major consequences of global warming
- MDE believes that extra effort is warranted to help address all of these environmental problems

How Does Conformity Currently Work?

- The Interagency Consultation Group (ICG) Process
  - Partnership between State air and transportation agencies and local transportation planning decision-makers
    - Baltimore Regional Transportation Board (BRTB) in Baltimore
    - National Capital Transportation Planning Board (TPB) (part of MWCOG) in Washington
- The ICGs run a very sophisticated technical process
  - Transportation models that quantify the NOx, VOC and CO2 increase or decrease associated with the new measures being added to the TIP or CLRP

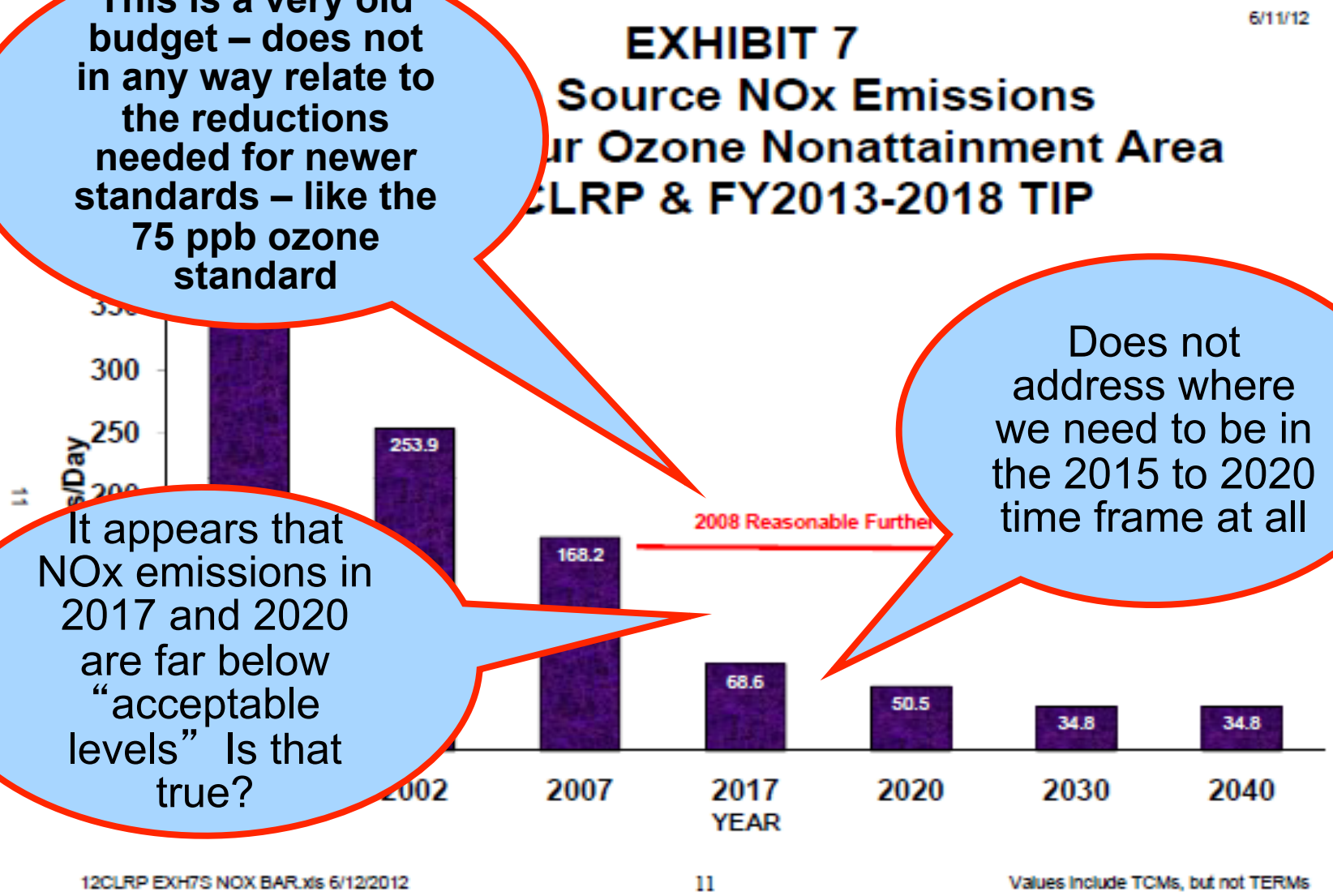
Concerns With Current Conformity Process

- The current conformity process could be enhanced to provide policy makers and the general public with more complete information to insure that all critical environmental issues are considered as decisions on which new projects to add to transportation plans are finalized

- Transportation decisions will often have both short-term and long-term consequences

Current Conformity Summary – DC Region

TPB Meeting – June 20, 2012



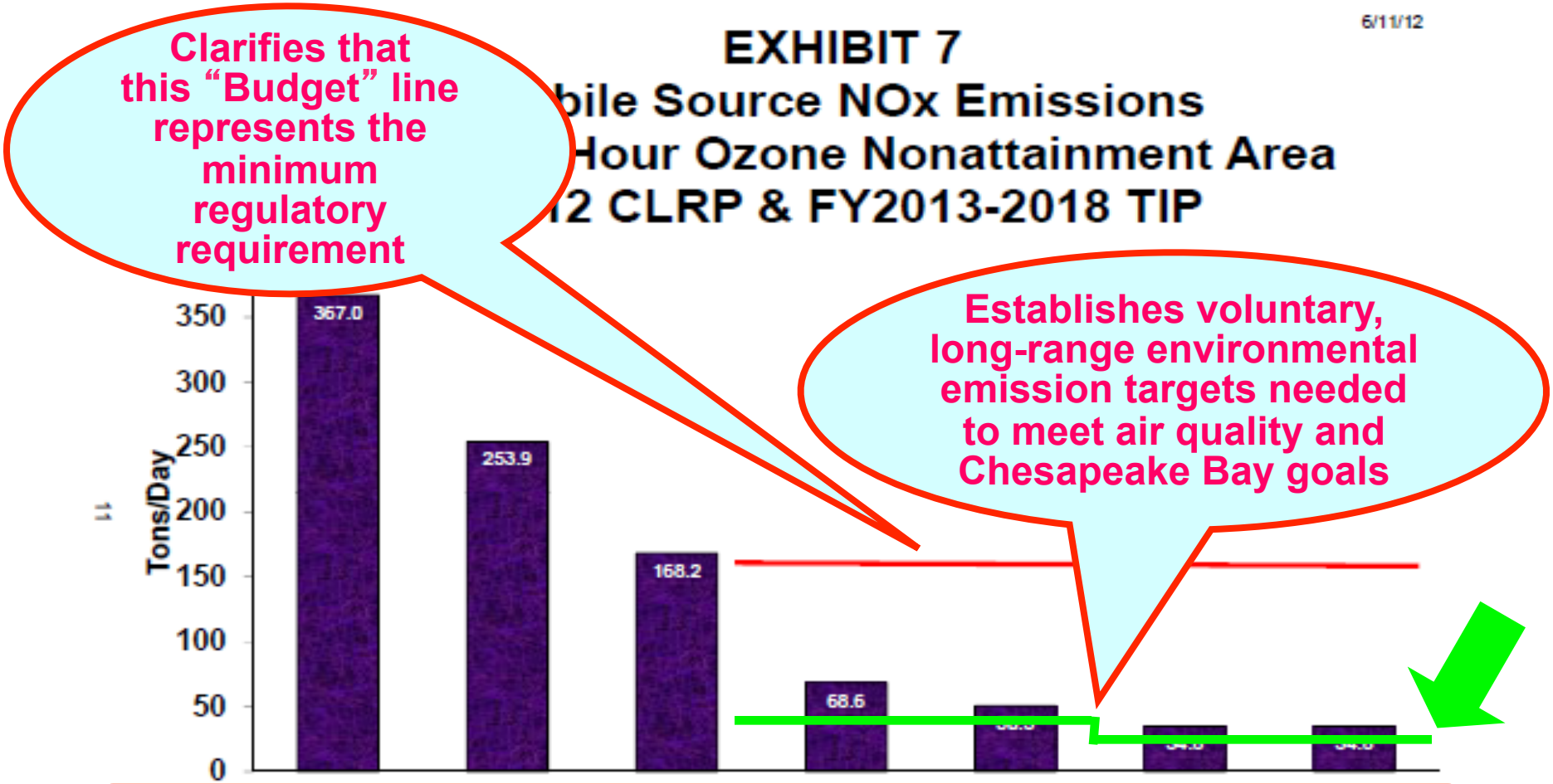
This is a very old budget – does not in any way relate to the reductions needed for newer standards – like the 75 ppb ozone standard

Does not address where we need to be in the 2015 to 2020 time frame at all

It appears that NOx emissions in 2017 and 2020 are far below "acceptable levels" Is that true?

What the MDE Regulation Will Do

Adds Long-Range Planning Targets to the Process

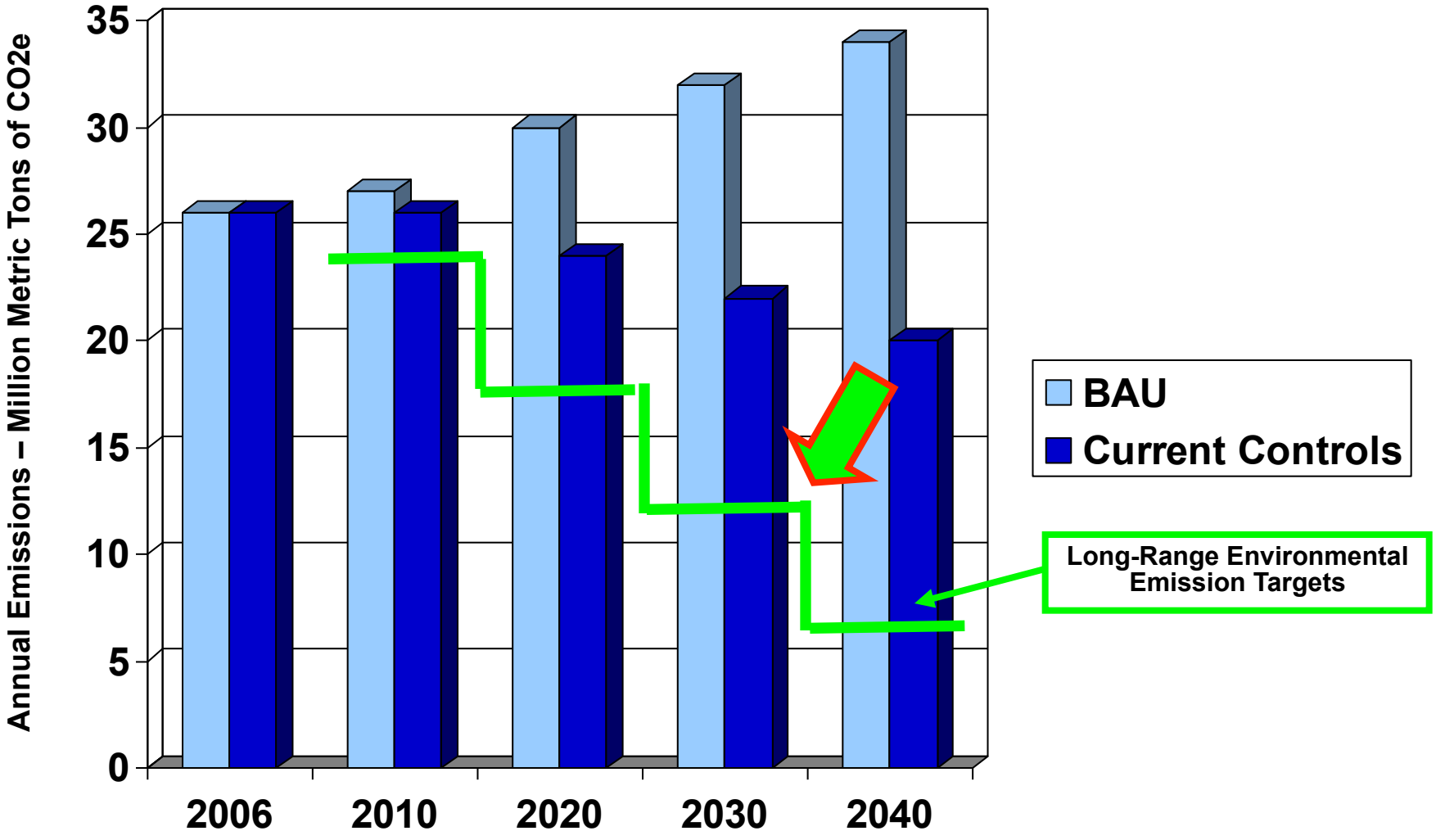


Presents Policy Makers with a Very Different Question …

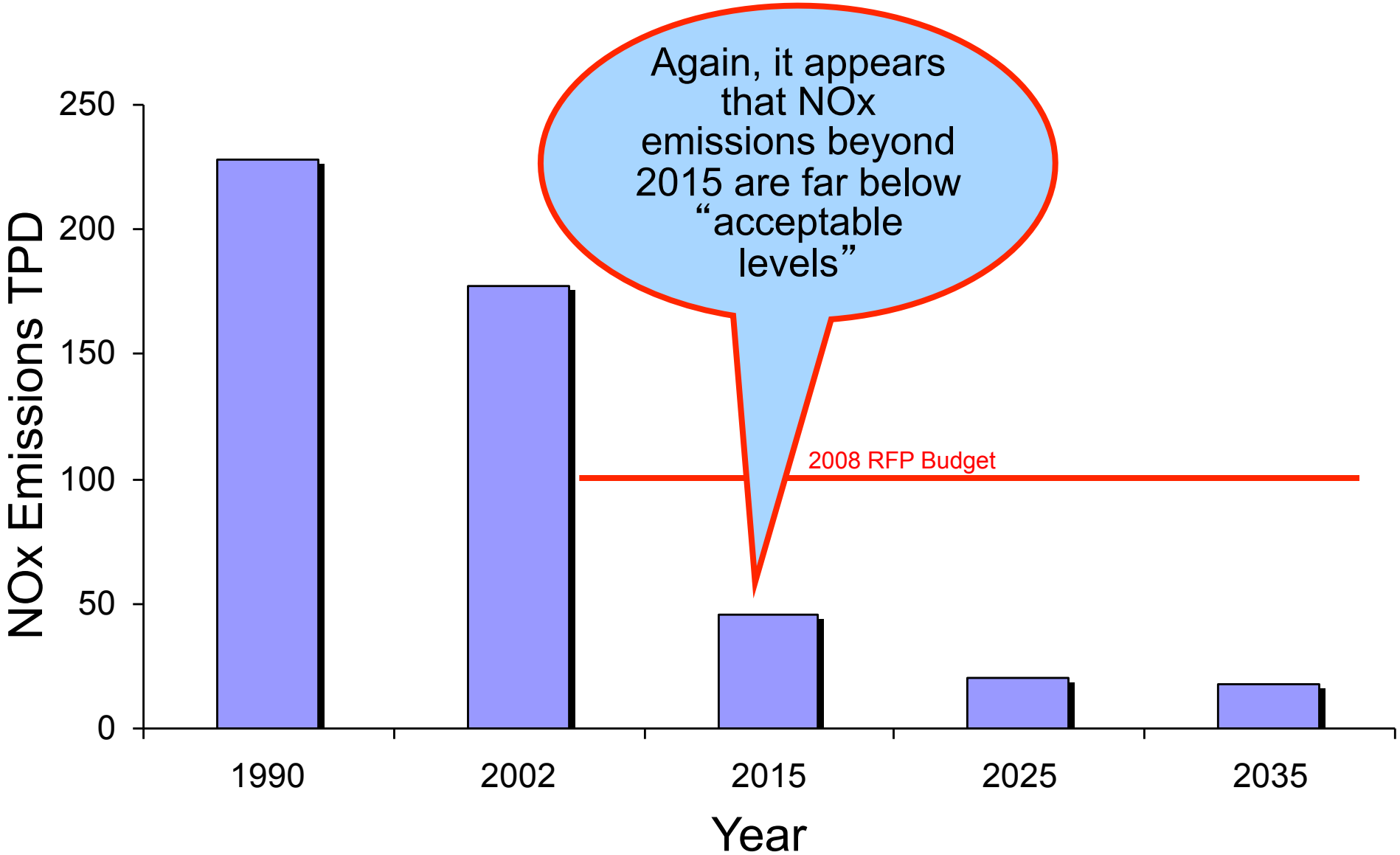
… Shouldn't We be Striving to Get Closer to the Green Line?

CO2 Emissions Trends - Washington

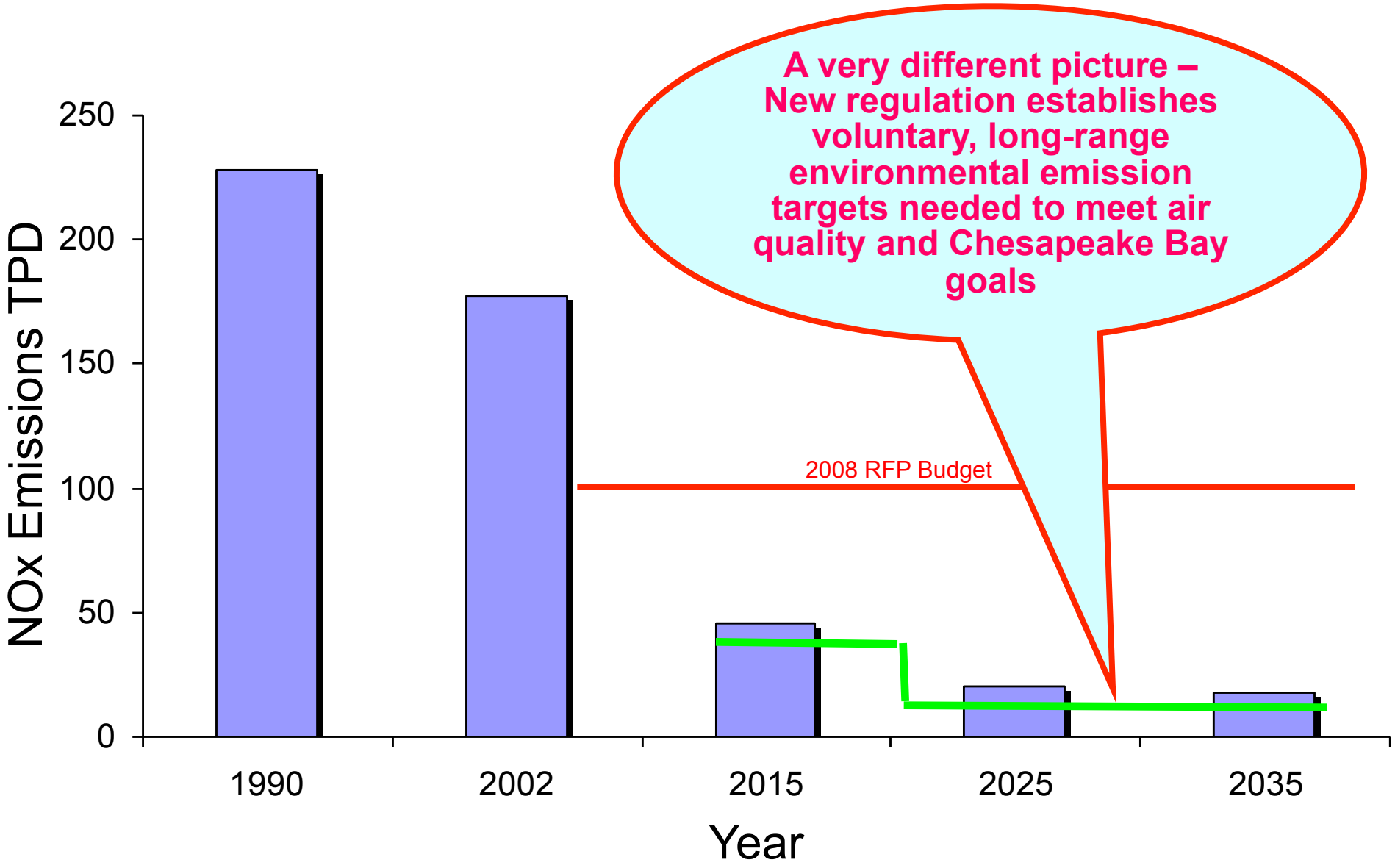
Adapted from TPB "What Will It Take Analysis"
… Adds Long-Range Environmental Emission Targets



Most Recent Baltimore Conformity Analysis



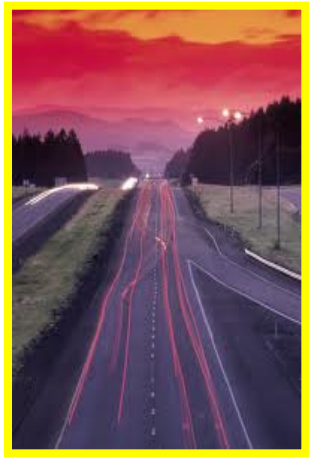
Baltimore – With LRP Targets



How Does This New Rule Work?

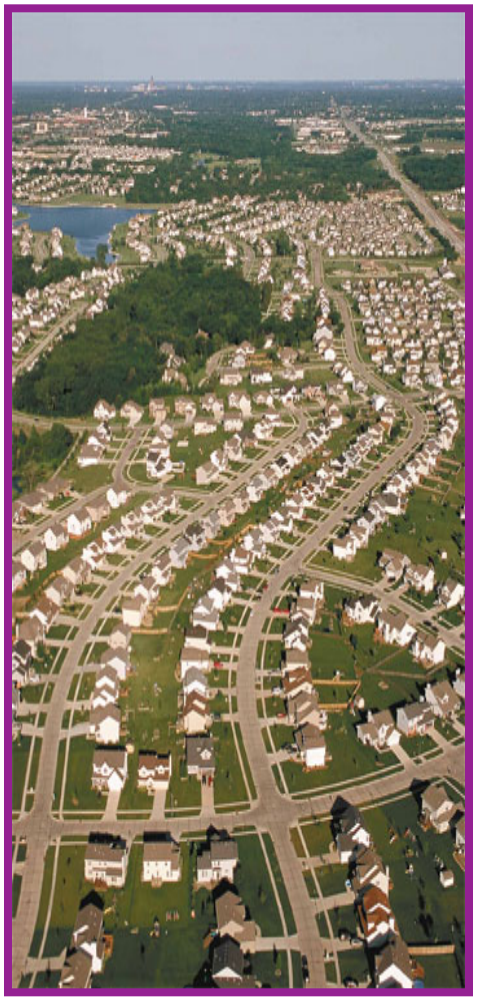
- Only a requirement for Maryland's two largest Metropolitan Planning Organizations (MPOs)
  - BRTB in Baltimore and
  - TPB in Washington DC

- Requires that a mandatory progress report on long-range environmental goals be submitted whenever a conformity analysis is required
  - Report must
    - Show how transportation emissions compare to long-range environmental emission targets established in the regulation, and
    - Discuss plans to reduce any gap between emission targets and projected emissions



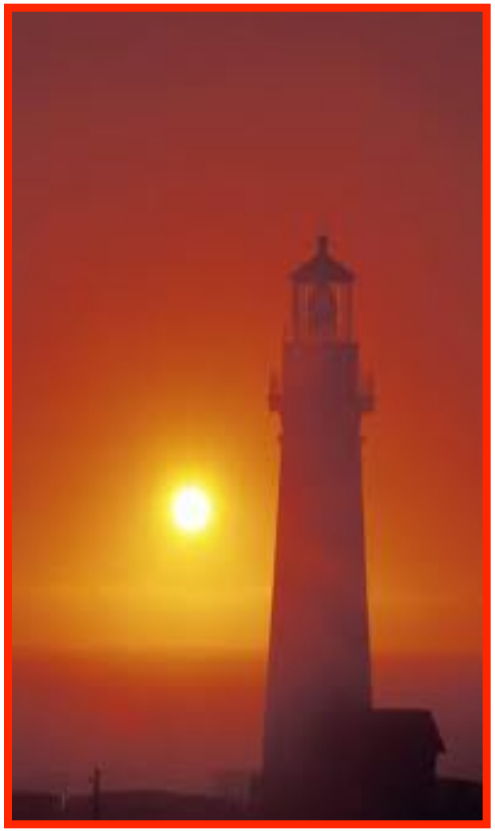
Long-Range Environmental Emission Targets

- **Washington**
  - **2020**
    - NOx = 45.45 Tons per day (TPD)
    - CO2 = 17.2 Million metric tons per year (MMTY)
  - **2030**
    - NOx = 31.32 TPD
    - CO2 = 12.3 MMTY
  - **2040**
    - NOx = 31.32 TPD
    - CO2 = 7.3 MMTY
- **Baltimore**
  - **2015**
    - NOx = 40.5 TPD
    - CO2 = 10.9 MMTY
  - **2025**
    - NOx = 17.9 TPD
    - CO2 = 8.1 MMTY
  - **2035**
    - NOx = 16.1 TPD
    - CO2 = 5.4 MMTY
- **These targets will be updated routinely as regulatory amendments**



How Were the Targets Set?

- NOx
  - 10% below where the current technologies take NOx emissions between now and 2040
- CO2
  - Based on a linear path between 2006 CO2 emissions in each area and a 2050 target that equals a 90% reduction from the 2006 CO2 baseline
    - 90% by 2050 from Maryland's 2008 Climate Action Plan
    - Best CO2 data from each area used to calculate targets



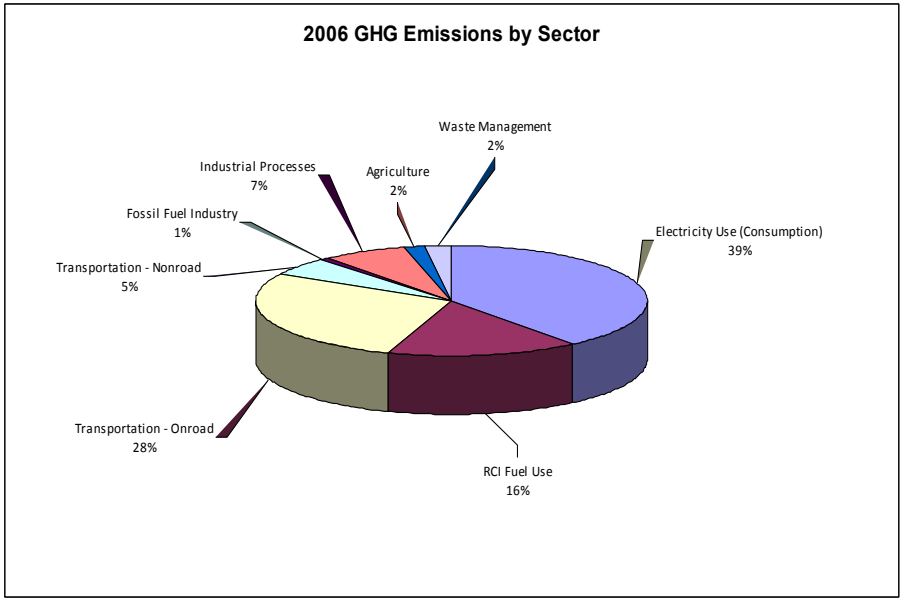
Environmental Drivers

- Clear Need for Much Deeper NOx Reductions
  - Current and future ozone standards
    - Current standard needs to be more protective
    - Mobile still about a third of the inventory in 2020
  - Current and future fine particle standards
  - 33% of nitrogen in the Bay comes from air pollution
  - Deeper NOx reductions help all of these issues

- Climate Change
  - Maryland is the 4th most vulnerable state to sea-level rise
  - Driving CO2 emissions down from mobile sources is critical
    - Generally, mobile sources about 1/3 of statewide greenhouse gas emission inventory

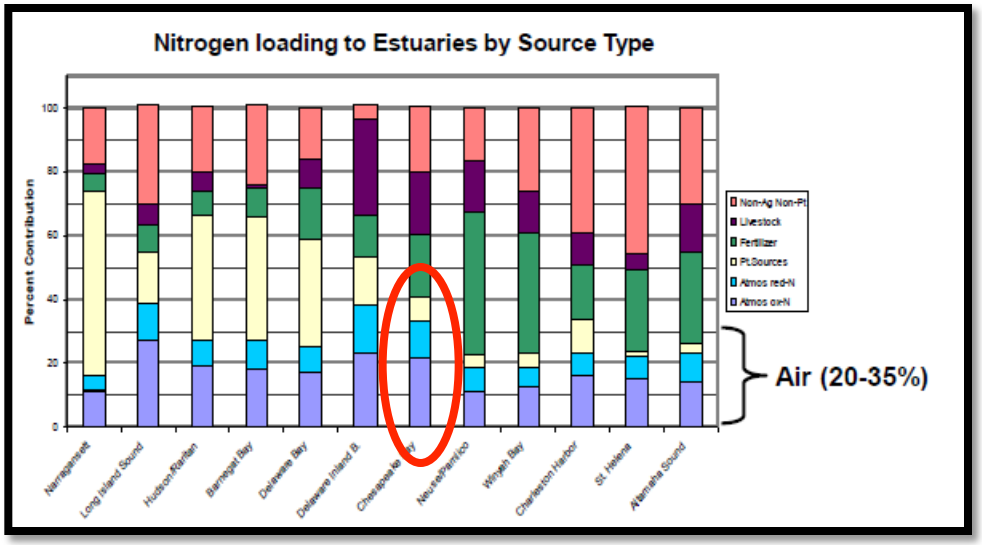
Transportation and GHG Emissions

- Maryland is the 4th most vulnerable state to sea-level rise – one of the consequences of global warming
- Transportation is responsible for about 1/3 of the GHG emissions in MD
- Other major sectors (like power plants) have addressed growth through a hard cap



Mobile Source Emissions and the Bay

- About one third of the Bay's nitrogen problem comes from air pollution sources
  - About ½ of that comes from mobile sources
- 2007 NOx emissions in Maryland – Top two categories
  - Onroad Vehicles (gasoline and diesel)
    - 1148 tons per year
  - Power Plants
    - 516 tons per year



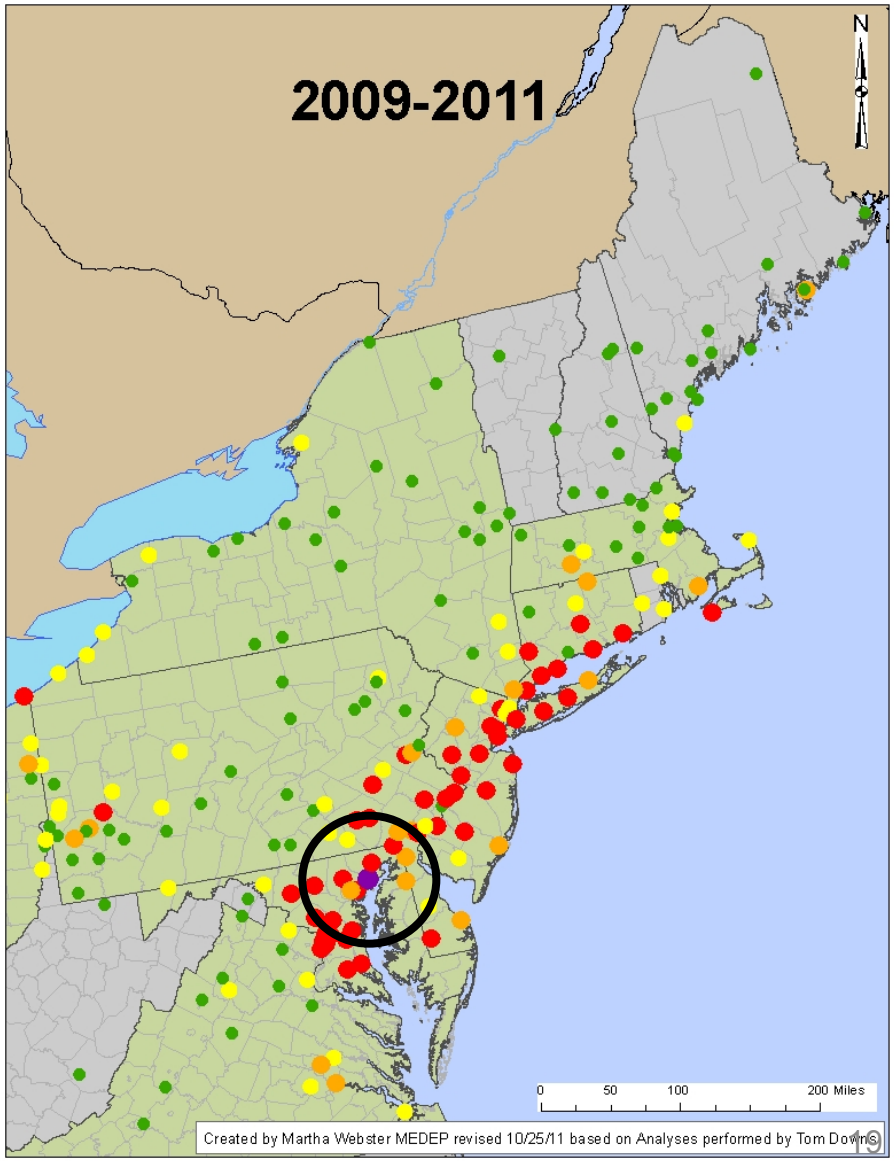
Ozone – The Last Purple Dot

Preliminary 2011 Ozone Design Values in the Ozone Transport Region

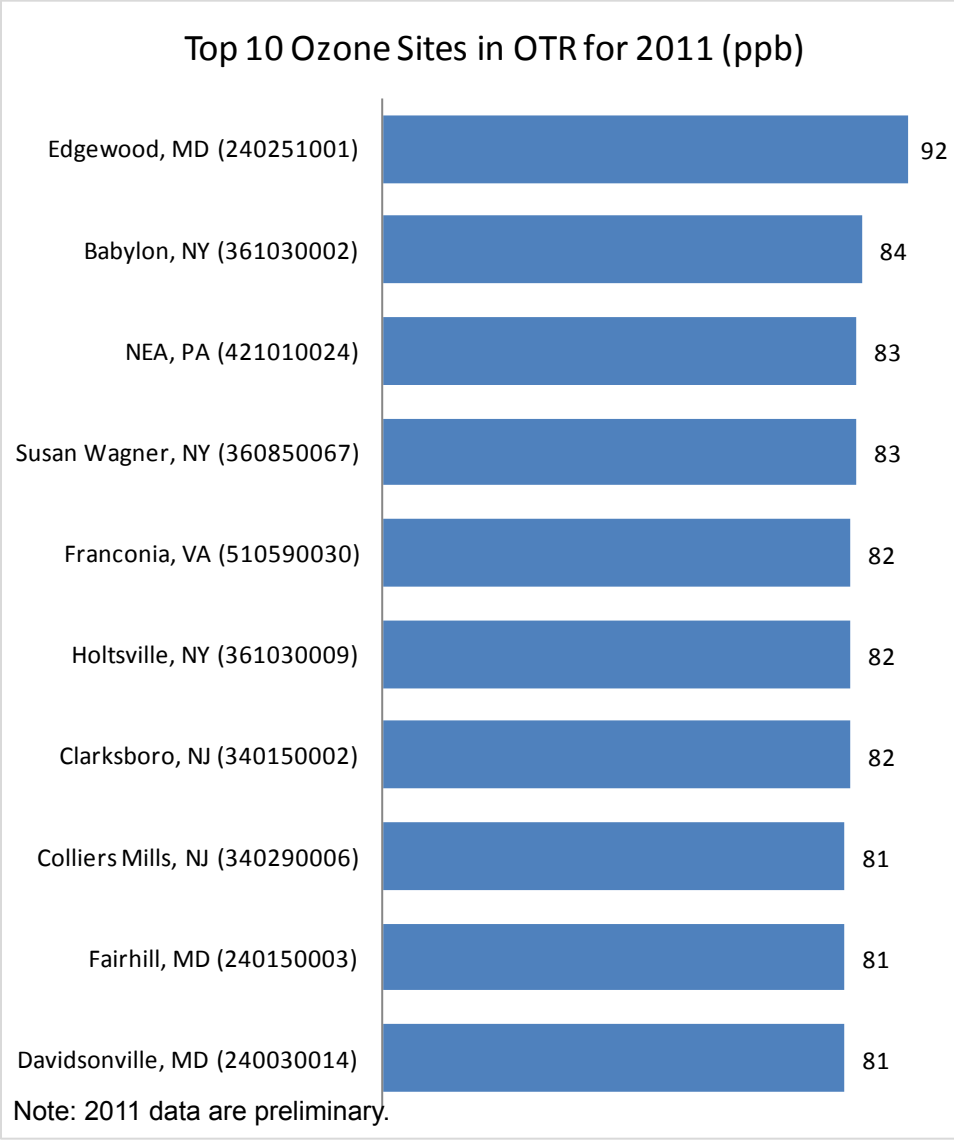
- <71
- 71-73
- 74-75
- 76-85 (mar)
- >85 (mod)

Parts per Billion (ppb)

States with Nonattainment Monitors



The Top 10 – or Maybe the Bottom 10 - List



What Happens if Report Falls Short?

… future emissions are projected to be above the Targets

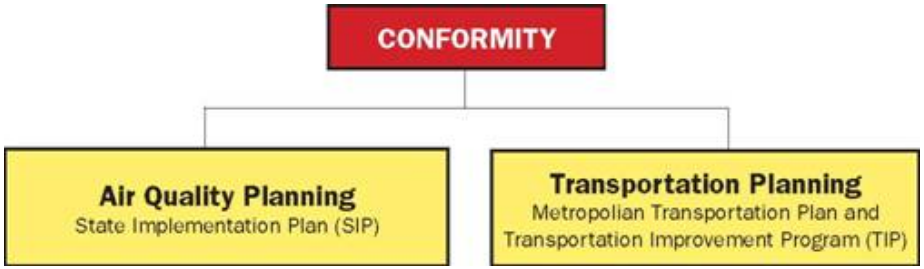
- Long-range environmental emission targets are set at levels that are designed to push for additional reductions
  - They are "stretch" targets
- No penalty for failure to achieve
- Mandated progress report must include a qualitative discussion of planned activities designed to close any gap between the targets and projected emissions

Nature of Regulation Changes

- The revised proposed regulation represents a major re-work of the proposal to address numerous comments from stakeholders
  - General and specific changes
- Not working from a "redline" or "track changes" version of the previous proposed regulation
- Easier if treated as an entirely new draft regulation

Separate-But-Linked Issue

- Many comments on the need to clearly separate this "State" requirement from the Maryland regulations implementing federal transportation conformity requirements
  - Both MPOs, DOTs, other stakeholders
- New regulation now placed in a totally separate chapter of COMAR – 26.11.37
  - No longer in COMAR 26.11.26 – the transportation conformity requirements



Separate But Linked Language

… now in the revised draft regulation

Title 26 DEPARTMENT OF THE ENVIRONMENT

Subtitle 11 AIR QUALITY

Chapter 37 Long Range Environmental Targets for Transportation Planning

Authority: Environment Article, §§1-101, 1-404, 2-101—2-103, 2-301—2-303, 10-102, and 10-103, Annotated Code of Maryland

.07 Consultation. *Representatives of the MPOs, the Department and the Maryland Department of Transportation when undertaking the development of transportation plans, transportation improvement programs, any revisions to them and associated conformity determinations shall include in their interagency consultation process, consultation on the environmental progress report.*

.08 Public Process and Outreach.

A. The public process and outreach requirement in this Chapter is subject to the same public process and outreach procedures contained in COMAR 26.11.26.

B. This requirement includes appropriate communication between the affected MPO and elected and other State officials that are directly or indirectly involved in the MPO.

C. The most recent progress report on long-range environmental planning and, if available, the most recent "What will it take" report must be included in Maryland's CTP annual tour where initial discussions are initiated regarding what new projects should be considered for inclusion in upcoming STIP or Statewide Transportation Plan amendments.

D. The report and analyses required under Regulation .04 and .05 of this Chapter shall be included prominently in any reports, briefings or other materials developed to support the annual CTP tour.

E. In the case of multi-jurisdictional MPOs, the progress report shall be distributed to Maryland members.

Workload Issues

- Many comments on the workload associated with analyzing and modeling new programs considered in the Progress Report
  - Both MPOs, other stakeholders
- New regulation now clarifies that the Progress Report is qualitative only
  - No additional analyses (other than those already required to comply with transportation conformity requirements) mandated
  - Sample Progress Report to be discussed later today
- Does add an opportunity for each MPO to conduct an aspirational, voluntary "What Will It Take" analysis to support the Progress Report

No Tech Analysis Required Language

… now in the revised draft regulation

.04 Environmental Progress Reports on Long-range Environmental Goals.

A. Each affected MPO subject to this requirement shall prepare and submit a progress report on long-range environmental goals to the Department whenever a conformity analysis by an MPO is required under COMAR 26.11.26.

B. The progress report requirement is independent of but associated with the conformity analysis required under COMAR 26.11.26.

C. The progress report on long-range environmental goals shall show how the future projected emissions from proposed transportation plans and projects contained in the conformity analysis compare to the long-range environmental emission targets.

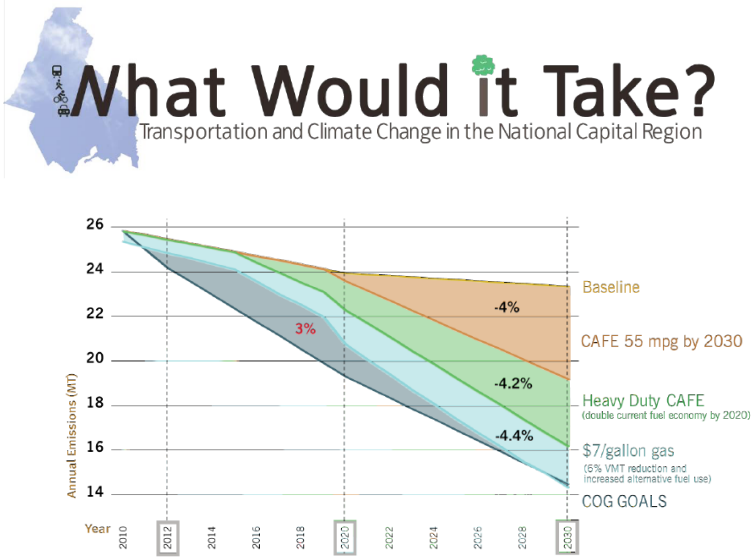
D. To the extent that the emission projections exceed the long-range environmental emission targets, the affected MPO must describe any potential new local, state or federal programs or initiatives being considered or supported by the affected MPO that could close the gap between the projected future emissions and the long-range environmental emission targets.

E. The quantitative benefits from these new programs or initiatives do not need to be included in the progress report on long-range environmental goals.

Allow For a Voluntary, Aspirational Analysis

- Comment from TPB on allowing for a voluntary, aspirational technical analysis if desired by MPO
  - TPB has already begun a "What Will It Take" process to begin analyzing options to further reduce GHG emissions

- Draft regulation now allows for a voluntary, aspirational "What Will It Take Analysis"



"What Will It Take" Language

… now in the revised draft regulation

.05 Optional "What Will It Take" Report.

A. Each affected MPO subject to this requirement may prepare and submit a "What will it take" report to the Department to compliment any progress report on long-range environmental goals required by this Chapter.

B. Affected MPOs may determine the frequency of any analysis conducted under this section, based upon regional priorities and the availability of funding, but an annual analysis is recommended.

Include Progress Report in the "Tour"

- Several comments (environmental groups, MDE staff) on making sure that any available Progress Reports are discussed as part of Maryland's annual transportation tour
  - The annual tour is where discussions begin on what projects to add to next TIP or CLRP
- Draft regulation now requires that latest available Progress Report be included and discussed during the tour

Annual Transportation Tour Language

… now in the revised draft regulation

.02 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms defined.

(1) "Consolidated transportation program(CTP) annual tour" means the annual visit by the Department of Transportation to each jurisdiction that is a member of an MPO to present and receive comments on the pending program before the final document is presented to the General Assembly.

.08 Public Process and Outreach.

C. The most recent progress report on long-range environmental planning and, if available, the most recent "What will it take" report must be included in Maryland's CTP annual tour where initial discussions are initiated regarding what new projects should be considered for inclusion in upcoming STIP or Statewide Transportation Plan amendments.

D. The report and analyses required under Regulation .04 and .05 of this Chapter shall be included prominently in any reports, briefings or other materials developed to support the annual CTP tour.

Clarifying Language on Penalties

- Several comments on the need to clarify what happens if a Progress Report shows that future projected emissions will be above LRPTs
  - MPOs, DOTs, other stakeholders
- New regulation makes it clear that there is no penalty if emissions are projected to exceed LRPTs

Revised Penalty Language

… now in the revised draft regulation

.06 Long Range Environmental Emission Targets.

D. There is no penalty if the progress report on long-range environmental goals shows that future projected emissions are expected to exceed the long-range environmental emission targets.

E. Failure to submit a progress report that meets the requirements of Regulation .04 of this Chapter will be handled in a manner consistent with existing enforcement procedures for other reporting violations found in Title 2 of the Environment Article, Annotated Code of Maryland, or as may be provided in the regulations of any multi-jurisdictional MPO.

Establish a LRPT for the 2020 Timeframe

- Comment from Environmental community on also including an earlier LRPT for the 2020 timeframe

- Revised regulation now includes new CO2 LRPTs for Baltimore and Washington in the 2015 to 2020 timeframe

LRPTs for the 2020 Timeframe

… now in the revised draft regulation

.06 Long Range Environmental Emission Targets.

A. The long-range environmental emission targets for NOx and CO2 are established for the last three horizon years of the conformity determination for each affected MPO.

B. The long range transportation planning targets for carbon dioxide (CO_2) are:

(1) for the Baltimore Region Ozone Nonattainment Area:

(a) 10.9 million metric tons per year in 2015

(b) 8.1 million metric tons per year in 2025

(c) 5.4 million metric tons per year in 2035

(2) for the Washington DC Region Ozone Nonattainment Area:

(a) 17.2 million metric tons per year in 2020

(b) 12.3 million metric tons per year in 2030

(c) 7.3 million metric tons per year in 2040

C. The long range transportation planning targets for nitrogen oxides (NOx) are:

(1) for the Baltimore Region Ozone Nonattainment Area:

(a) 40.5 tons per day in 2015

(b) 17.9 tons per day in 2025

(c) 16.1 tons per day in 2035

(2) for the Washington DC Region Ozone Nonattainment Area:

(a) 45.45 tons per day in 2020

(b) 31.32 tons per day in 2030

(c) 31.32 tons per day in 2040.

Impacts on Areas Outside of Maryland

- Many comments on this issue
  - MPOs, VA, DC
- New language added to specify Maryland specific applicability

Revised Applicability Language

… now in the revised draft regulation

.02 Definitions.

(3) "Metropolitan planning organization (MPO)" is defined at COMAR 26.11.26.02B.

.03 Applicability. *The requirements in this chapter are applicable to any MPO that:*

A. Includes members from jurisdictions in Maryland,

B. Represents an area of the State currently designated by the U.S. Environmental Protection Agency as a nonattainment area for the current National Ambient Air Quality Standard for ozone and

C. Is responsible for making decisions about regional transportation plans where emissions from those plans affect the quality of air that citizens of Maryland are exposed to.

How to Set LRPTs?

- Several comments on the need for more discussion on setting long range planning targets
- MPOs, DOTs, others
- Draft regulation – at this time - does not change methodology for targets
  - Anxious to hear other ideas on target setting and will consider changes
- Let's talk

Current Projects in the Progress Report

- Several comments on the need to integrate current projects, programs and planning activities into the Progress Report
- MPOs, DOTs
- Current programs and planning activities that affect future years can be included in the Progress Report
- To be discussed later when hypothetical Progress Report is reviewed

Questions?