

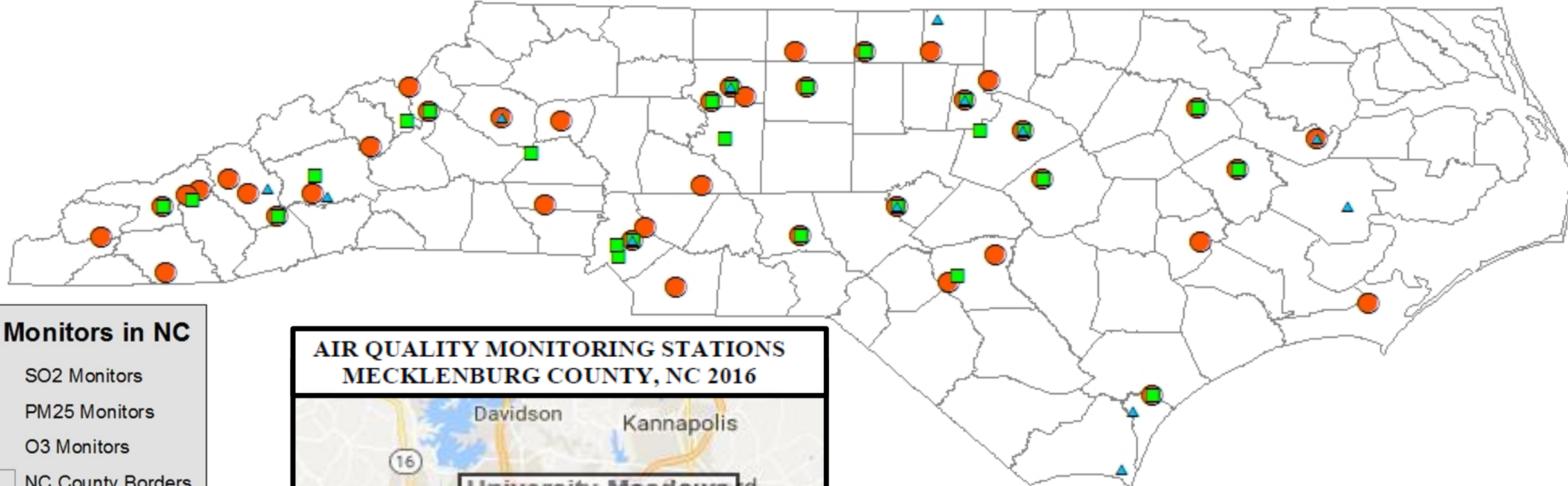
Air Quality Update

Town of Davidson Board of Commissioners
May 23, 2017

Presented by Leslie Rhodes
Director, Mecklenburg County Air Quality

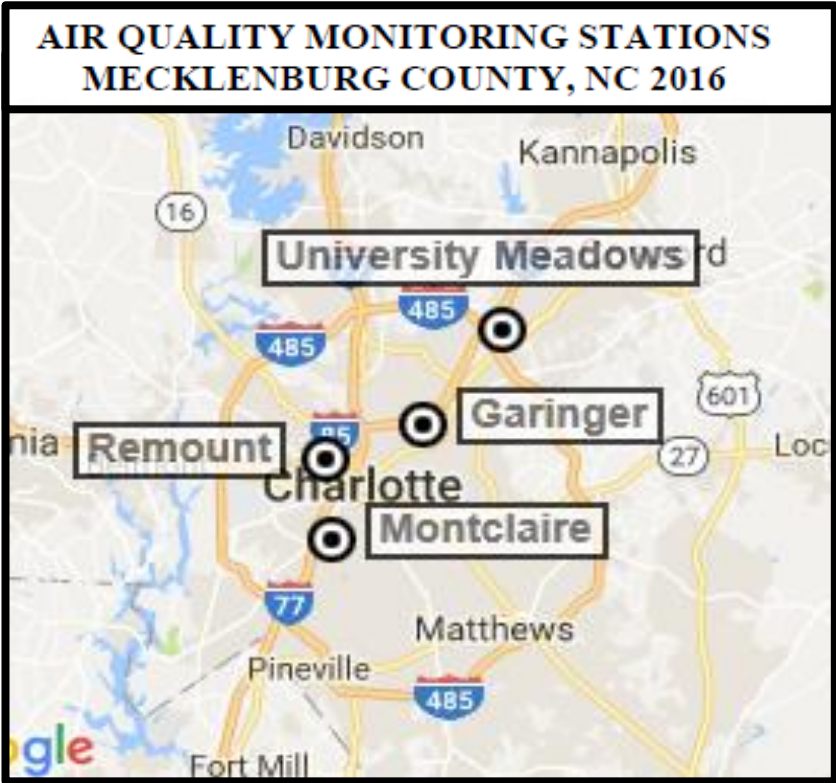
MECKLENBURG COUNTY

AIR QUALITY

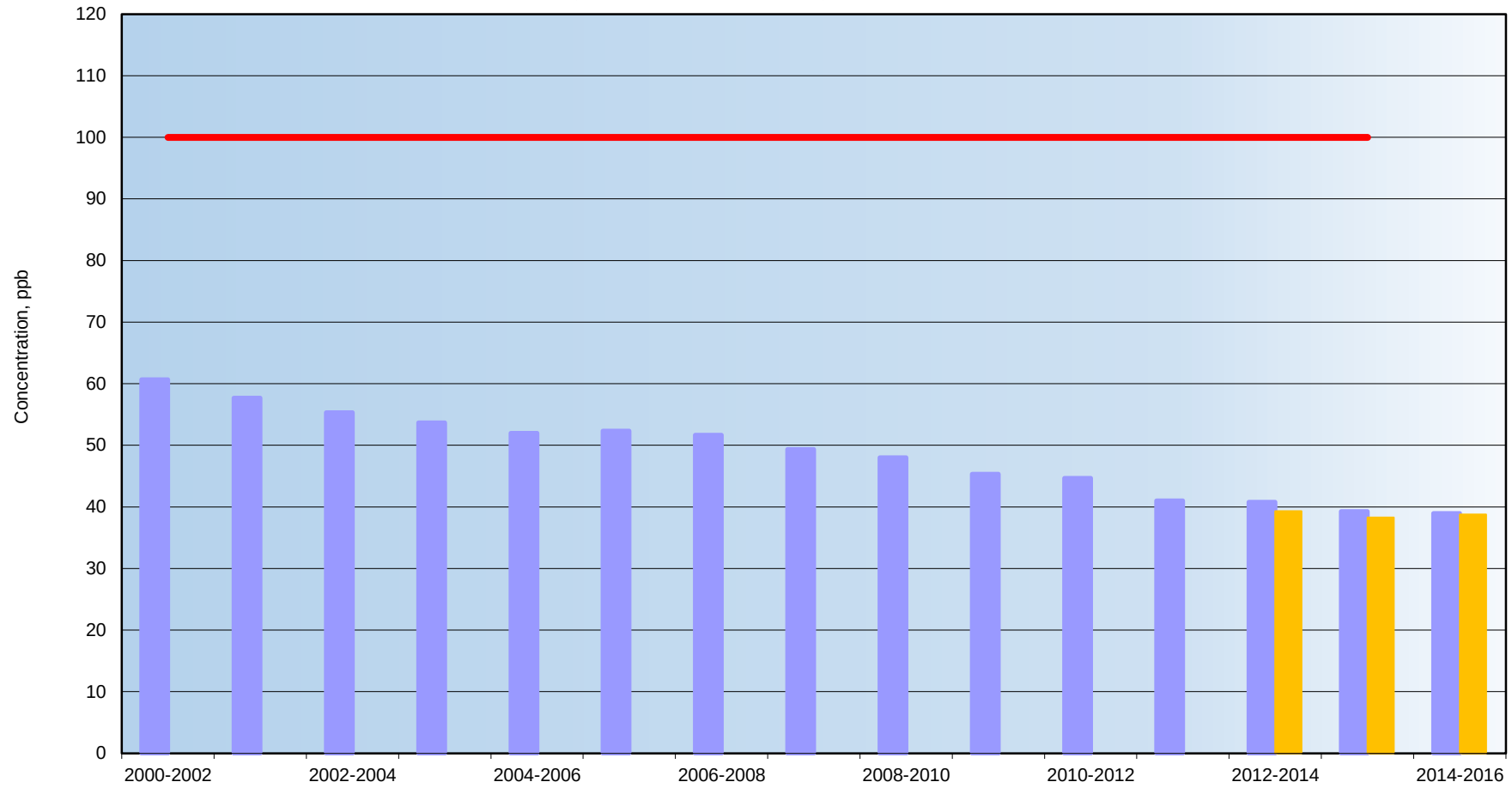


All Monitors in NC

- ▲ SO2 Monitors
- PM25 Monitors
- O3 Monitors
- NC County Borders



Nitrogen Dioxide
Mecklenburg County
3 Year Average, 1-Hour Daily Max 98th Percentile

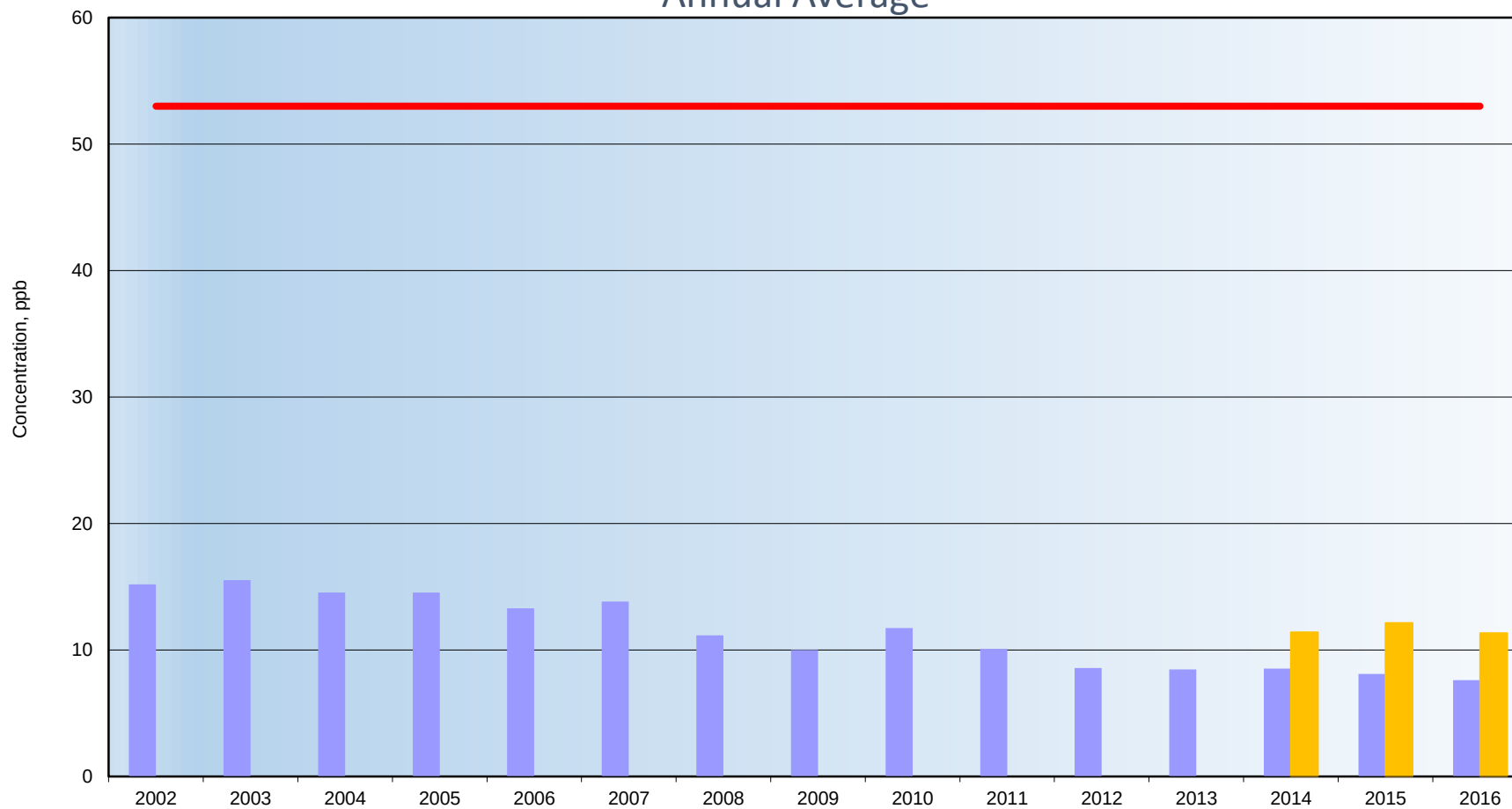


MECKLENBURG COUNTY

Garinger Remount 2010 1-Hour NO2 NAAQS

AIR QUALITY

Nitrogen Dioxide Mecklenburg County Annual Average



MECKLENBURG COUNTY

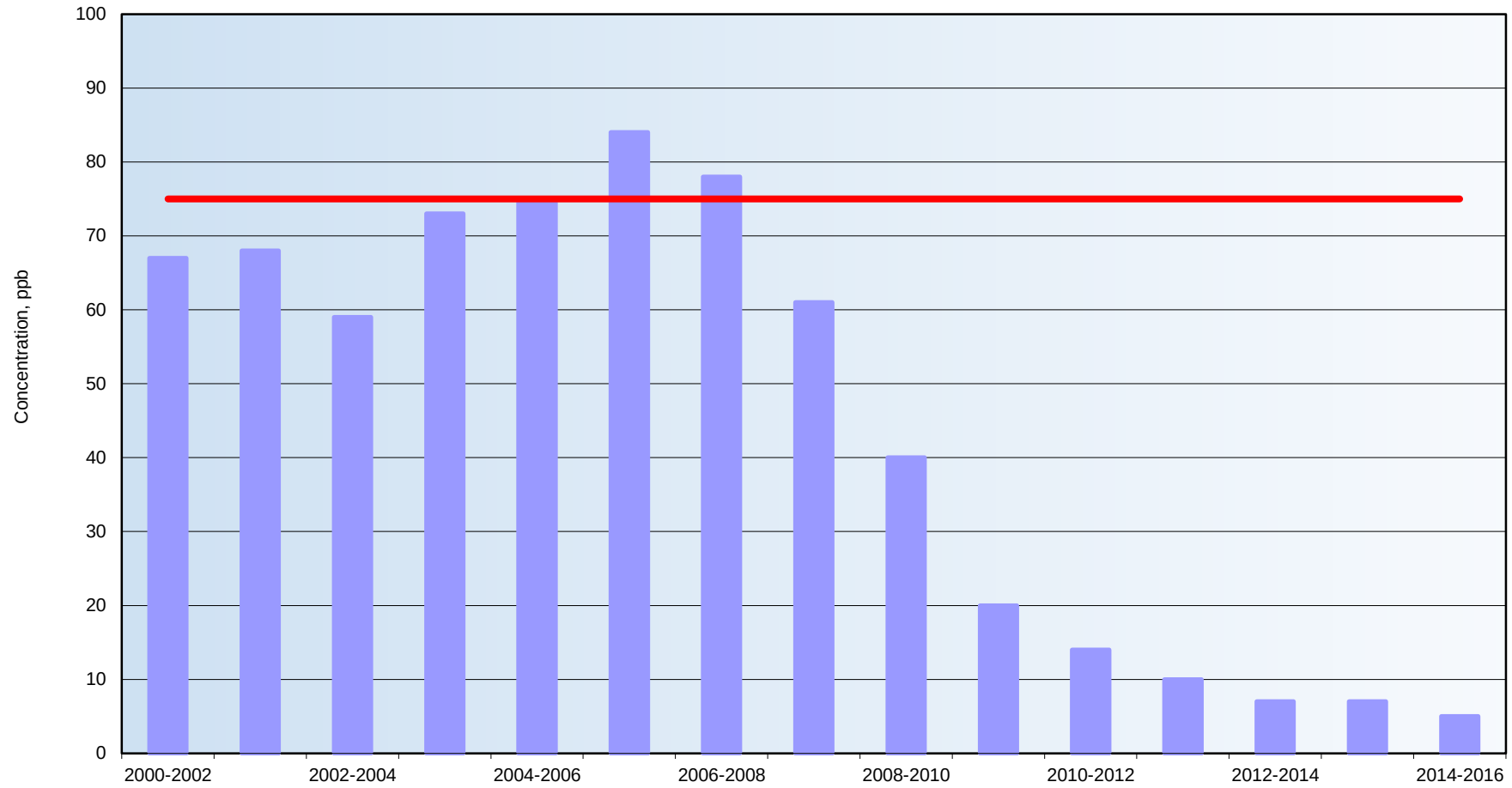
Garinger Remount Annual NAAQS

AIR QUALITY

Sulfur Dioxide

Mecklenburg County

3 Year Average, 1-Hour Daily Max 99th Percentile

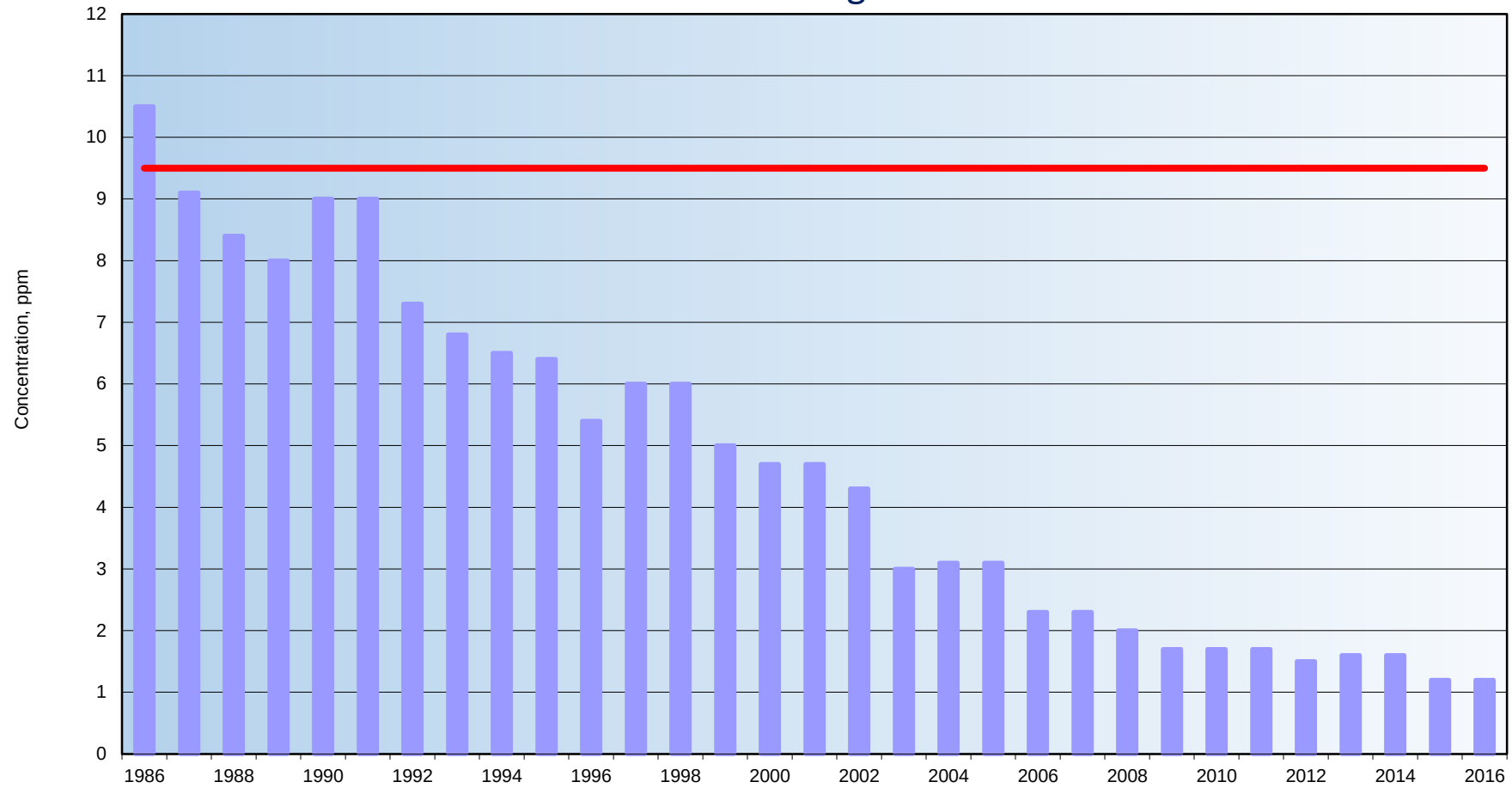


MECKLENBURG COUNTY

SO2 Design Value SO2 AQI 2010 NAAQS

AIR QUALITY

Carbon Monoxide Mecklenburg County 8-hour CO Design Value



MECKLENBURG COUNTY

AIR QUALITY

Particulate Matter - PM2.5 Air Quality, 1999-2016

Mecklenburg County

NAAQS 24-Hour Average



MECKLENBURG COUNTY

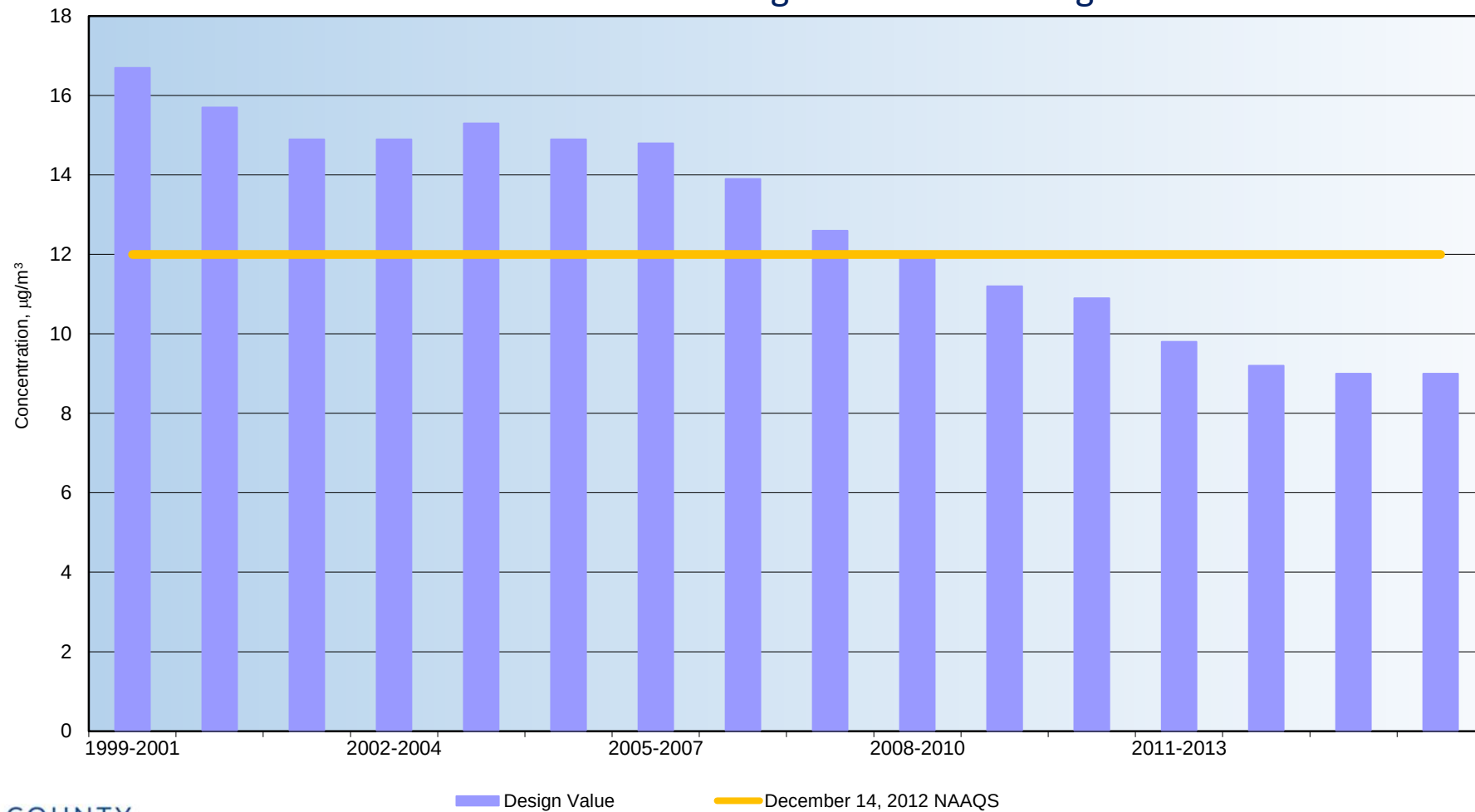
24-hour Design Value NAAQS

AIR QUALITY

Particulate Matter - PM2.5 Air Quality, 1999-2016

Mecklenburg County

Based on Three Year Average of Annual Average

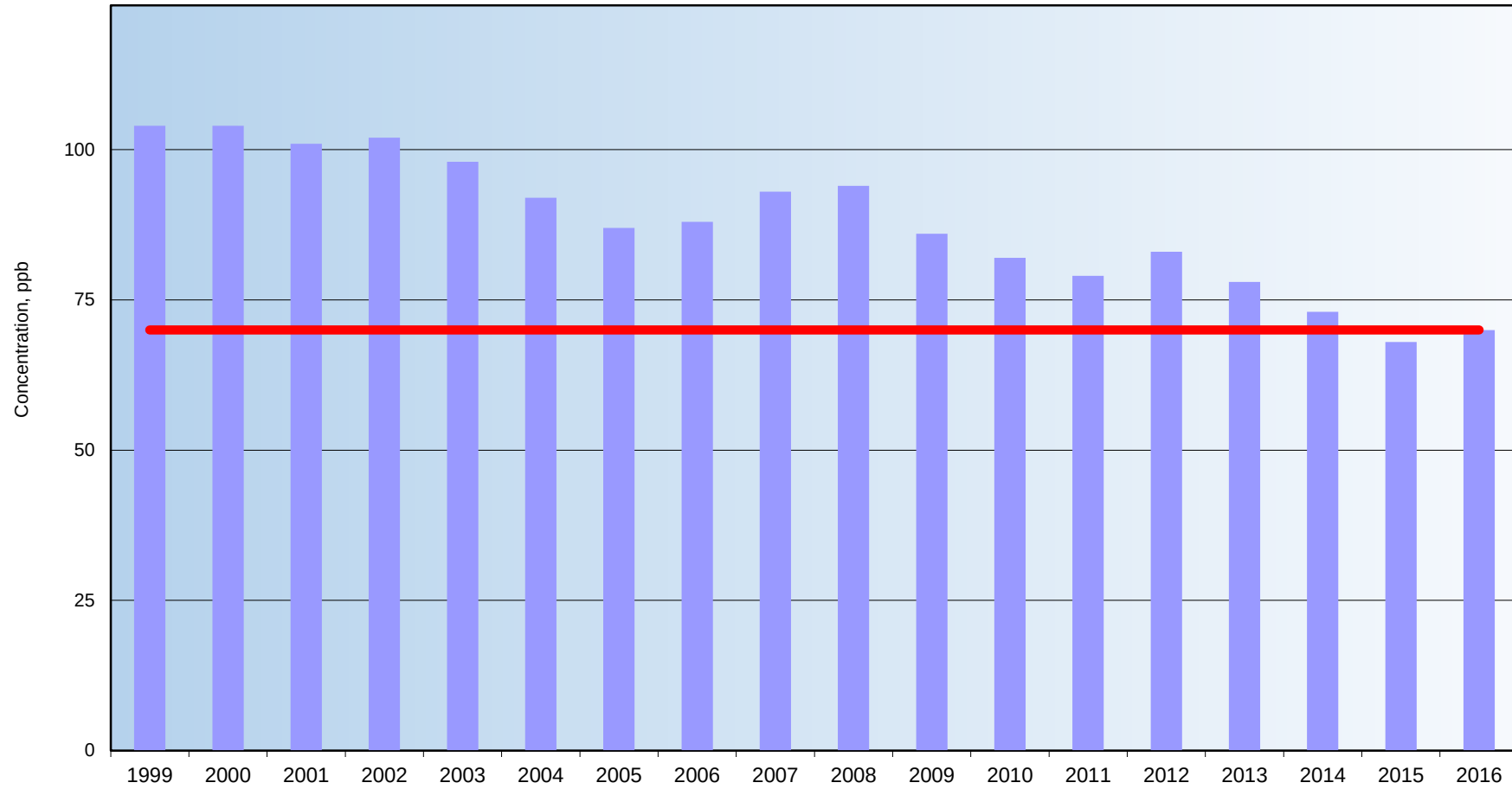


MECKLENBURG COUNTY

AIR QUALITY

Ozone Air Quality, 1999-2016

Mecklenburg County 8-hour Design Value Concentration Based on Annual 4th Maximum 8-hour Average



MECKLENBURG COUNTY

Mecklenburg Compliance Value 2015 NAAQS

AIR QUALITY

Garinger High School Station – operational since November 1999



MECKLENBURG COUNTY

AIR QUALITY

Remount Station - operational since July 17, 2014



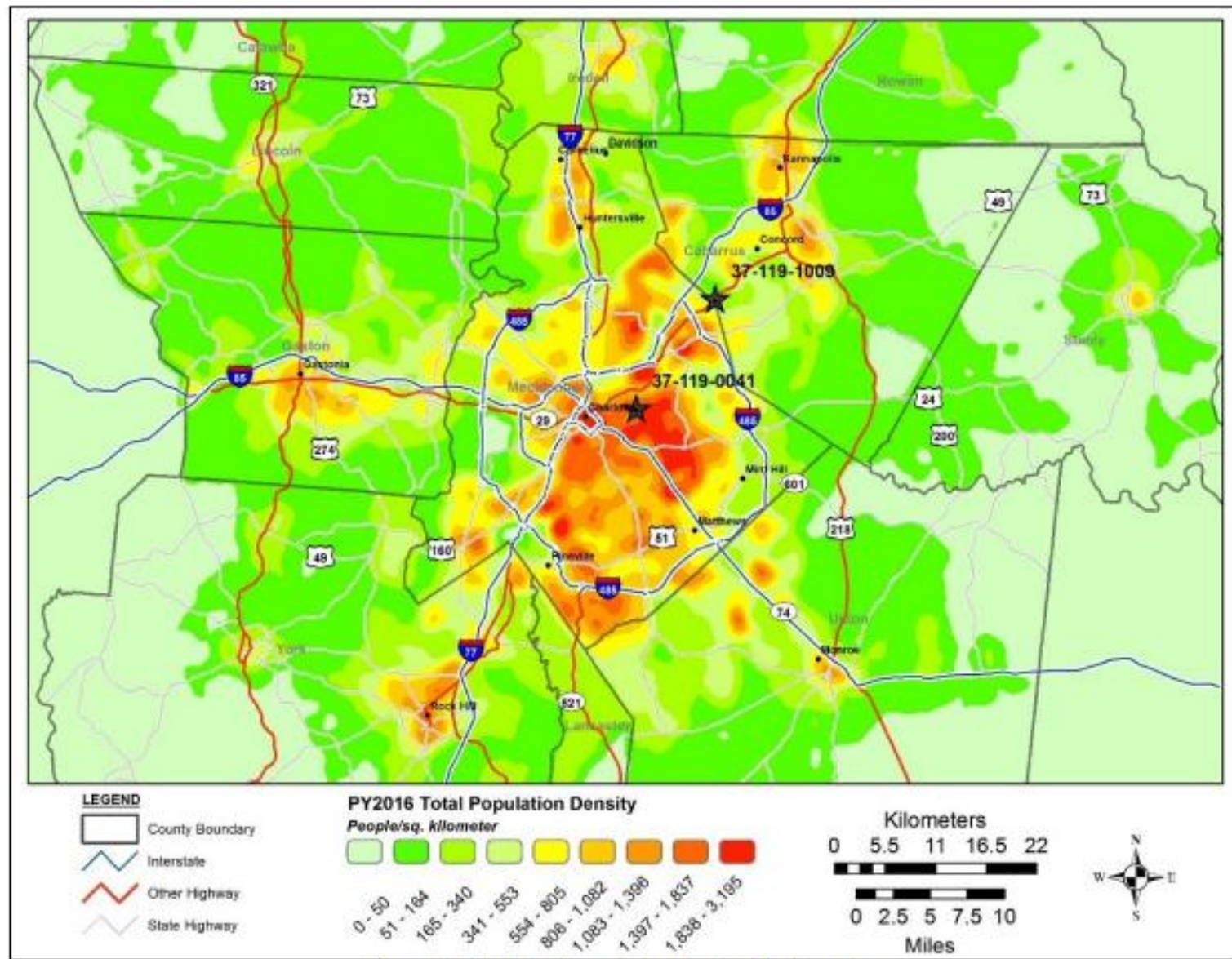
MECKLENBURG COUNTY

AIR QUALITY

Table D-2 of Appendix D to Part 58 - SLAMS Minimum O₃ Monitoring Requirements

MSA population^{1,2}	Most recent 3-year design value concentrations $\geq 85\%$ of any O₃NAAQS³	Most recent 3-year design value concentrations $< 85\%$ of any O₃NAAQS^{3,4}
>10 million	4	2
4–10 million	3	1
350,000–<4 million	2	1
50,000– <350,000 ⁵	1	0

Table 4. (D-2)



MECKLENBURG COUNTY

AIR QUALITY

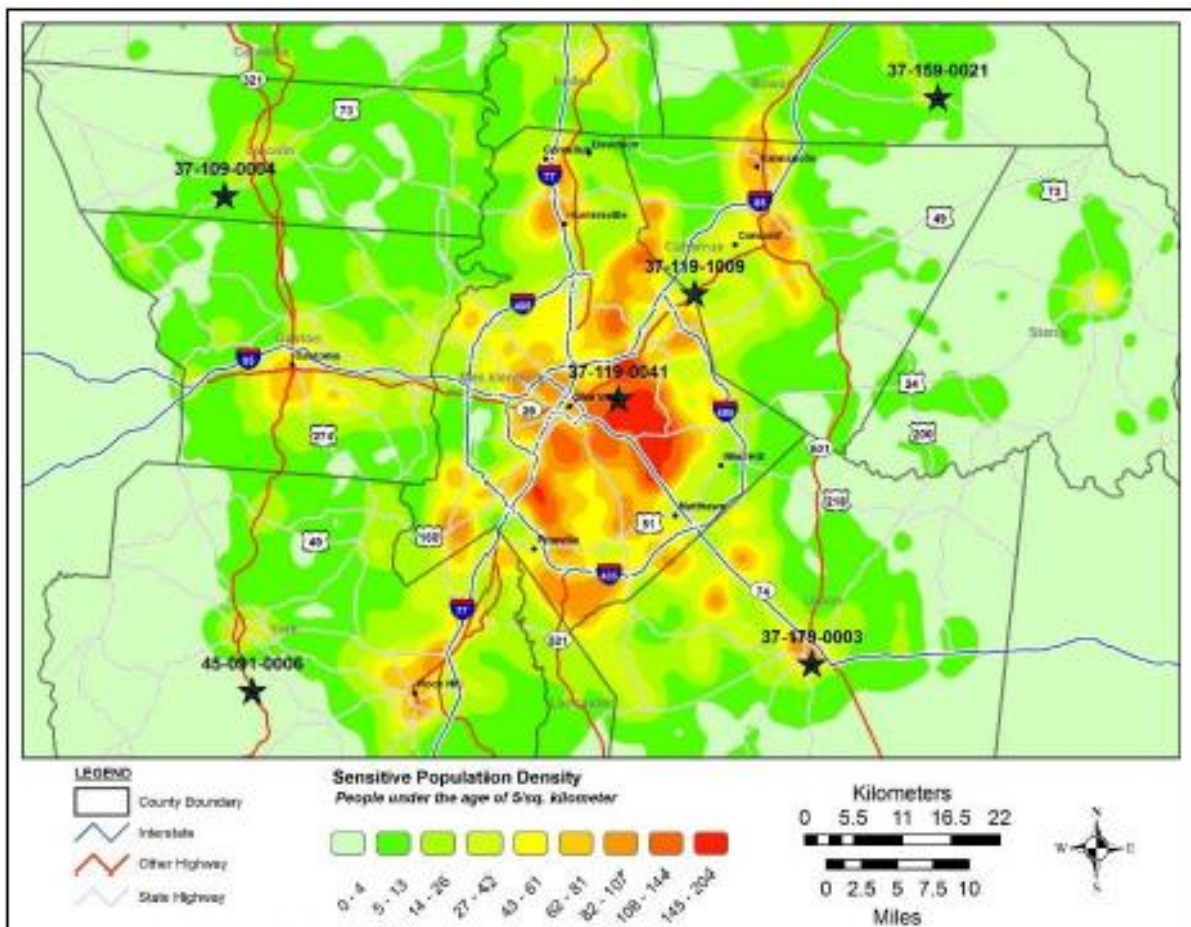


Figure 8. 2016 Census Population Projections - People under the age of 5.

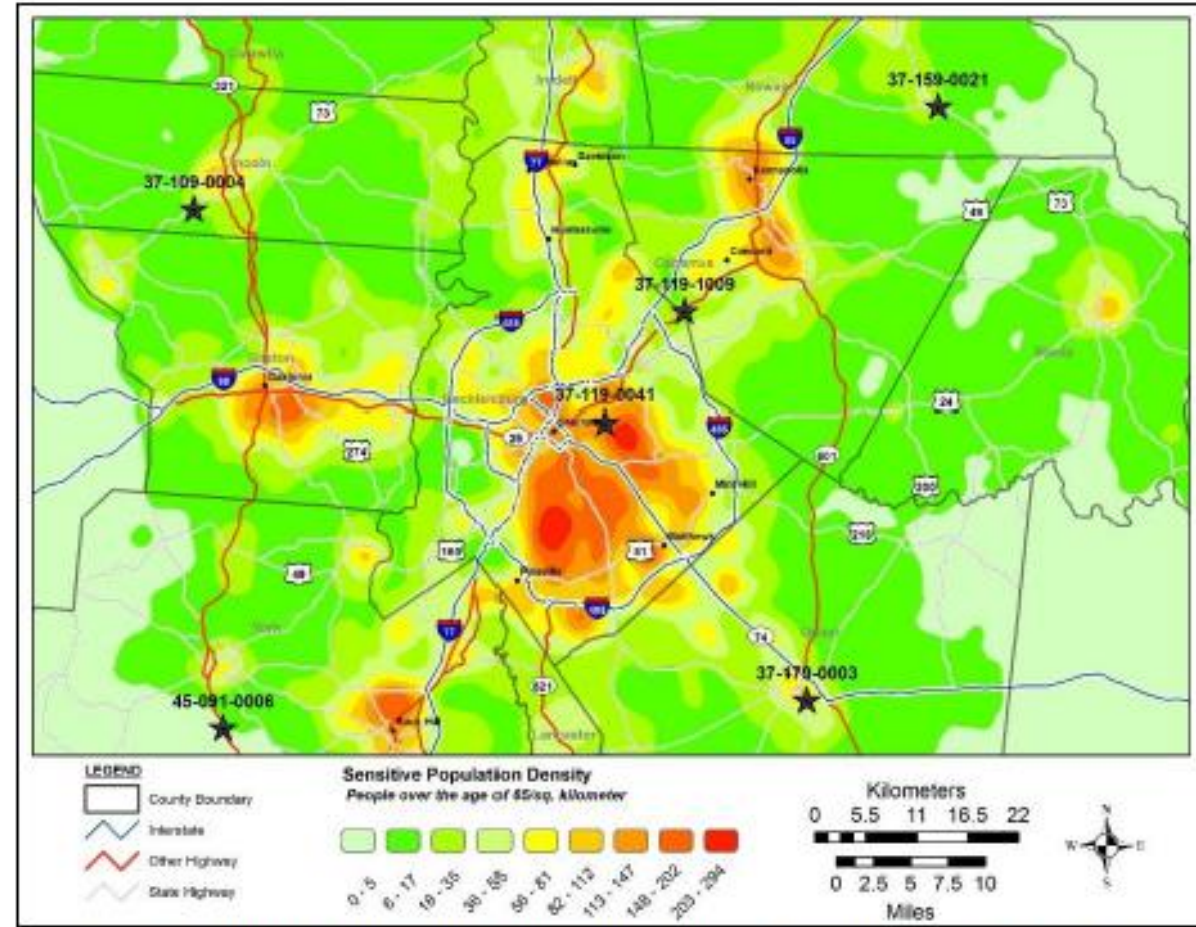


Figure 9. 2016 Census Population Projections - People over the age of 65.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4

Science and Ecosystem Support Division
Field Services Branch
980 College Station Road
Athens, Georgia 30605-2720

2015 Technical Systems Audit Report

5. Conclusions

The technical proficiency of the LUESA staff is commendable. The skill and proficiency of the LUESA personnel in regards to the operation and maintenance of the LUESA analyzers, samplers, and analytical equipment is readily evident by both interviews with staff during the TSA as well as the exacting precision, accuracy and high data capture being obtained by the LUESA ambient air monitoring program. Data validation and subsequent qualification have been very detailed and thorough for the data produced by the continuous analyzers.