

PM2.5 Redesignation Request and Maintenance Plan

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MWAQC Technical Advisory Committee

December 6, 2011

PM2.5 Designation

- 1997 EPA set standard at
 - 15.0 $\mu\text{g}/\text{m}^3$ (annual)
 - 65 $\mu\text{g}/\text{m}^3$ (24 hour average)
- EPA designated the Washington, DC-MD-VA as “nonattainment” for the standard in 2005
- Washington, DC-MD-VA region submitted PM2.5 SIP in 2007

PM_{2.5} SIP Planning (submitted to EPA, 2008)

EPA finalizes PM_{2.5} Standard

Region Designated Nonattainment

PM_{2.5} SIP Submitted

Clean Data Determination
Attainment
Year

1997

2004

2008

2009

2009

Clean Data

- Federal Reference Monitors (FRM) demonstrate compliance with 65 ug/m^3 (daily standard)
- Regional monitors demonstrate compliance with annual 15 ug/m^3 since 2005

24-hour Design Value is 27 ug/m^3

Annual Design Value is 11.5 ug/m^3

(based on 2008-2010 data)

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

Benefits of Attainment

- Official recognition and public awareness:
 - Fine particle pollution (PM_{2.5}) levels are lower in the metropolitan Washington area than the level required by the federal health standard
 - Control measures such as cleaner engines, controls on power plants, diesel retrofit measures are working.
- Reduces a significant obstacle for locating new generation capacity (economic development)

Redesignation Request

- MWAQC/States must request redesignation
- Redesignation Request must demonstrate emissions decline from 2002-2007.

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graph TD; A[Redesignation Request] --> B[SIP]; A --> C[Clean Data Designation];
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Redesignation Request

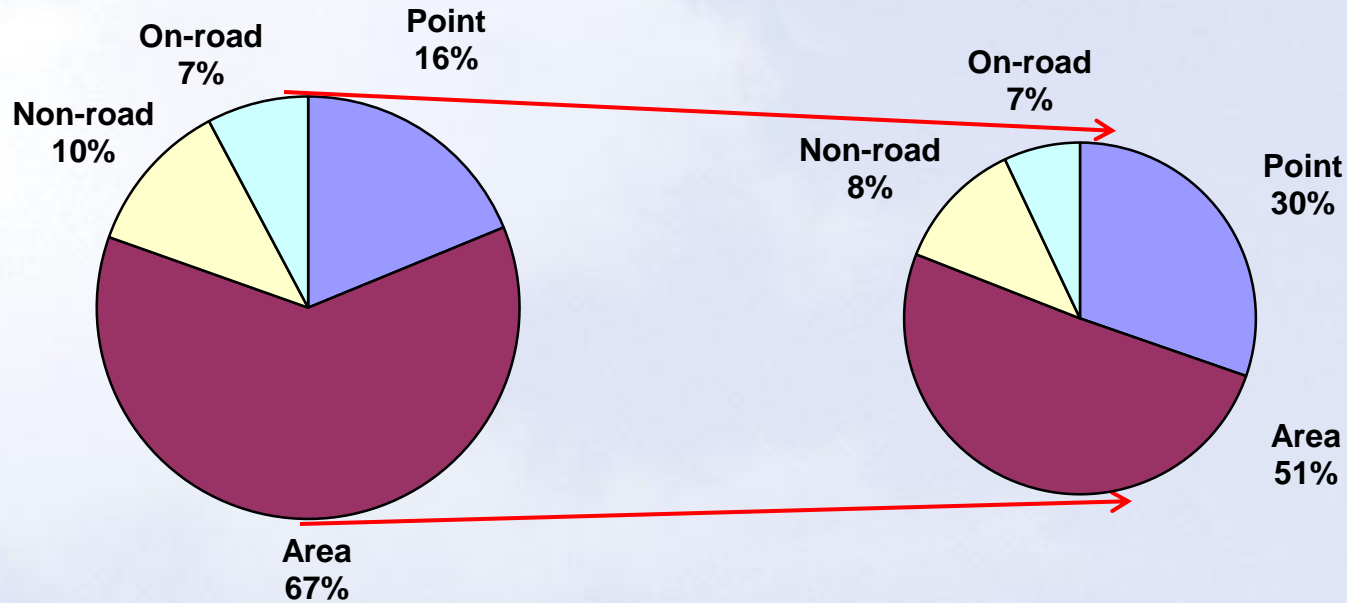
SIP

Clean Data Designation

PM2.5 Emissions, 2002-2007

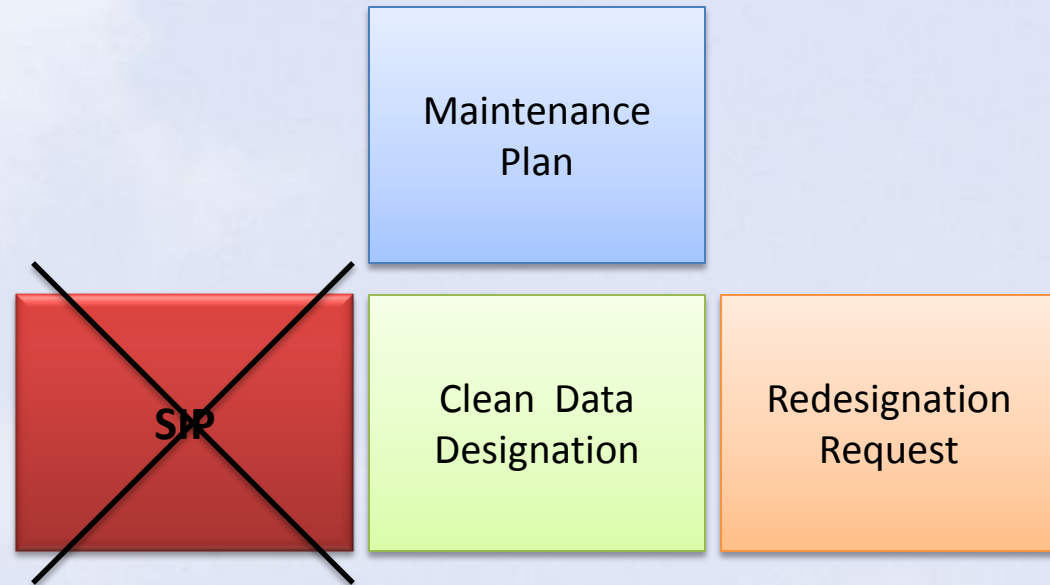
PM2.5
Base Year 2002 Emissions = 22,145 tpy

PM2.5
Attainment Year 2007 Emissions = 18,298 tpy



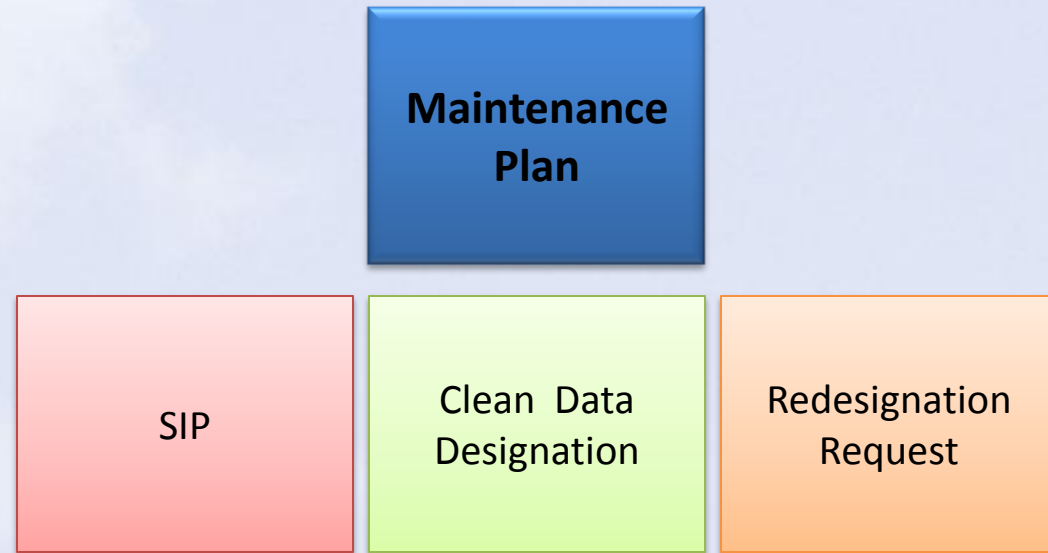
Withdraw PM_{2.5} SIP

States will withdraw the PM_{2.5} SIP when they submit the Redesignation Request and Maintenance Plan.



PM_{2.5} Maintenance Plan

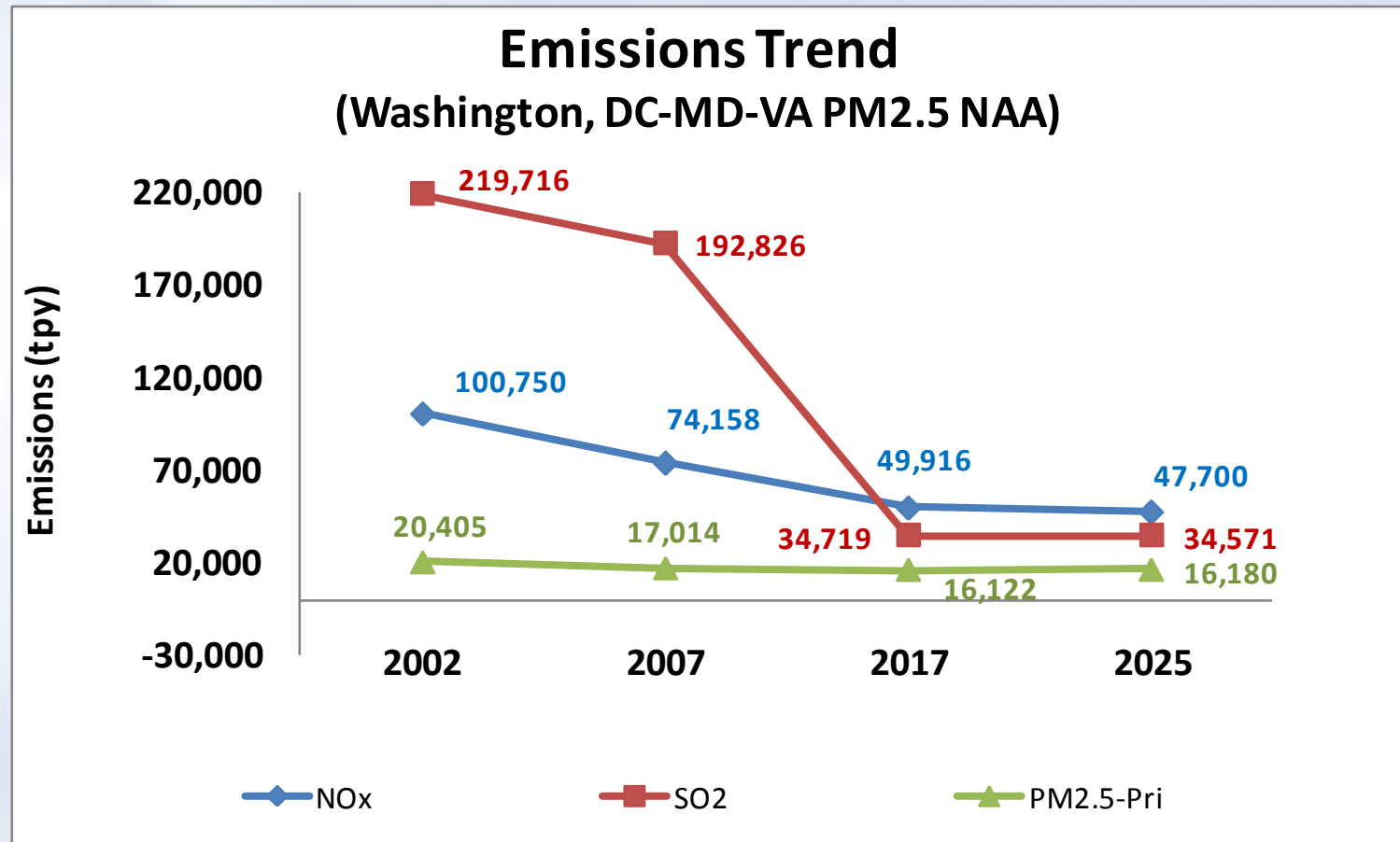
MWAQC/States must prepare a plan to maintain low PM_{2.5} levels for 10 years beyond EPA redesignation.



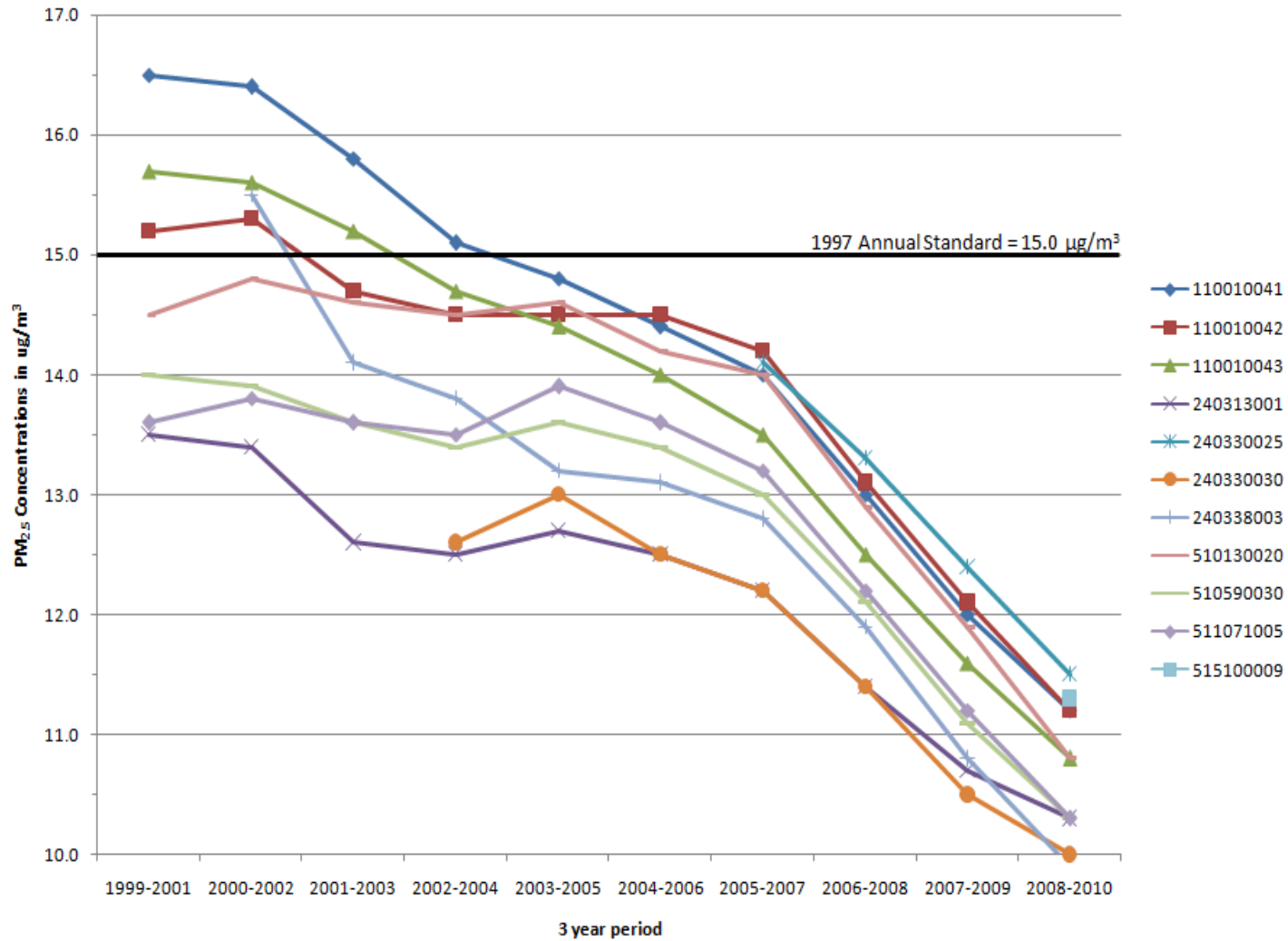
PM_{2.5} Redesignation and Maintenance timeline



Maintenance Plan



PM_{2.5} Annual Design Value Graph for the Washington DC-MD-VA Region



Request & Maintenance Plan

- Redesignation Request

Base Year 2002, Attainment Year 2007

Demonstrate decline in PM2.5 from 2002-2007

Maintenance Plan

Demonstrate compliance ten years into future

2007, 2017, 2025

Contingency triggers, Contingency measures

Issues for discussion

- Pollutants: NO_x, SO₂, PM_{2.5}
- 2002 Base Year Inventory: Include in Redesignation Request, or leave with EPA?
- Add Emissions Triggers?
 - equivalent to or less than attainment year emissions levels
- Low Sulfur Heating Oil—contingency measure?

Next Steps

- Revise Redesignation Request and Maintenance Plan as discussed today
- Recommend to MWAQC that MWAQC and States request redesignation for PM2.5 standard
- Recommend to MWAQC that States withdraw the PM2.5 SIP