

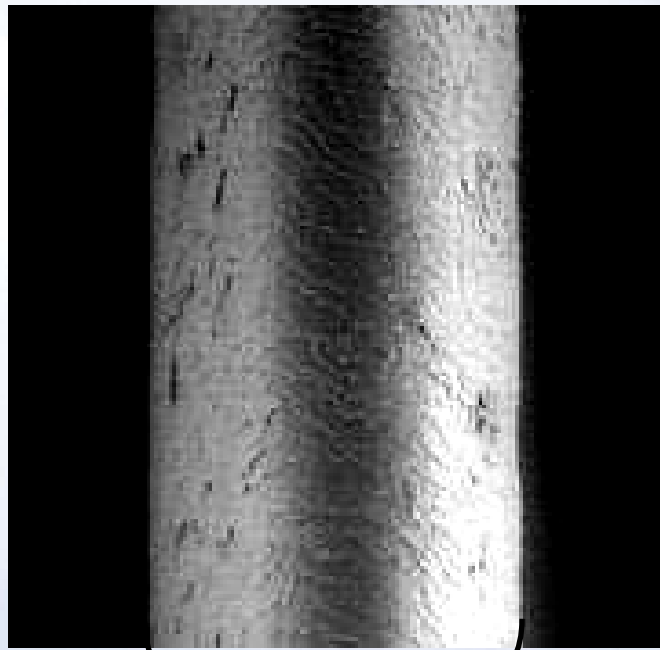
Fine Particle Pollution Redesignation Request

Joan Rohlfs, MWCOG/DEP

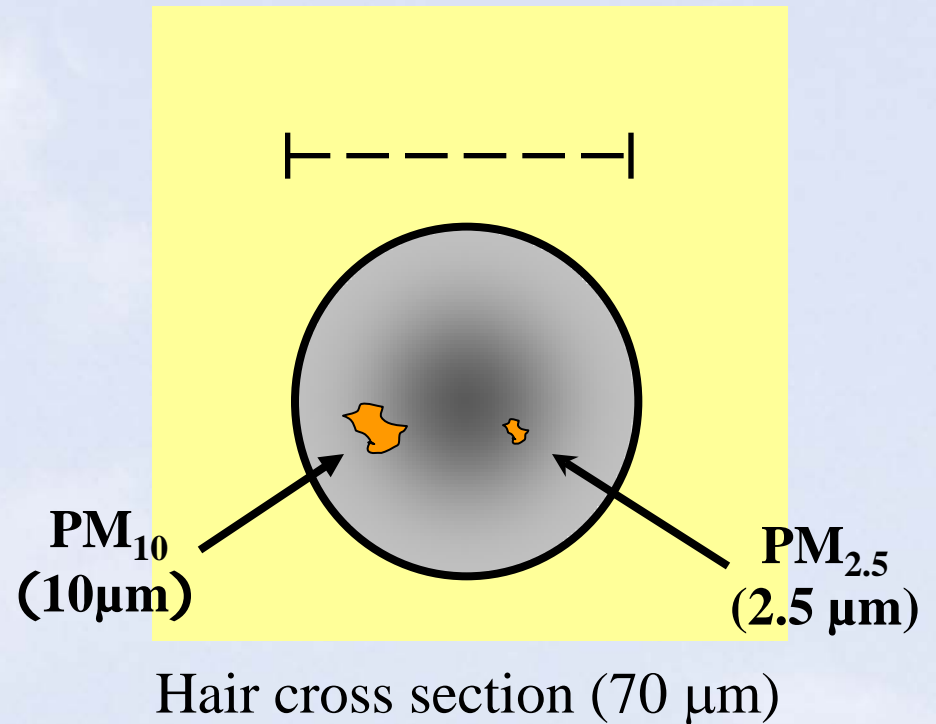
Feb. 15, 2012

How Fine is Fine?

Particles are only a fraction of the size of a human hair



Human Hair (70 μm diameter)



Hair cross section (70 μm)

Air Pollution: Fine Particles

- Chemical, **particulate matter** or aerosol that modifies the natural characteristics of the atmosphere
- Created locally by emissions from coal combustion, cars & trucks, road construction
- Causes respiratory problems
- Impairs visibility

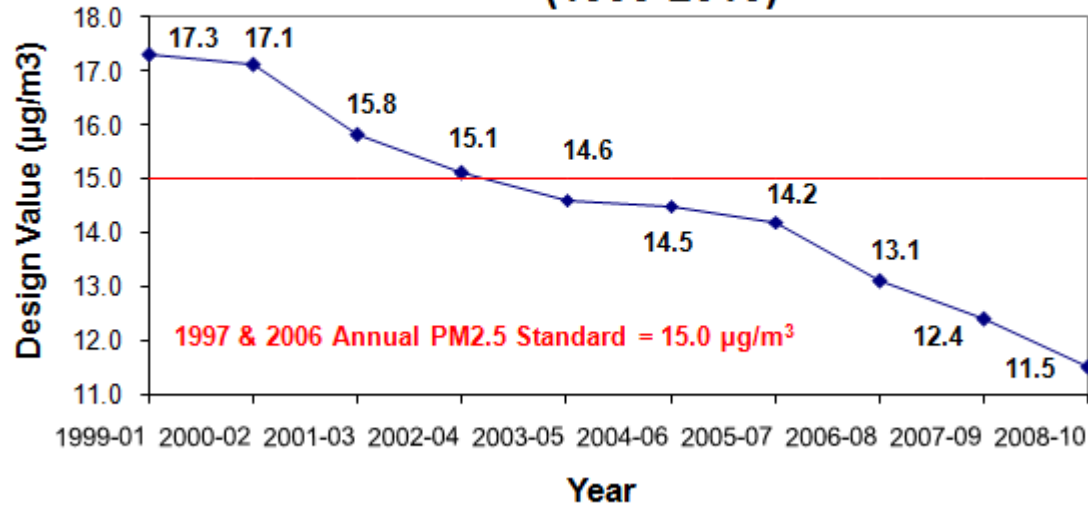




Steps to Official “Attainment” Status

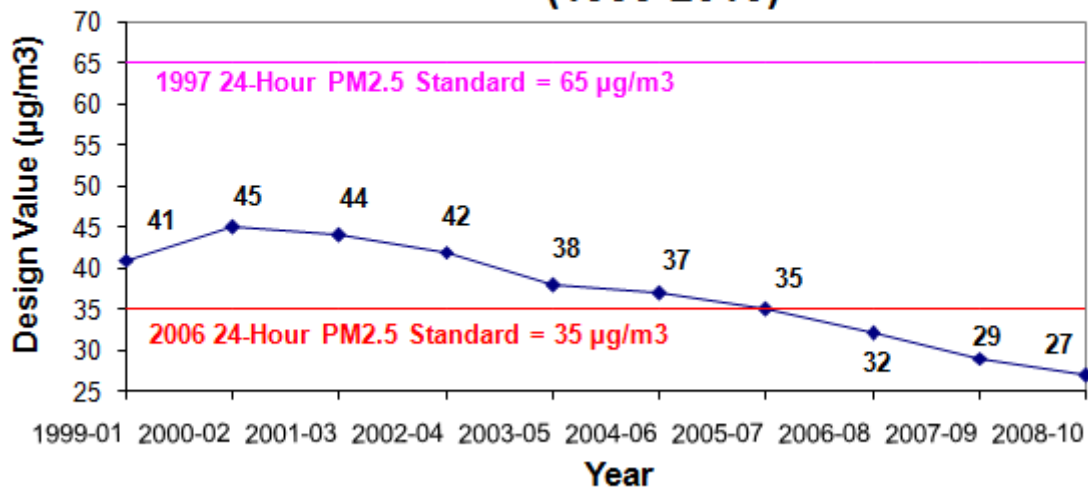
- 2005 - Air quality monitors indicate that average annual concentrations are below the national health standard
- 2008 – MWAQC, States submitted PM2.5 SIP showing attainment by 2009.
- EPA issues a “Clean Data Determination,” 2009
- States request redesignation to attainment and submit a plan to maintain low levels of fine particle pollution for 10 years into future

Annual PM2.5 Design Value Washington, DC-MD-VA Nonattainment Area (1999-2010)



* Design value = 3-year avg of annual mean PM2.5 concentrations.

24-Hour PM2.5 Design Value Washington, DC-MD-VA Nonattainment Area (1999-2010)



* Design value = 3-year average of 98th Percentile of PM2.5 concentrations.

SIP submitted to EPA, 2008

EPA finalizes PM2.5 Standard

Region Designated Nonattainment

PM2.5 SIP Submitted

Clean Data Determination
Attainment
Year

1997

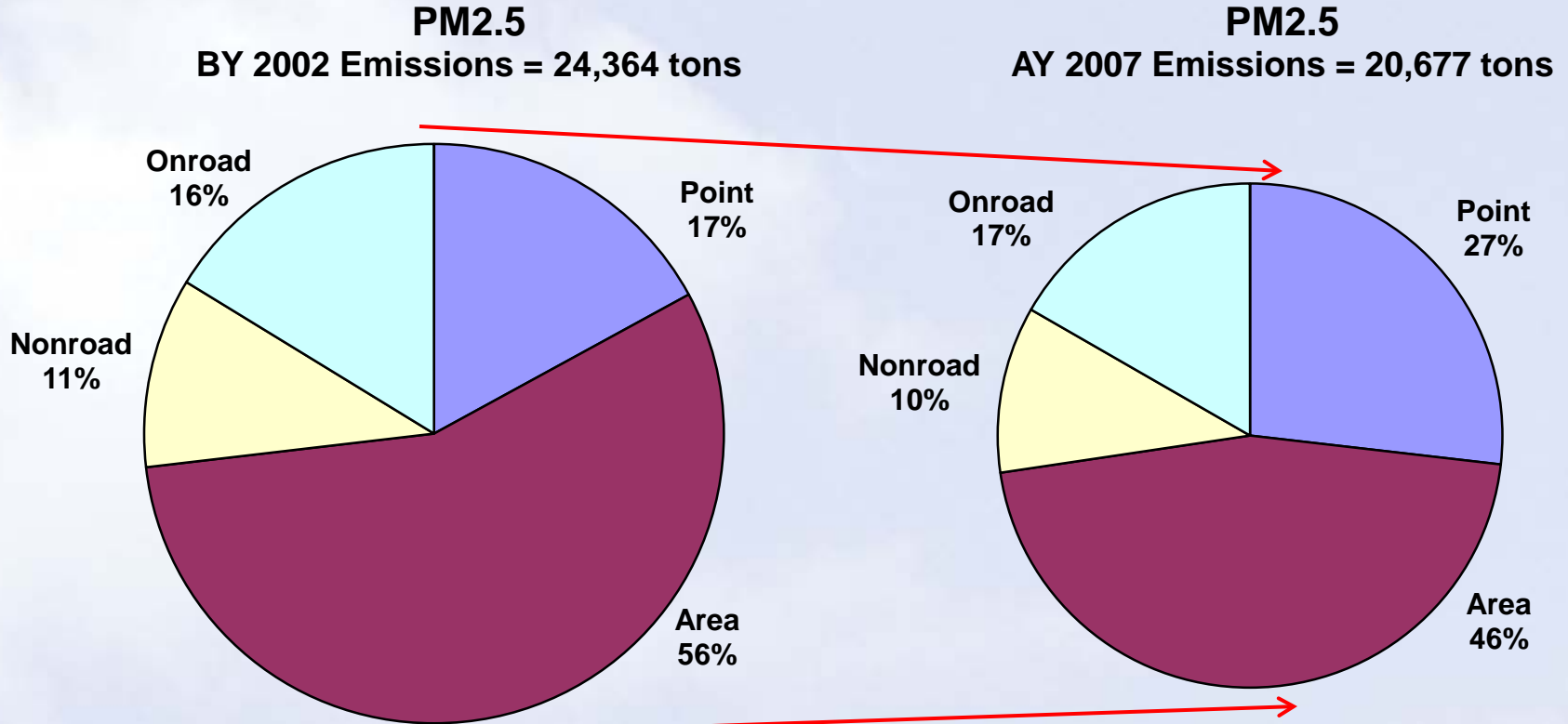
2004

2008

2009

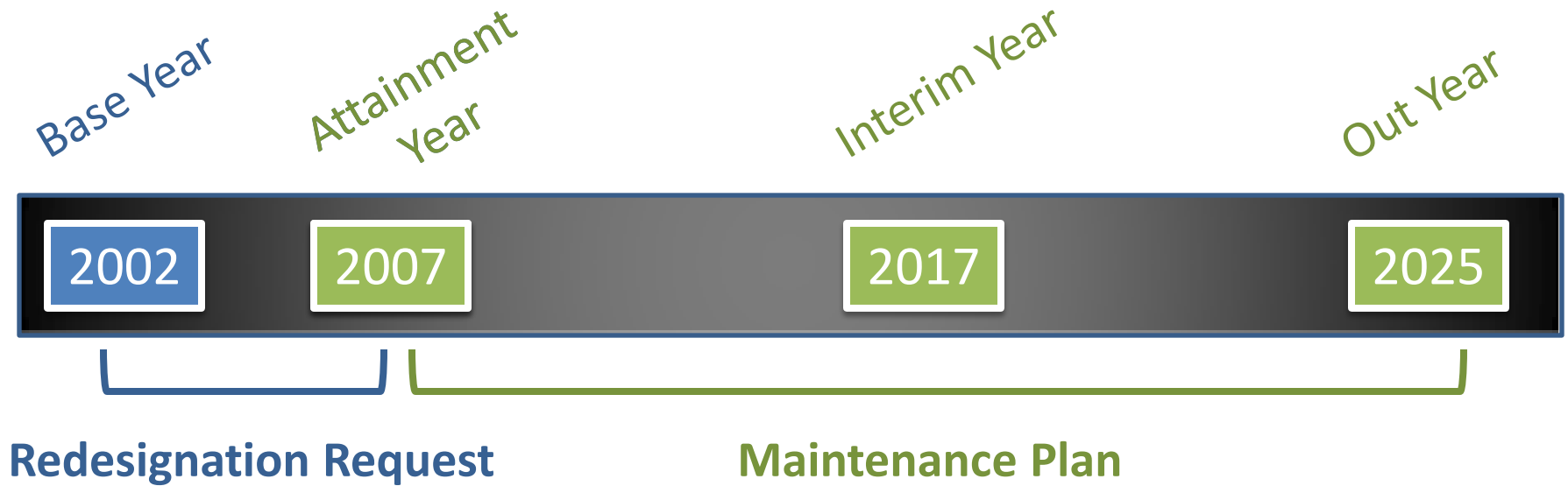
2009

PM2.5 Emissions, 2002-2007



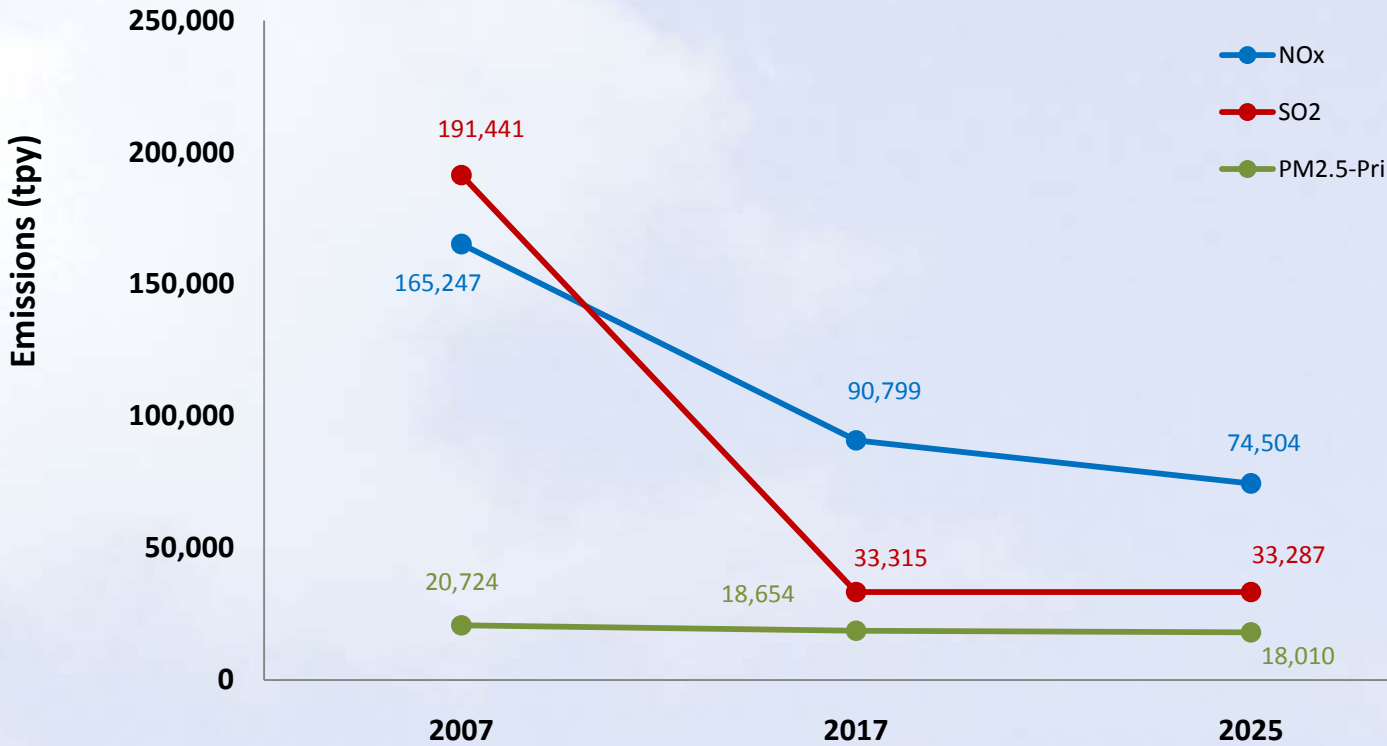
Base Year 2002 - Point & area (PM2.5 SIP), nonroad & onroad (NMIM & MOVES)
Attainment Year 2007 - Point, area, nonroad - MARAMA, onroad - MOVES
AY 2007 emissions are draft.

Redesignation Request & Maintenance Plan Time Frame



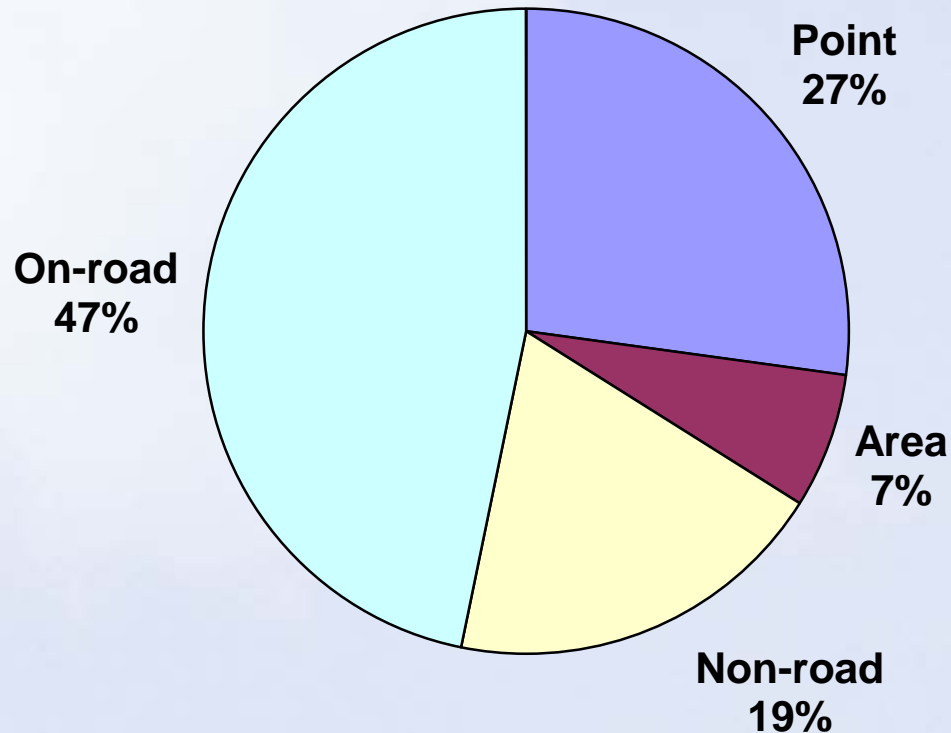
Emissions Trend

(Washington, DC-MD-VA PM2.5 NAA)

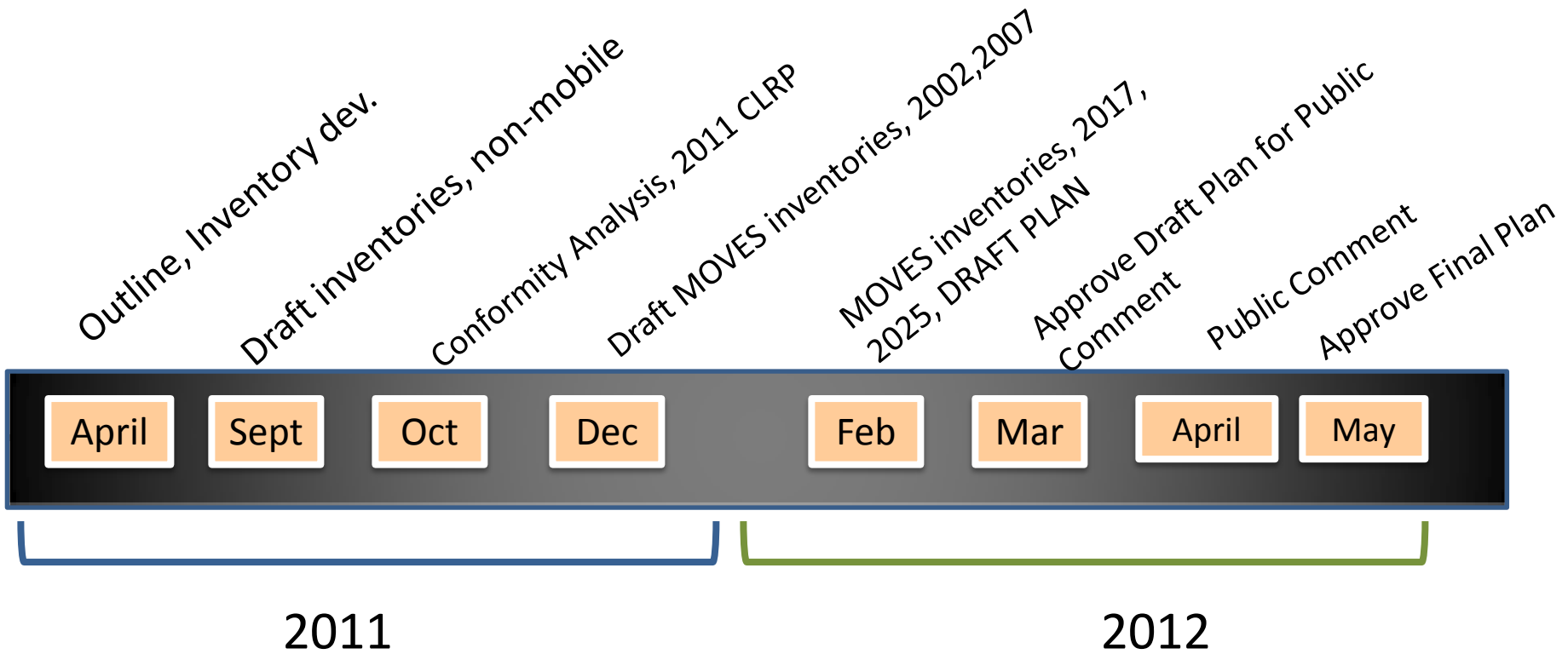


Source Contribution of NO_x Emissions, Metro.Washington Region

NO_x
2007 Annual Emission = 139,324 tons



PM2.5 SCHEDULE TO REDESIGNATION



IMPLICATIONS FOR CONFORMITY

- Maintenance Plan submitted to EPA in early June
- Completeness review of Plan
- EPA will do an adequacy review of the mobile budgets
 - Notice on OTAQ website, 30 day comment period on proposed budgets
 - Adequacy Determination notice published in Federal Register
 - Maintenance Plan PM2.5 mobile budgets effective 15 days later
- 90-100 day process after submittal until budgets are active and must be used in conformity (estimated time: September 2012)