



## **Department of the Environment**

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# Regulations to Complement Maryland's Current Conformity Regulation

*Establishing Long-Range Environmental Planning Targets  
for Greenhouse Gas and Nitrogen Oxides Emissions*



Tad Aburn, Air Director, MDE  
Metropolitan Washington CEEPC Meeting  
July 25, 2012



# Topics

- Why is MDE proposing this regulation?
  - The need to further reduce emissions from the transportation sector
  - Concerns over the current process
    - Is it providing elected officials and the general public with the information they need?
- How does the new amendment to the conformity rule work?
  - How will the long-range planning targets be incorporated into and used in the conformity process?
  - How did we formulate the long-range planning targets?
- What is the process for moving forward with the draft regulation?





# 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 states 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



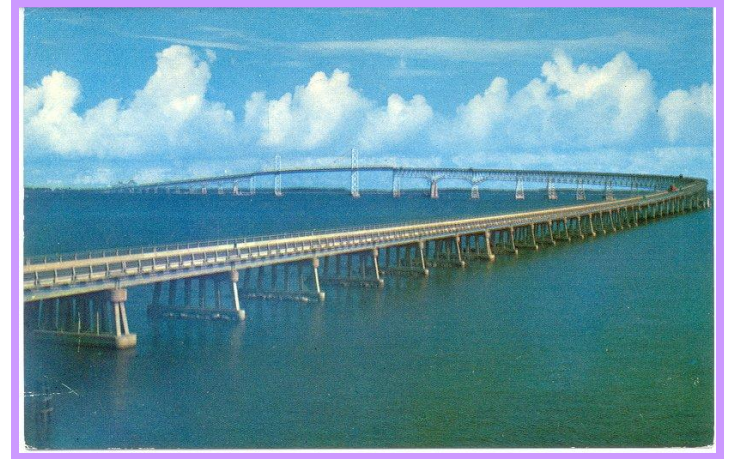
# New Regulation - Environmental Drivers

- Maryland is the fourth most vulnerable state to sea level rise, one of the major consequences of global warming
  - Adopted the MD Greenhouse Gas Emission Reduction Act (GGRA) in 2009
- 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
- MDE believes that extra effort is warranted to help address all of these environmental problems



# Concerns With Current Conformity Process

- The current conformity process could be enhanced to provide policy makers 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

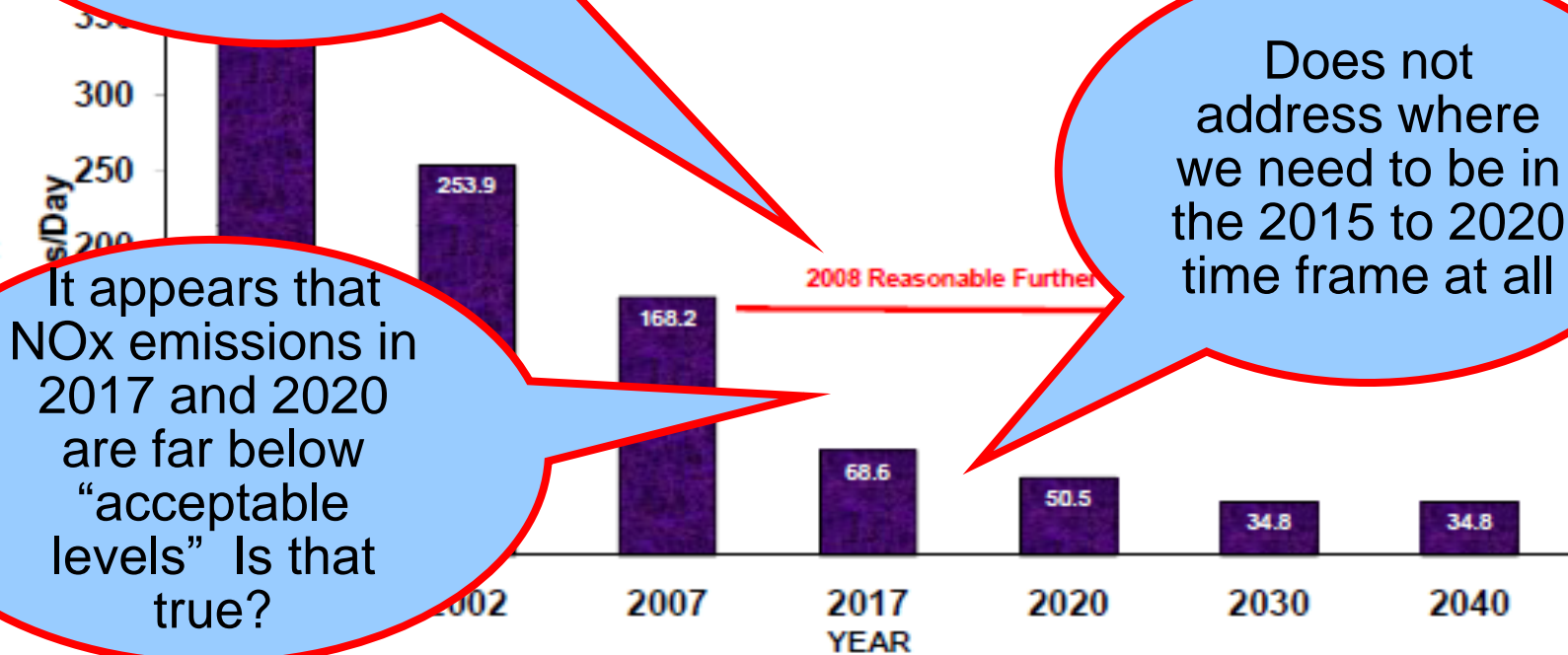
TDR Meeting – June 20, 2012

6/11/12

## EXHIBIT 7 Source NOx Emissions for Ozone Nonattainment Area CLRP & FY2013-2018 TIP

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

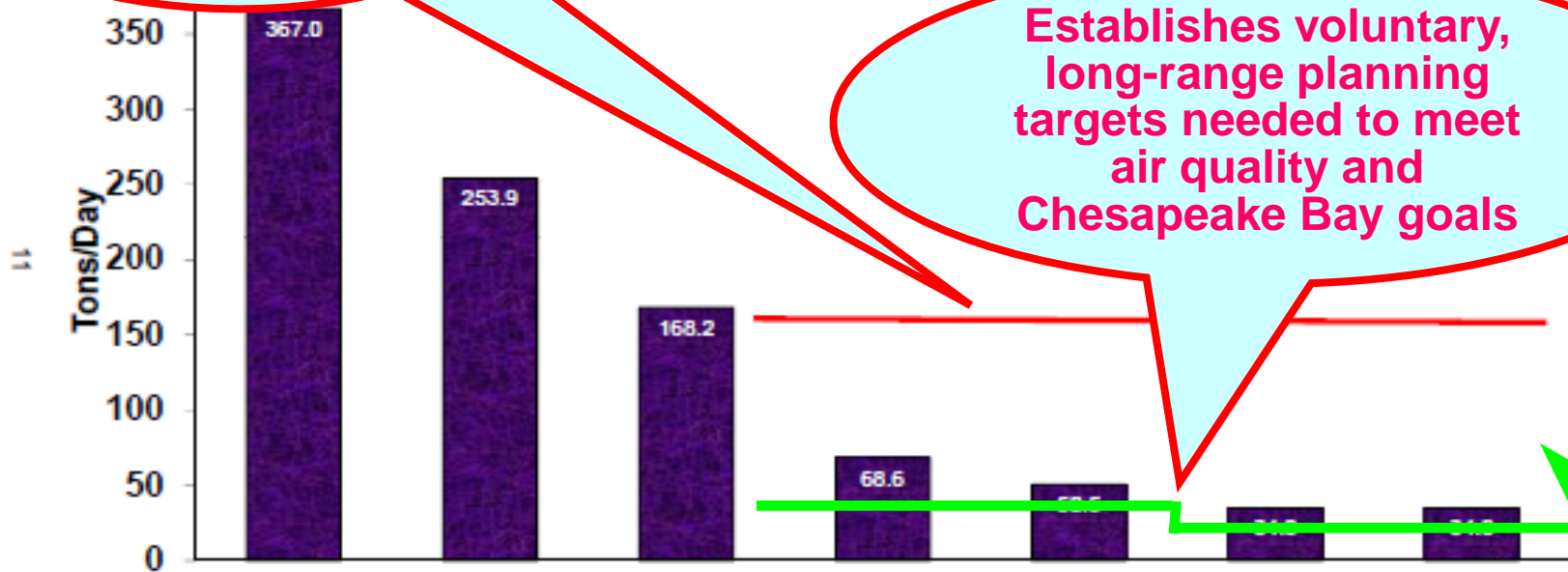
## Adds Long-Range Planning Targets to the Process

6/11/12

**EXHIBIT 7**  
**Mobile Source NOx Emissions**  
**Hour Ozone Nonattainment Area**  
**12 CLRP & FY2013-2018 TIP**

Clarifies that this "Budget" line represents the minimum regulatory requirement

Establishes voluntary, long-range planning targets needed to meet air quality and Chesapeake Bay goals

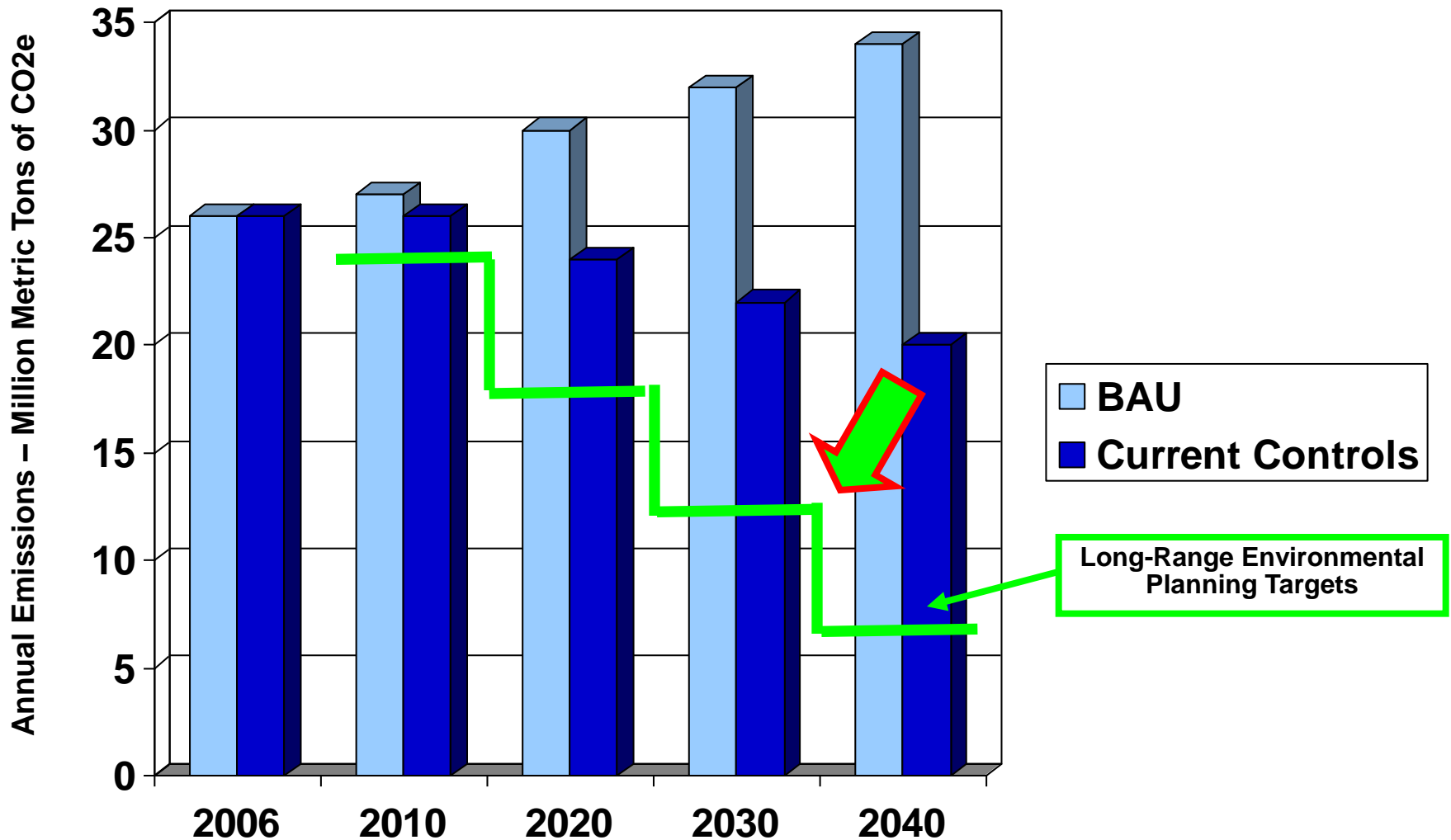


Presents Policy Makers with a Very Different Question ...  
*... Shouldn't We be Striving to Get Closer to the Green Line?*



# GHG Emissions Trends\* ...

*... not considered in conformity process at all - Would be included as part of the MDE proposed regulation*



\* Adapted from TPB "What Will It Take" Analysis





# 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 long-range planning report be submitted whenever a conformity analysis is required
  - Report must
    - Show how transportation emissions compare to long-range planning (LRP) Targets established in the regulation, and
    - Discuss plans to reduce any gap between LRP Targets and projected emissions
    - Generally consistent with the "What Will it Take" work already initiated by TPB for CEEPC



# What Are the LRP Targets?

- **Washington**

- **2020**

- NO<sub>x</sub> = 45.45 Tons per day (TPD)
    - CO<sub>2</sub> = 17.2 Million metric tons per year (MMTY)

- **2030**

- NO<sub>x</sub> = 28.71 Tons per day (TPD)
    - CO<sub>2</sub> = 12.3 Million metric tons per year (MMTY)

- **2040**

- NO<sub>x</sub> = 29.19 TPD
    - CO<sub>2</sub> = 7.3 MMTY

- **Baltimore**

- **2015/2020**

- NO<sub>x</sub> = 40.5 Tons per day (TPD) - 2015
    - CO<sub>2</sub> = 9.5 Million metric tons per year (MMTY) - 2020

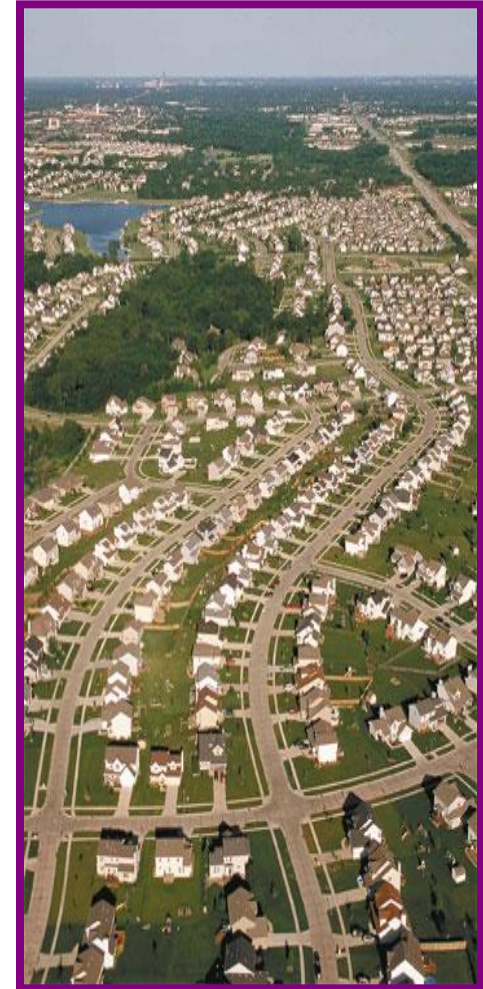
- **2025**

- NO<sub>x</sub> = 18.3 TPD
    - CO<sub>2</sub> = 8.1 MMTY

- **2035**

- NO<sub>x</sub> = 16.1 TPD
    - CO<sub>2</sub> = 5.4 MMTY

- **These budgets will be updated routinely as regulatory amendments**



# How Were the LRP Targets Set?

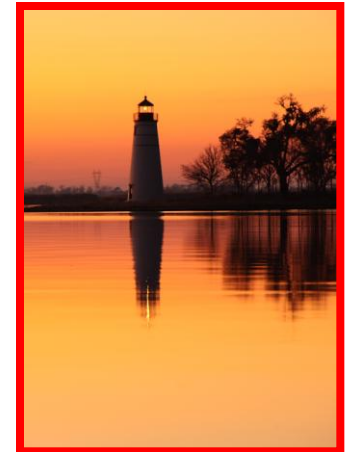
- NO<sub>x</sub>
  - 10% below where the current technologies take NO<sub>x</sub> emissions between now and 2040
- CO<sub>2</sub>
  - Based on a linear path between 2006 CO<sub>2</sub> emissions in each area and a 2050 target that equals a 90% reduction from the 2006 CO<sub>2</sub> baseline
    - 90% by 2050 from Maryland's 2008 Climate Action Plan
    - Best CO<sub>2</sub> data from each area used to calculate targets





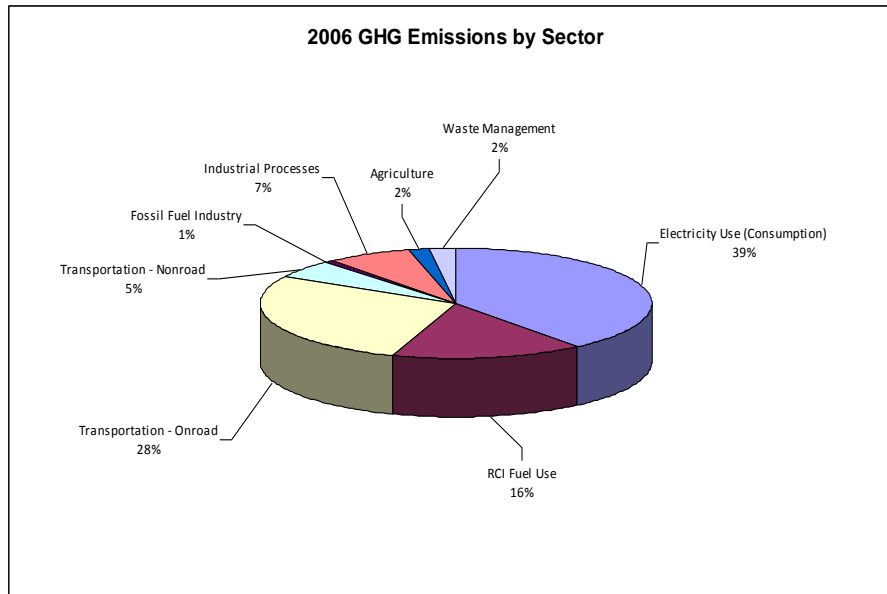
# Environmental Drivers for LRP Targets

- 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 4<sup>th</sup> 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 4<sup>th</sup> 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 and the Washington/Baltimore region
- Other major sectors (like power plants) have addressed GHG growth through a hard cap





# Maryland's GGRA of 2009

## ... Greenhouse Gas Emission Reduction Act of 2009

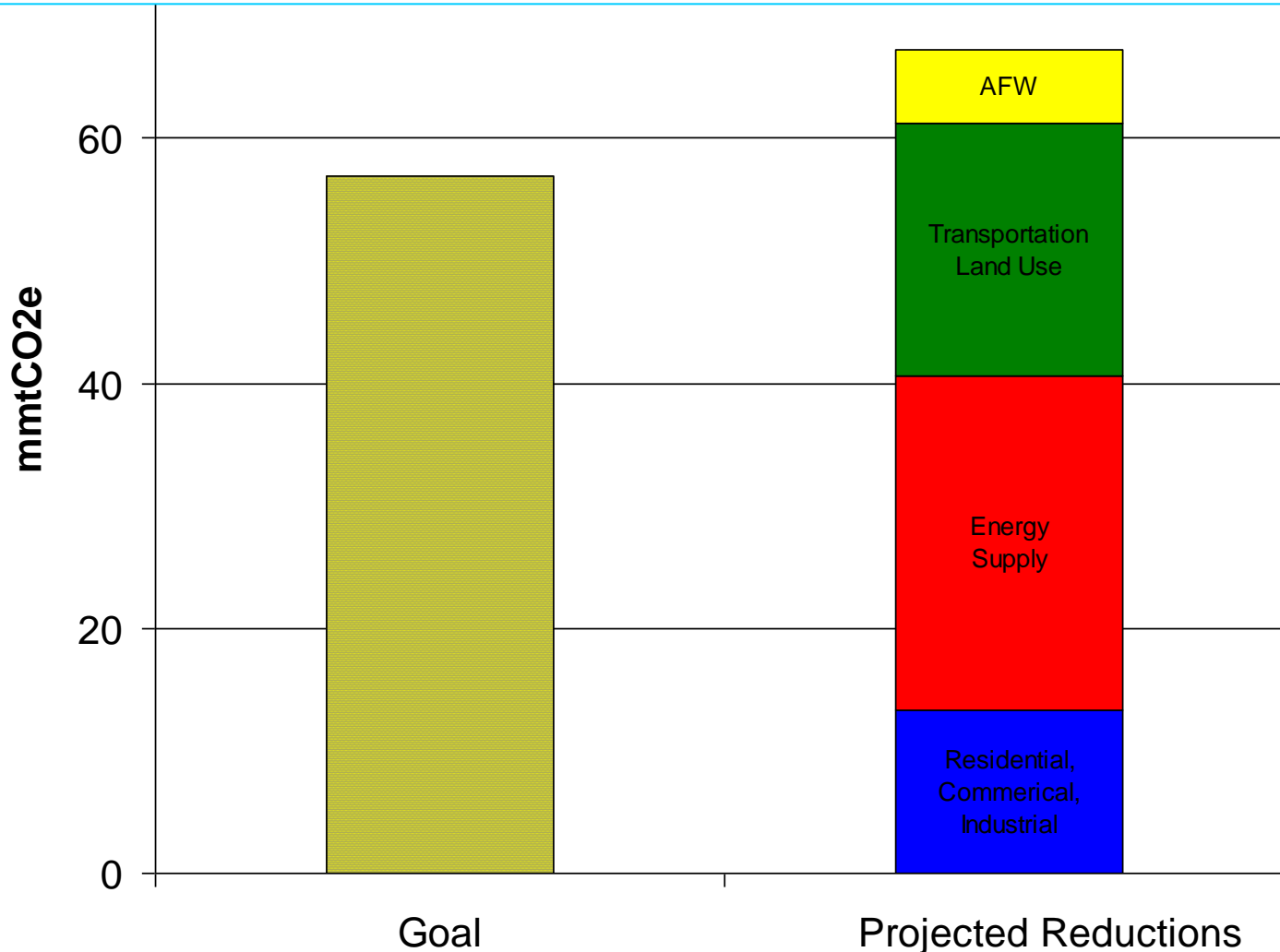
- Requires a Plan to achieve a 25% reduction in GHG emissions by 2020
- Plan must also help with economic recovery and create jobs
- Plan released in draft in 2011
- Must be final by the end of December 2012
- Plan includes 65 control Programs
  - MDE, MDOT and 9 other State agencies helped develop and implement the Plan
- Transportation Strategy # 13
  - “Evaluating the GHG Emissions Impacts from Major New Projects and Plans” ...
  - Includes this kind of regulation as part of implementation





# GGRA - The Bottom Line

Progress Meeting the 25% Reduction Requirement of the GGRA – Reductions from the Draft Plan



# Economic Benefits and Jobs

- GGRA requires that the 2012 Plan
  - Reduce GHG emissions by 25% in 2020
  - Have a net economic benefit to Maryland, and
  - Create new jobs
- Current analyses show that economic benefits could be up to \$6.1 billion by 2020
- Current job creation estimates project as many as 36,000 new jobs from implementing the GGRA



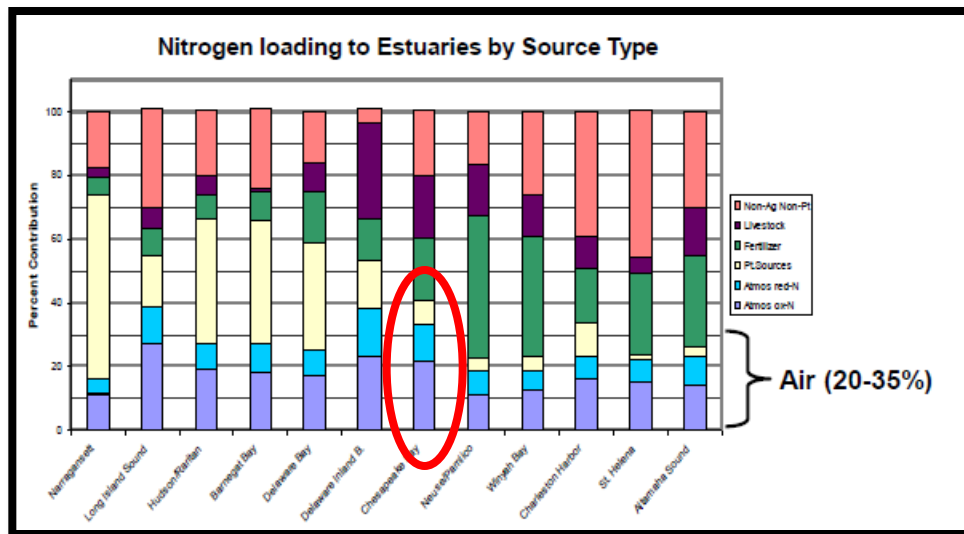
**Maryland**  
**jobs**





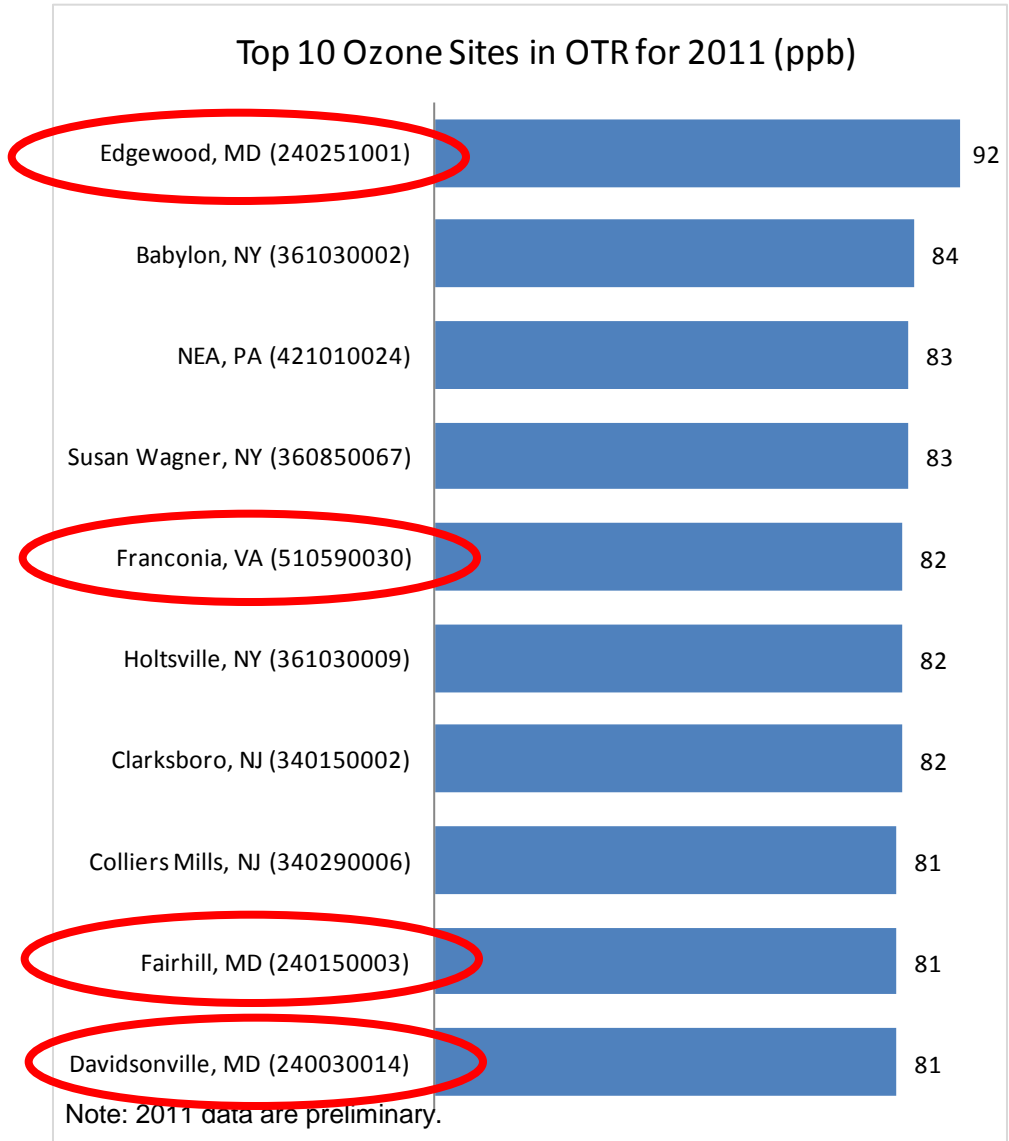
# Mobile Source Emissions and the Bay

- About one third of the Bay's nitrogen problem comes from air pollution sources
  - About ½ of that comes from mobile sources
- 2007 NO<sub>x</sub> emissions in Maryland – Top two categories
  - Onroad Vehicles (gasoline and diesel)
    - 1148 tons per year
  - Power Plants
    - 516 tons per year





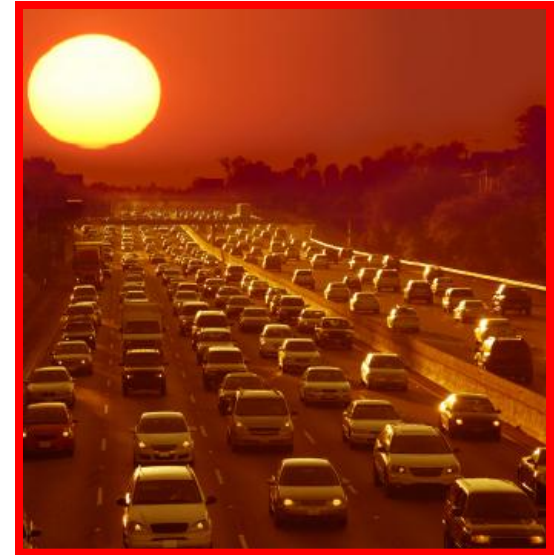
# Ozone - The Top (or Bottom) 10 List



# What Happens if Report Falls Short?

... *future emissions are projected to be above the LRP Targets*

- LRP Targets are set at levels that are designed to push for additional reductions
  - They are “stretch” targets
- No penalty for failure to achieve
- Mandated plans must include a qualitative discussion of planned activities designed to close any gap between LRP Targets and projected emissions



# What Are the Next Steps?

- First AQCAC briefing – March 26, 2012
- Stakeholder discussions with DOTs, BRTB, TPB and MWAQC, environmental and business groups and others
  - June, July and August
- Briefing to DC Climate Committee
  - CEEPC on July 25
- Discussion at September AQCAC
  - September 10, 2012
- 3rd Stakeholder meeting in September
- Final action by AQCAC this fall/winter
- Adoption of Final Regulation around the end of year
  - Any conformity analyses after 2012 may be required to include the LRP Report
  - Would encourage MPOs to begin now



# Key Changes to the Proposed Regulation

- MDE has received quite a bit of comment
  - MPOs, Transportation Agencies, Environmental Community
  - Appears to be unanimous support for the overarching policy goals
    - But concern over the “regulatory” implementation mechanism
  - Based upon comments to date, the following key changes are being drafted:
    - Clarify that the new requirement is separate from, but linked to, the federal conformity mandates
    - Clarification that the new rule does not mandate any additional modeling
    - Clarification that there is no penalty associated with not meeting the LRP targets
    - Considering mechanisms to address comments from the environmental community to make the LRP Targets “more meaningful and enforceable”



# Questions?

