



PM2.5 Planning Requirements for the Metropolitan Washington, D.C. Region

Joan Rohlf
Chief, Air Quality Planning
Metropolitan Washington COG

Overview

- Background
- Particle Pollution
- Nonattainment Designation
- Planning Horizon
- SIP Requirements
- Transportation Conformity Requirements



Background

- PM Implementation Guidance Issued: March 29, 2007
- PM_{2.5} NAAQS Proposed 1997.
- Region Designate Nonattainment for Annual Standard in 2004.
- SIPs due in April 2008. Attainment Deadline 2010.
- Daily Standard Lowered in Sept 2006 (designations expected in 2009)



Particle Pollution

- Mixture of microscopic solid and liquid particles suspended in air.
- Particles vary in size.
- The size of the particles is directly linked to their potential for causing health problems.
- Particle pollution can occur year-round.
- Constituents: Direct PM and Precursor NO_x, SO₂. Significance? VOC, Ammonia



PM Nonattainment Designations

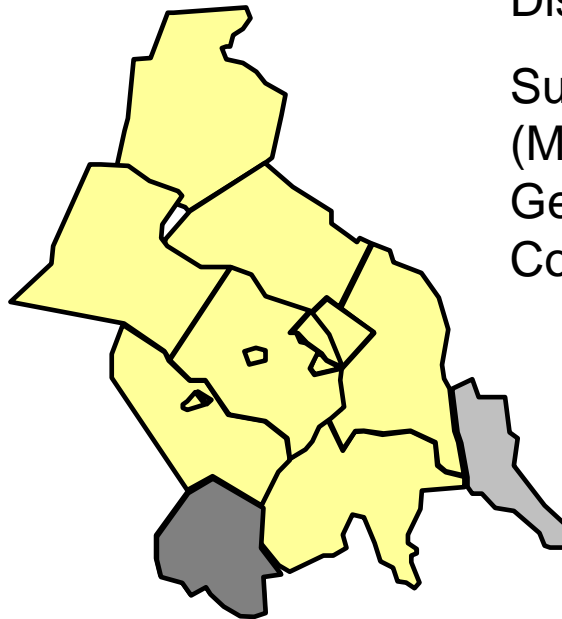
- Annual Standard: 15 $\mu\text{g}/\text{m}^3$
- New 24-hour Standard: 35 $\mu\text{g}/\text{m}^3$
(down from 65)
- Metropolitan Washington Region NAA for annual fine particle standard in 2005
- Designation for 24-hour fine particle standard is pending



Metropolitan Washington DC-MD-VA Region Fine Particle Nonattainment Area

(Annual Standard)

Virginia (Fairfax,
Arlington, Loudoun,
Prince William
Counties, City of
Alexandria)



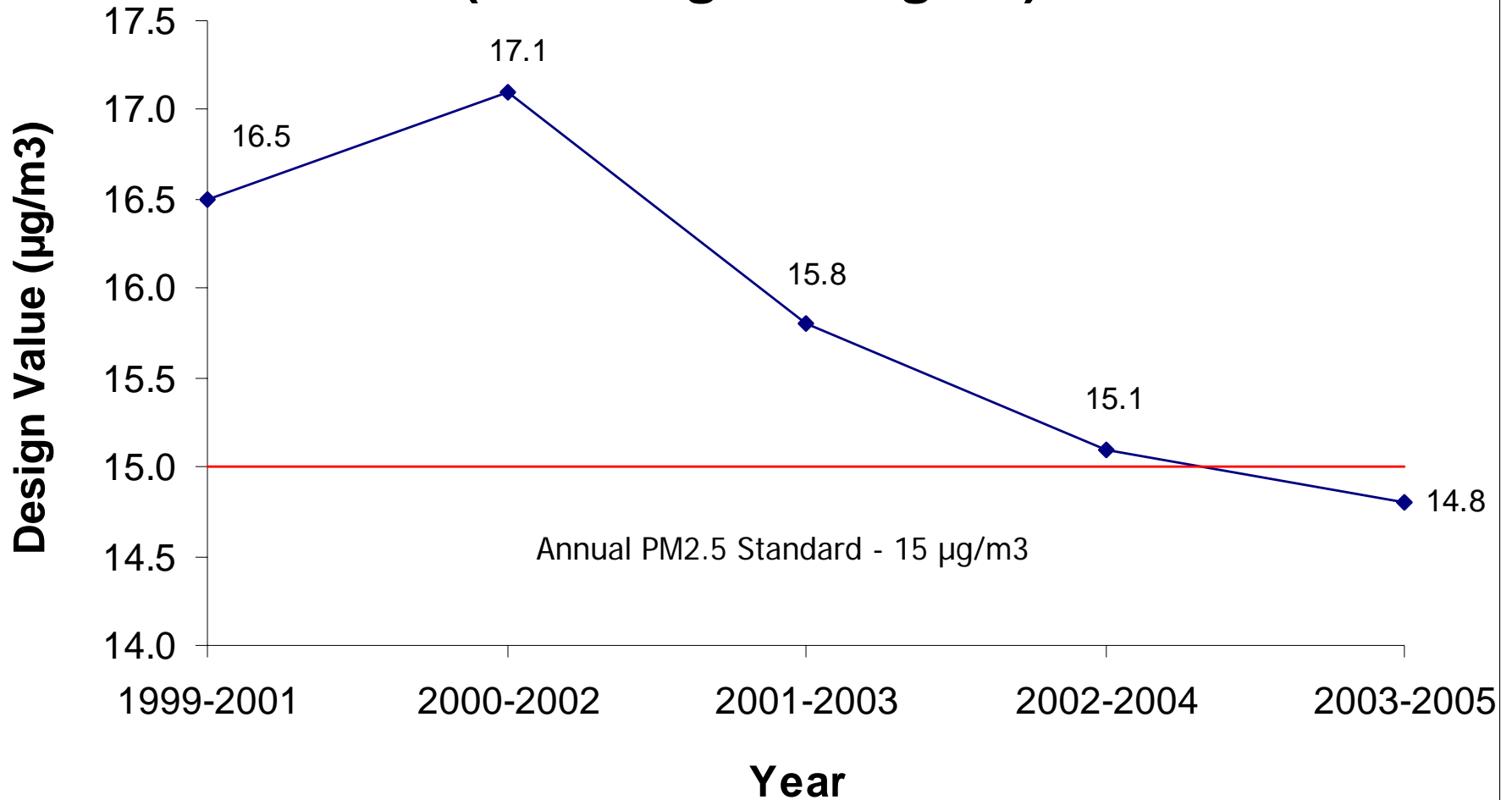
District of Columbia

Suburban Maryland
(Montgomery, Prince
George's, Frederick, Charles
Counties)

EPA designated the entire 8-hour ozone nonattainment area for PM, but excluded Calvert County.



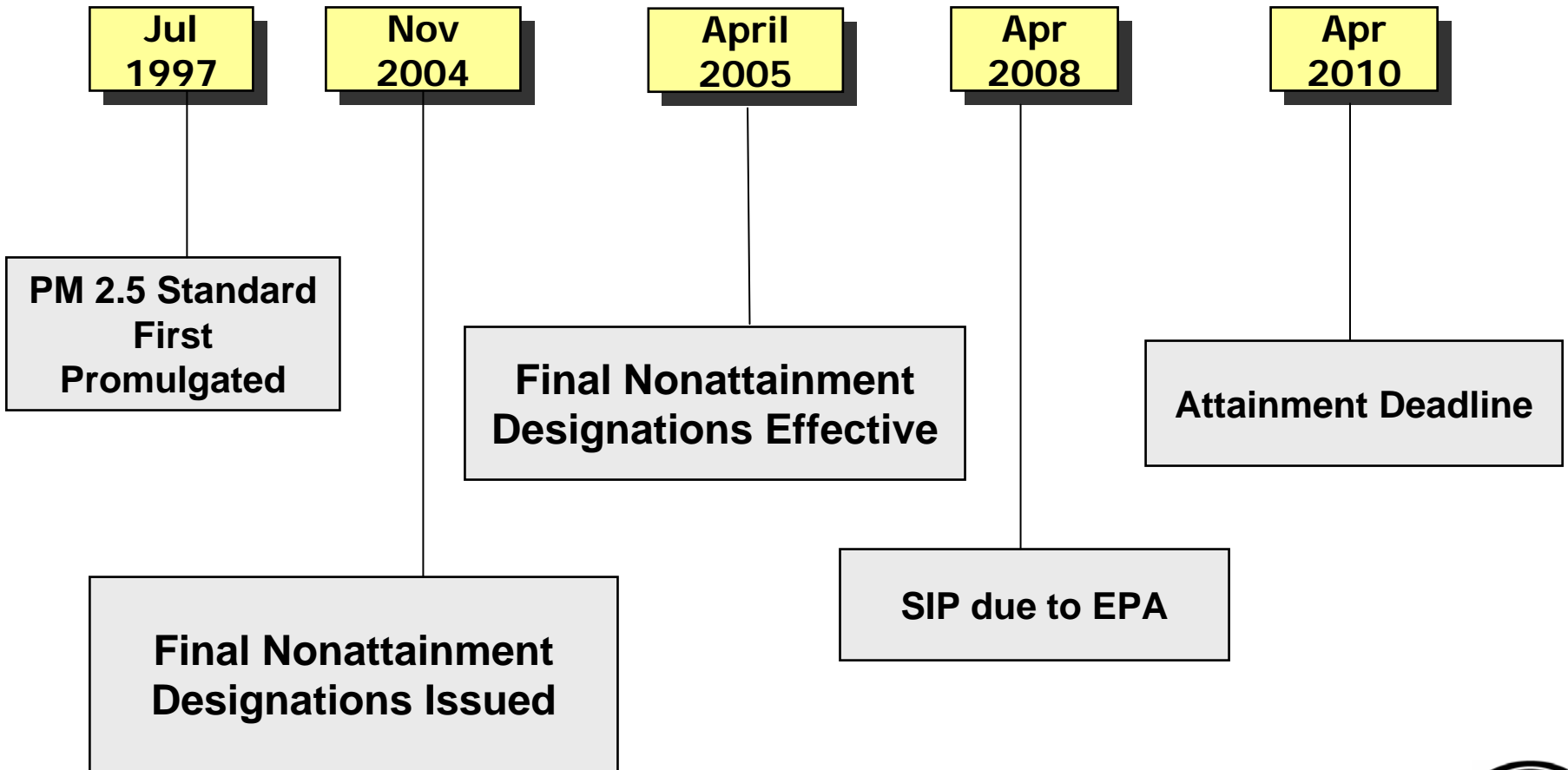
Annual PM2.5 Design Value (Washington Region)



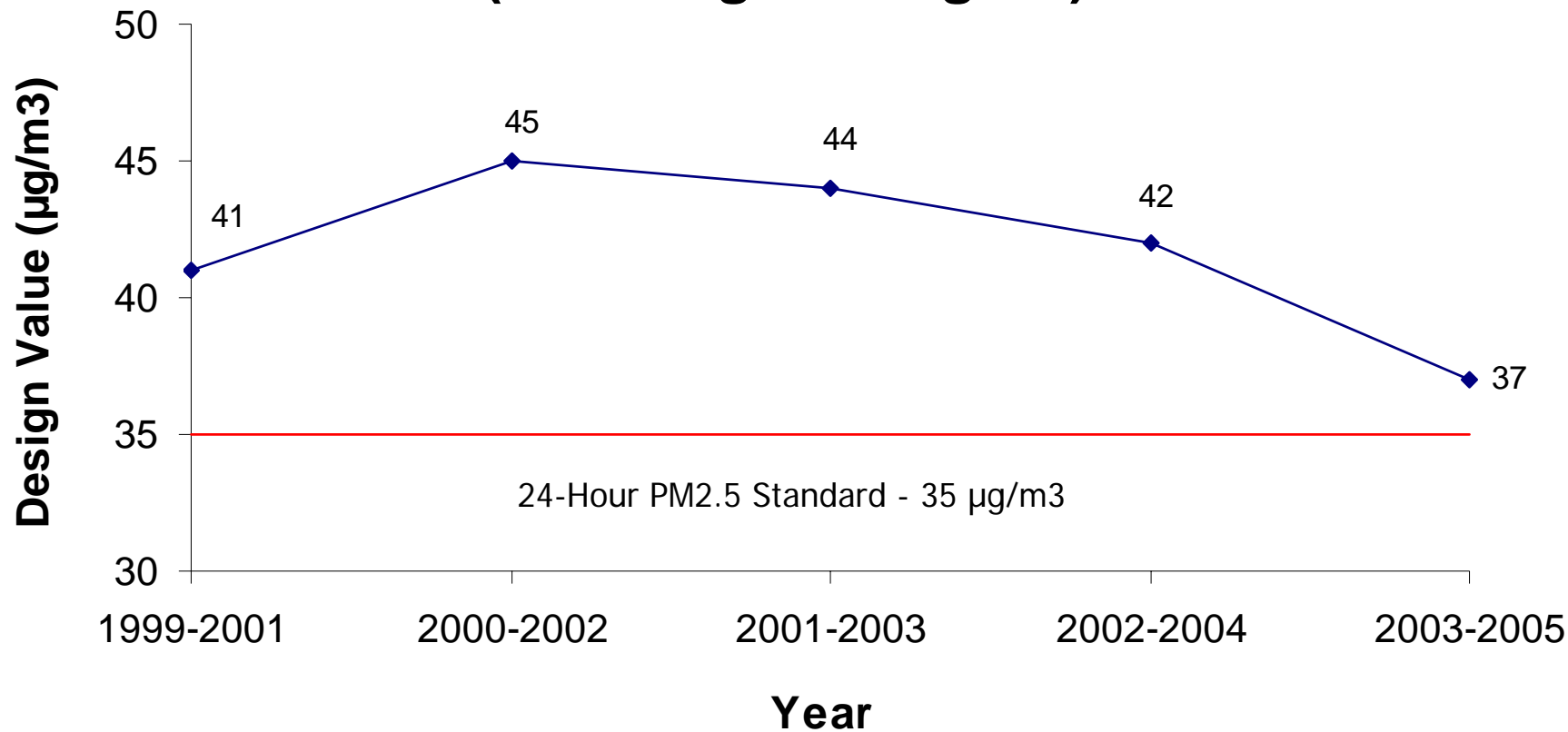
Note: 2004 Designation Based
on 2001-2003 Design Value



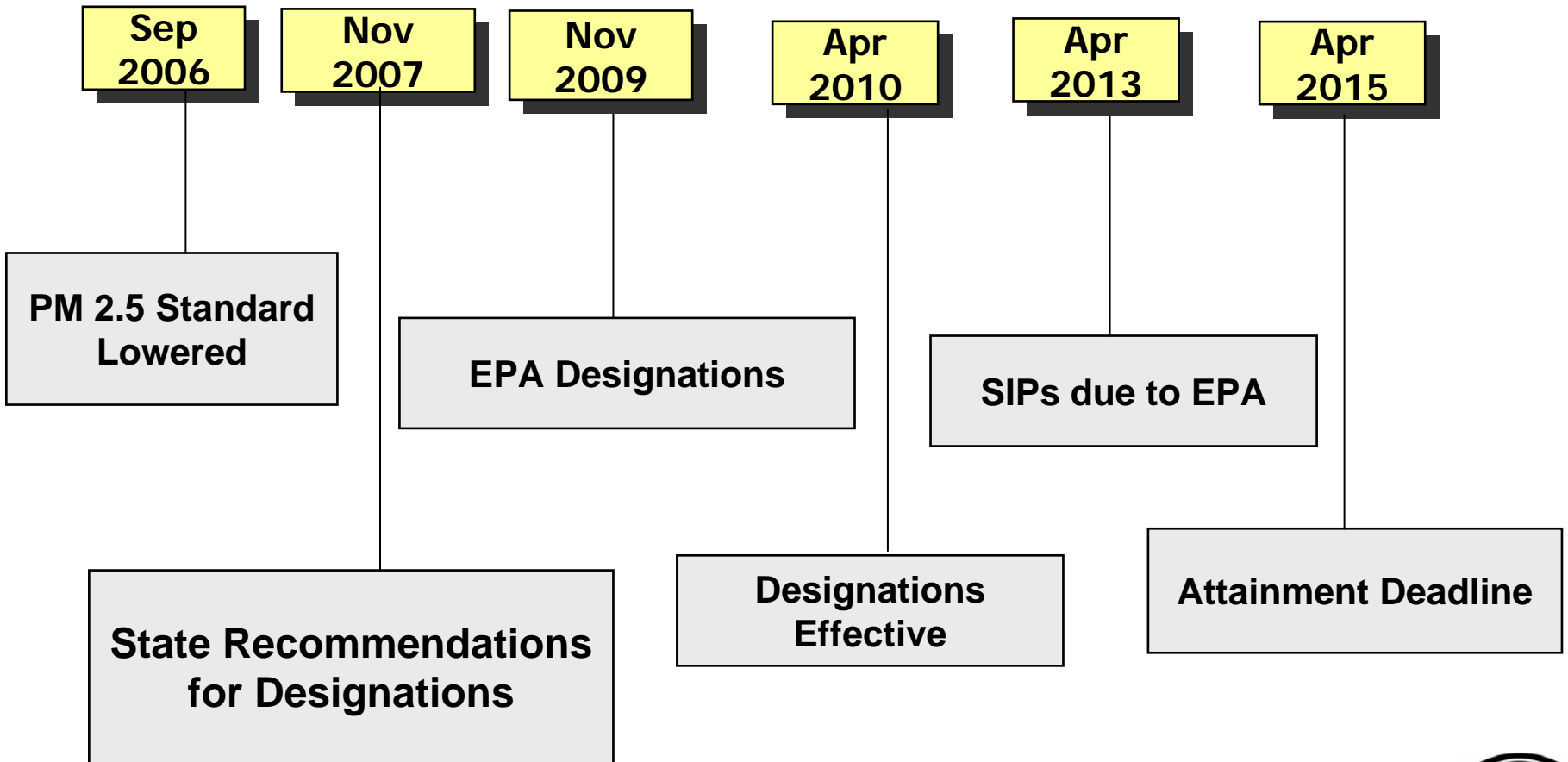
Annual PM Planning Horizon



24-Hour PM2.5 Design Value (Washington Region)



24-Hour PM Planning Horizon

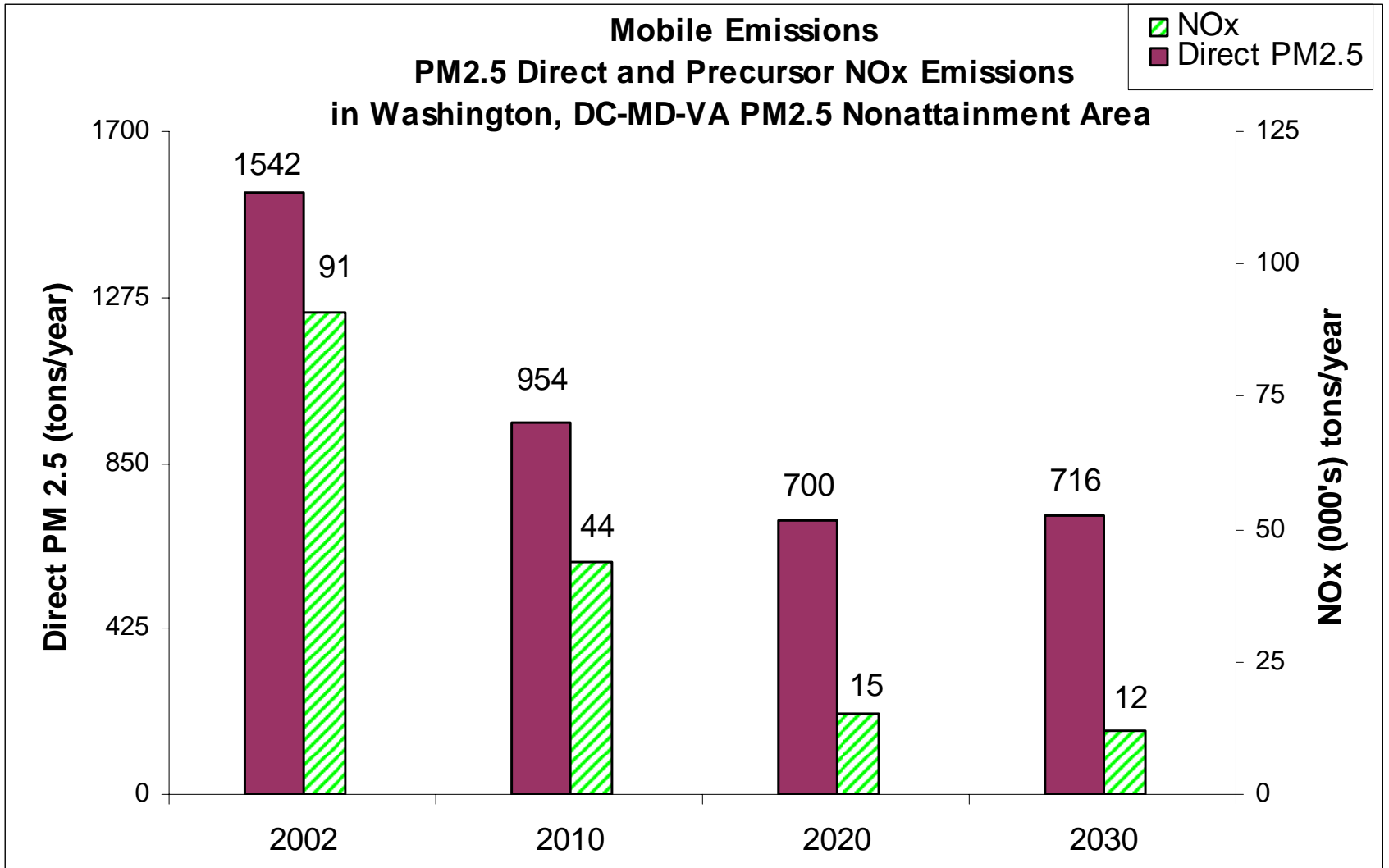


PM 2.5 Conformity



- Must demonstrate PM 2.5 conformity for PM Direct and Precursor NOx.
- Interim Conformity test is Build no greater than 2002 baseline
- Calculate emissions using MOBILE 6.2
- SIP will establish mobile emissions budgets for direct PM and PM precursors determined to be significant contributors to PM pollution.

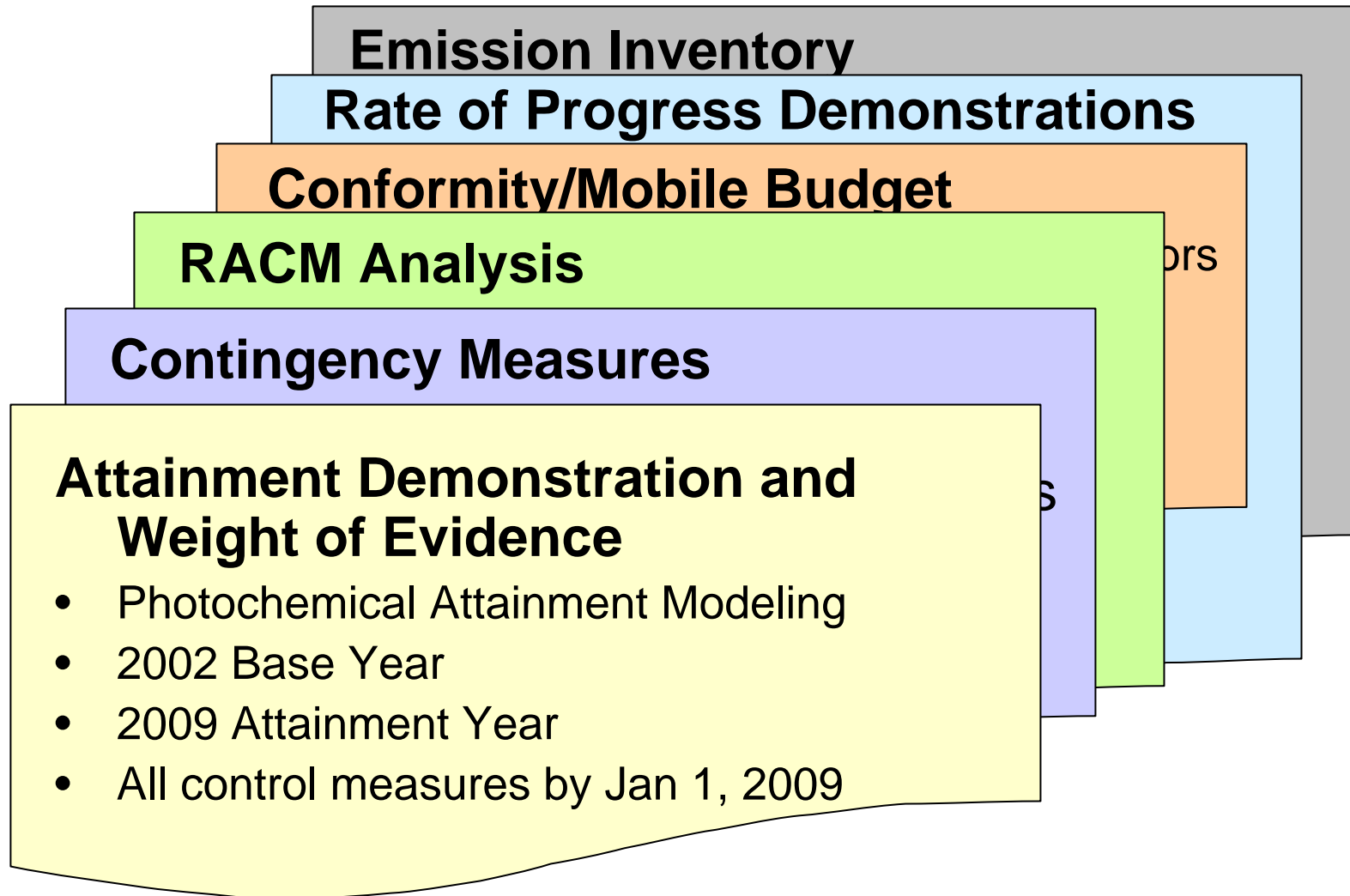




Source: Transportation Planning Board for National Capital Region, Conformity Determination for the 2006 CLRP and 2007-2011 TIP.



SIP Components



SIP Components

Emission Inventory

- Annual for PM Direct and all PM Precursors (NO_x, SO₂, Ammonia, VOCs).



SIP Components

Rate of Progress Demonstrations

- Not required if attain within 5 years.



SIP Components

Conformity/Mobile Budget

- Establish budget for PM and PM Precursors determined to contribute significantly.



SIP Components

RACM Analysis

- Identifies Reasonably Available Control Measures for SIP
- Explains why other measures are not reasonably available



SIP Components

Contingency Measures

- Measures to be implemented if region fails to attain by 2010 or does not demonstrate required progress
- New formula for reduction requirement $[(2009-2002)/7]$



SIP Components

Attainment Demonstration and Weight of Evidence

- Photochemical Attainment Modeling
- 2002 Base Year
- 2009 Attainment Year
- All control measures by Jan 1, 2009





DRAFT MWAQC PM2.5 SIP Planning Schedule
SIP Planning and Transportation Conformity Determinations

	Spring 2007	Summer 2007	Fall 2007	Winter 2007	Spring 2008		
Inventory Development							
Base Year 2002 inventories							
Future Year 2009 inventories							
Modeling Analysis							
Protocol Document?	TO BE DETERMINED						
Precursor Significance Determination?							
Complete Attainment Modeling							
Weight of Evidence							
Control Measures							
Master list of control measures							
Priority measures for SIP							
RACM analysis							
Contingency Measures							
Conformity							
Complete conformity 2007 CLRP FY2008-2013 TIP							
Develop PM2.5 mobile budgets (SIP)							
Draft SIP Document							
Public Meetings on control strategy							
Draft SIP							
Prepare Draft Attainment SIP/Regional Air Quality Plan							
Adopt Draft Attainment SIP (MWAQC)							
Public Hearings							
Approve SIP/Regional Air Quality Plan							
Transmit SIP to IAQC							
States Submit SIP to EPA							
SIP Deadline: April 2008							



For More Information



mwcog.org/environment

mwcog.org/transportation

epa.gov

airnow.gov

<http://www.epa.gov/otaq/transp/conform/conf-regs.htm>

