

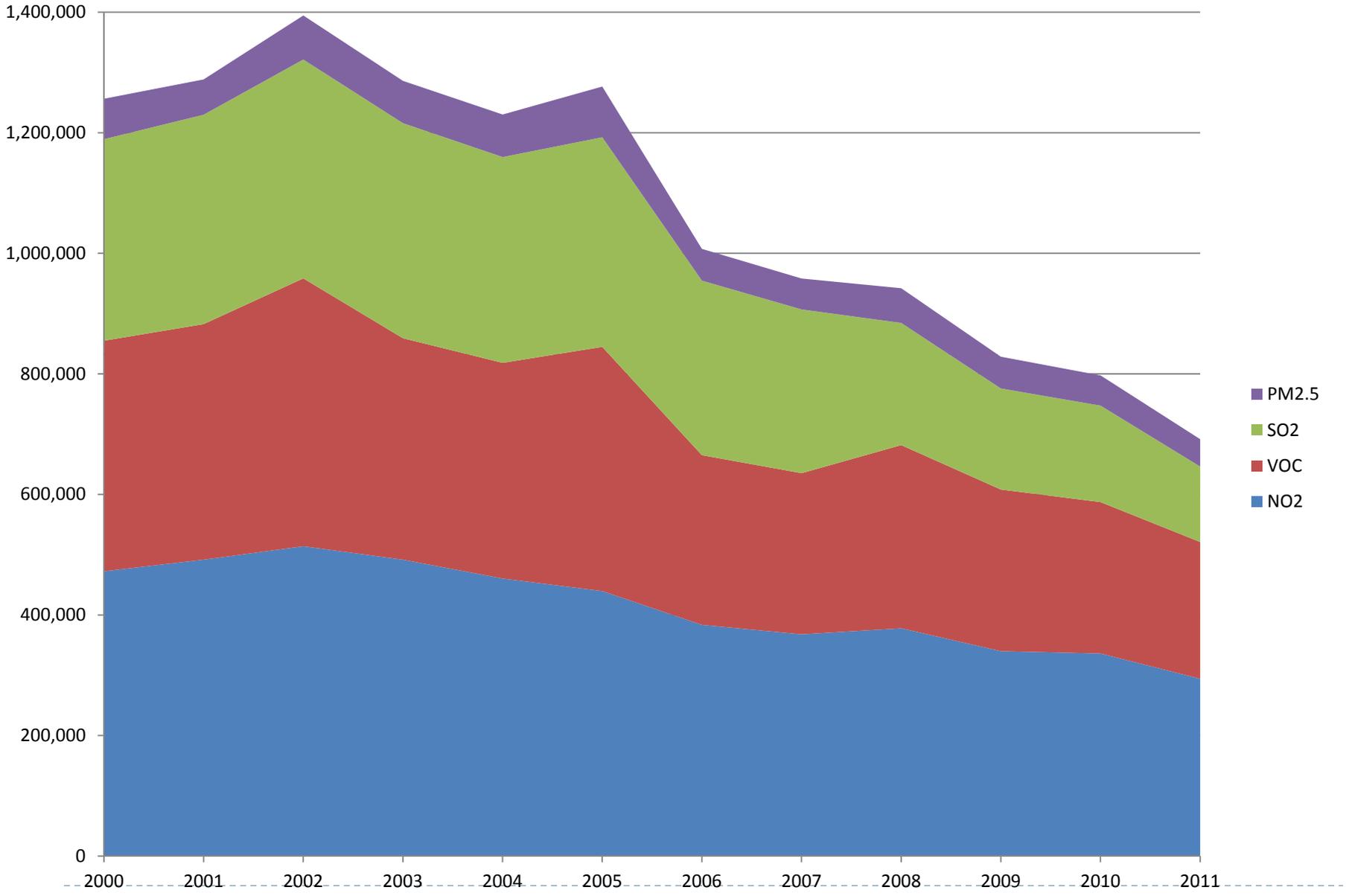


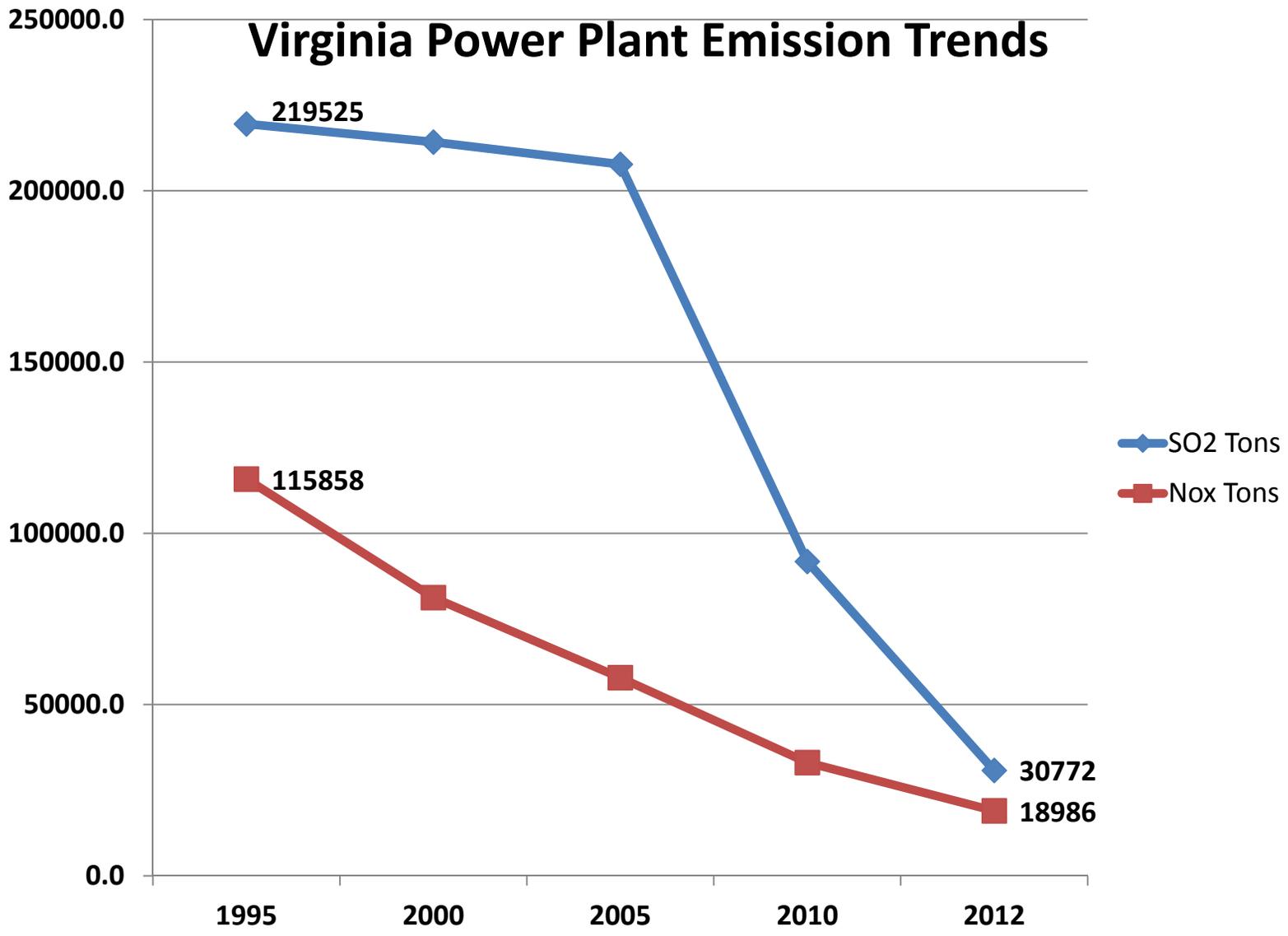
**DEQ ENVIRONMENTAL EXCELLENCE
CONFERENCE
AIR REGULATORY UPDATE**

**Michael G. Dowd, Air Division Director
March 12, 2014**

EMISSION TRENDS

Major Air Pollutant Trends in Virginia





OZONE

CLEAN AIR 101

PRIMARY NAAQS

- ▶ Clean Air Act Envisions Fed-State Partnership
- ▶ EPA set primary National Ambient Air Quality Standards (NAAQS) for criteria pollutants to protect public health with an adequate margin of safety
 - ▶ NAAQS for six criteria pollutants: ozone, PM_{2.5}, sulfur dioxide, nitrogen dioxide, lead, and carbon monoxide
 - ▶ Costs irrelevant
 - ▶ Current ozone NAAQS set in 2008 @ 75ppb/1 hr
- ▶ Northern Va. is state's only ozone nonattainment area
- ▶ States implement NAAQS

THE WET, COOL SUMMER OF 2013

- ▶ THE SUMMER OF 2013

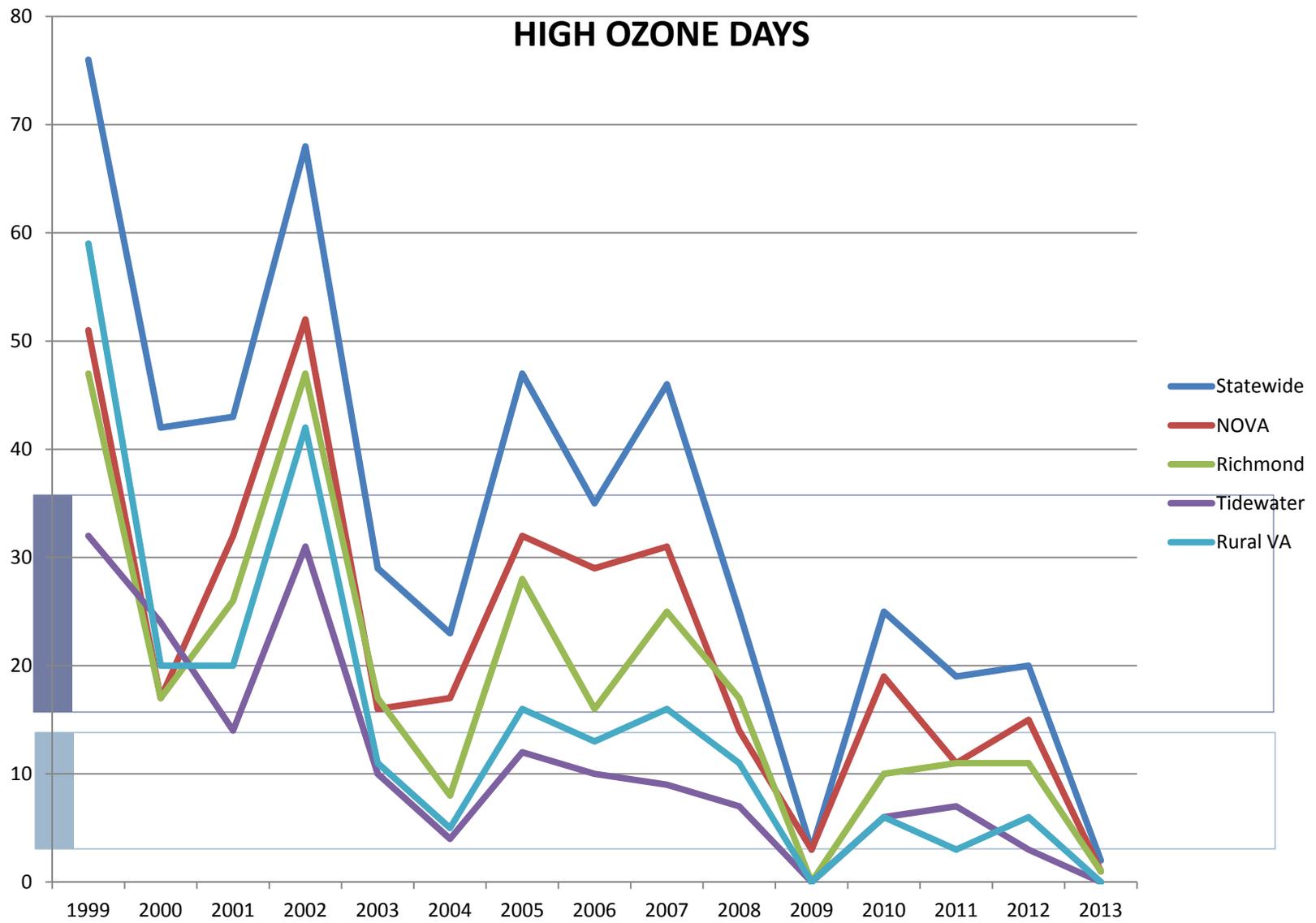
- ▶ Best air quality since recordkeeping began!
- ▶ Better than 2009

	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013*</i>
Total exceedances	4	95	62	70	3
Total exceedance days	3	25	19	20	2

- ▶ *Air Quality in Virginia is Definitely Improving*

IMPACT OF 2013 OZONE SEASON

- ▶ An area's attainment status determined by most recent 3yr. average of its 4th highest monitored value, called the *design value*
- ▶ Virginia's ozone design values will fall significantly based on monitored readings from 2013
 - ▶ Northern VA design value now back below 85ppb (old '97 NAAQS)
 - ▶ Richmond, Tidewater, Fredericksburg design values now below 75ppb (current '08 NAAQS)
 - ▶ 15 VA monitors currently below 70 ppb



As of 9/1/2013

NEXT OZONE NAAQS

- ▶ CAA Requires EPA to reevaluate NAAQS every 5 yrs
- ▶ EPA's Reevaluation ozone NAAQS well under way but behind schedule
 - ▶ CAASAC references many new studies showing strong scientific support to lower current 75ppb standard
 - ▶ Recommended 60-70ppb range
 - ▶ *Healthy adults show adverse effects from concentrations below the 60ppb range*
 - ▶ To be proposed late 2014
 - ▶ Finalized late 2015

SECONDARY OZONE NAAQS

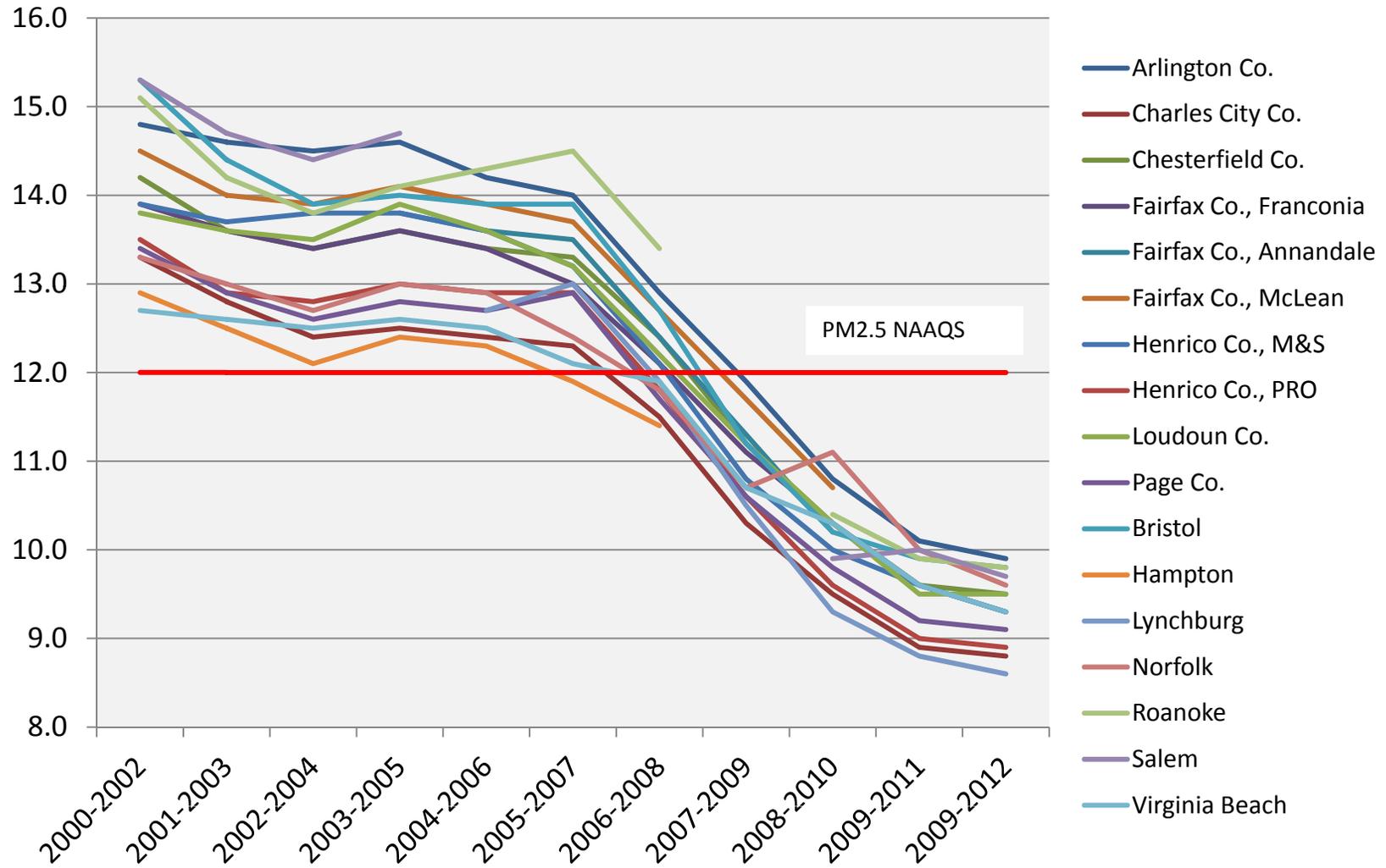
- ▶ CAA also directs EPA to establish Secondary NAAQS to protect the environment
- ▶ Currently the Secondary NAAQS ozone is set at the Primary NAAQS Level of 75ppb over 8 hrs
- ▶ CAASAC has concluded ozone at current NAAQS levels can reasonably be anticipated to cause detrimental growth and productivity effects in sensitive vegetation
- ▶ Court pressure to set separate secondary NAAQS
- ▶ Not only is EPA poised to substantially lower the primary ozone NAAQS, but to promulgate a stringent secondary ozone NAAQS as well

PM_{2.5}

PM_{2.5}

- ▶ PM_{2.5} annual NAAQS = 12μg/m³
- ▶ PM_{2.5} 24 hour NAAQS = 35 μg/m³
- ▶ Northern Virginia is designated as nonattainment for the PM_{2.5} annual standard despite having had clean data for years
- ▶ Redesignation request pending with EPA
- ▶ Currently being reviewed by OGC
- ▶ Hope for redesignation shortly

ANNUAL PM_{2.5} MONITORING DATA TRENDS



**THE PRESIDENT'S CLIMATE
ACTION PLAN, FOSSIL FUEL
EGU CO₂ NEW SOURCE
PERFORMANCE STANDARDS
AND EMISSION GUIDLINES**

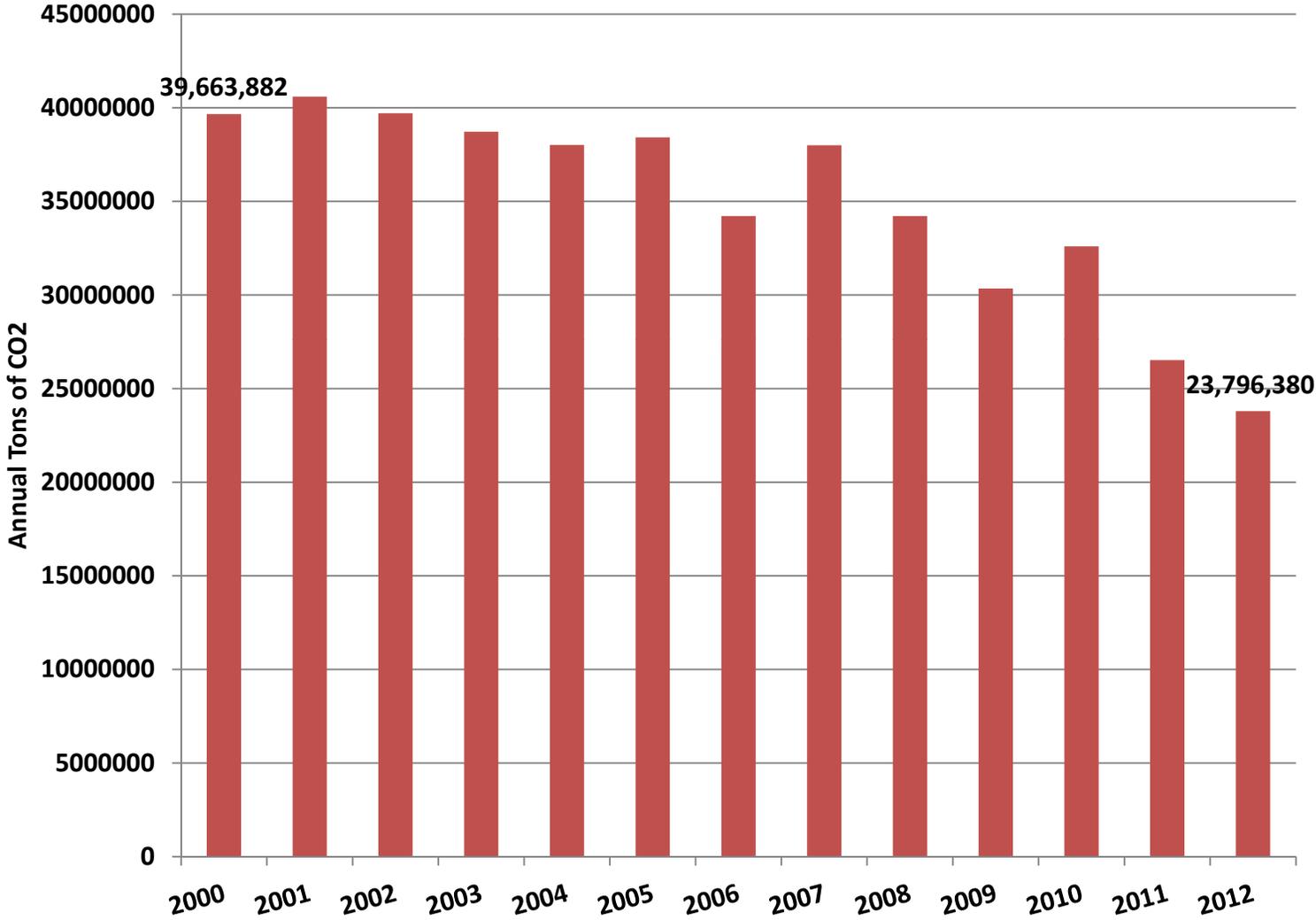
PRESIDENT'S JUNE 2013 CLIMATE ACTION PLAN

- ▶ Among other things, directed EPA to:
 - ▶ Propose CO₂ New Source Performance Standards (NSPS) under CAA §111b for new fossil fuel EGUs by 9/20/13
 - ▶ Propose CO₂ Emissions Guidelines under §111d for existing fossil fuel EGUs by 6/1/14
 - ▶ Work with state environmental and energy agencies to develop flexible cost effective existing source standards
 - ▶ Issue final standards by 6/1/15
 - ▶ State §111d plans due 6/30/16

§111 CARBON RULES FOR FOSSIL FUEL EGUSs

- ▶ §111b NSPS proposed last year
 - ▶ CO₂ standard for new coal-fired EGUs based on partial CCS
 - ▶ CO₂ standard for new natural gas-fired EGUs based on best performing units
 - ▶ Comment period open
- ▶ §111d Emission Guidelines for existing fossil fuel EGUs to be proposed 6/14
 - ▶ States need flexibility in developing §111d plans
 - ▶ Emission Guidelines need strong legal basis
 - ▶ “inside fence-line”, “outside fence-line” debate
 - ▶ CAMR, CAIR and CSAPR debacles
 - ▶ Must be affordable for states and not an unfunded mandate
 - ▶ Must credit recent CO₂ reductions in Virginia

Virginia Power Plant CO2 Emissions Trends



DEQ CONTACT INFORMATION

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QUESTIONS?

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