

Fine Particle Urban-Rural Pair Analysis

Methods: An urban-rural pair analysis was conducted for the eleven major Core Based Statistical Areas (CBSAs) located within or near Region V states. This analysis includes Federal Reference Method fine particle monitors (parameter 88101) within the defined CBSAs, and the associated state identified upwind (rural) monitor, which were active from 2006-2008. This analysis did not consider monitors added to the fine particle network in 2009, and does not exclude monitors that were not active in 2009. Data for this analysis was acquired from the Air Quality System (AQS) on December 3, 2009.

Description of Figures:

Urban annual fine particle NAAQS design values compared to a rural upwind site: This figure compares the 2006-2008 annual fine particle NAAQS design value for urban monitors and their designated rural upwind site. Design values for individual monitoring sites were included if three years of valid fine particle data was available.

Seasonal daily fine particle concentrations at urban and rural upwind sites: This figure compares the daily 24-hour average fine particle concentrations for urban fine particle monitors and their designated rural upwind site. Data includes all valid daily fine particle concentrations for monitors active from December 2006 through October 2007. Urban monitors are represented by the black scatter plot. The red triangles represent the concentrations at the rural upwind site.

Chicago, Illinois

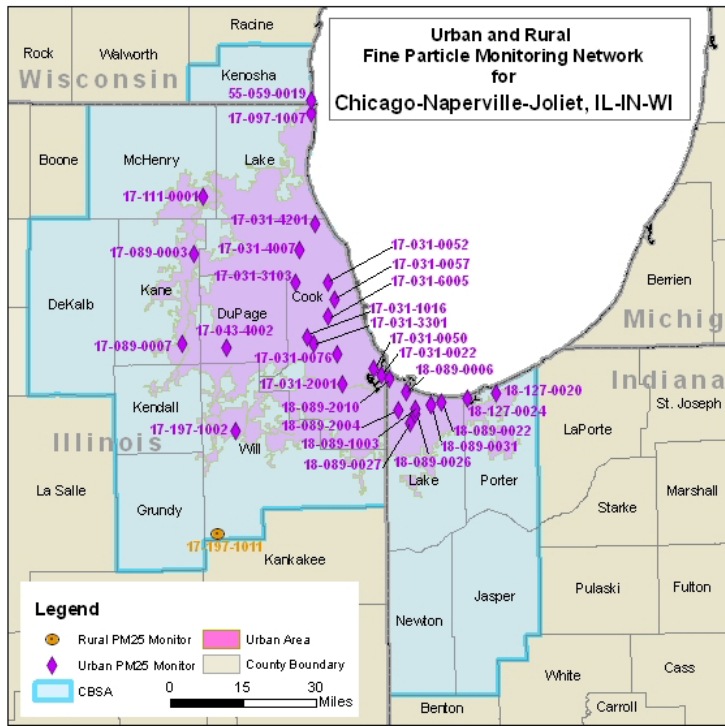


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for Chicago, December 2006 - October, 2007

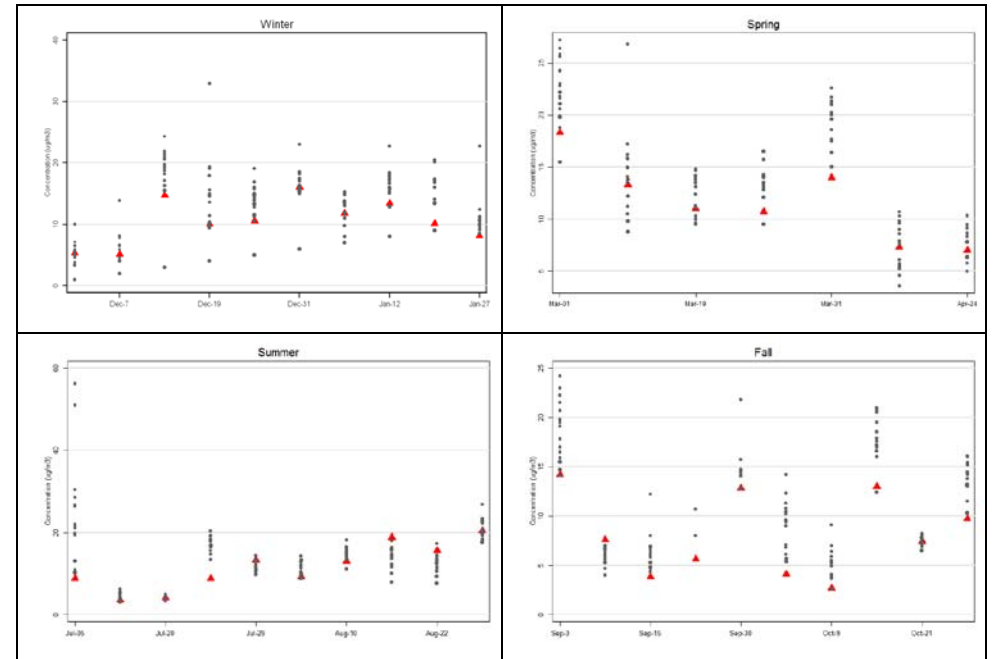
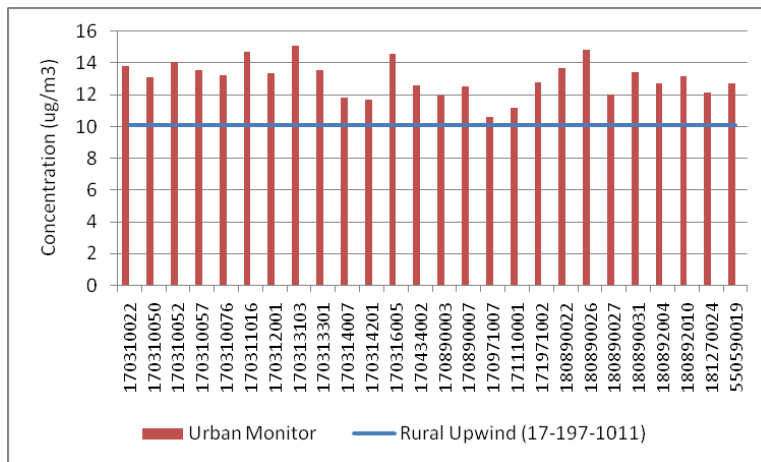


Figure x. Annual fine particle NAAQS design values for monitors in the Chicago CBSA compared to a rural upwind site, 2006-2008.



Indianapolis, Indiana

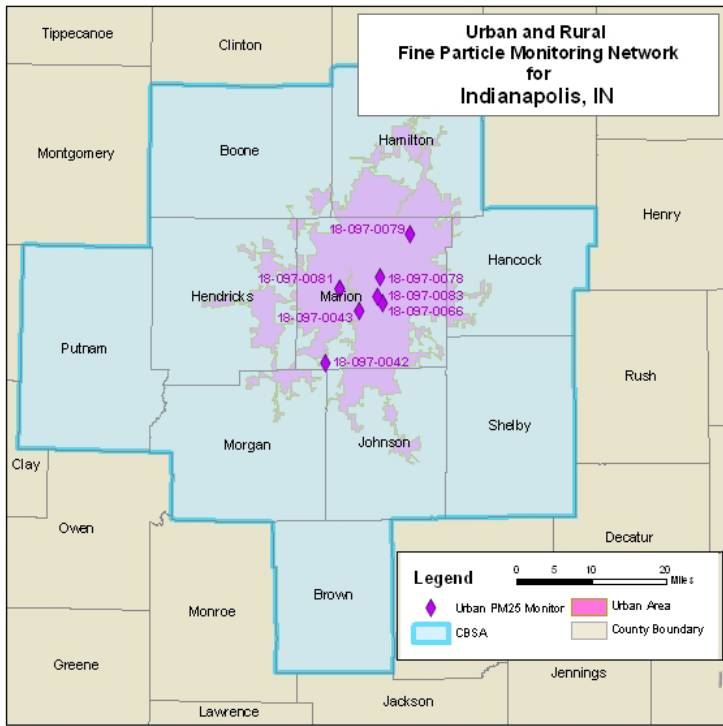


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for Indianapolis, December, 2006 - October, 2007.

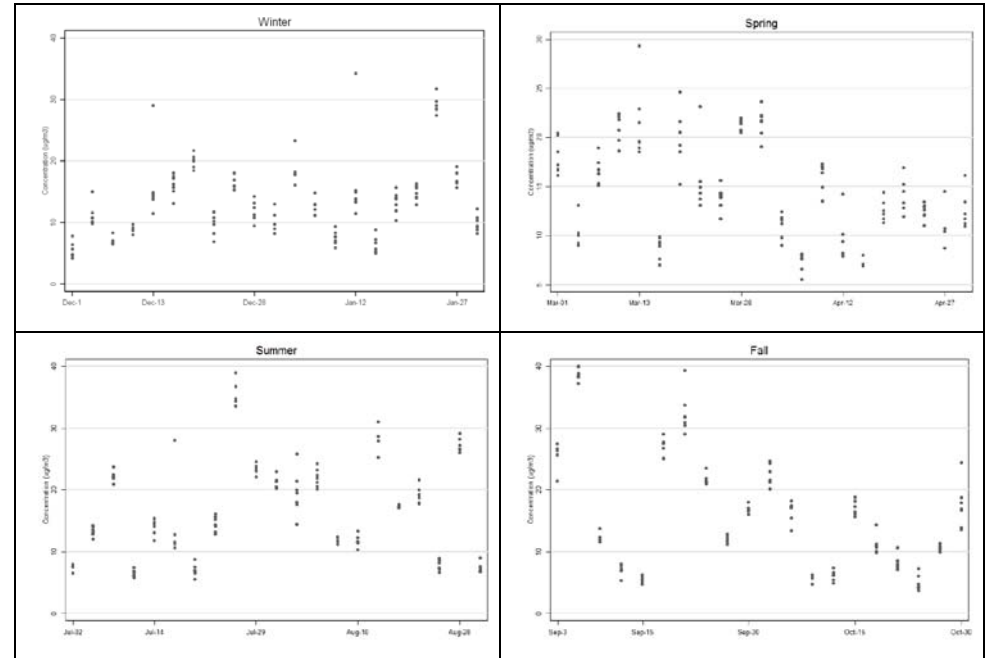
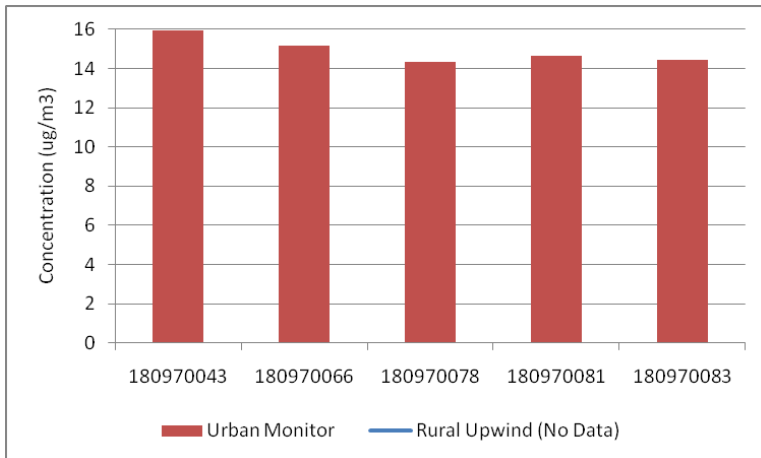


Figure x. Annual fine particle NAAQS design values for monitors in the Indianapolis CBSA compared to a rural upwind site, 2006-2008.



Detroit, Michigan

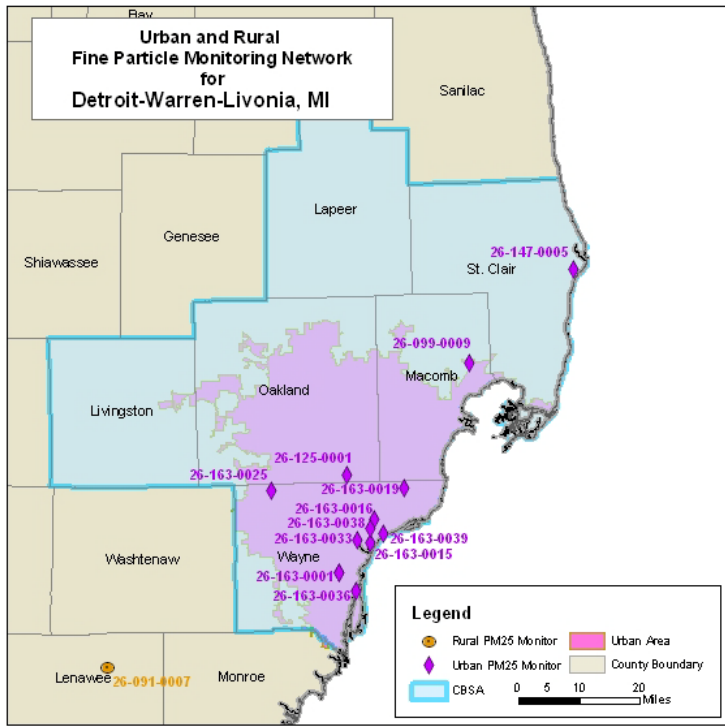


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for Detroit, December, 2006 - October, 2007.

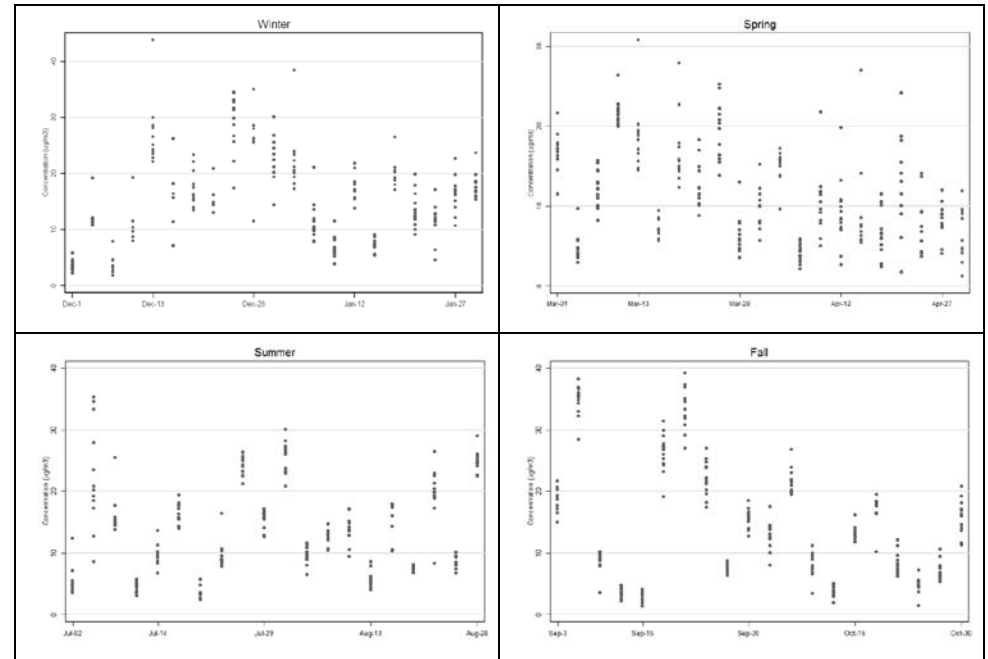
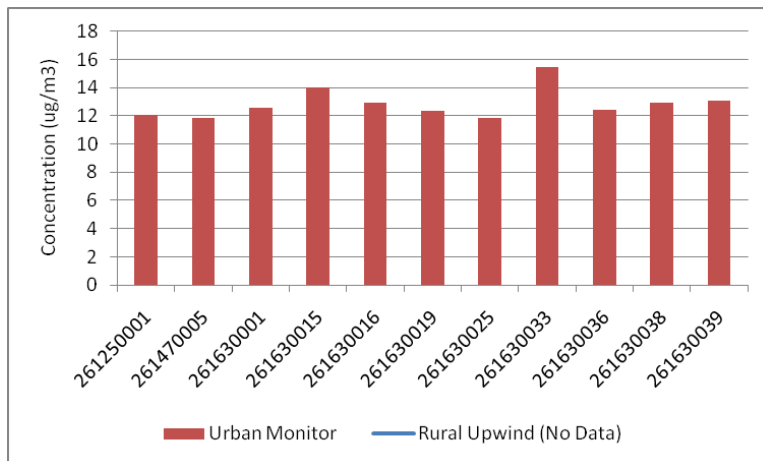


Figure x. Annual fine particle NAAQS design values for monitors in the Detroit CBSA compared to a rural upwind site, 2006-2008.



Grand Rapids, Michigan

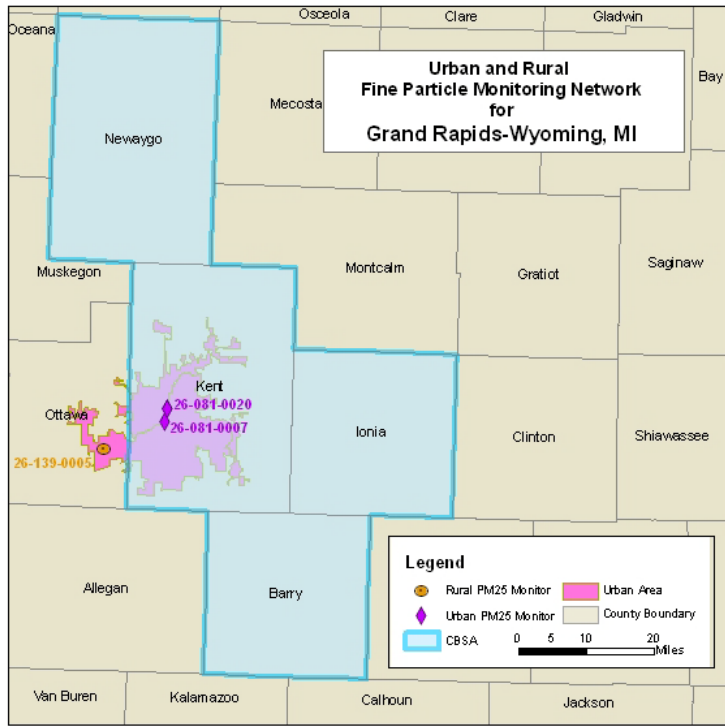


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for Grand Rapids, December, 2006 - October, 2007.

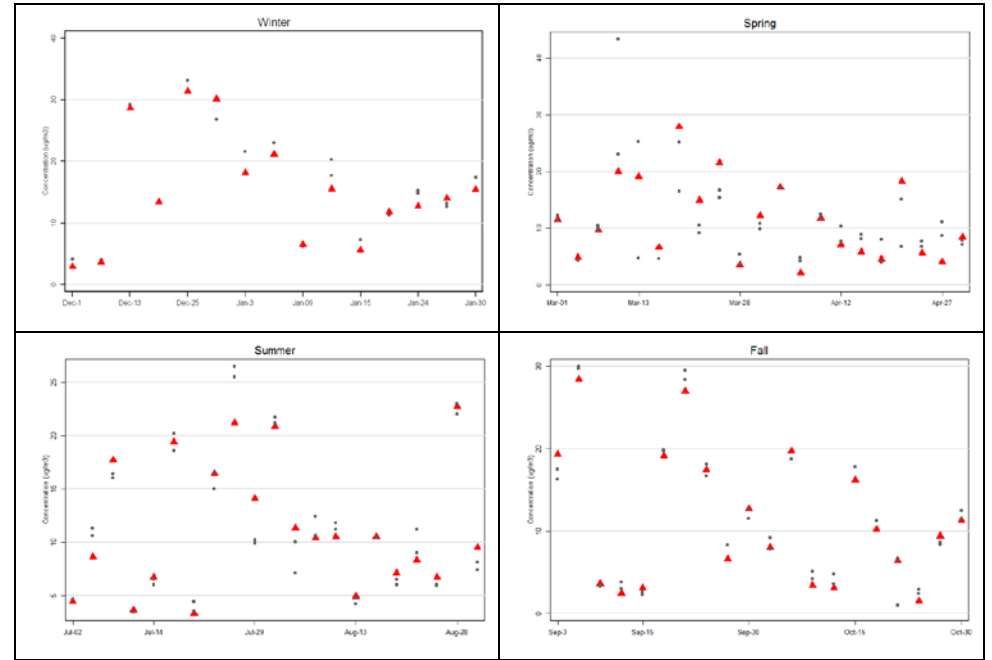
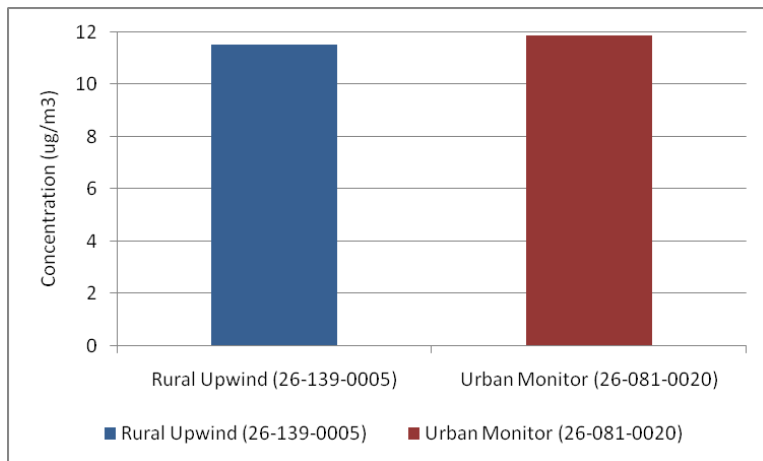


Figure x. Annual fine particle NAAQS design values for monitors in the Grand Rapids CBSA compared to a rural upwind site, 2006-2008.



Minneapolis-St. Paul, Minnesota

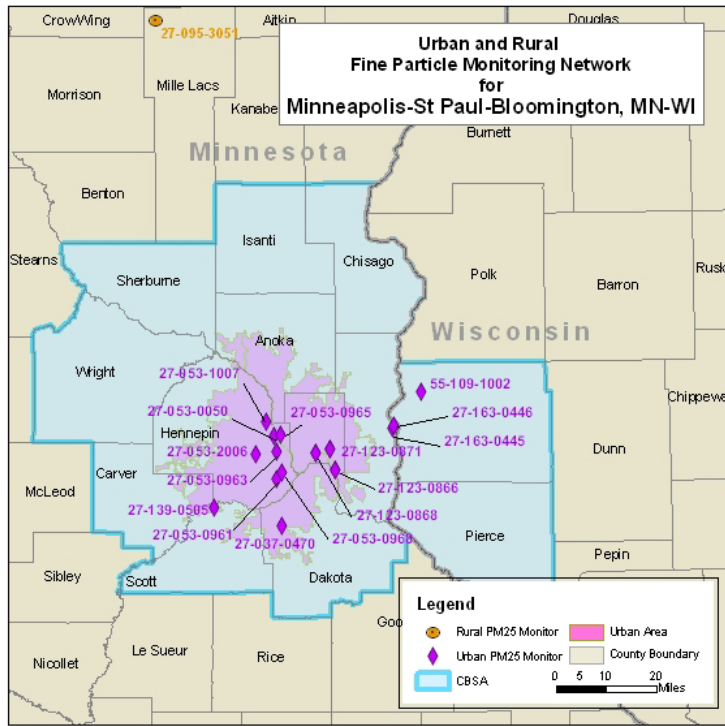


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for Minneapolis-St. Paul, December, 2006 - October, 2007.

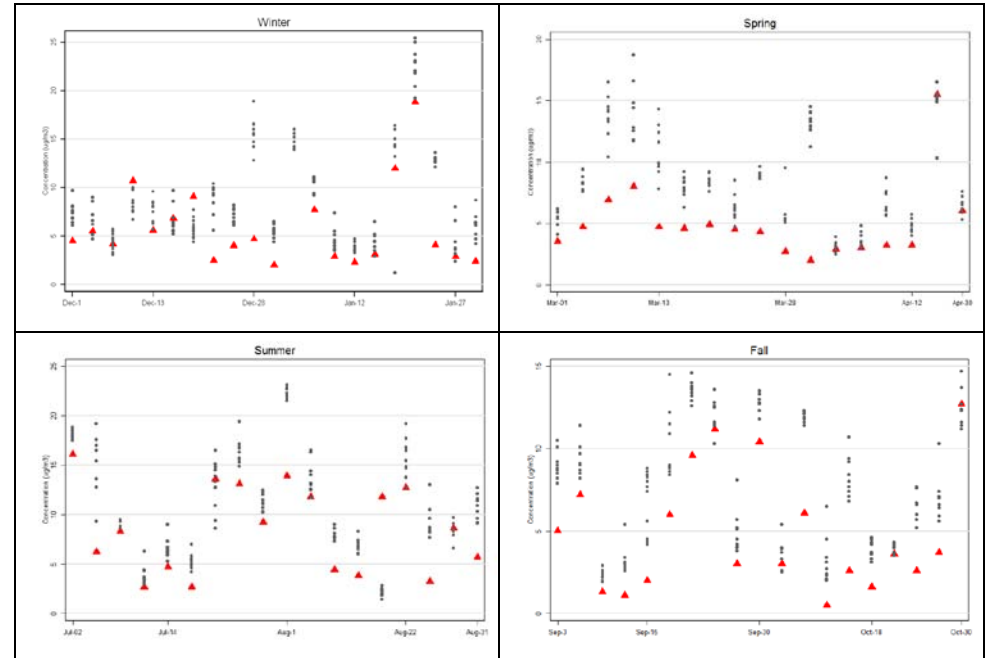
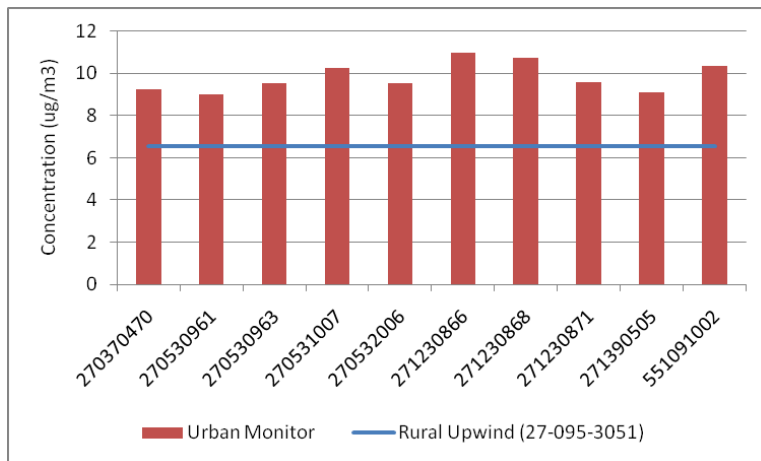


Figure x. Annual fine particle NAAQS design values for monitors in the Minneapolis-St. Paul CBSA compared to a rural upwind site, 2006-2008.



Columbus, OH

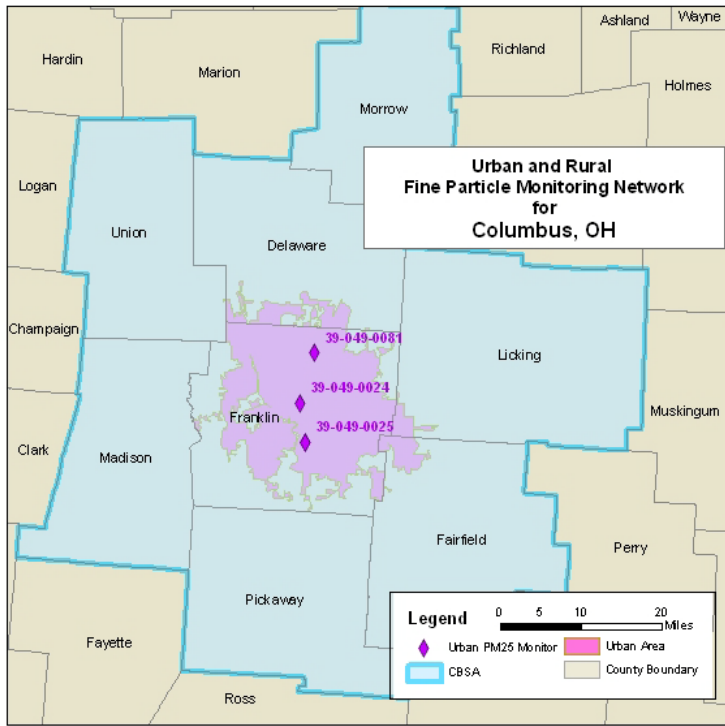


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for Columbus, December, 2006 - October, 2007.

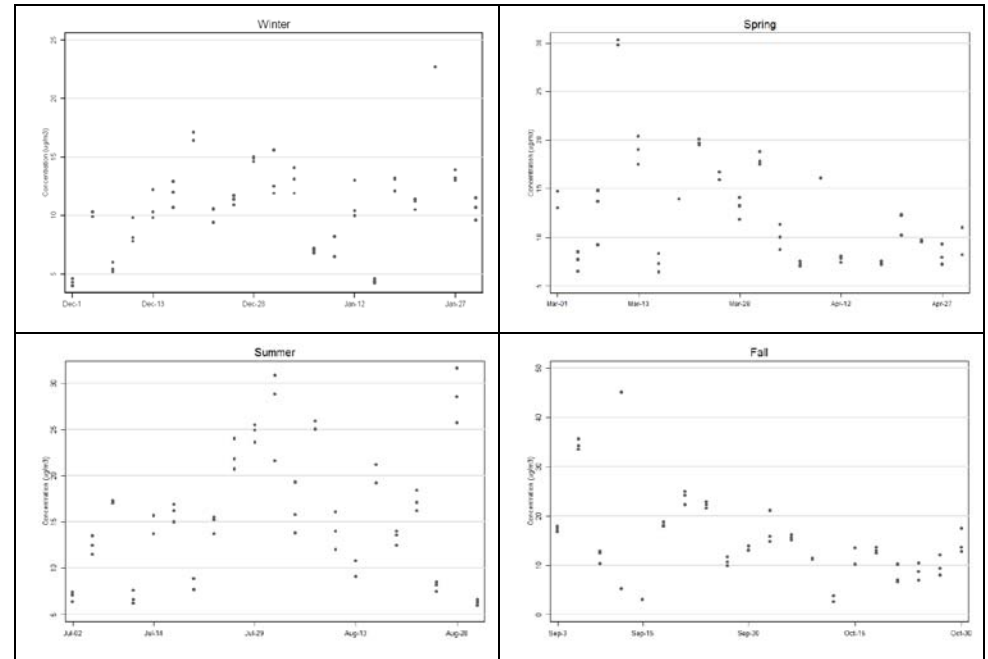
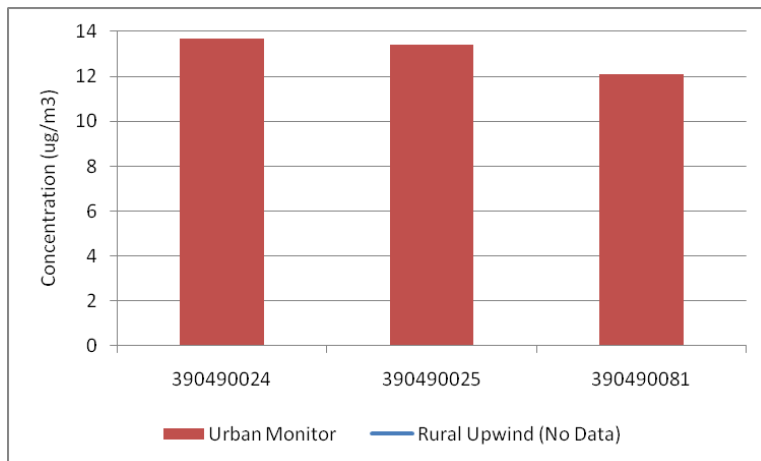


Figure x. Annual fine particle NAAQS design values for monitors in the Columbus CBSA compared to a rural upwind site, 2006-2008.



Milwaukee, WI

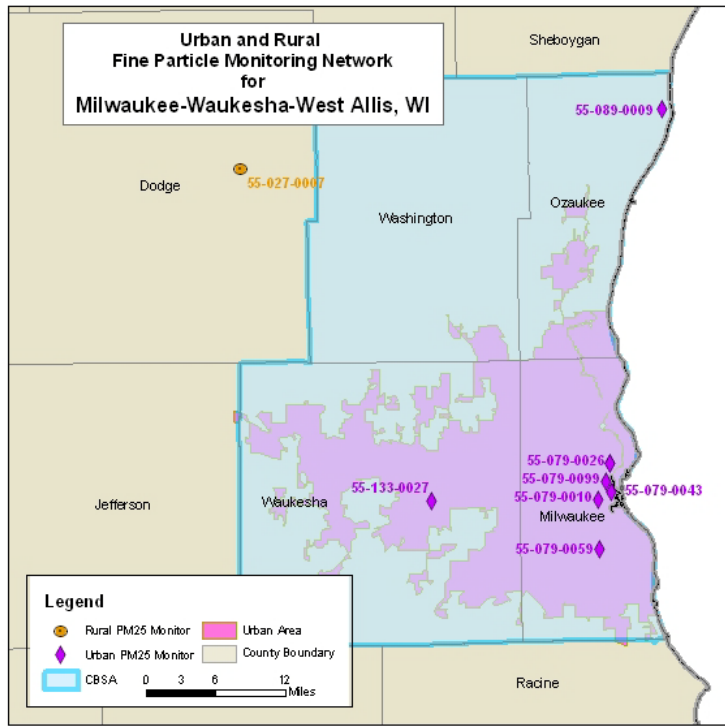


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for Milwaukee, December, 2006 - October, 2007.

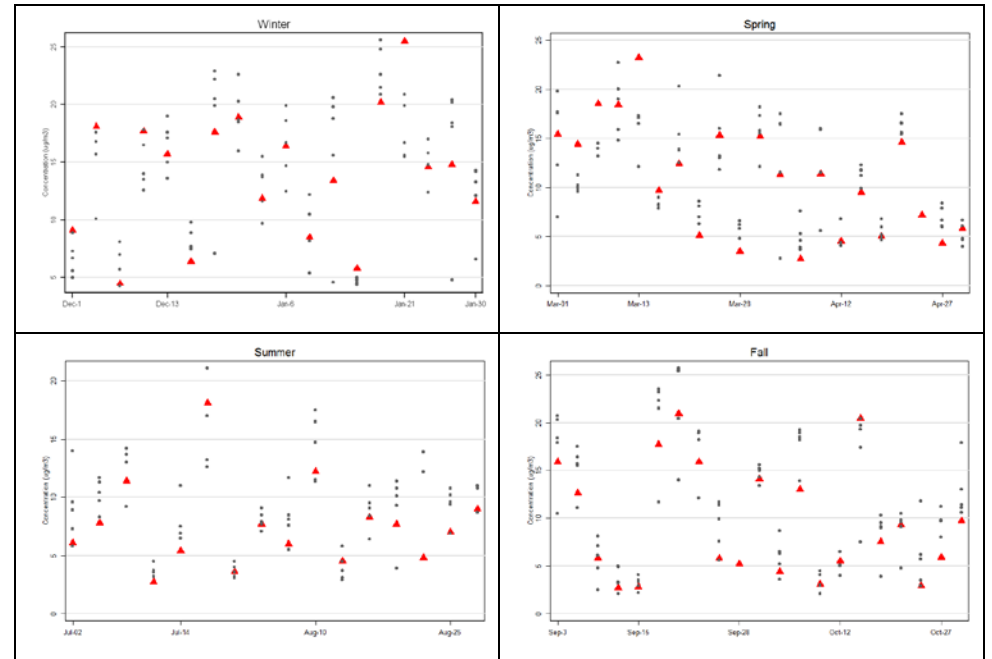
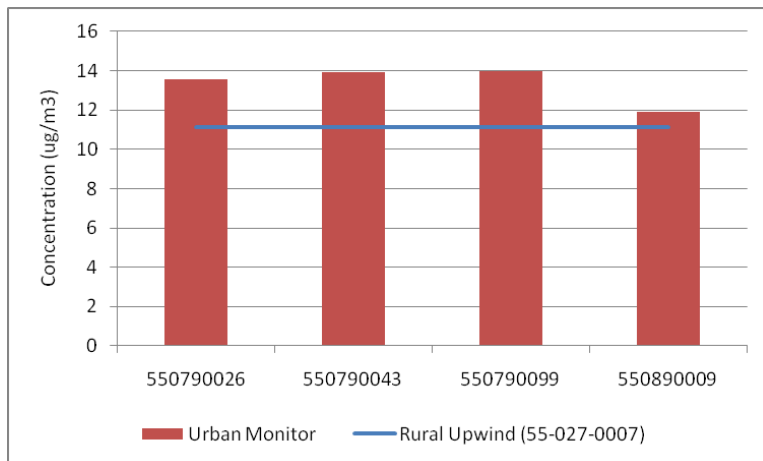


Figure x. Annual fine particle NAAQS design values for monitors in the Milwaukee CBSA compared to a rural upwind site, 2006-2008.



Cleveland, OH

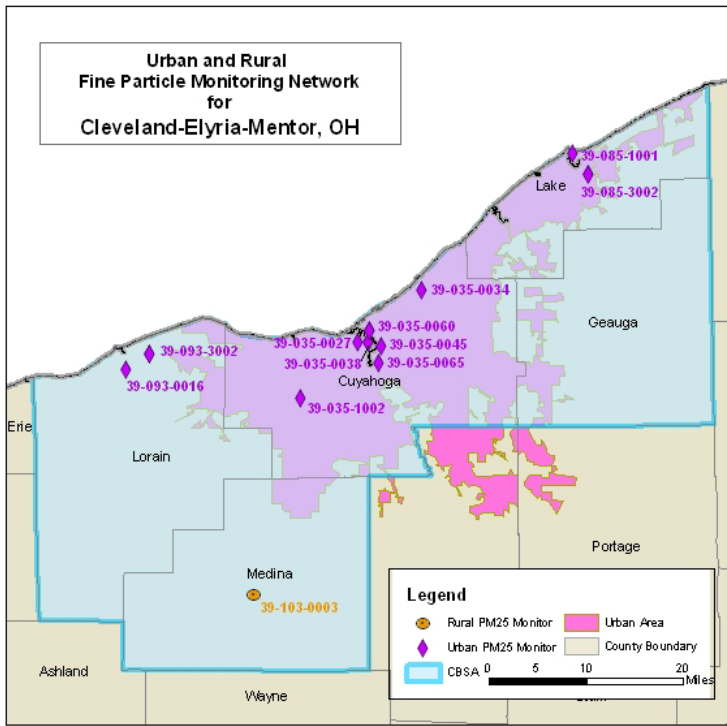


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for Cleveland, December, 2006 - October, 2007.

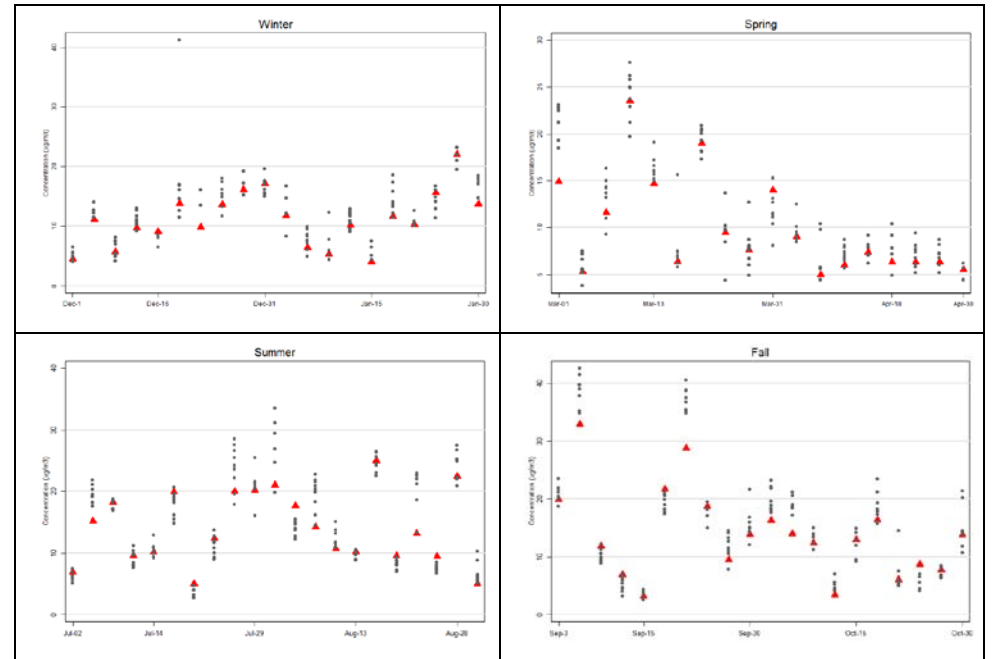
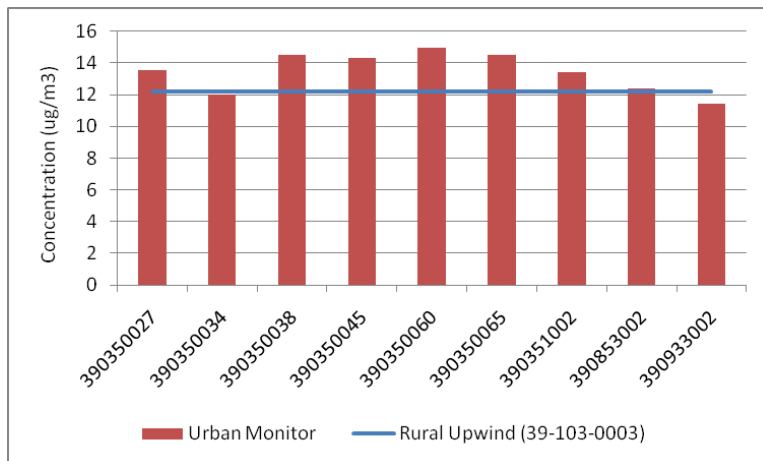


Figure x. Annual fine particle NAAQS design values for monitors in the Cleveland CBSA compared to a rural upwind site, 2006-2008.



Cincinnati, OH

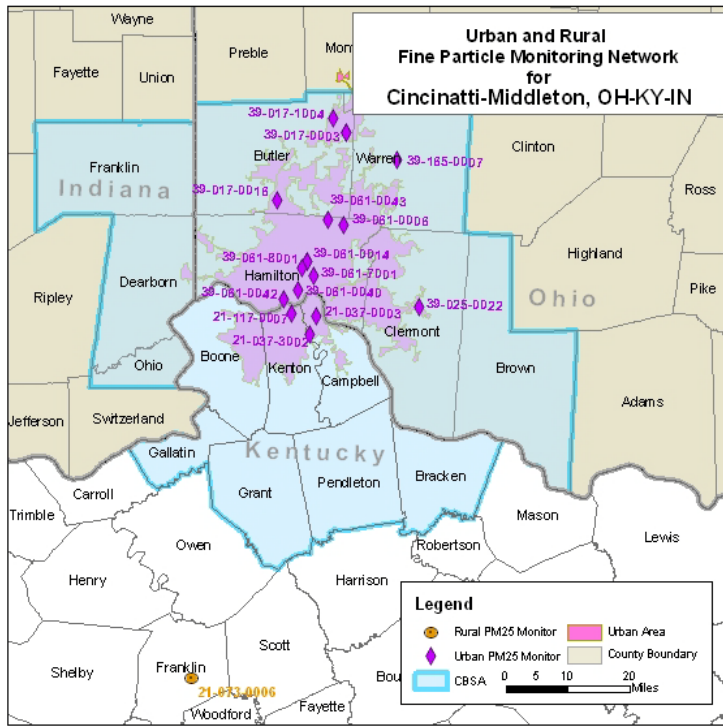


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for Cincinnati, December, 2006 - October, 2007.

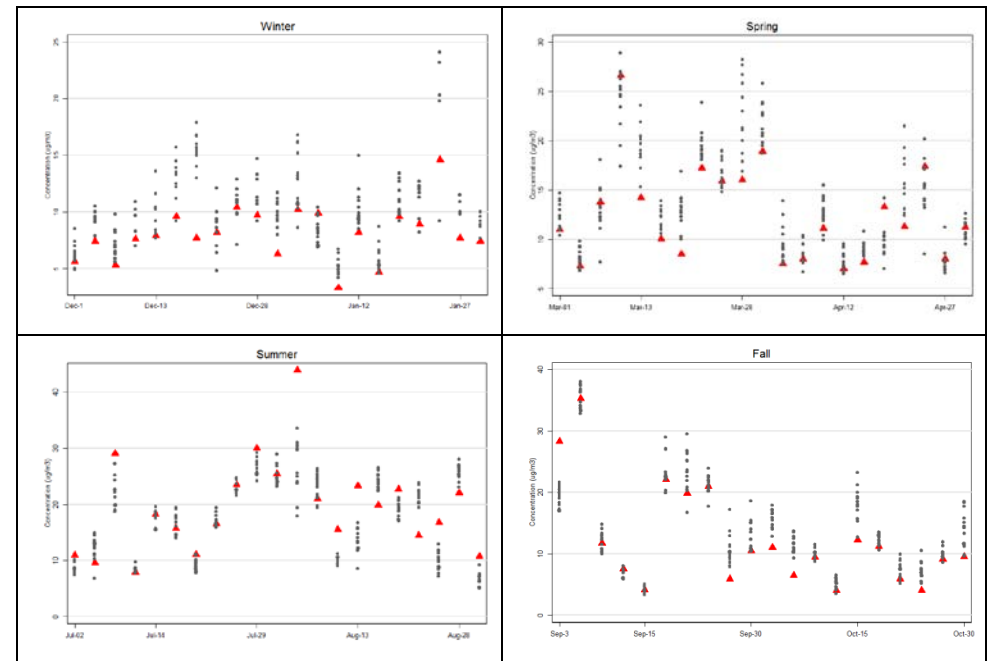
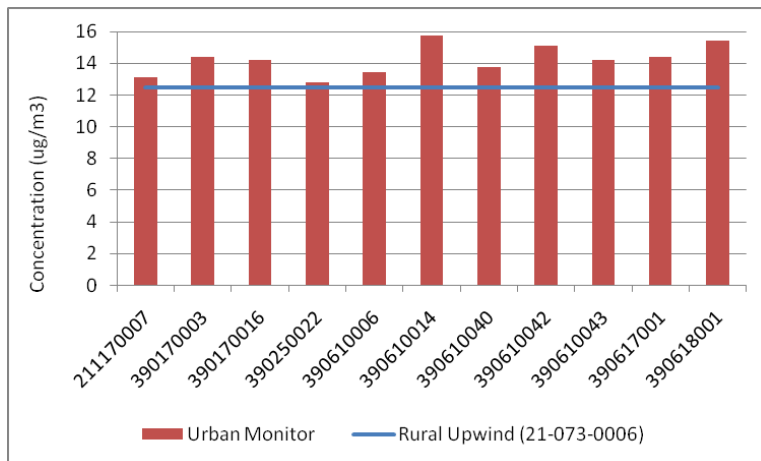


Figure x. Annual fine particle NAAQS design values for monitors in the Cincinnati CBSA compared to a rural upwind site, 2006-2008.



St. Louis, Missouri

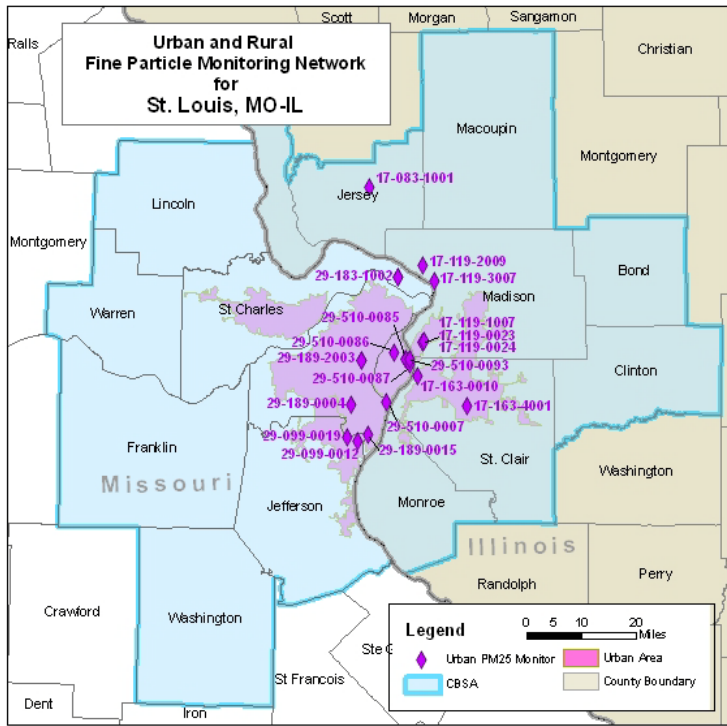


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for St. Louis, December, 2006 - October, 2007.

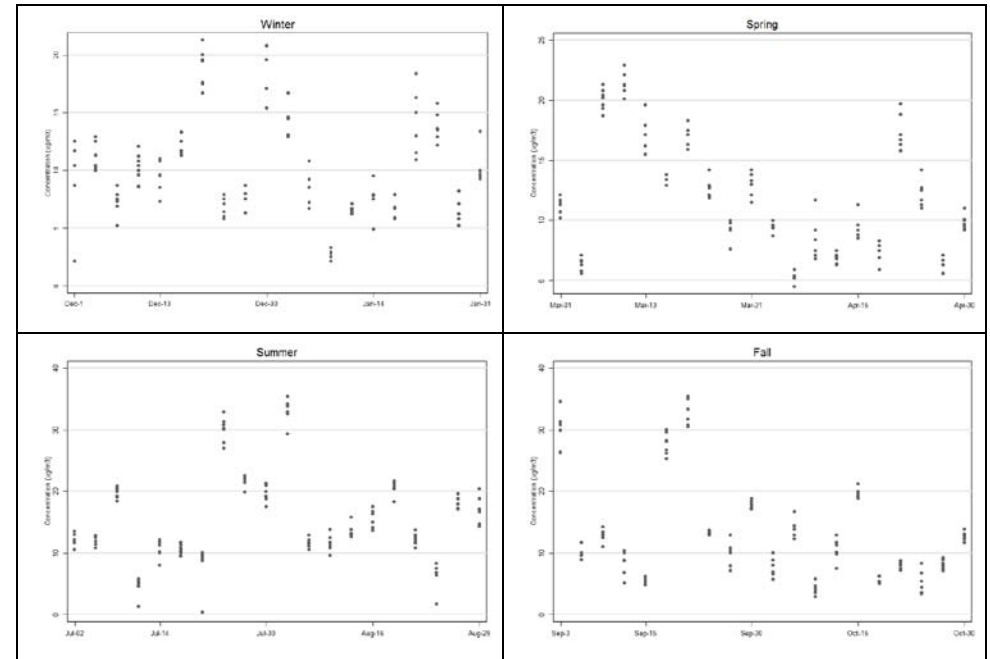
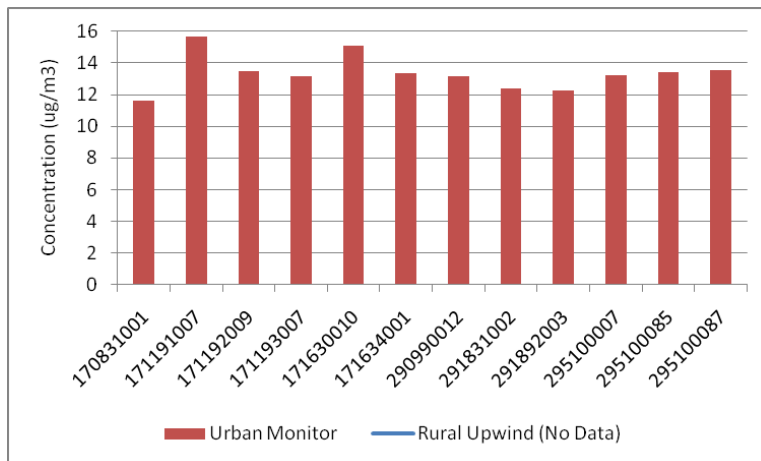


Figure x. Annual fine particle NAAQS design values for monitors in the St. Louis CBSA compared to a rural upwind site, 2006-2008.



Louisville, Kentucky

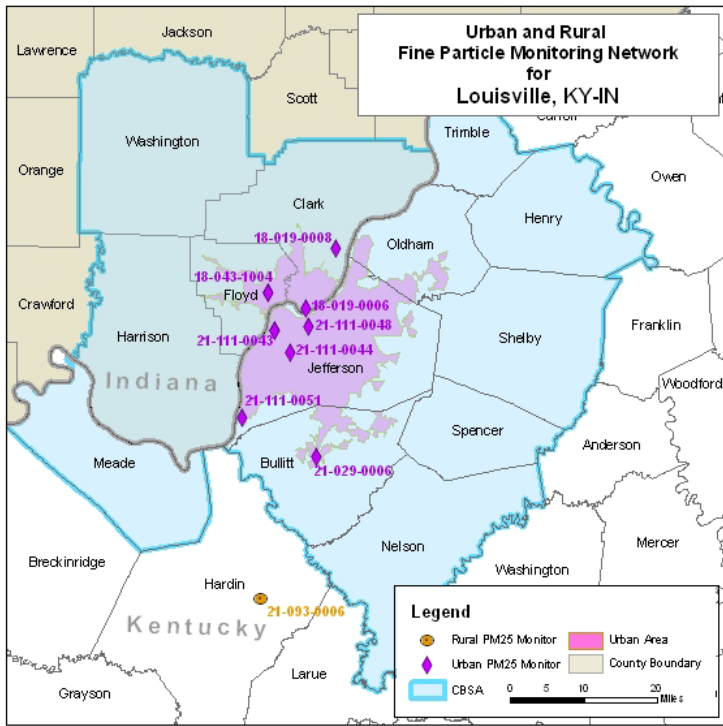


Figure x. Seasonal daily fine particle concentrations at urban and rural upwind sites for Louisville, December, 2006 - October, 2007.

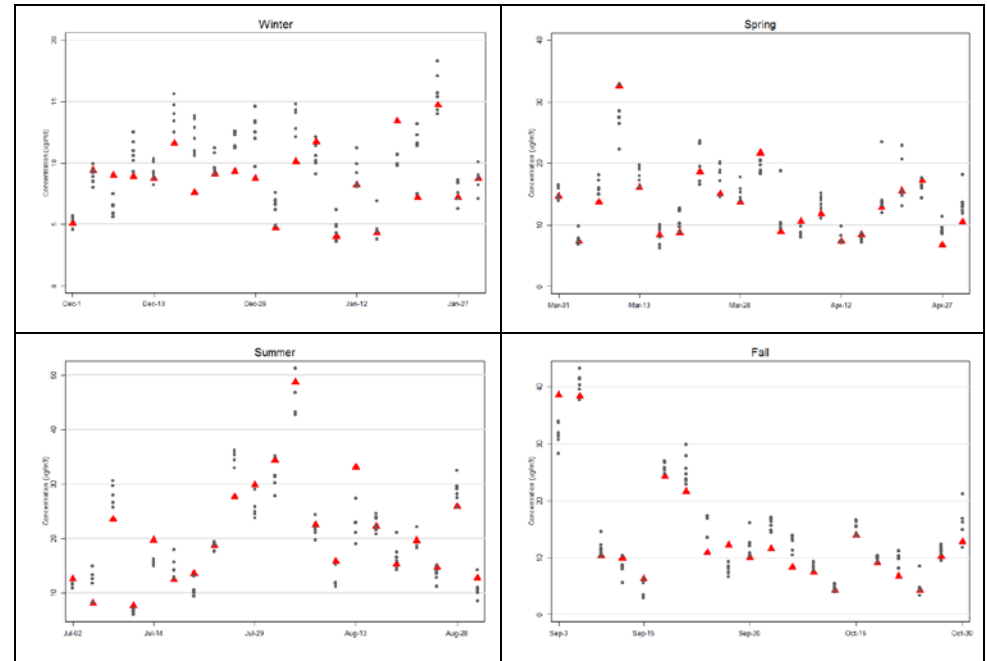


Figure x. Annual fine particle NAAQS design values for monitors in the Louisville CBSA compared to a rural upwind site, 2006-2008.

