

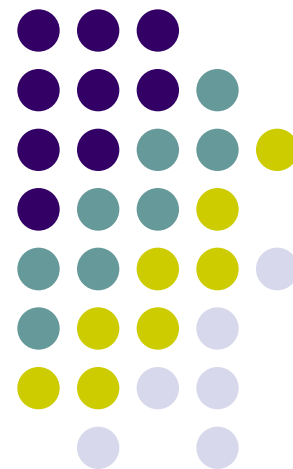
# SO<sub>2</sub> NAAQS (1-Hour) SIP Nonattainment Area Modeling in Illinois

## Phase I Methodology; Phase II Considerations

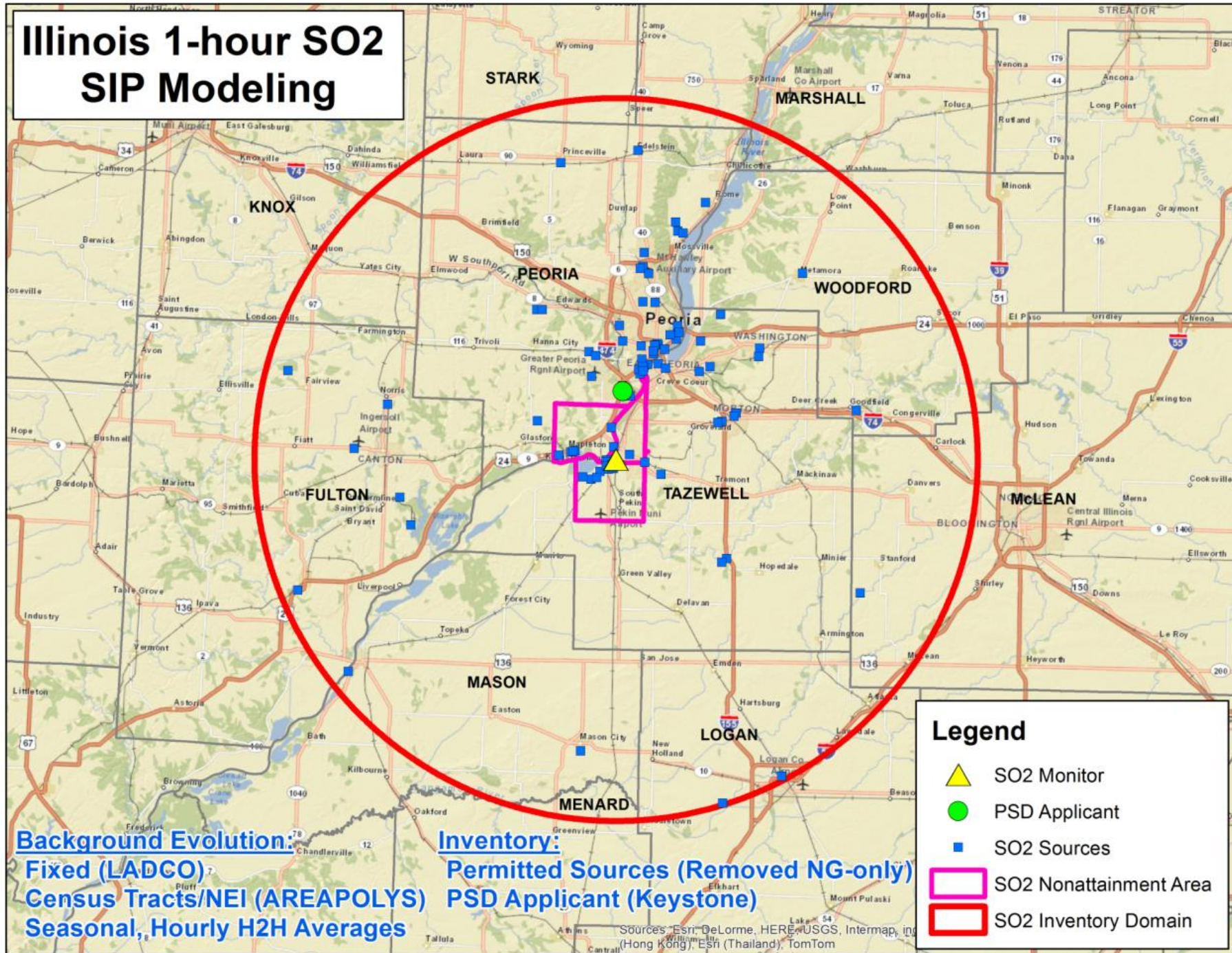
Jeffrey Sprague, Illinois EPA

2014 Midwest and Central States Air Quality Workshop

April 22-24, 2014 St. Louis, Missouri








# Illinois 1-hour SO<sub>2</sub> SIP Modeling



Background Evolution:  
 Fixed (LADCO)  
 Census Tracts/NEI (AREAPOLYS)  
 Seasonal, Hourly H2H Averages

Inventory:  
 Permitted Sources (Removed NG-only)  
 PSD Applicant (Keystone)

**Legend**

-  SO<sub>2</sub> Monitor
-  PSD Applicant
-  SO<sub>2</sub> Sources
-  SO<sub>2</sub> Nonattainment Area
-  SO<sub>2</sub> Inventory Domain

Sources: Esri, DeLorme, HERE, USGS, Intermap, Inc. (Hong Kong), Esri (Thailand), TomTom

# Data Requirements

## Rule: Option 1

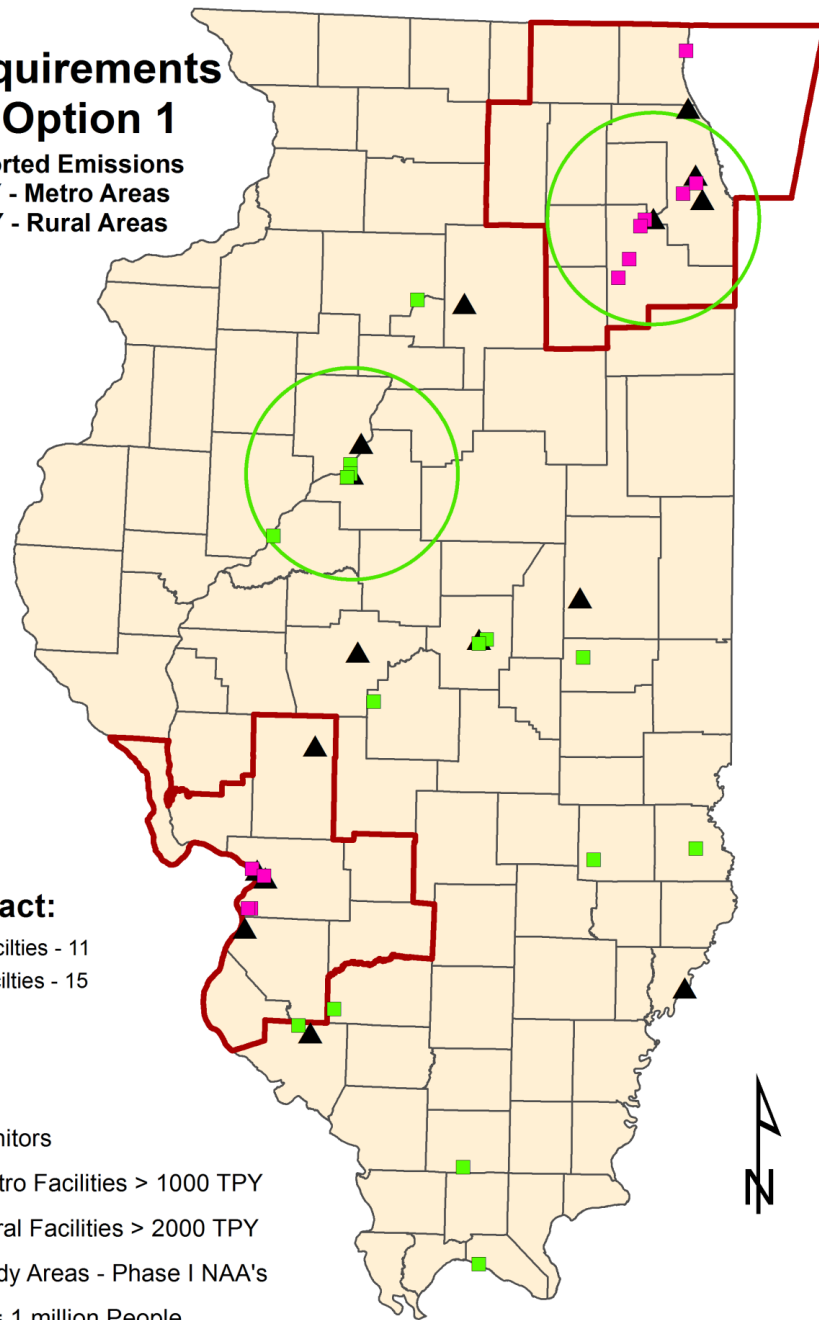
2012 Reported Emissions  
1000 TPY - Metro Areas  
2000 TPY - Rural Areas

### Impact:

Metro Facilities - 11  
Rural Facilities - 15

### Legend

- ▲ SO2 Monitors
- 2012 Metro Facilities > 1000 TPY
- 2012 Rural Facilities > 2000 TPY
- SO2 Study Areas - Phase I NAA's
- CBSA >= 1 million People



# Data Requirements

## Rule: Option 2

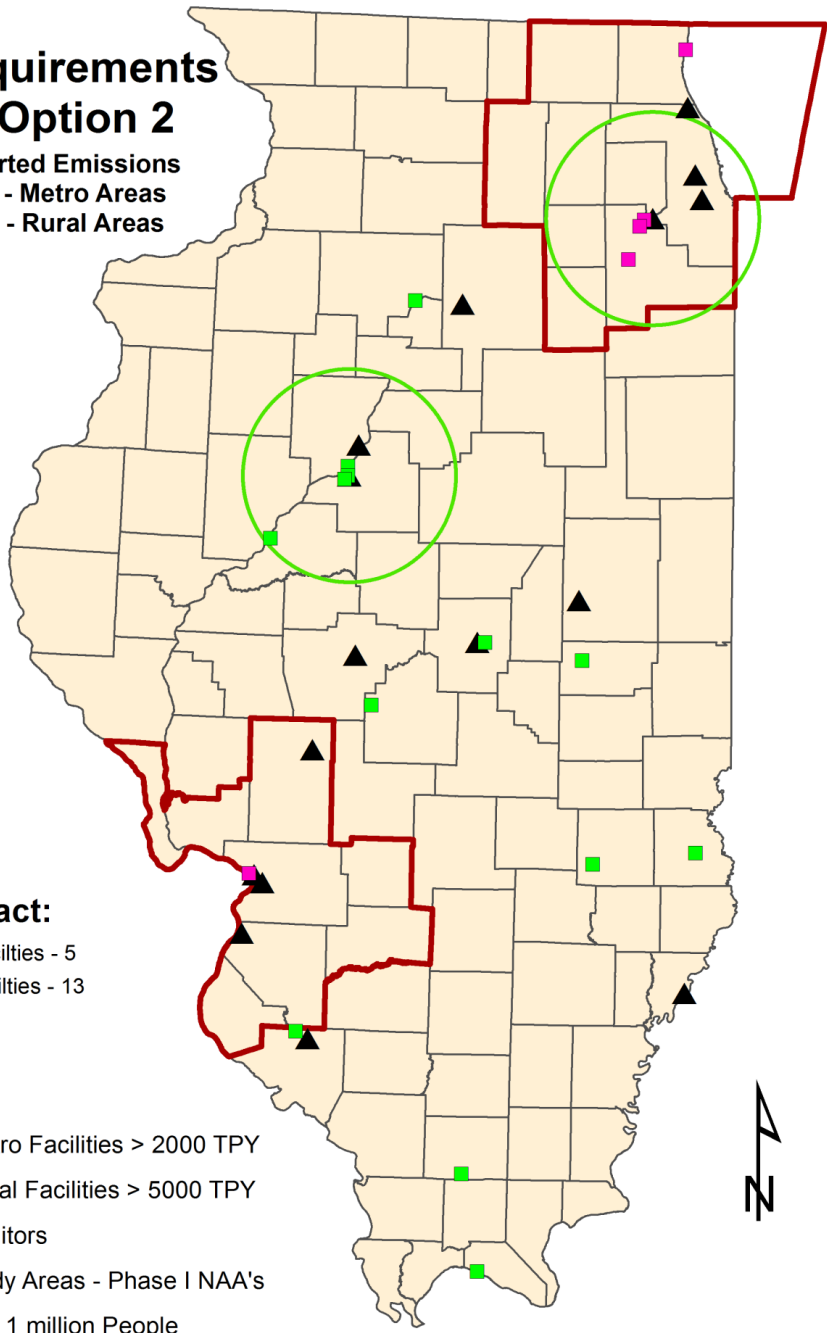
2012 Reported Emissions  
2000 TPY - Metro Areas  
5000 TPY - Rural Areas

### Impact:

Metro Facilities - 5  
Rural Facilities - 13

### Legend

- 2012 Metro Facilities > 2000 TPY
- 2012 Rural Facilities > 5000 TPY
- ▲ SO2 Monitors
- SO2 Study Areas - Phase I NAA's
- CBSA >= 1 million People



# Data Requirements

## Rule: Option 3

2012 Reported Emissions  
3000 TPY - Metro Areas  
10000 TPY - Rural Areas

### Impact:

Metro Facilities - 5  
Rural Facilities - 8

### Legend

- ▲ SO2 Monitors
- 2012 Metro Facilities > 3000 TPY
- 2012 Rural Facilities > 10000 TPY
- SO2 Study Areas - Phase I NAA's
- CBSA >= 1 million People

