

# 2010 Primary Sulfur Dioxide Standard

**Southwest/Springfield Area Outreach Meeting  
Springfield, MO  
November 17, 2010**



**Missouri Department of Natural Resources  
Air Pollution Control Program**

# Sulfur Dioxide (SO<sub>2</sub>)

## **Primary SO<sub>2</sub> standard (June 2010):**

- 75 ppb for 1-hour average

## **Design value:**

- 3-year average of the 99th percentile of daily maximum 1-hour average (the 4<sup>th</sup> high)

## **New monitoring requirements based on population and SO<sub>2</sub> emissions in core based statistical areas.**

- **Effective January 2013; Minimum sites include:**
  - 2 in St. Louis area
  - 2 in Kansas City area
  - 1 in Springfield area.

# **Sulfur Dioxide (SO<sub>2</sub>)**

## **Combination of monitoring & modeling to assess compliance**

- **Modeling for medium to larger sources (e.g. 100 tpy)**
- **Monitoring for other sources**

## **Areas with violations in 08–10 nonattainment, others unclassifiable**

- **Greene County area**
- **Jackson County area**
- **Jefferson County area**

## **Pending guidance**

- **Refined dispersion modeling - expected early 2011**

# Sulfur Dioxide (SO<sub>2</sub>)

## **Additional guidance expected 2011**

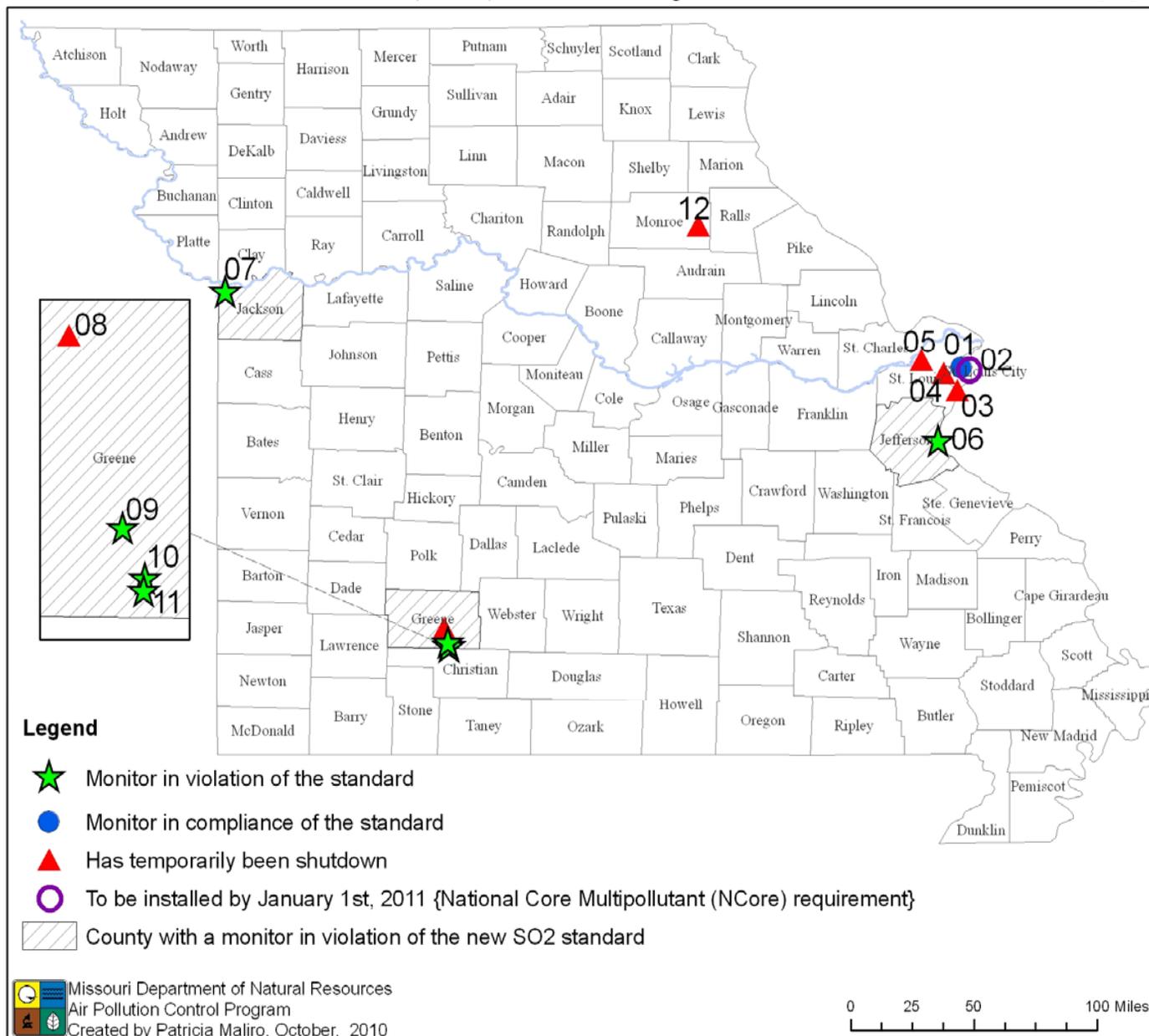
- Initial area designations
- Implementation plans
- How to identify & assess small SO<sub>2</sub> sources
- Contributing SO<sub>2</sub> sources & impacts on an area
- Section 110(a)(1) maintenance plan requirements

## **Pending federal rules for SO<sub>2</sub> emission reductions**

- Boiler MACT Subpart 5D – proposed June 2010
- Utility MACT – projected proposal Mar 2011
- Transport rule – proposed Aug 2010

# SO2 Monitoring Network and Design Values

New SO2 1-hour Standard = 75 ppb



## Site# Name (07-09 DV)

### St. Louis Area

- 01 Margaretta (48)
- 02 Blair Street (--)
- 03 South Broadway (45)
- 04 Ladue (46)
- 05 Maryland Heights (38)
- 06 Herc. Main Street (**335**)

### Kansas City Area

- 07 Troost (**171**)

### Springfield Area

- 08 MSU (28)
- 09 South Charleston (**77**)
- 10 Wildwood Lane (**74**)
- 11 James River South (**87**)

### Outstate Area

- 12 Mark Twain (12)

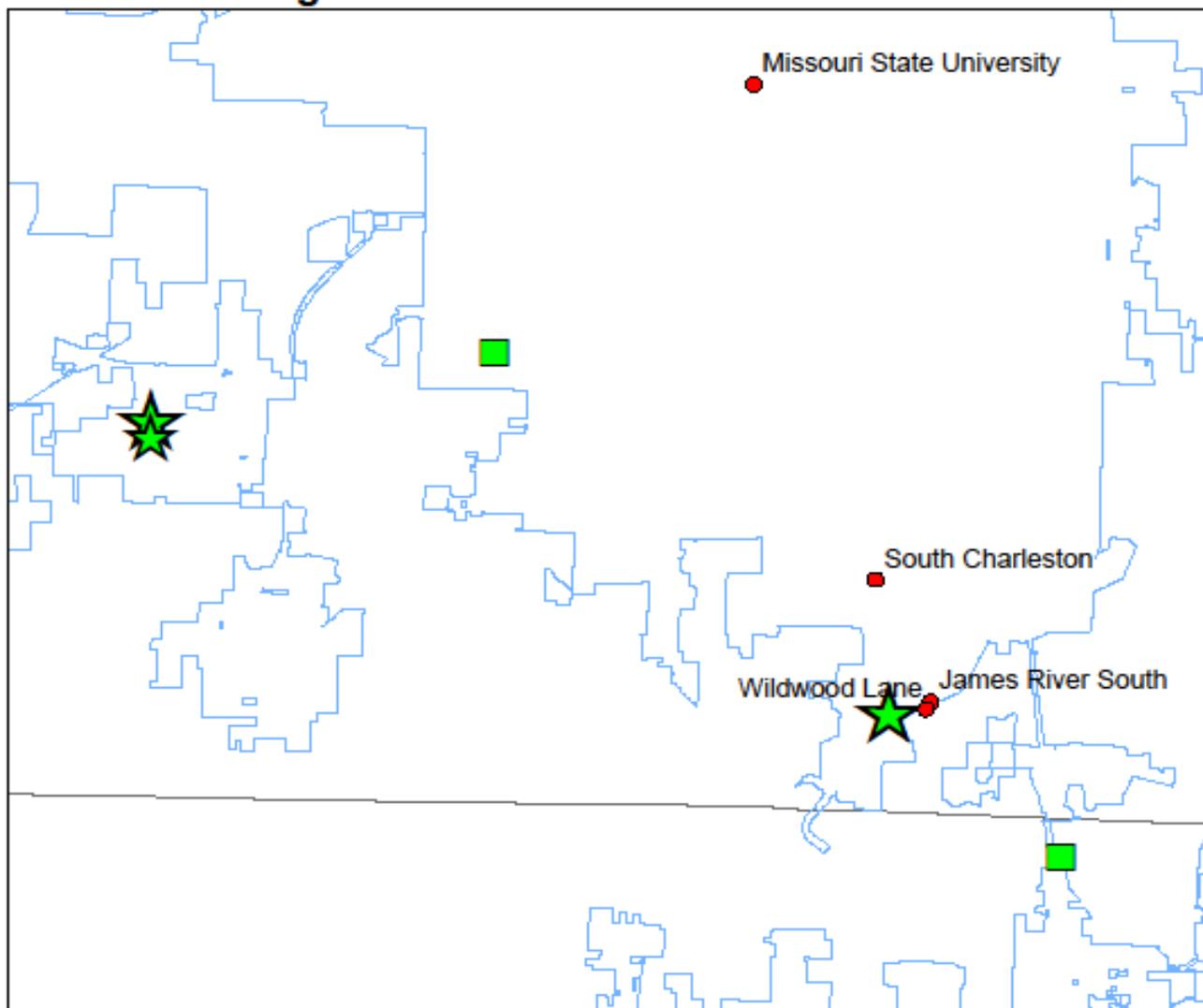
*Bold & Underlined: Violations of the standard.*

# SO2 Emission Sources and Monitoring Sites in Springfield Area with 07-09 Design Values

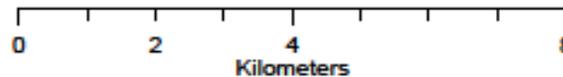
## All SO2 Sources (tons/year)

-  1 - 12
-  13 - 49
-  1,432
-  3,780
-  11,007

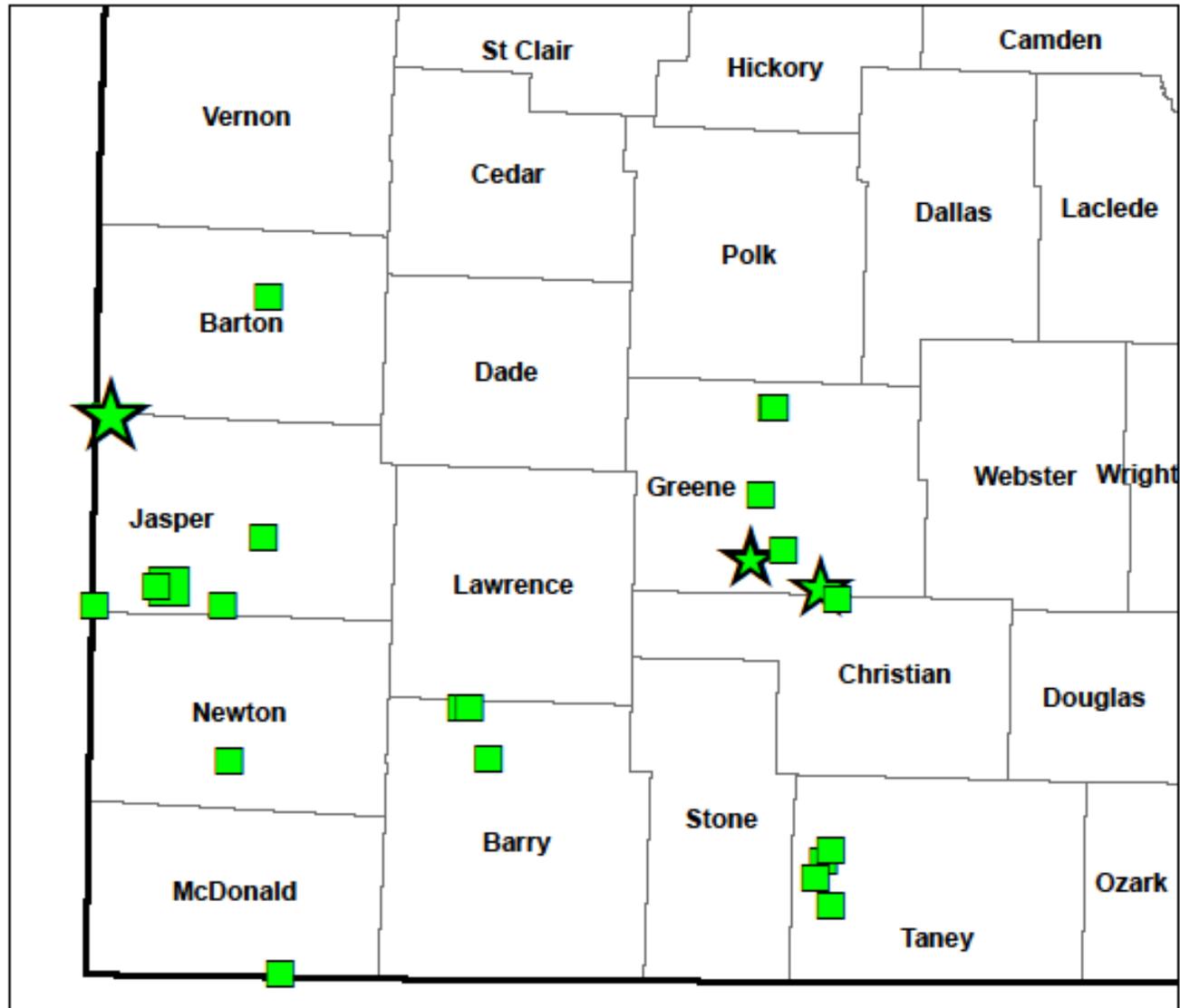
-  SO2 Monitoring Sites
- MSU - 28 ppb
- South Charleston - 77 ppb
- James River South - 87 ppb
- Wildwood Lane - 74 ppb



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 Prepared by Bern Johnson 10 NOV 2010



# SO2 Emission Sources in Southwest Missouri



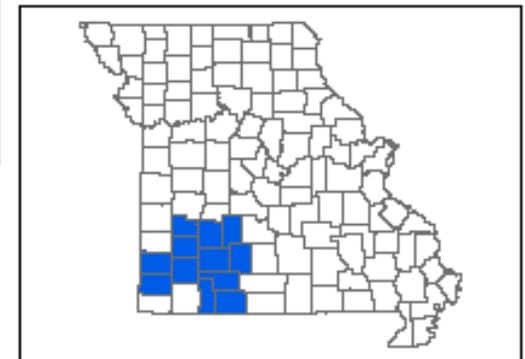
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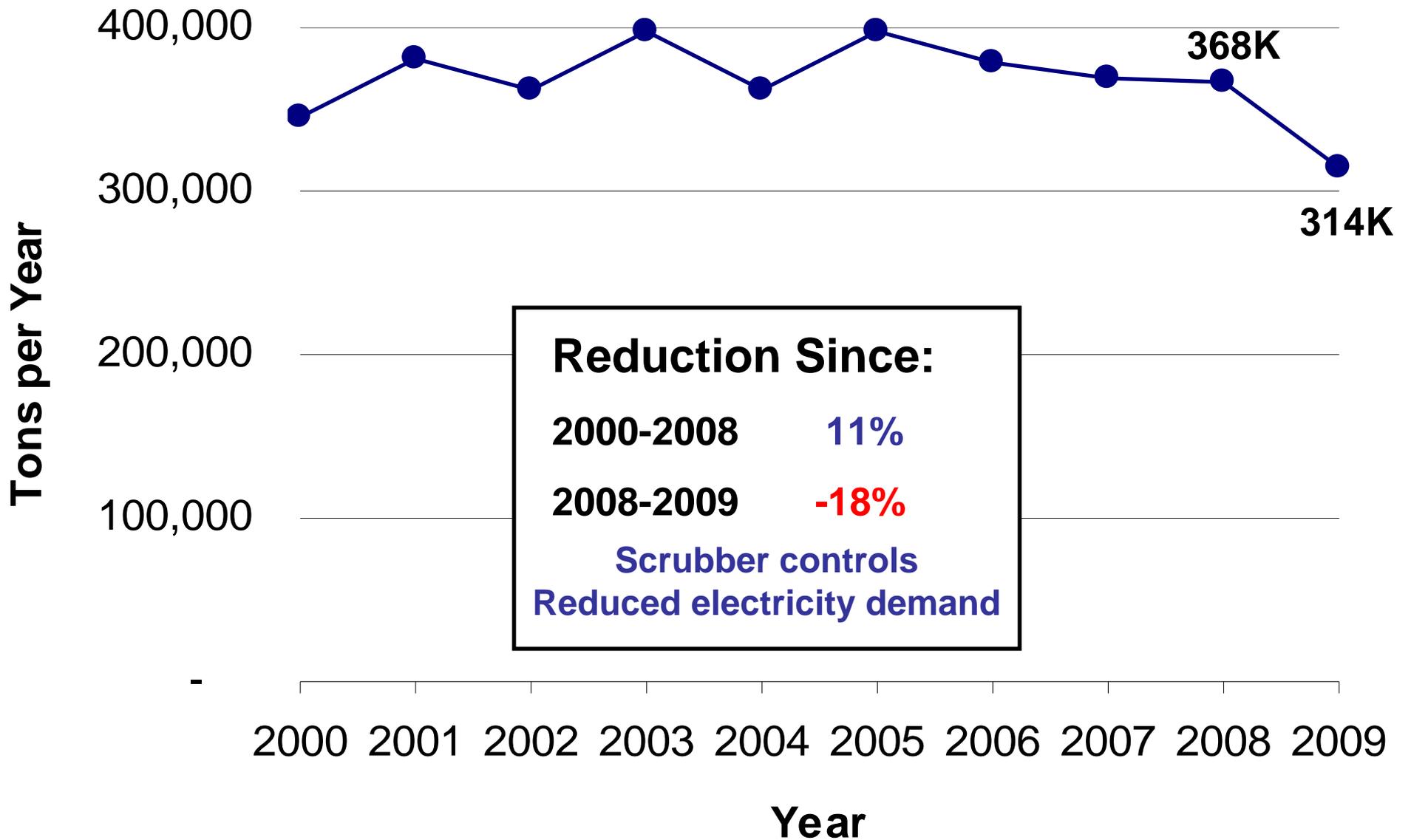


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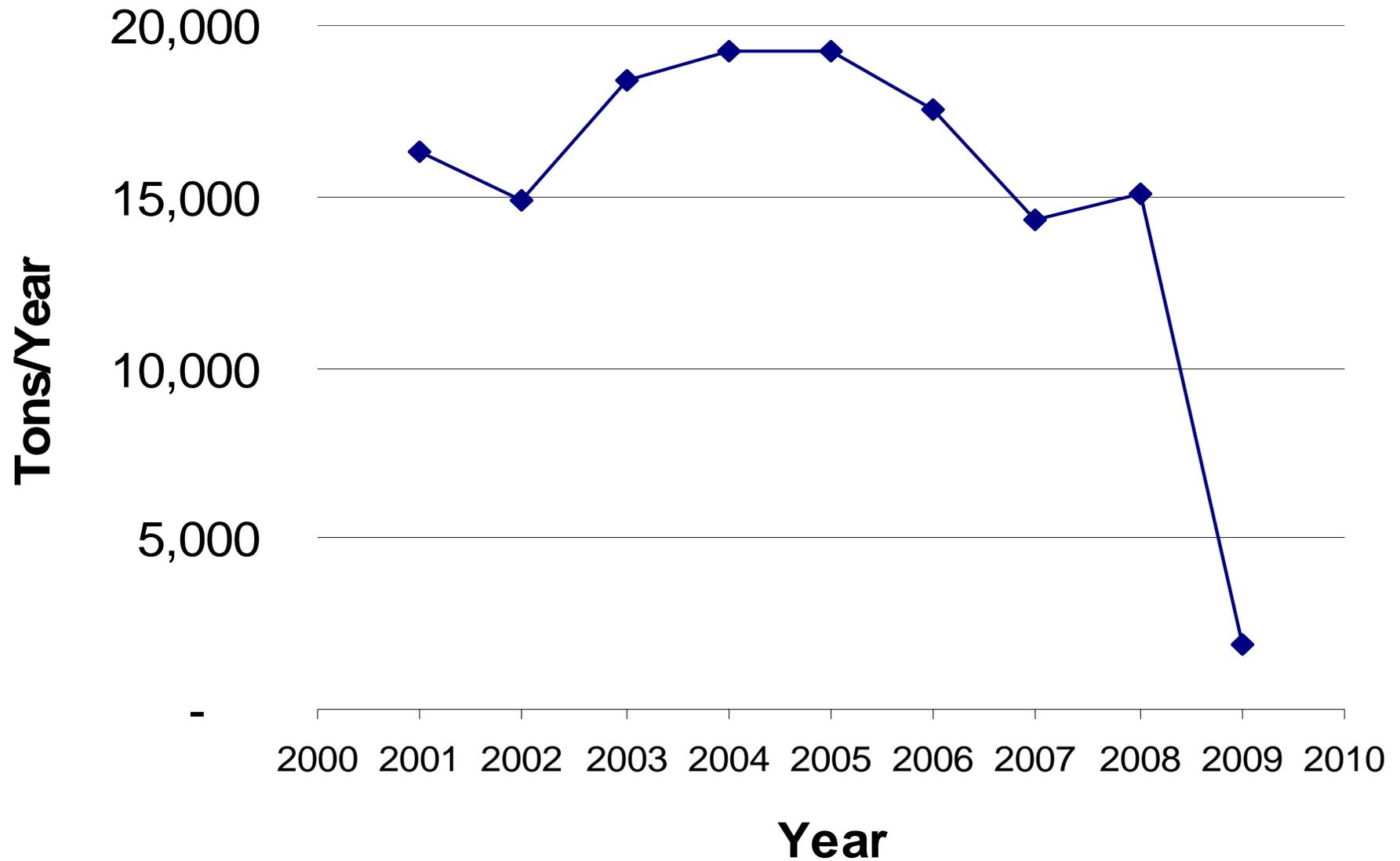
0 20 40 80  
 Kilometers



# Sulfur Dioxide



# Sulfur Dioxide Trend – Greene & Christian Counties



# 1-Hour SO<sub>2</sub> Standard Implementation Timeline

- **June 2011** - States submit recommendations
- **June 2012** - EPA finalizes designations
- **Jun 2013** - States submit infrastructure SIPs for unclassifiable areas
- **Feb 2014** - States submit attainment SIPs for nonattainment areas
- **Aug 2017** - Attainment date for all areas

# 1-Hour SO<sub>2</sub> Standard Area Designations Timeline

- **March 28** - Draft recommendations on 30-day notice
- **April 28** - MACC Public Hearing
- **May 26** - Adoption consideration
- **June 2011** - Submit to EPA
- **June 2012** - Final Area Designations