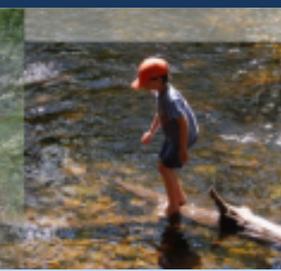
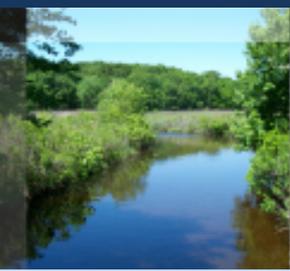
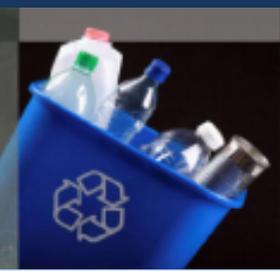




# Connecticut Department of Energy and Environmental Protection



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**



# *EPA Designations for the 2012 PM<sub>2.5</sub> NAAQS*

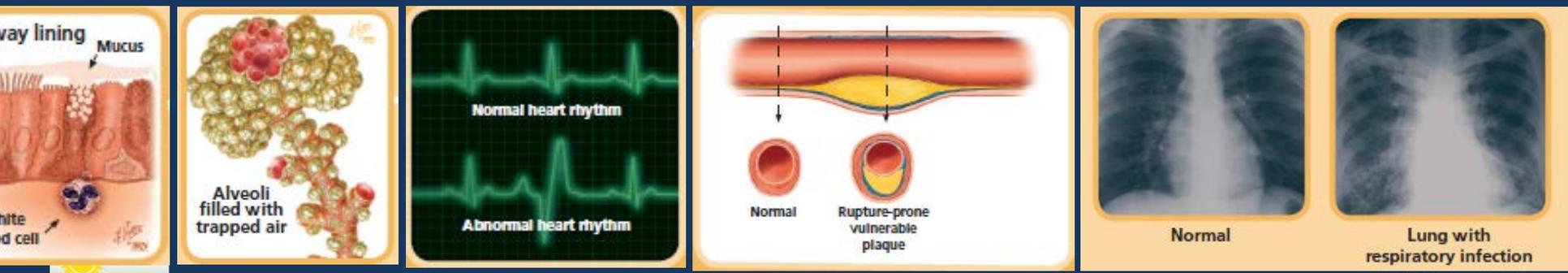
*Kate Knight, CT DEEP*

*SIPRAC*

*September 11, 2014*

# PM<sub>2.5</sub> Public Health Impacts

- PM<sub>2.5</sub> can penetrate deep into sensitive lung tissue
- Contributes to increased hospitalization, cardiovascular (e.g., clogged arteries) & respiratory ailments (e.g., bronchitis, asthma), heart attacks, strokes, premature death
- Most at-risk individuals: heart/lung disease, elderly, children, pregnant women, diabetics



# EPA's Revised PM<sub>2.5</sub> NAAQS

- Prompted by CAA section 109(d) 5-year review cycle & Court-ordered deadline
- Finalized Dec 14, 2012 (effective Mar 18, 2013)
  - Annual PM<sub>2.5</sub> NAAQS lowered to 12 µg/m<sup>3</sup> (from 15 µg/m<sup>3</sup>)
  - No changes to 24-hr PM<sub>2.5</sub> (still 35 µg/m<sup>3</sup>) or PM<sub>10</sub> primary & secondary NAAQS
  - EPA estimates annual US health benefits of \$4 to \$9 billion, with costs of \$53 to \$350 million.



# Implementation Schedule

- Dec 2013: DEEP recommended statewide “attainment” (based on 2010-2012 data)
- Aug 2014: EPA concurred & proposed statewide “unclassifiable/attainment” (based on 2011-13 data)
- Dec 2014: EPA plans to finalize designations based on public comment (comment closes 9/29/2014 (79 FR 51517))
- Dec 2015: Infrastructure SIPs due from all states
- Fall 2016: SIPs due for “nonattainment” areas showing will attain by 2020 (won’t apply to CT)



# EPA's Proposed Designations

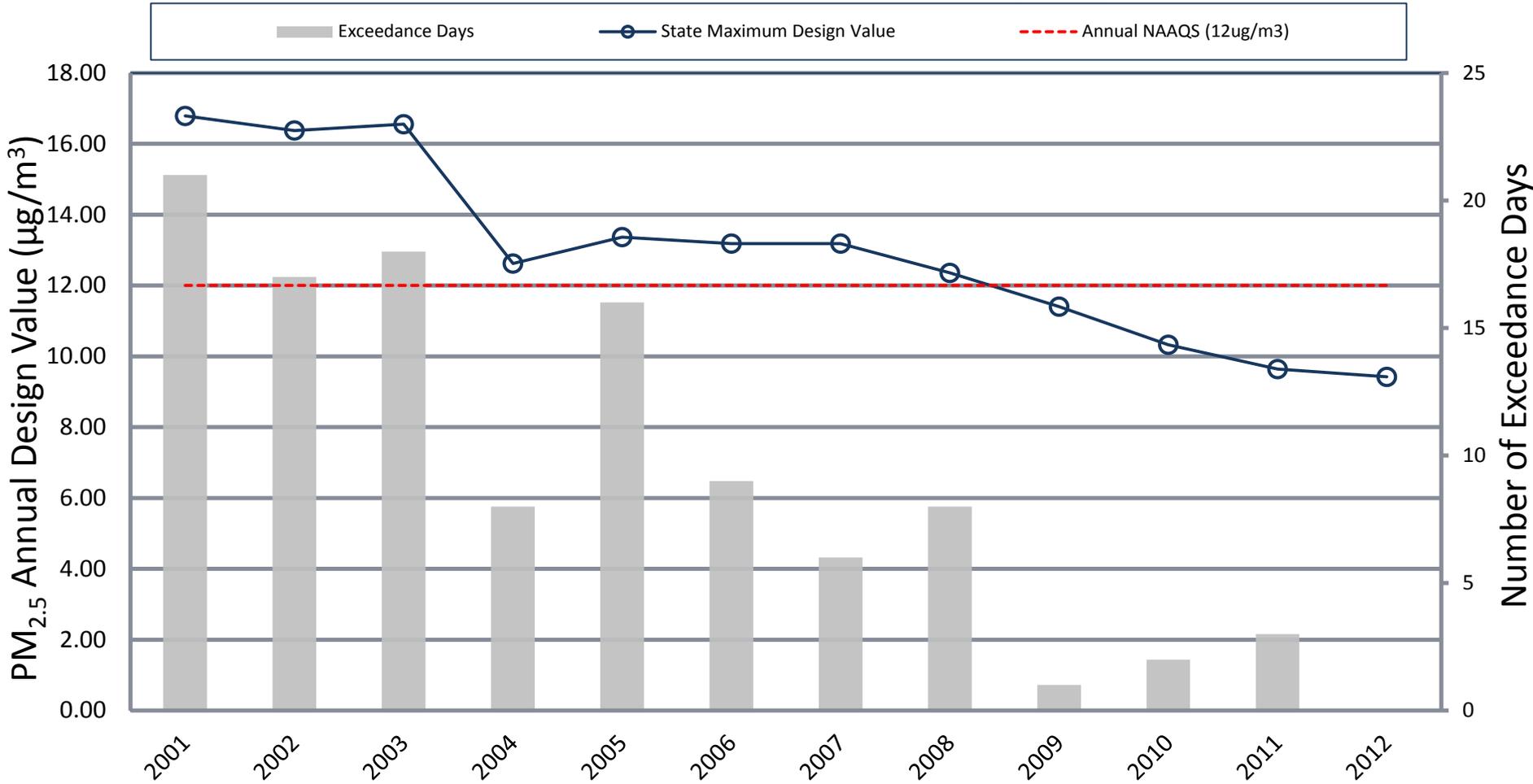
- “Nonattainment”: 14 areas (in 6 states)
  - PA (5 areas/7 counties); OH (3 areas/13 counties)
  - KY/IN (1 area/4 counties)
  - CA (4 areas/14 counties); ID (1 area/1 county)
- “Unclassifiable”: due to data quality issues
  - 8 areas in GA, TN, IL, IN, MO, 2 territories, 1 Indian area
  - corrective actions to be implemented
- Deferred: until Dec 2015 (need 3<sup>rd</sup> yr of data)
  - 5 areas in GA, AL, SC
- “Unclassifiable/Attainment”: measure compliance
  - remainder of country (including CT)



# Fine Particulate (PM<sub>2.5</sub>) Annual Standard

## Connecticut's PM<sub>2.5</sub> Annual Design Values & Number of Exceedance Days

Exceedance Days Based on EPA's 2006 24-Hour Standard (35ug/m<sup>3</sup>)







# PM<sub>2.5</sub> & Precursor Emissions Continue to Decline

Figure E-4 Projected PM<sub>2.5</sub> Emissions for the CT Portion and All of the NY-NJ-CT Area\*

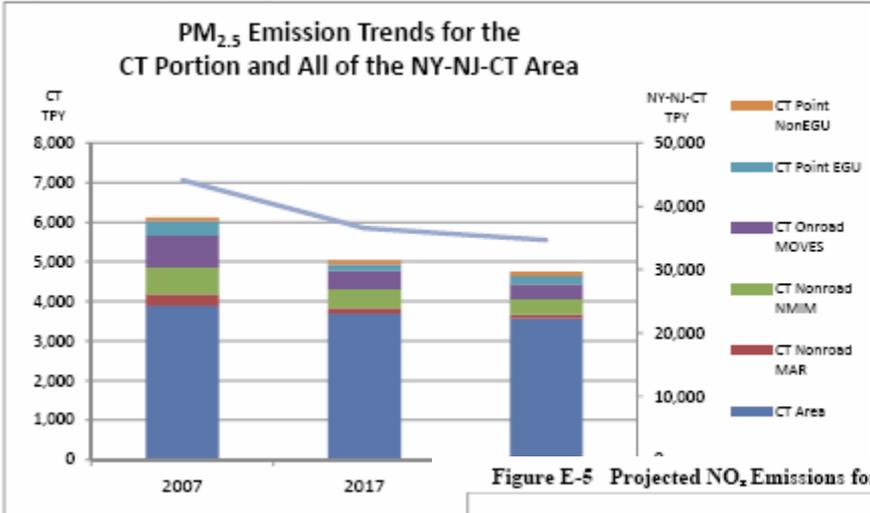
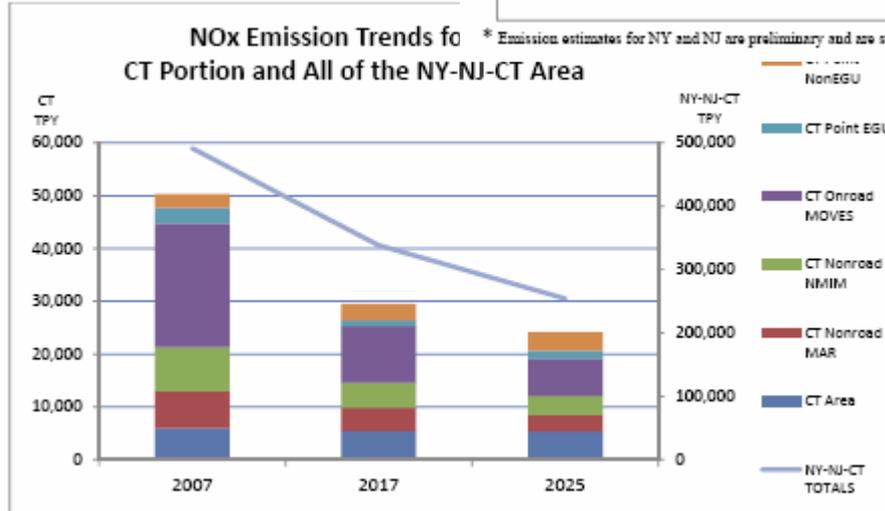
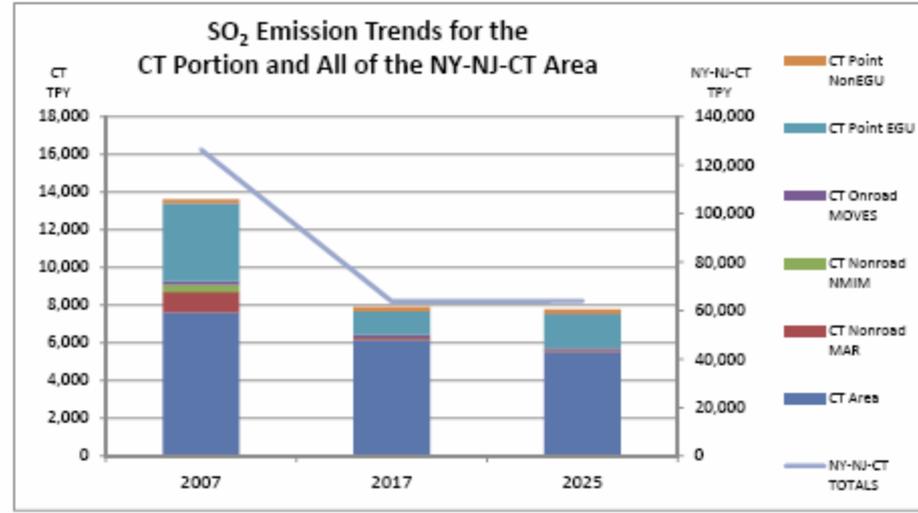


Figure E-5 Projected NO<sub>x</sub> Emissions for the



\* Emission estimates for NY and NJ are preliminary and are subject to change by each state in their PM<sub>2.5</sub> redesignation SIP submittals.

Figure E-6 Projected SO<sub>2</sub> Emissions for the CT Portion and All of the NY-NJ-CT Area\*



\* Emission estimates for NY and NJ are preliminary and are subject to change by each state in their PM<sub>2.5</sub> redesignation SIP submittals.



# Requirements for CT

- Fairfield/New Haven maintenance area remains
  - for 2006 24-hr NAAQS & 1997 annual NAAQS
  - requires tracking of continued compliance
- Infrastructure SIP due Dec 2015
- Near-road monitoring
  - Hartford site approved & operating (values so far < NAAQS)
- PSD permit requirements statewide for PM<sub>2.5</sub>
  - no PM<sub>2.5</sub> or SO<sub>2</sub> offsets (NO<sub>x</sub> offsets needed for ozone)
  - no changes to current increments, SILs, etc.
  - tighter NAAQS limits could limit growth cushion, so important to continue cost-effective emission reductions



# 2012 Fine Particulate (PM<sub>2.5</sub>) Standard- additional info

Additional Resources for more information

DEEP PM2.5 Planning Efforts

[http://www.ct.gov/deep/cwp/view.asp?a=2684&q=322164&deepNav\\_GID=1619](http://www.ct.gov/deep/cwp/view.asp?a=2684&q=322164&deepNav_GID=1619)

EPA's new PM2.5 Mapping tool to explore monitored values, visibility areas, attainment area boundaries

[http://geoplatform2.epa.gov/pm\\_map/index.html](http://geoplatform2.epa.gov/pm_map/index.html)

EPA's background for PM2.5 2012 standard

<http://www.epa.gov/airquality/particlepollution/designations/index.htm>

