

2011 Air Quality Management Conference

State Air Policy

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Nonattainment Areas – Recent Developments

- 2 Nonattainment Areas for 1997 NAAQS

*85 ppb ozone, 15 ug/m³ annual PM_{2.5}, 35 ug/m³ 24-hr PM_{2.5}

- Chicago and Metro-East

- PM_{2.5}

- Ozone (moderate)

- Monitoring Data for 2008-2010 shows attainment statewide for 1997 NAAQS - Ozone & PM_{2.5}

- Monitoring Data for 2009-2011 shows nonattainment for Chicago and Metro-East areas for 2008 ozone NAAQS (75ppb)

Redesignation Requests and Clean Data Findings

■ Chicago:

Ozone:

- Clean Data Finding is Final
- Seeking redesignation to attainment for 1997 standard
- USEPA approval pending VOC RACT revisions

PM_{2.5}:

- Clean Data Finding is Final
- Seeking redesignation to attainment for 1997 NAAQS
- USEPA postponed approval pending final Transport Rule

Redesignation Requests and Clean Data Findings

■ Metro-East:

Ozone:

- Sought redesignation for 1997 standard
- USEPA delays approval pending VOC RACT revisions
- Clean Data Finding – Final – June 9, 2011

PM_{2.5}:

- Clean Data Finding – Final – May 23, 2011
- Stops sanction clock for late SIP submittal
- Not seeking Redesignation
- Can't make legal showing – “permanent and enforceable reductions”

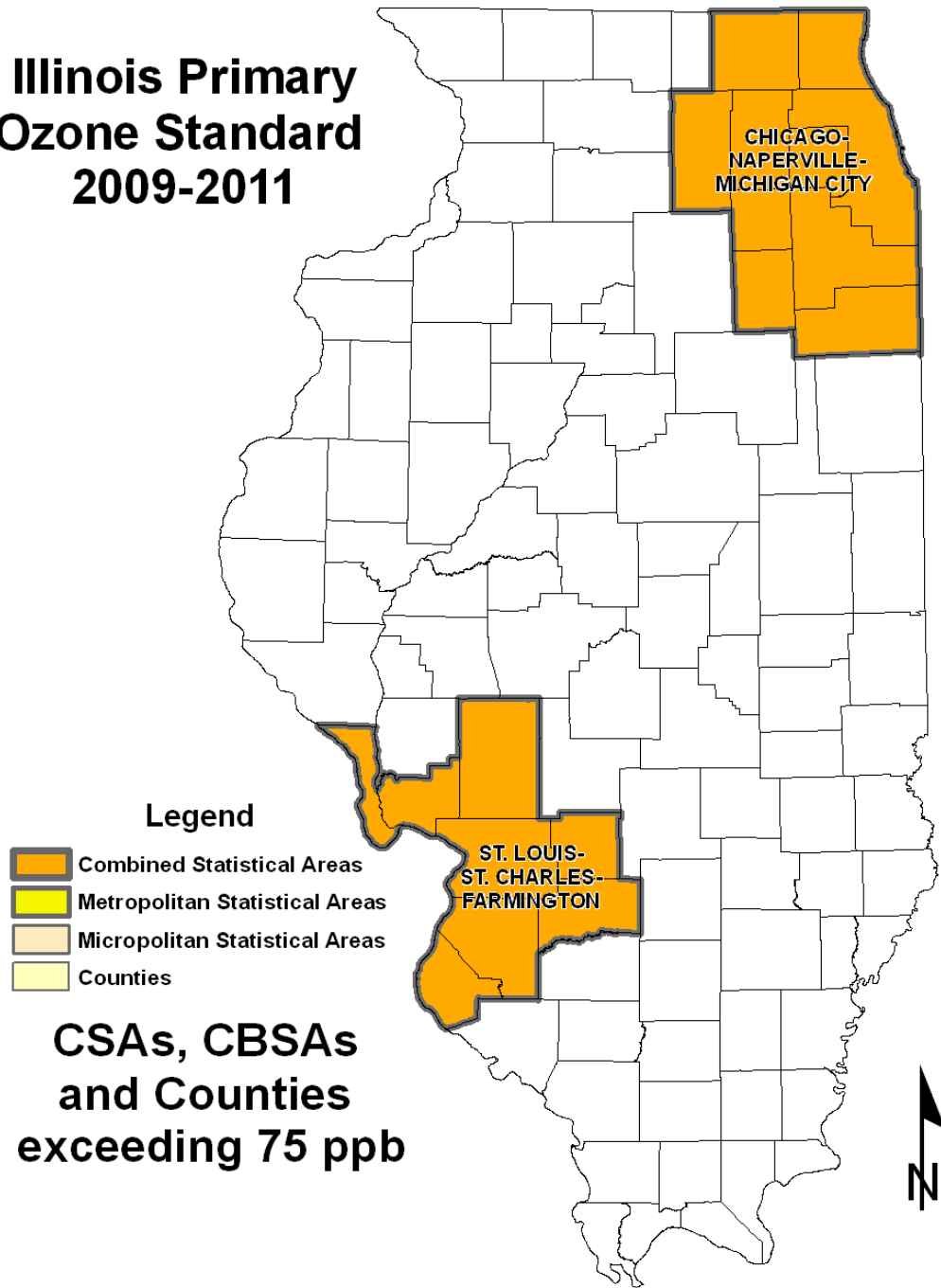
Regional Haze SIP and FIP Deadlines

- FIP or final approval of SIP due January 2011
- SIP submitted June 24, 2011
- Waiting for USEPA (proposed approval expected soon)

Ozone NAAQS

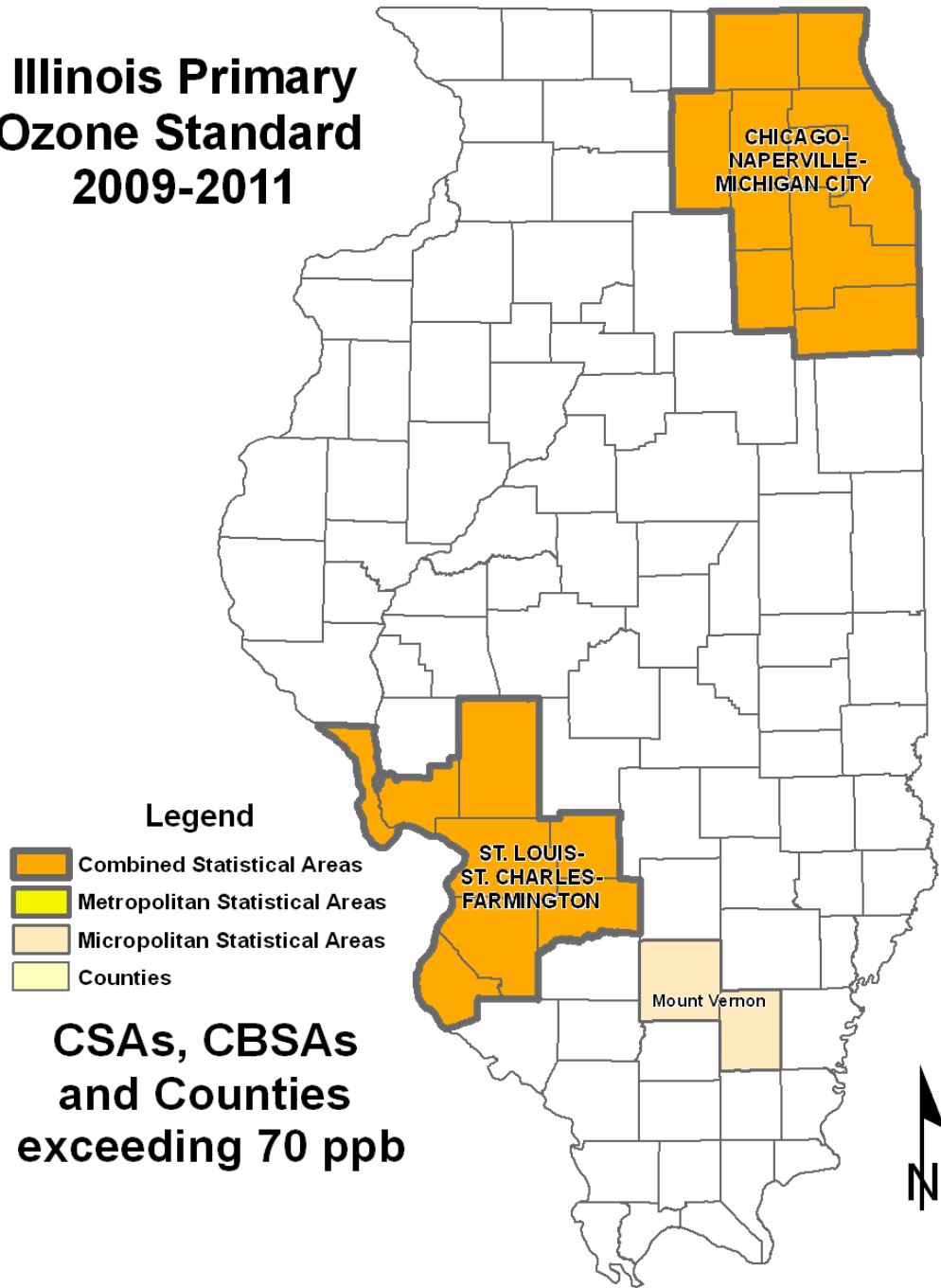
- **1997:**
 - 85 parts per billion (ppb)
- **2008:**
 - 75 parts per billion (ppb)
- **Expected July 2011 – 60-70 ppb**
 - Obama Administration STOPS!

Illinois Primary Ozone Standard 2009-2011



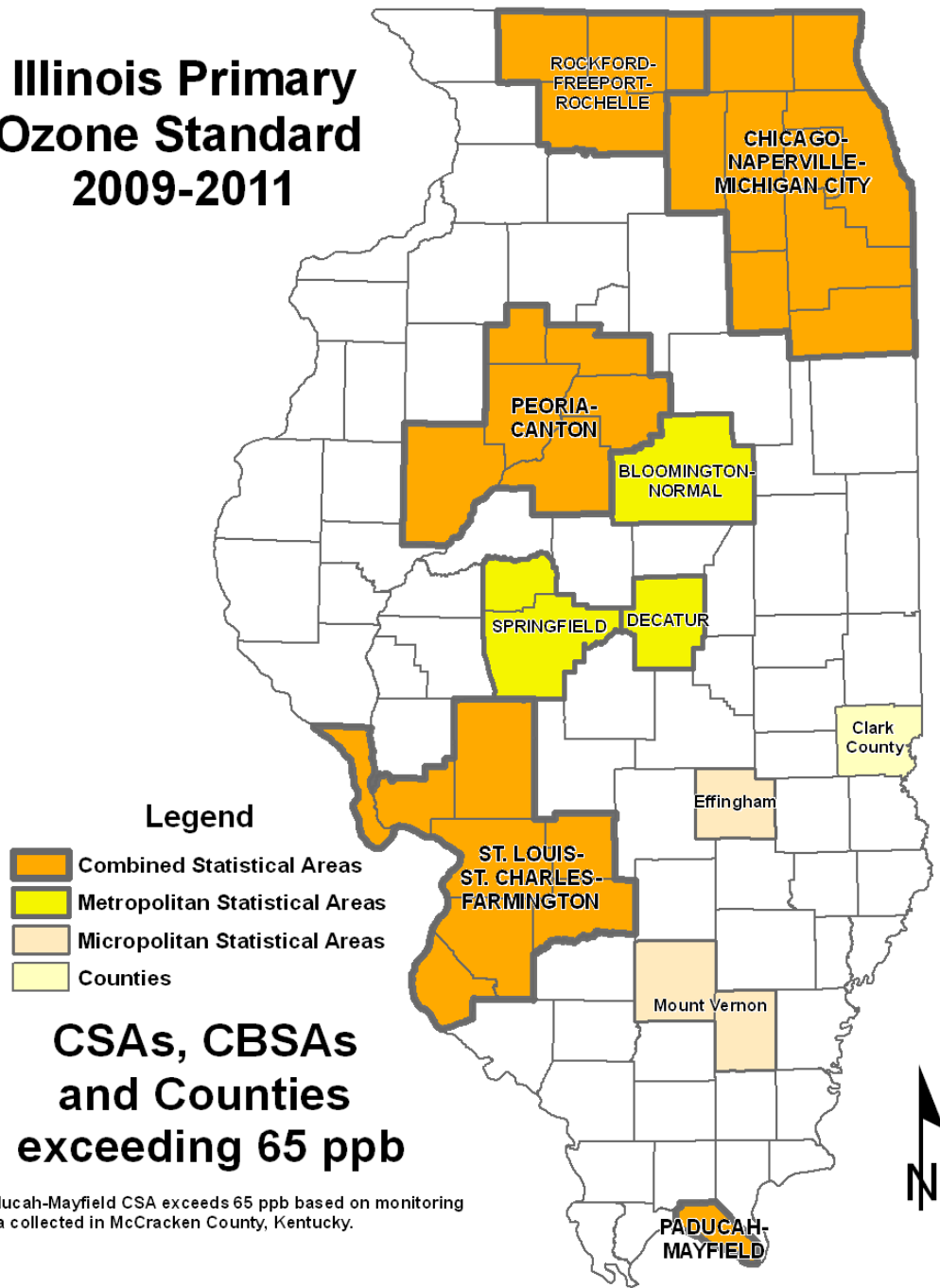
Based on 2011 data thru 10/16/2011

Illinois Primary Ozone Standard 2009-2011



Based on 2011 data thru 10/16/2011

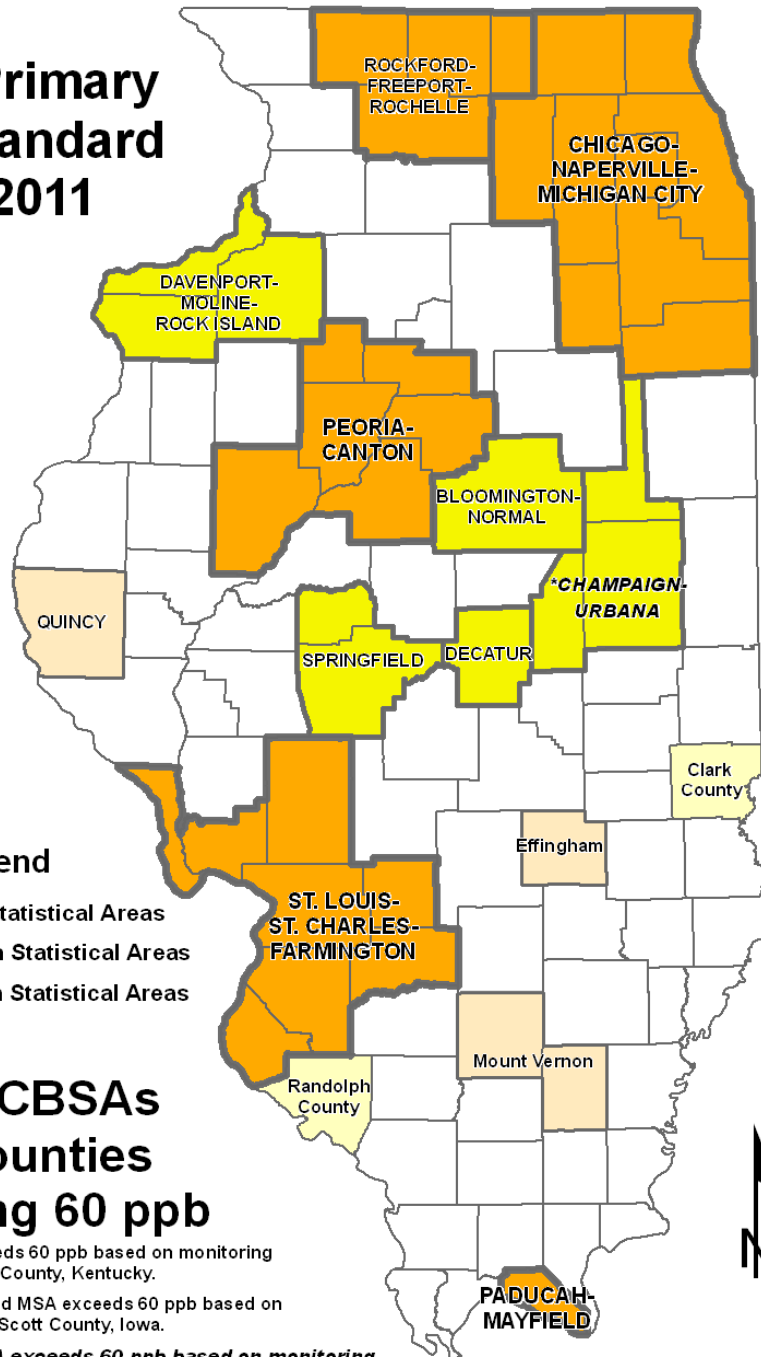
Illinois Primary Ozone Standard 2009-2011



Paducah-Mayfield CSA exceeds 65 ppb based on monitoring data collected in McCracken County, Kentucky.

Based on 2011 data thru 10/16/2011

Illinois Primary Ozone Standard 2009-2011



Legend

- Combined Statistical Areas
- Metropolitan Statistical Areas
- Micropolitan Statistical Areas
- Counties

CSAs, CBSAs and Counties exceeding 60 ppb

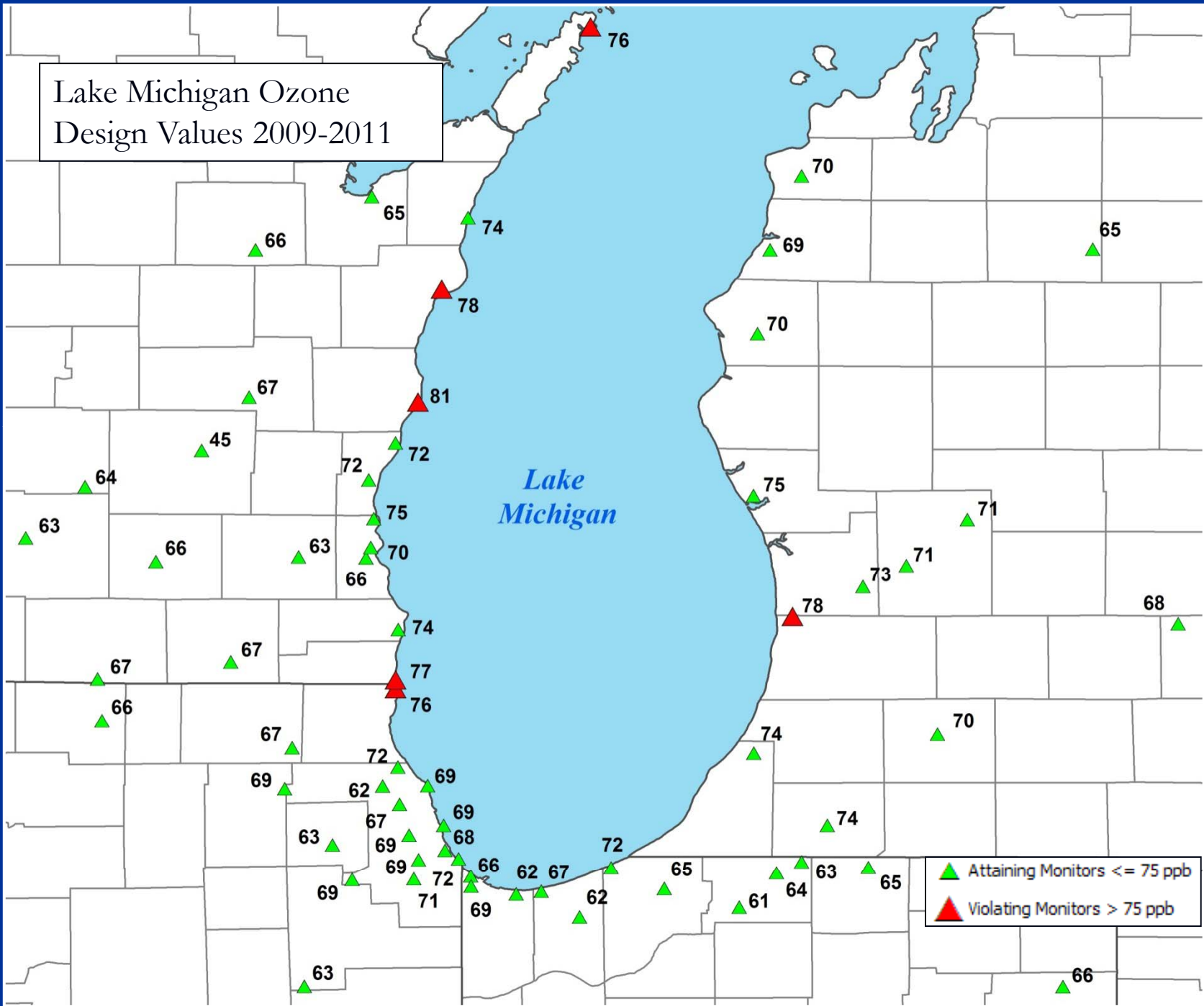
Paducah-Mayfield CSA exceeds 60 ppb based on monitoring data collected in McCracken County, Kentucky.

Davenport-Moline-Rock Island MSA exceeds 60 ppb based on monitoring data collected in Scott County, Iowa.

* Champaign-Urbana MSA exceeds 60 ppb based on monitoring data collected over 2 year timeframe (2008-2009, 62 ppb).

Based on 2011 data thru 10/16/2011

Lake Michigan Ozone
Design Values 2009-2011



2008 (75 ppb) Ozone Implementation Rule

- Transition Policy
- NAA Classification Approach
- Attainment Dates
- Anti-backsliding
- Ozone Transport Issues
- Modeling & Attainment Demonstrations
- RFP and 15% Plans
- RACT/RACM
- Conformity
- New Source Review
- Optimizing for Multi-Pollutant Approach

Expected Soon?

Ozone: NAA Designations Schedule

- Primary NAAQS: Proposed Accelerated Schedule *(per Gina McCarty, Director, Air & Radiation Division in October 2011)*
 - Final designations by early 2012
 - Use States' recommendations submitted in 2009 (unless State revises)

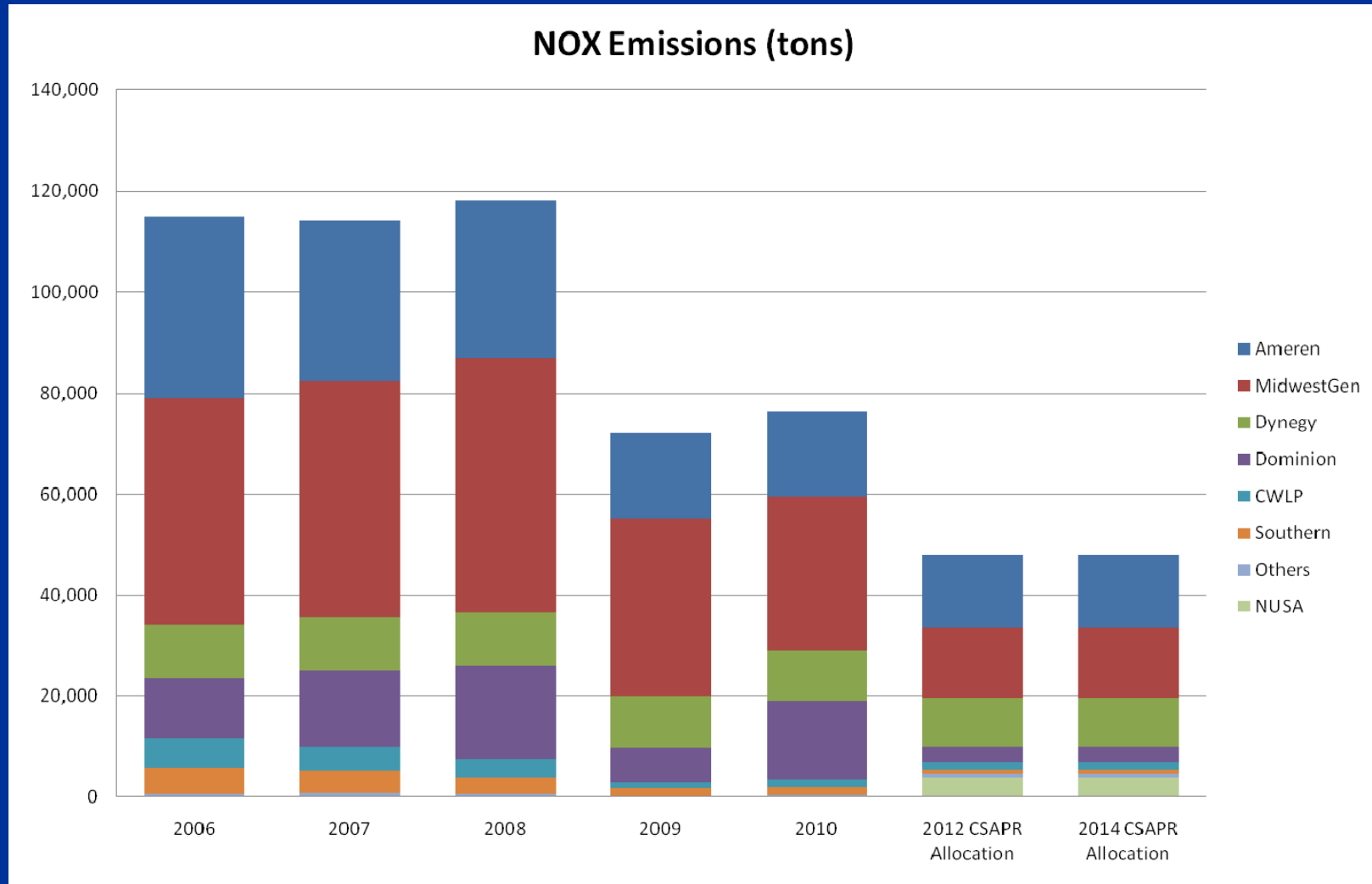
Cross-State Air Pollution Rule

- aka “CAIR Replacement” or “Transport Rule”
- Published as final July 2011
- Addresses Ozone and PM_{2.5} Transport (upwind states to downwind state problems)
 - Reductions needed from all states in the U.S. contributing to nonattainment/interfering with maintenance of 1997 ozone standard and 1997 and 2006 PM_{2.5} standards
- Includes process for determining each upwind state’s contribution to exceedances of new standards as NAAQS are changed
- Significant revisions published October 14, 2011
 - Illinois impacts: Delay Assurance Penalty until 2014 (instead of 2012)

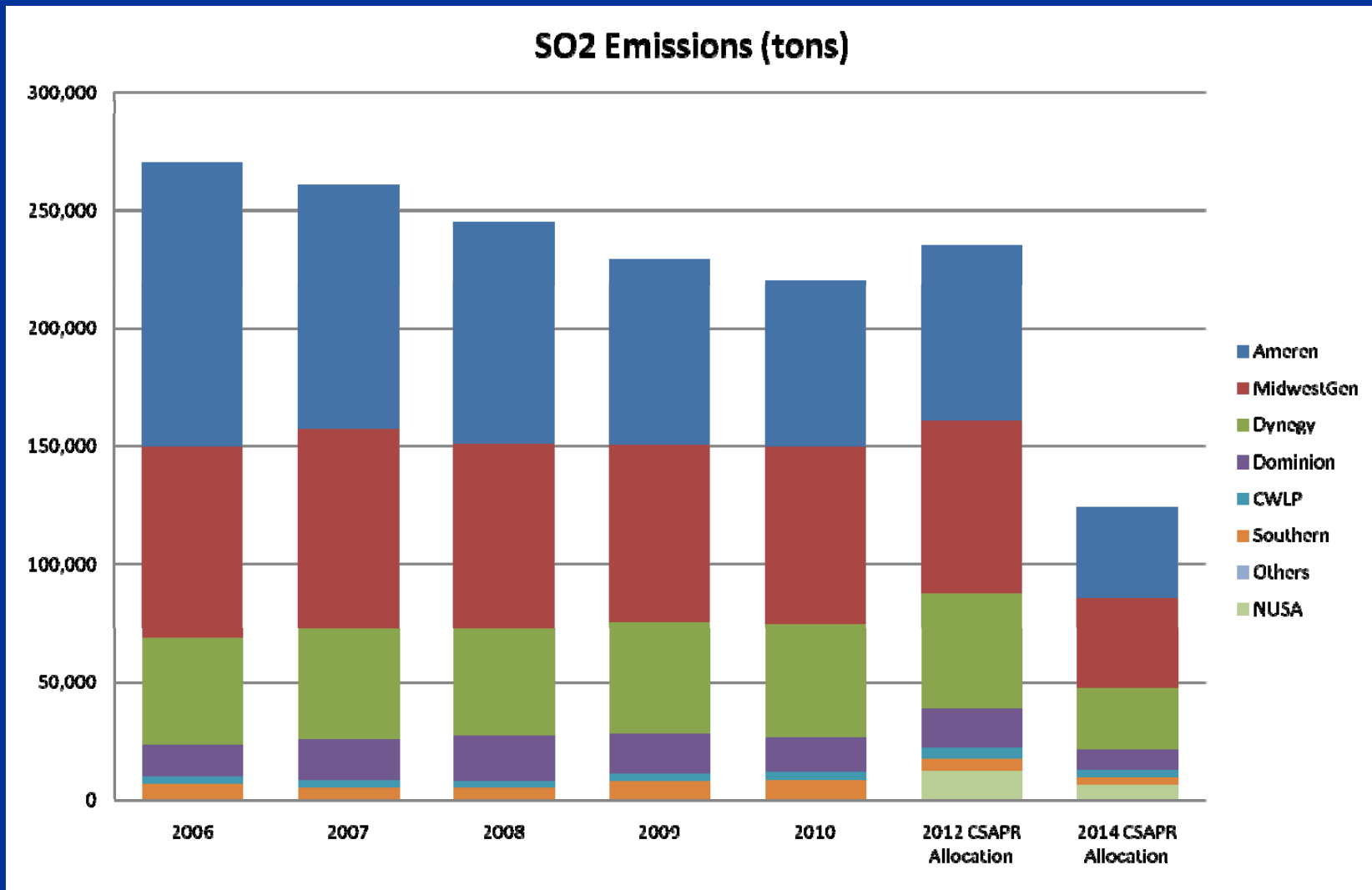
Cross-State Air Pollution Rule

- Applies to emissions of SO₂ and NO_x from power plants
- Phase 1
 - January 1, 2012 for annual SO₂ and NO_x
 - May 1, 2012 for ozone season No_x
- Phase 2 – additional SO₂ reductions by January 1, 2014
- Allows for emissions allowance trading, while imposing a strict emissions ceiling in each state
- Allows states to develop full SIPs to achieve the required reductions

CSAPR – NOx Allocations and Emissions from Illinois Utilities



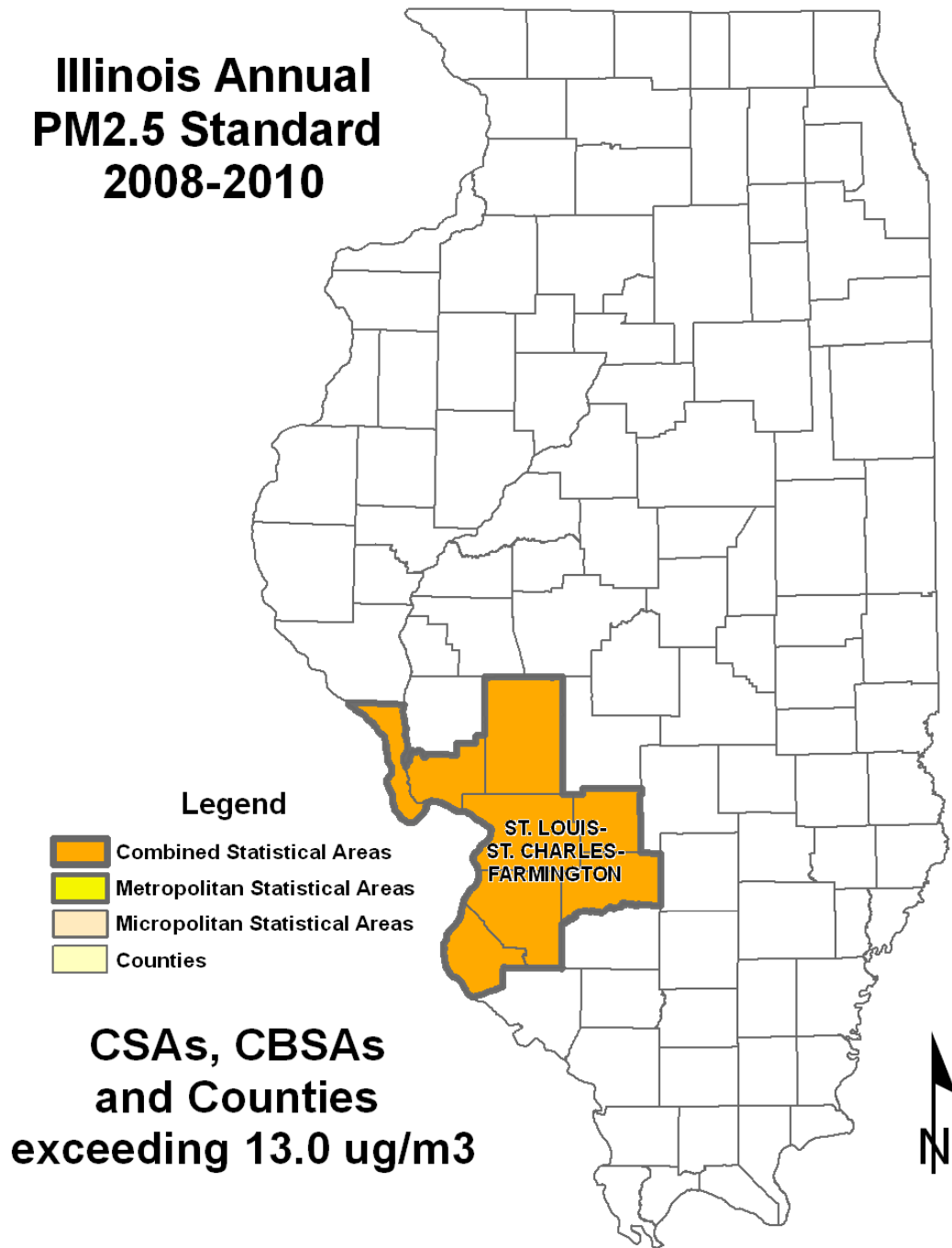
CSAPR – SO₂ Allocations and Emissions from Illinois Utilities



Particulate Matter NAAQS

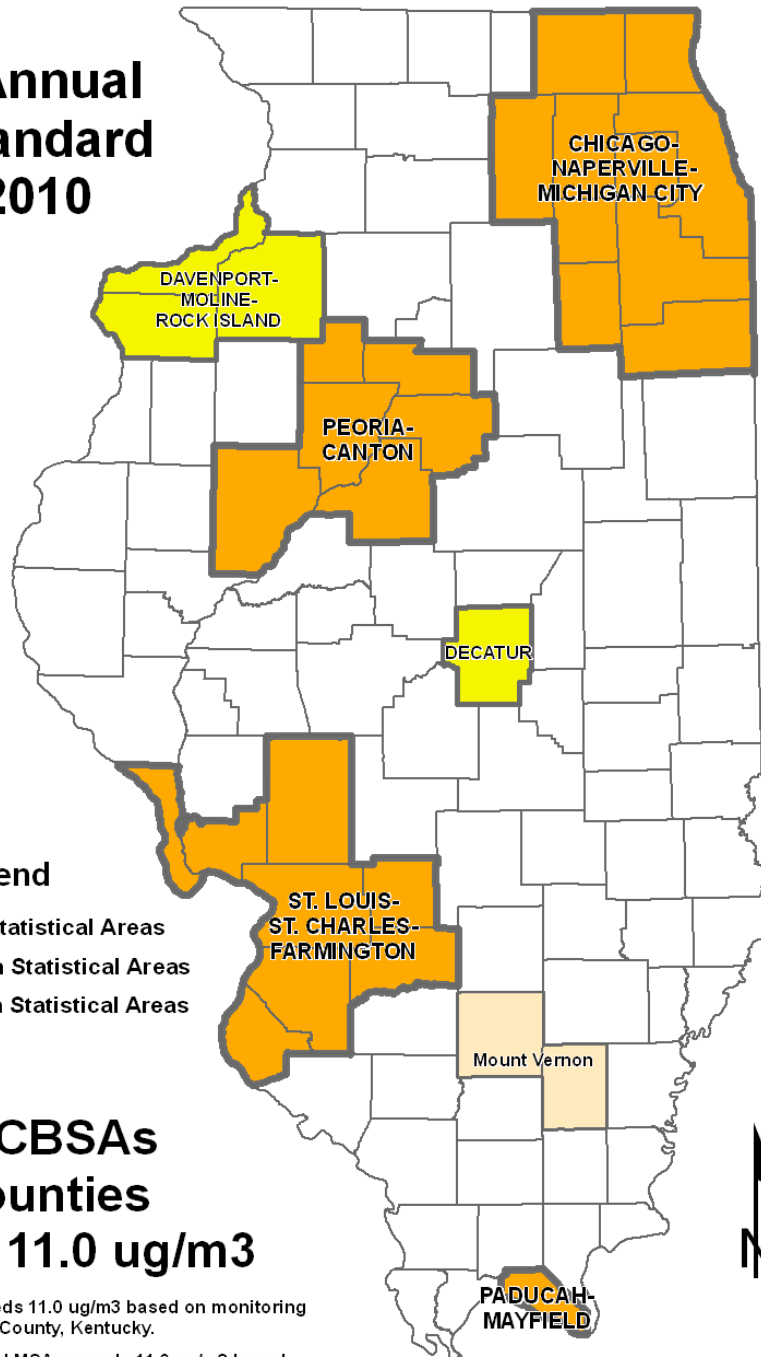
- 2006 NAAQS:
 - 24-Hour: 35 $\mu\text{g}/\text{m}^3$
 - Annual: 15 $\mu\text{g}/\text{m}^3$
- February 2009:
 - D.C. Court of Appeals remanded 2006 $\text{PM}_{2.5}$ NAAQS
- Expected Proposal (date TBD):
 - 24-Hour: Between 25-30 $\mu\text{g}/\text{m}^3$
 - Annual: Between 11-13 $\mu\text{g}/\text{m}^3$

Illinois Annual PM2.5 Standard 2008-2010



Based on 2010 data thru 12/31/2010

Illinois Annual PM2.5 Standard 2008-2010



Legend

- Combined Statistical Areas
- Metropolitan Statistical Areas
- Micropolitan Statistical Areas
- Counties

CSAs, CBSAs and Counties exceeding 11.0 ug/m3

Paducah-Mayfield CSA exceeds 11.0 ug/m3 based on monitoring data collected in McCracken County, Kentucky.

Davenport-Moline-Rock Island MSA exceeds 11.0 ug/m3 based on monitoring data collected in Scott County, Iowa.

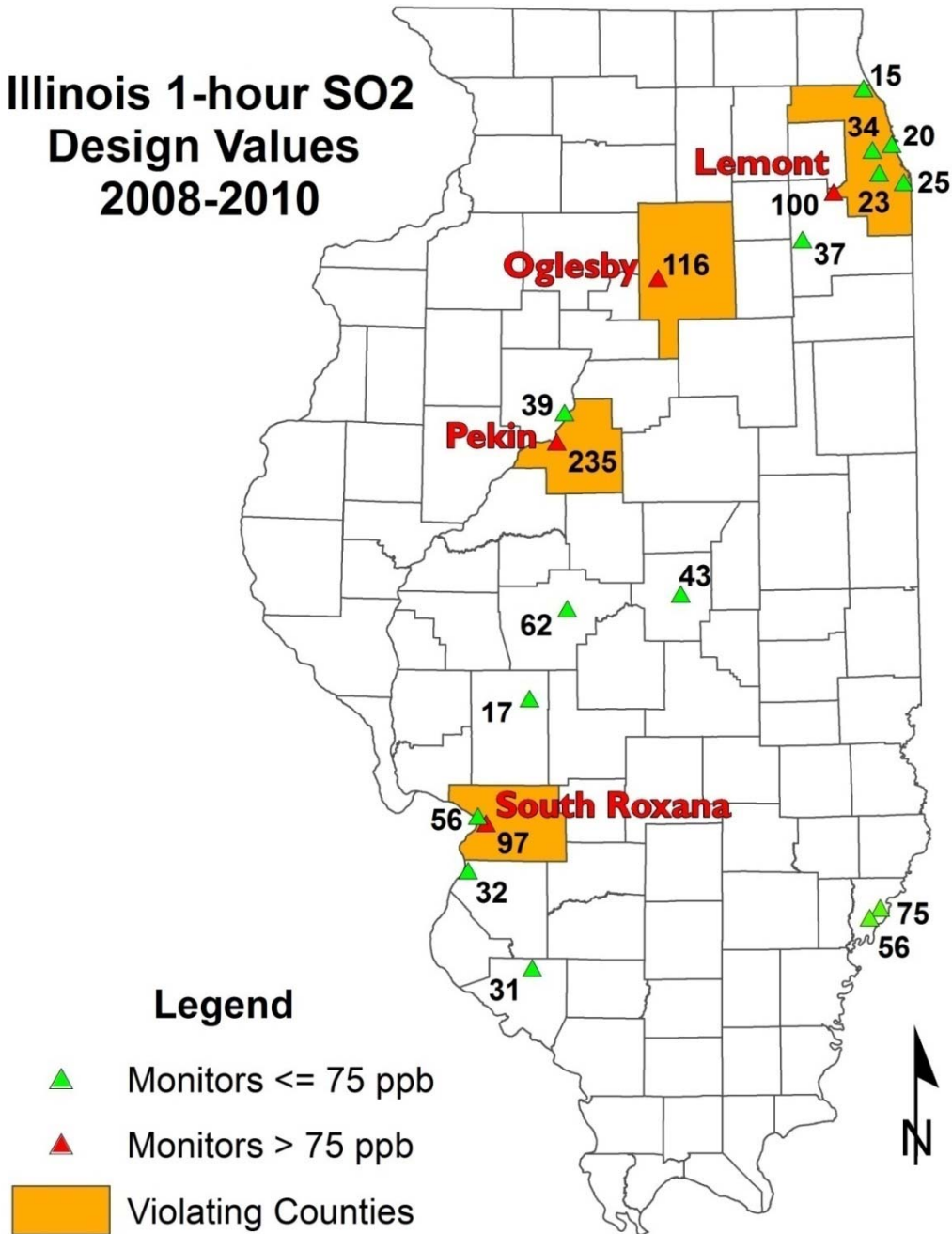


Based on 2010 data thru 12/31/2010

SO₂ NAAQS

- June 2, 2010:
 - 1-hr SO₂ standard of 75 ppb, based on the three-year average of the 99th percentile (or fourth highest) of daily maximum 1-hour average concentrations
 - Revoked current 24-hour and annual standards
 - Retained existing secondary standard

Illinois 1-hour SO₂ Design Values 2008-2010



Legend

▲ Monitors ≤ 75 ppb

▲ Monitors > 75 ppb

■ Violating Counties



SO₂ NAA Recommendations

- Specifically, the following designations were recommended for Illinois:

County (Partial)	Designation	Name of Area
<u>Tazewell County:</u> <ul style="list-style-type: none"> •Pekin and Cincinnati Township •Remainder of Tazewell County 	Nonattainment Unclassifiable	Tazewell County
<u>La Salle County:</u> <ul style="list-style-type: none"> •La Salle Township •Remainder of La Salle County 	Nonattainment Unclassifiable	La Salle County
<u>Cook County:</u> <ul style="list-style-type: none"> •Lemont Township •Remainder of Cook County 	Nonattainment Unclassifiable	Cook County
<u>Will County:</u> <ul style="list-style-type: none"> •Lockport and DuPage Townships •Remainder of Will County 	Nonattainment Unclassifiable	Will County
<u>Madison County:</u> <ul style="list-style-type: none"> •Chouteau and Wood River •Remainder of Madison County 	Nonattainment Unclassifiable	Madison
All Other Counties	Unclassifiable	Illinois

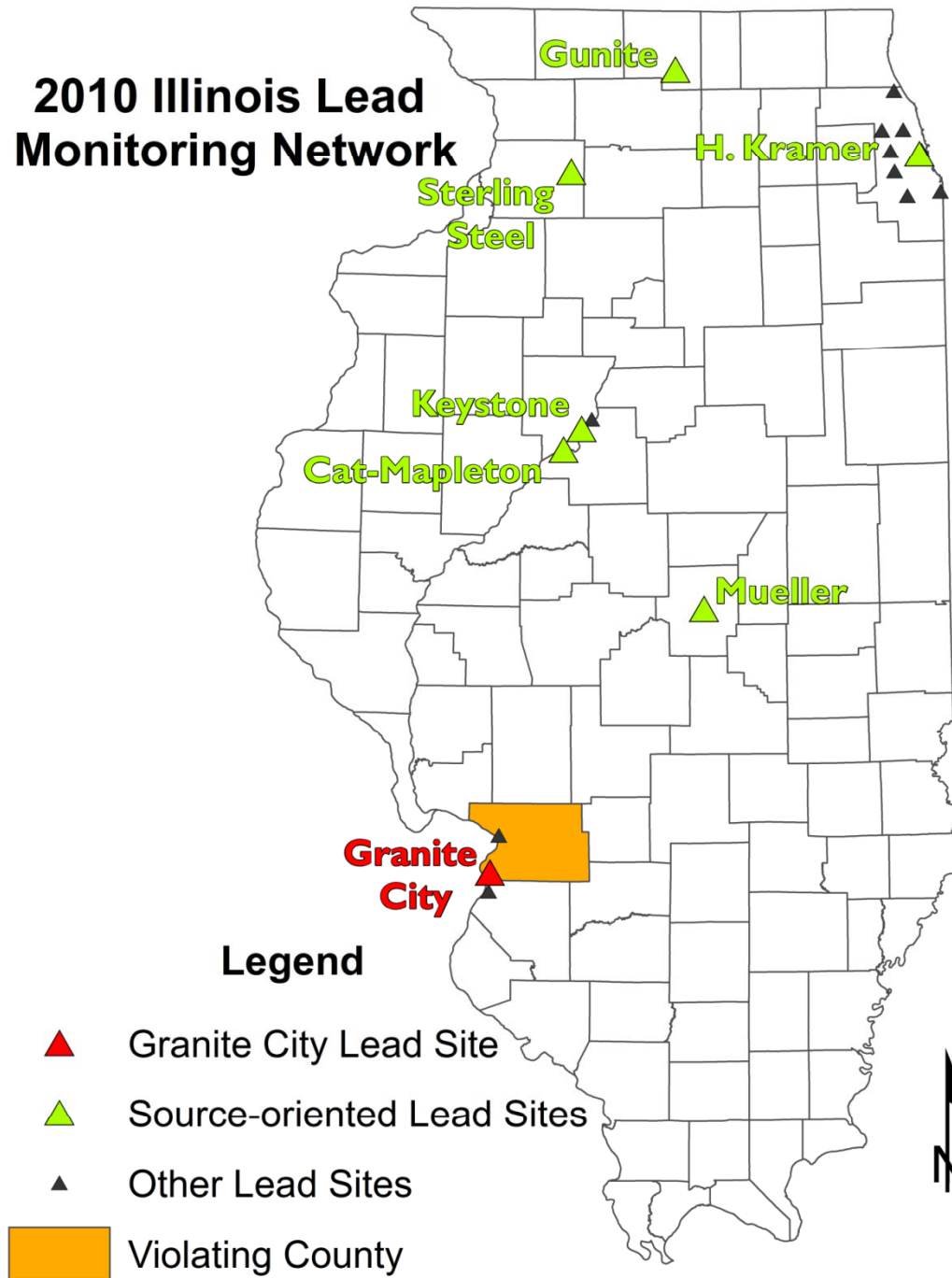
SO₂ Designations/Implementation

- Designations Strategy:
 - Attainment = Areas with both monitoring data and modeling showing no violations
 - Nonattainment = Areas with monitored violations
 - Attainment plan in 18 months showing compliance in 5 years (approximately August 2017)
 - Unclassified = All other areas
 - Section 110(a)(1) Plan due June 2013
 - Plan may require modeling of significant SO₂ sources and necessary emissions controls demonstrating attainment/maintenance by August 2017

Lead NAAQS

- Effective January 2009:
 - Primary and secondary standards reduced from 1.5 ug/m³ to 0.15 ug/m³, rolling 3-month average
- USEPA Requiring Expanded Source-Specific Monitoring:
 - Monitor installed in Chicago's Pilsen neighborhood
 - Violation of revised lead standard in December 2010
 - IEPA recommended Pilsen be designated nonattainment in June 2011
 - Additional monitors to be added in 2012
 - (Locations: Johnson Controls, Geneva, IL and Mittal Steel, Riverdale, IL)

2010 Illinois Lead Monitoring Network



NO₂ NAAQS

- January 2010:
 - New 1-hour NO₂ NAAQS = 100 ppb
 - Retained the current annual standard of 53 ppb

Near Roadway Monitoring Implementation Timeline for Revised NO₂ NAAQS (Based on New Monitors)

Milestone	Date
Monitors Installed	January 1, 2013
Final Designations	January 2016/2017
Attainment Demonstration SIPs Due	August 2017/2018
Attainment Dates	January 2021/2022

CO NAAQS

- Current Primary Standard:
 - 9 ppm with 8-hour averaging time
 - 35 ppm with 1-hour averaging time
 - No secondary
- USEPA has Proposed Retaining the Current Standards:
 - But is requiring near-roadway monitoring

NAAQS Implementation Milestones (Projected)

Pollutant	NAAQS Promulgation	Designations Effective (approximate date)	110(a) SIPS Due (3 years after NAAQS Promulgation)	Attainment Demonstration Due	Attainment Date
PM _{2.5} (2006)	Sept 2006	Dec 2009	Sept 2009	Dec 2012	Dec 2014/2019
Pb	Oct 2008	Nov 2010/2011 (extra time for new monitors)	Oct 2011	June 2012/2013	Nov 2015/2016
NO ₂ (primary)	Jan 2010	Feb 2012	Jan 2013	Aug 2013	Feb 2017
SO ₂ (primary)	June 2010	July 2012	June 2013	Jan 2014	July 2017
Ozone (all dates tentative)	March 2008	2012	March 2011	2015	2015-2032
CO	Aug 2011	Sept 2013	Aug 2014	Mar 2015	Sept 2018
PM _{2.5} (2011)	Oct 2011 !	Dec 2013	Oct 2014	Dec 2016	Dec 2018/2023
NO ₂ /SO ₂ (secondary)	Mar 2012	Apr 2014	Mar 2015	Oct 2015	N/A

VOC RACT Rules

- Must submit FINAL rules before ozone NAAs can be redesignated
- Rulemaking to amend all VOC RACT Rules to correct for deficiencies identified by USEPA
 - Final Rules Submitted September 16, 2011
- Applies to Chicago and Metro-East ozone NAAs
- Group II CTGs
 - Flexographic, Lithographic, Rotogravure and Letterpress Printing
 - Industrial Cleaning Solvents
 - Flat Wood Paneling Coating

VOC RACT Rules

(cont'd)

- Group III CTGs
 - Paper, Film, and Foil Coatings
 - Large Appliance Coatings
 - Metal Furniture Coatings

- Group IV CTGs
 - Metal Products Coatings
 - Plastic Parts Coatings
 - Auto & Light-duty Truck Assembly Coatings
 - Fiberglass Boat Manufacturing Materials
 - Miscellaneous Industrial Adhesives

NO_x RACT Waiver

- February 22, 2011 – USEPA exempted sources of NO_x in the Chicago and Metro-East NAAs from the CAA requirements for NO_x Reasonably Available Control Technology (NO_x RACT)
 - Based on finding that both areas had attained the 1997 8-hour ozone NAAQS (85 ppb)
- Current rulemaking to amend Illinois' NO_x RACT Rules to extend the compliance date from Jan. 1, 2012 to Jan. 1, 2015
 - Extended date to allow Illinois EPA to re-evaluate the compliance date for proposed 60-70 ppb standard
 - Next Step?
 - Wait to evaluate 75 ppb ozone designation & implementation strategy

Consumer Products

- Illinois EPA has proposed amendments to its consumer products rules to make regulations and VOM emission limits for consumer products in Illinois consistent with the 2006 Ozone Transport Commission (OTC) Model Rules.
- Proposed in July 2011; rules should be final early in 2012, and effective July 1, 2012.
- The first public hearing for the rulemaking was held in Springfield on October 6, 2011.
- A second public hearing is scheduled in Chicago on November 17, 2011.
- For more information about the status of the rulemaking visit the Illinois Pollution Control Board Website at:
<http://www.ipcb.state.il.us/COOL/External/CaseView.aspx?case=14189>

Thank You

- Any Questions?

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