

Figure 1

Current PM2.5 Nonattainment Areas in Illinois

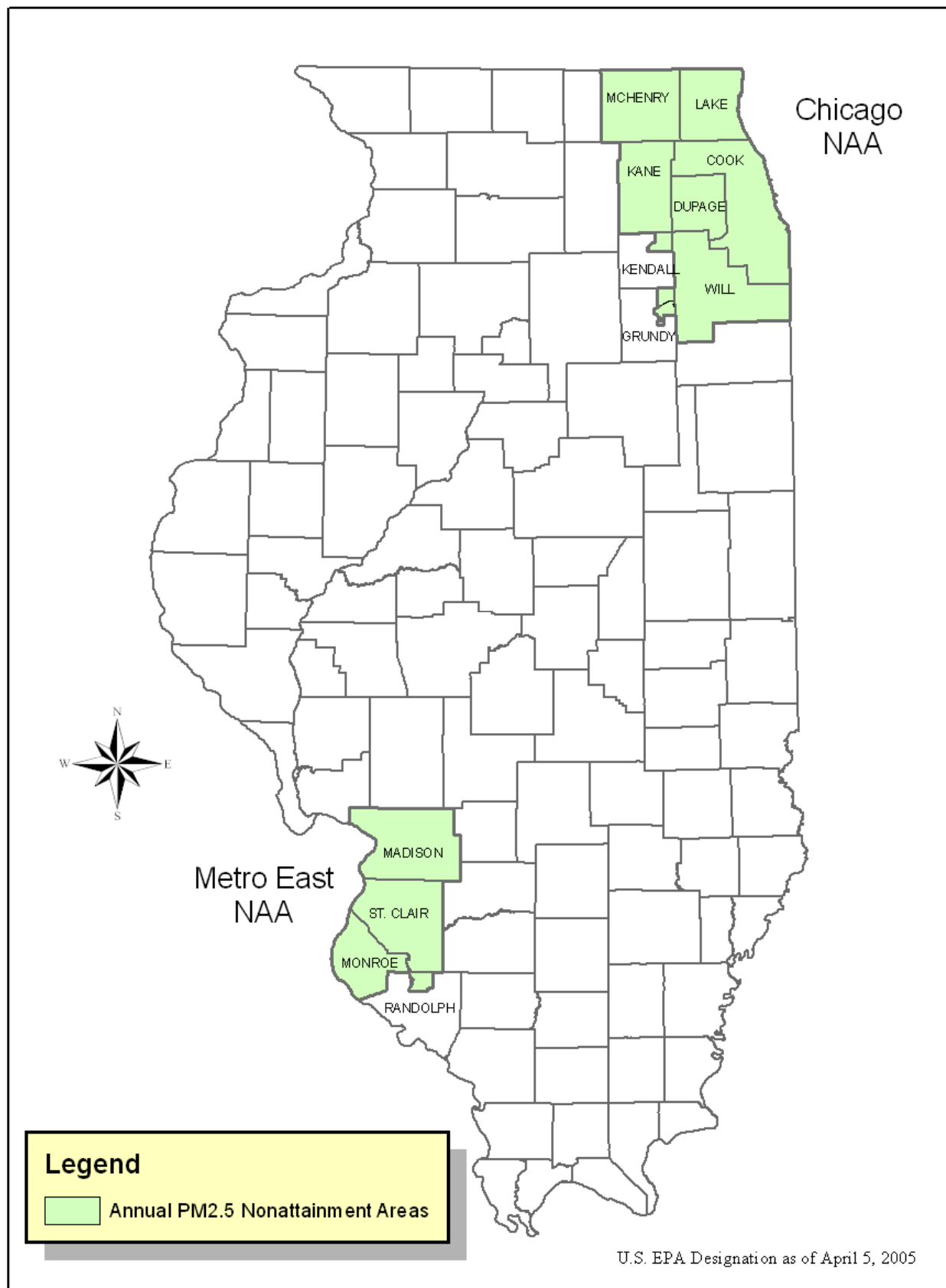
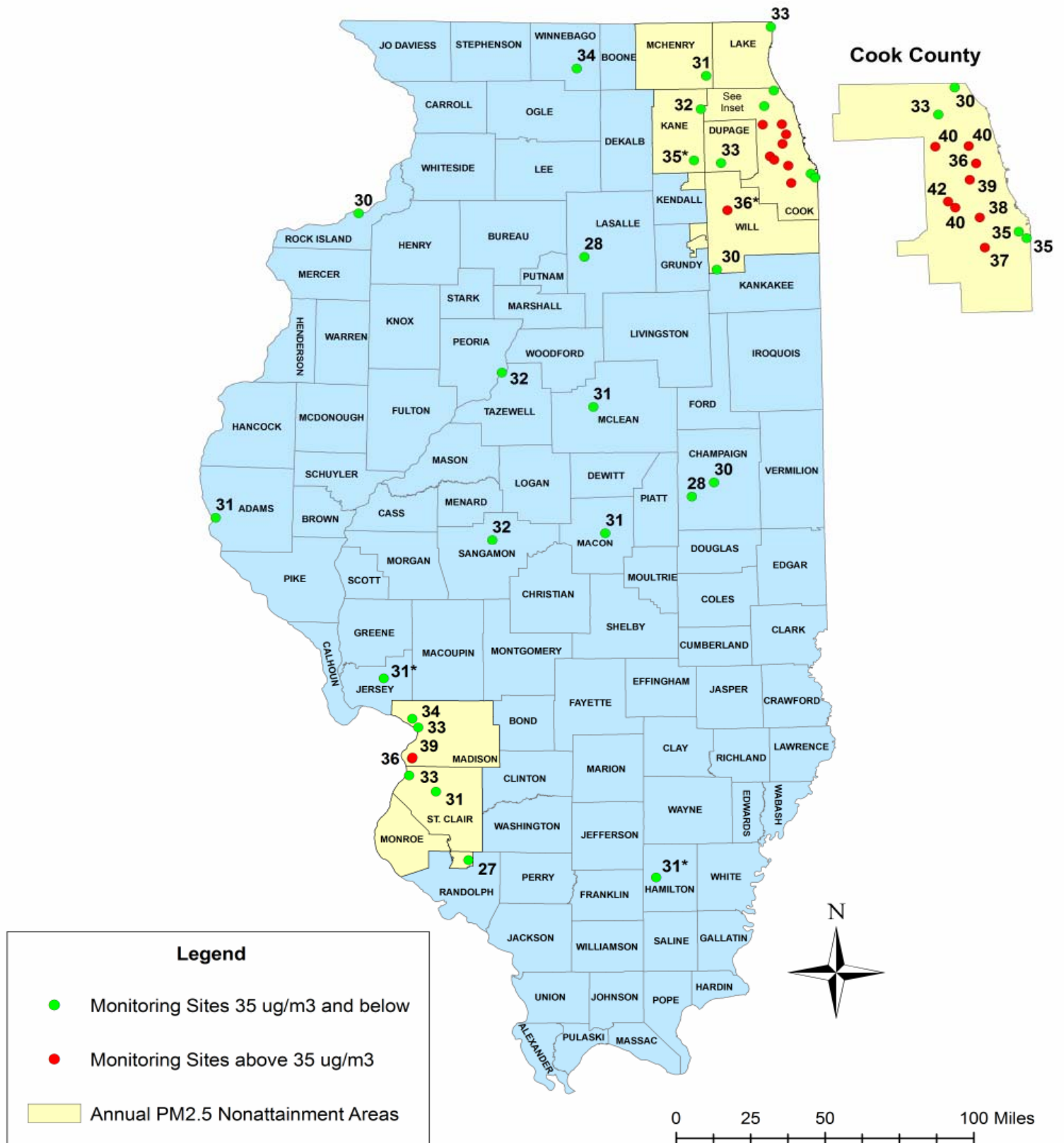


Figure 2

2004-2006 24-hour PM2.5 Design Values



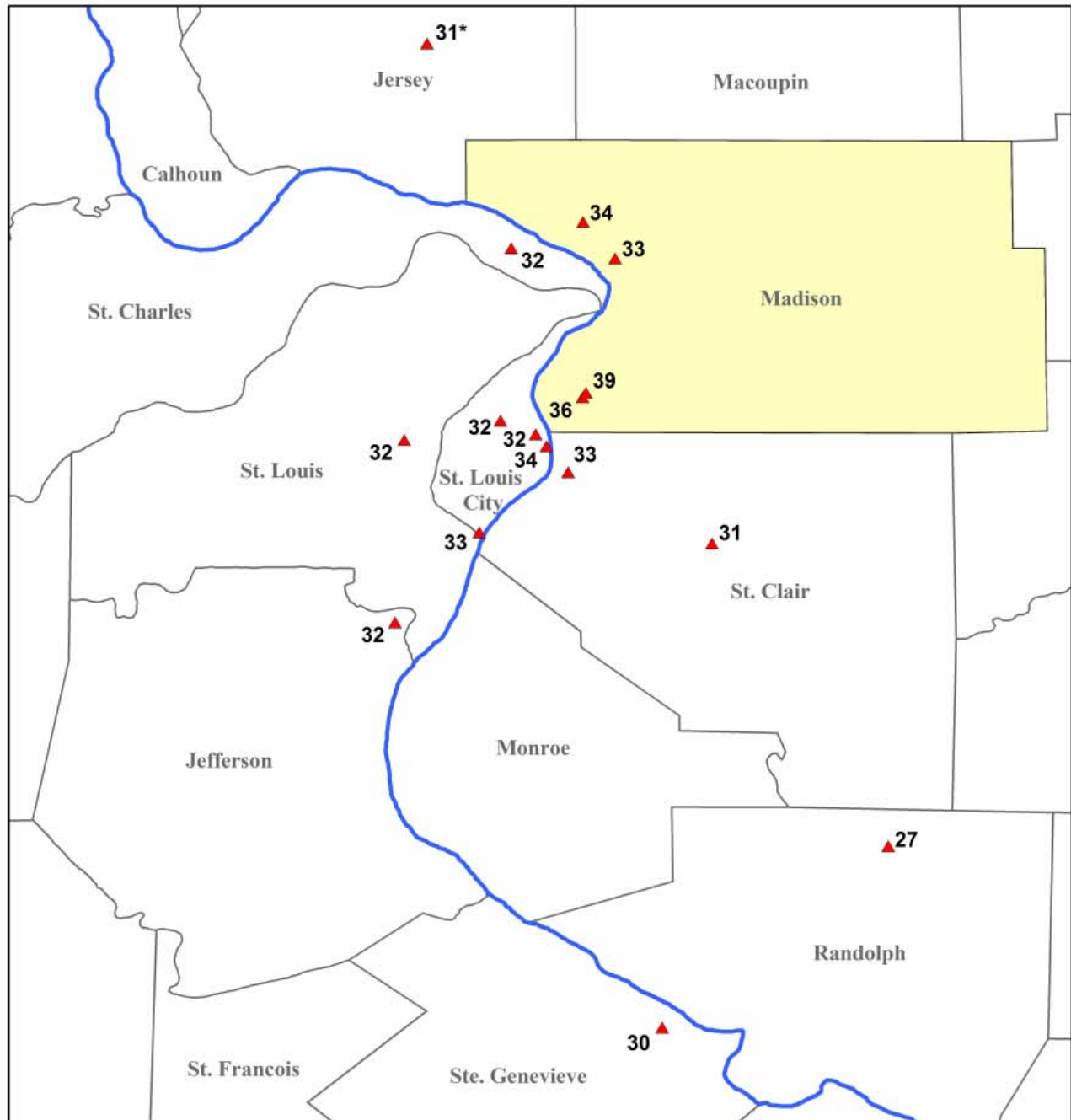
Note: Monitoring sites with asterisks (*) have incomplete data for the period of 2004-2006.

A map of Lake Michigan and its surrounding land areas, showing county boundaries. The lake is labeled "Lake Michigan" in blue text. Sampling locations for the Great Lakes Fishery Survey are marked with red triangles and numbered 28 through 42. Yellow shaded regions highlight specific areas: a small area in the northwest, a large area in the southwest, and a rectangular area on the east shore. The numbered points are distributed as follows: Point 34 is in the northwest; Point 37 is in the northwest yellow area; Point 29 is on the north shore; Point 31 is on the west shore; Point 32 is in the west; Point 36 is in the west yellow area; Points 38, 39, 41, and 35 are in the west yellow area; Point 37 is in the east yellow area; Point 34 is in the east; Point 30 is in the east; Point 31 is in the southwest; Point 32 is in the southwest; Point 33 is in the southwest; Point 30 is in the southwest yellow area; Point 33 is in the southwest yellow area; Point 40 is in the southwest yellow area; Point 42 is in the southwest yellow area; Point 39 is in the southwest yellow area; Point 38 is in the southwest yellow area; Point 35 is in the southwest yellow area; Point 37 is in the southwest yellow area; Point 36 is in the southwest yellow area; Point 30 is in the southwest yellow area; Point 32 is in the southwest yellow area; Point 31 is in the southwest yellow area; Point 34 is in the southwest yellow area; Point 35 is in the southwest yellow area; Point 36 is in the southwest yellow area; Point 37 is in the southwest yellow area; Point 38 is in the southwest yellow area; Point 39 is in the southwest yellow area; Point 40 is in the southwest yellow area; Point 41 is in the southwest yellow area; Point 42 is in the southwest yellow area; Point 28 is in the southeast; Point 31 is in the southeast; Point 29 is in the southeast; Point 30 is in the southeast; Point 31 is in the southeast; Point 32 is in the southeast; Point 33 is in the southeast; Point 34 is in the southeast; Point 35 is in the southeast; Point 36 is in the southeast; Point 37 is in the southeast; Point 38 is in the southeast; Point 39 is in the southeast; Point 40 is in the southeast; Point 41 is in the southeast; Point 42 is in the southeast.

▲ PM2.5 Monitors
 □ Counties exceeding the 24-hour Standard

Figure 4

2004-2006 St. Louis 24-hour PM2.5 Design Values



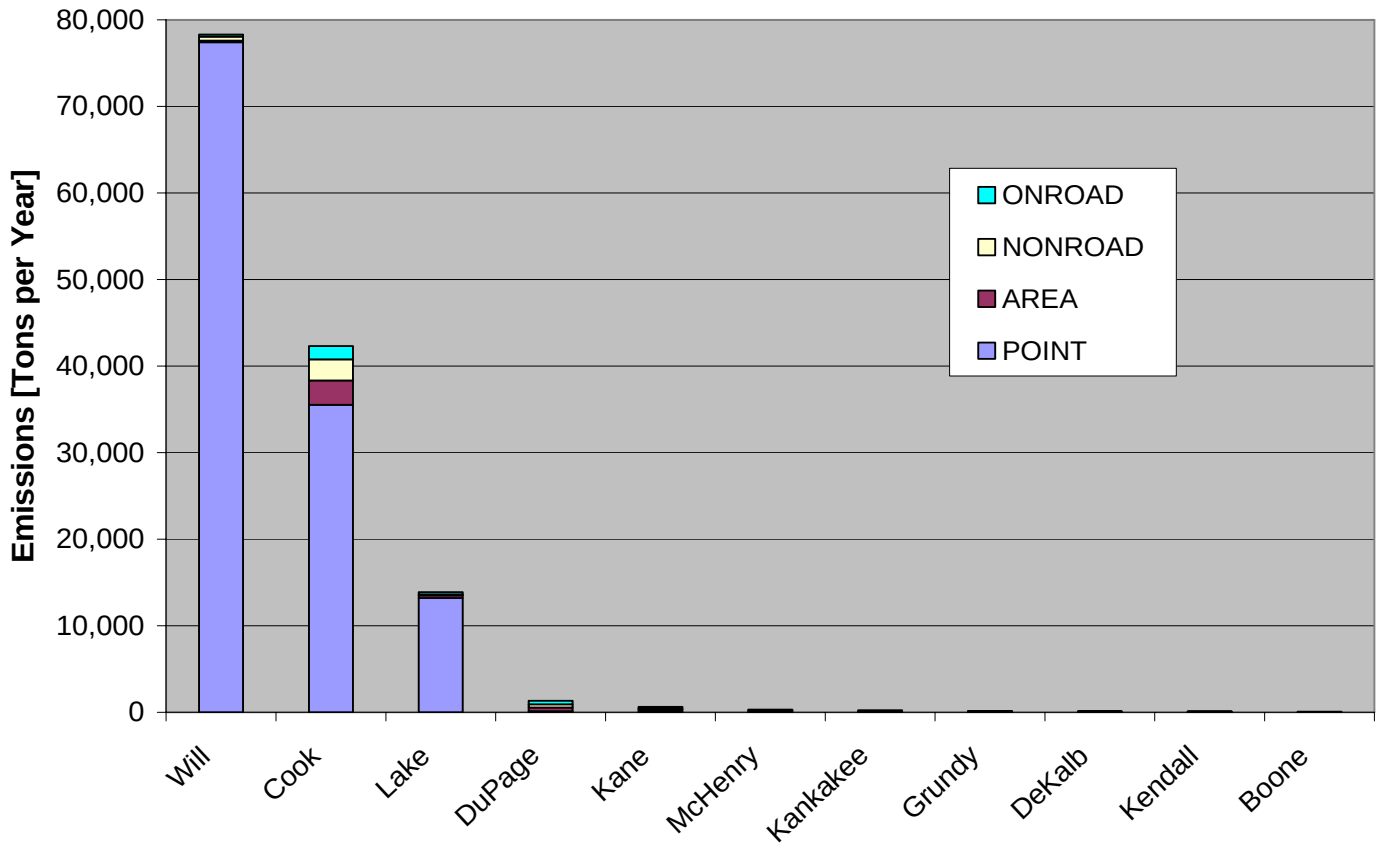
Note: Data for Jerseyville monitor incomplete

Legend

- ▲ PM2.5 Monitors
- Counties exceeding the 24-hour Standard

Figure 5a

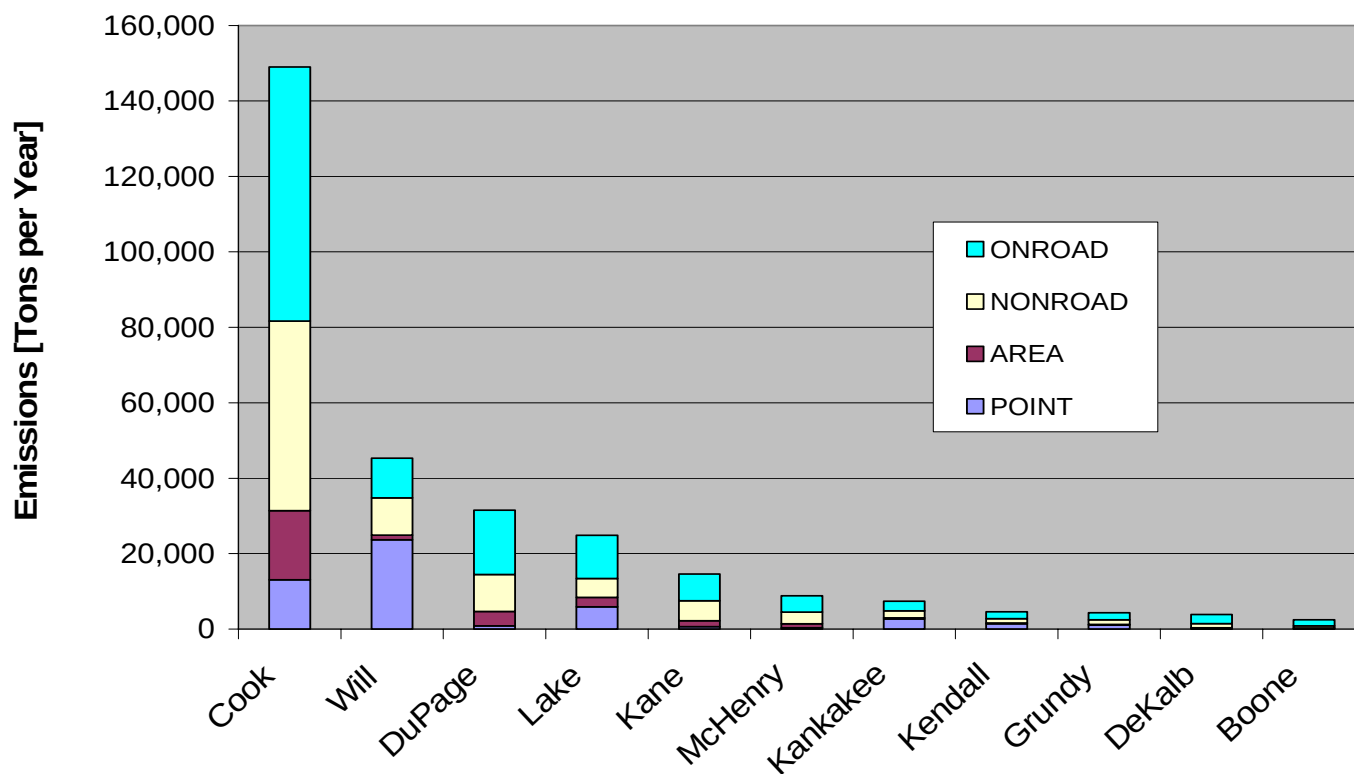
2005 SO₂ Emissions by County for the Chicago CSA



SO ₂					
COUNTY	POINT	AREA	NONROAD	ONROAD	Total Tons/Yr
Will	77,425.42	174.28	460.97	237.46	78,298.13
Cook	35,514.27	2,845.13	2,422.23	1,539.62	42,321.25
Lake	13,191.85	315.79	129.01	261.03	13,897.68
DuPage	132.77	414.66	388.87	388.60	1,324.90
Kane	93.67	213.51	174.76	157.66	639.60
McHenry	31.99	124.18	80.99	96.10	333.26
Kankakee	59.90	39.36	73.68	57.68	230.62
Grundy	41.74	15.44	64.66	40.99	162.83
DeKalb	11.46	38.20	28.57	53.31	131.54
Kendall	10.59	26.49	34.47	42.15	113.70
Boone	2.87	22.95	13.74	35.94	75.50

Figure 5b

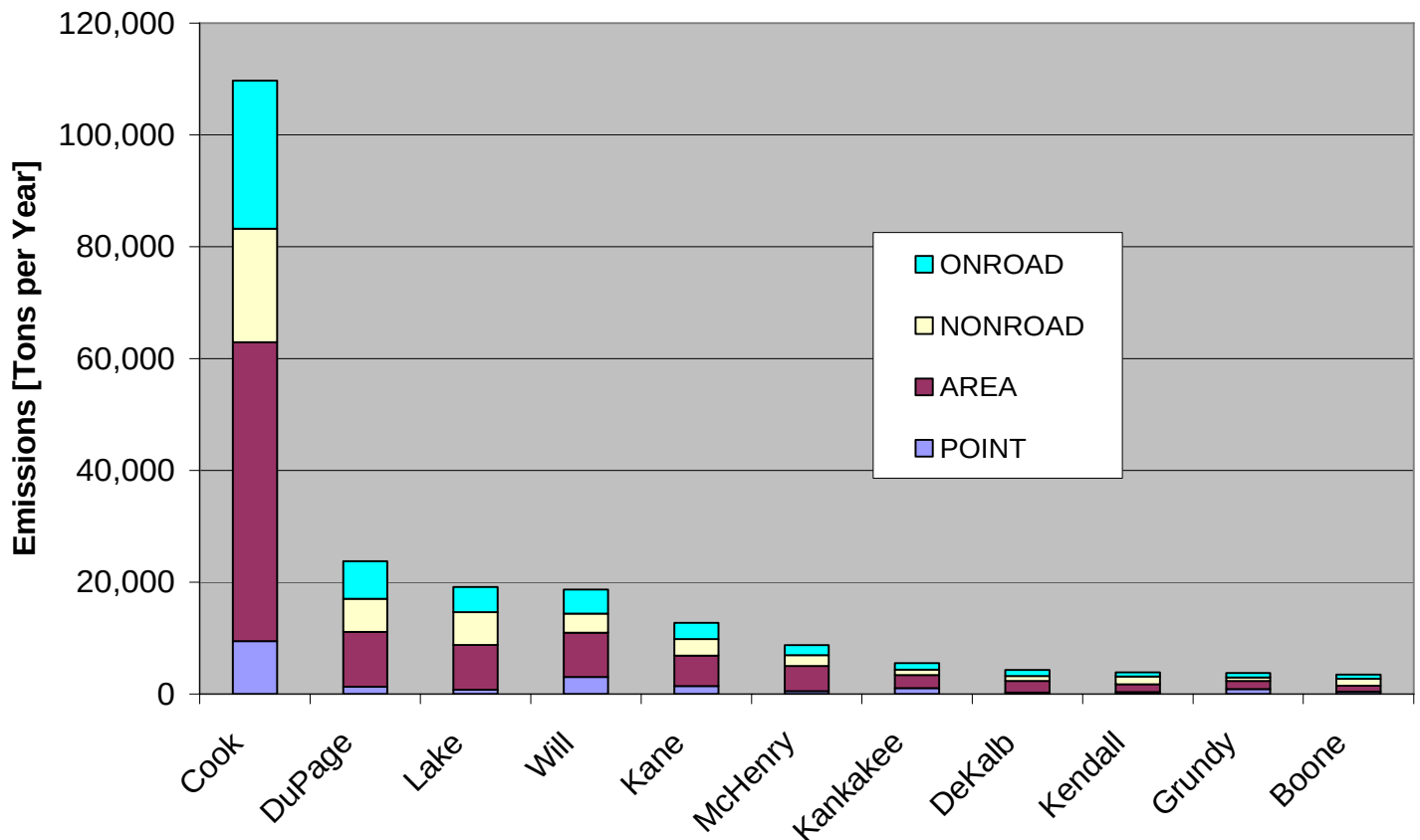
2005 NO_x Emissions by County for the Chicago CSA



NO _x					
COUNTY	POINT	AREA	NONROAD	ONROAD	Total Tons/Year
Cook	13,082.92	18,299.40	50,255.60	67,399.36	149,067.10
Will	23,639.70	1,256.99	9,840.49	10,551.43	45,290.19
DuPage	821.00	3,832.32	9,814.21	17,011.46	31,485.40
Lake	5,869.29	2,517.42	5,019.25	11,442.77	24,851.98
Kane	624.35	1,565.71	5,343.62	7,020.21	14,556.00
McHenry	349.39	1,040.24	3,097.02	4,298.86	8,786.44
Kankakee	2,697.23	279.32	1,853.30	2,588.45	7,418.74
Kendall	1,421.20	204.27	1,094.72	1,863.00	4,583.36
Grundy	1,116.78	120.16	1,255.93	1,825.51	4,318.53
DeKalb	100.69	240.22	1,144.32	2,391.96	3,877.50
Boone	171.30	127.14	539.08	1,611.66	2,449.18

Figure 5c

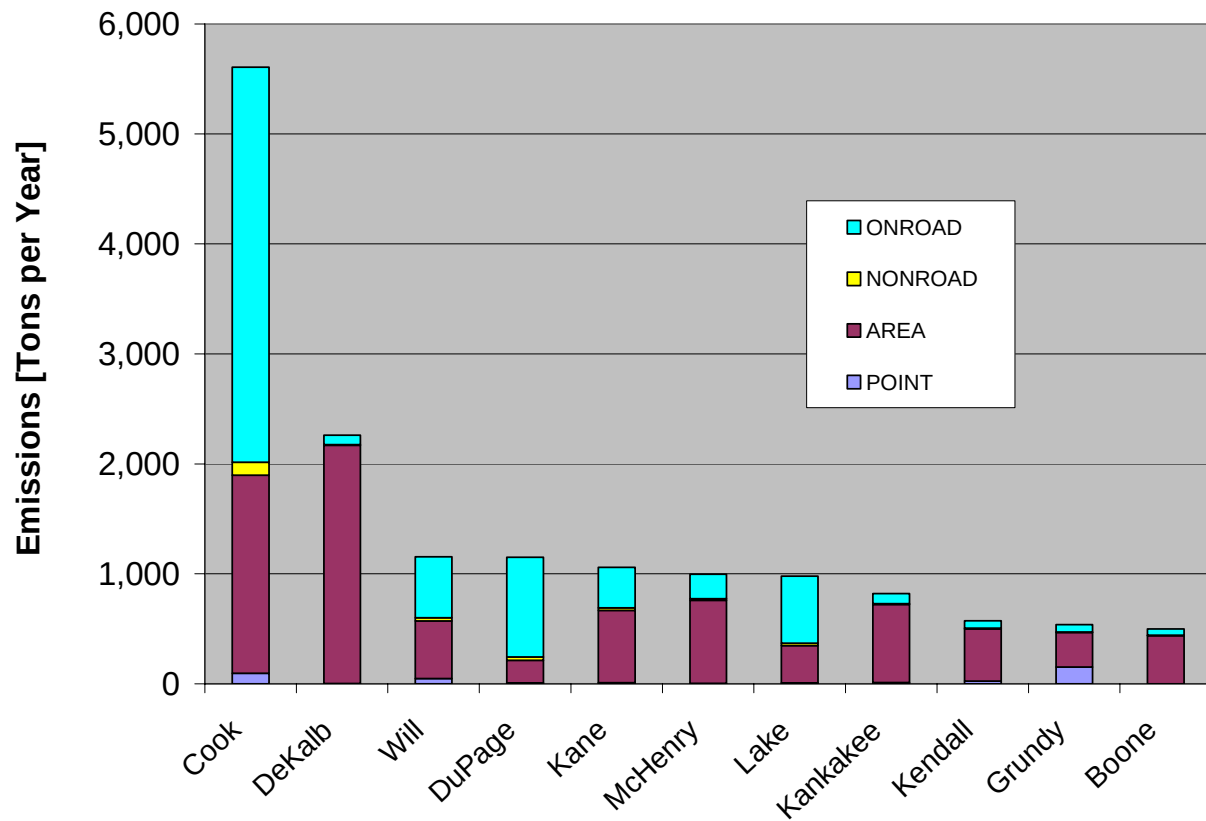
2005 VOC Emissions by County for the Chicago CSA



VOC					
COUNTY	POINT	AREA	NONROAD	ONROAD	Total Tons/Yr
Cook	9,446.58	53,488.95	20,263.18	26,509.97	109,708.68
DuPage	1,323.64	9,765.46	5,968.90	6,691.24	23,749.24
Lake	759.50	8,005.83	5,881.48	4,518.07	19,164.88
Will	3,038.15	7,946.72	3,382.45	4,313.93	18,681.25
Kane	1,415.20	5,466.88	2,961.97	2,887.30	12,731.35
McHenry	487.74	4,531.42	1,933.46	1,787.90	8,740.52
Kankakee	1,069.88	2,283.92	983.09	1,183.64	5,520.53
DeKalb	236.62	2,096.29	887.38	1,094.02	4,314.31
Kendall	342.16	1,398.90	1,397.41	753.57	3,892.04
Grundy	867.37	1,432.22	656.57	778.71	3,734.87
Boone	416.44	1,075.46	1,235.76	739.44	3,467.10

Figure 5d

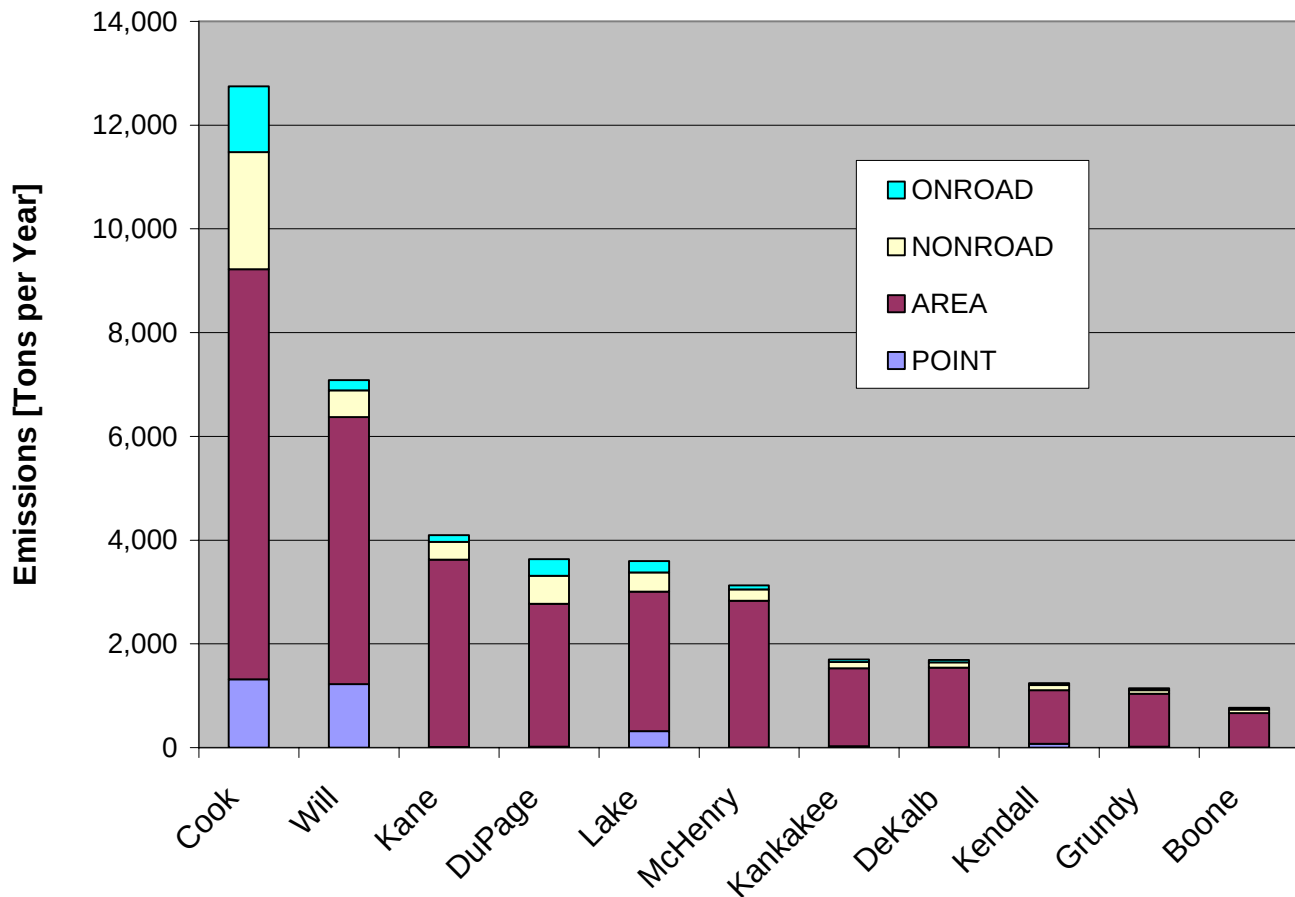
2005 NH₃ Emissions by County for the Chicago CSA



NH ₃					
COUNTY	POINT	AREA	NONROAD	ONROAD	Total Tons/Yr
Cook	96.27	1,800.53	118.90	3,590.00	5,605.70
DeKalb	1.66	2,166.72	6.24	85.53	2,260.15
Will	47.88	522.59	31.25	553.68	1,155.40
DuPage	8.20	205.39	30.58	906.15	1,150.32
Kane	10.81	656.96	22.88	367.78	1,058.43
McHenry	3.15	755.17	14.98	224.23	997.53
Lake	8.69	339.34	21.87	608.87	978.77
Kankakee	11.35	710.51	6.80	92.54	821.20
Kendall	24.52	474.92	6.03	67.93	573.40
Grundy	152.19	314.52	4.01	65.91	536.63
Boone	0.90	437.18	3.26	57.64	498.98

Figure 5e

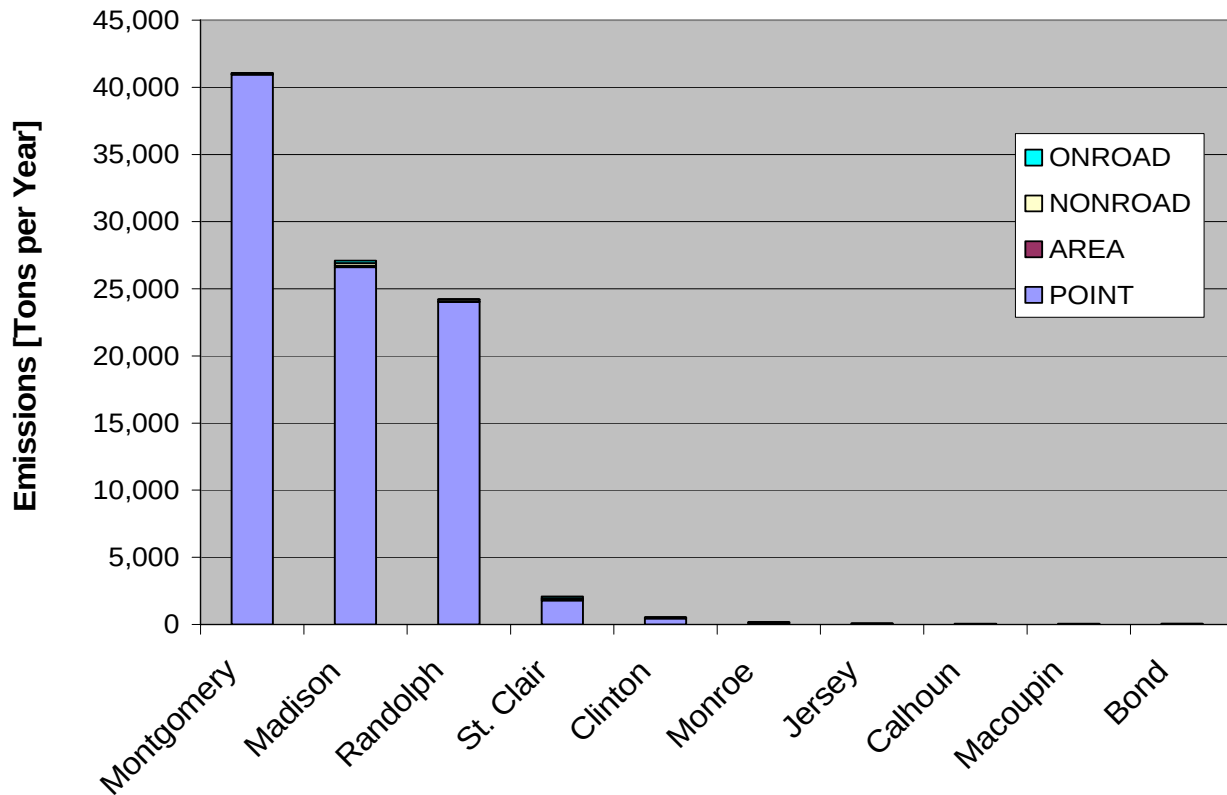
2005 PM2.5 Emissions by County for the Chicago CSA



PM2.5					
COUNTY	POINT	AREA	NONROAD	ONROAD	Total Tons/Year
Cook	1,317.85	7,903.52	2,260.62	1,265.16	12,747.15
Will	1,225.64	5,148.60	514.63	195.12	7,083.99
Kane	13.42	3,610.68	341.33	129.59	4,095.02
DuPage	16.93	2,756.07	540.70	319.34	3,633.04
Lake	320.11	2,686.74	373.58	214.56	3,594.99
McHenry	5.06	2,829.63	214.49	79.00	3,128.18
Kankakee	25.93	1,504.12	118.23	52.25	1,700.53
DeKalb	7.34	1,536.90	100.64	48.29	1,693.17
Kendall	74.08	1,032.94	100.76	37.82	1,245.60
Grundy	16.63	1,021.04	73.91	36.87	1,148.45
Boone	6.75	660.92	65.55	32.54	765.76

Figure 6a

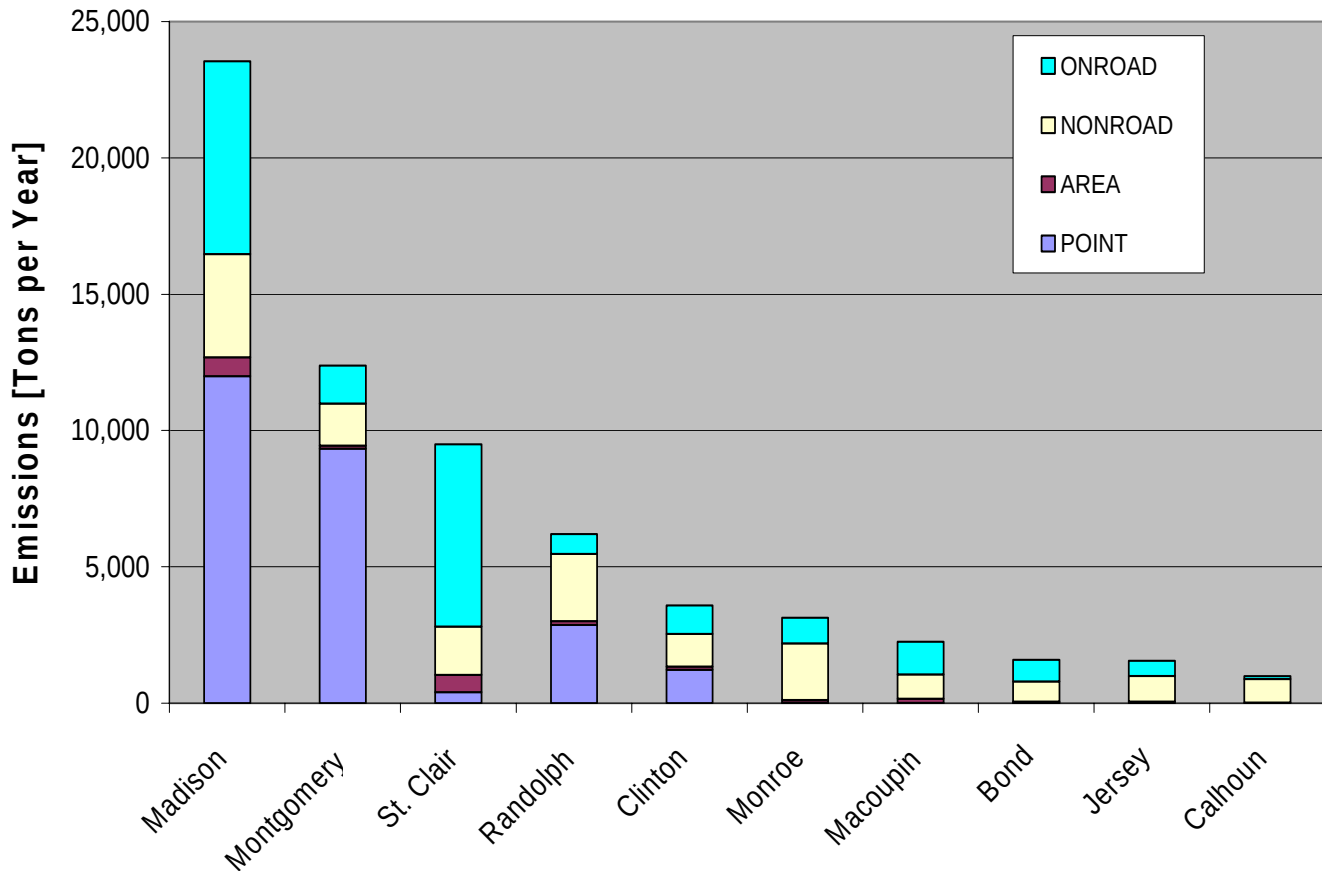
2005 SO₂ Emissions by County for the Metro-East St. Louis MSA



SO ₂					
COUNTY	POINT	AREA	NONROAD	ONROAD	Total Tons/Year
Montgomery	40,953.07	12.14	73.52	31.25	41,069.98
Madison	26,602.12	115.50	199.68	169.80	27,087.10
Randolph	24,018.55	21.39	157.69	16.52	24,214.15
St. Clair	1,796.90	81.18	56.06	160.41	2,094.55
Clinton	449.06	13.58	50.73	23.45	536.82
Monroe	0.45	14.92	138.89	21.93	176.19
Jersey	0.00	6.99	61.20	12.42	80.61
Calhoun	0.00	8.76	62.07	2.43	73.26
Macoupin	1.61	15.04	23.89	26.97	67.51
Bond	1.56	8.75	34.53	17.79	62.63

Figure 6b

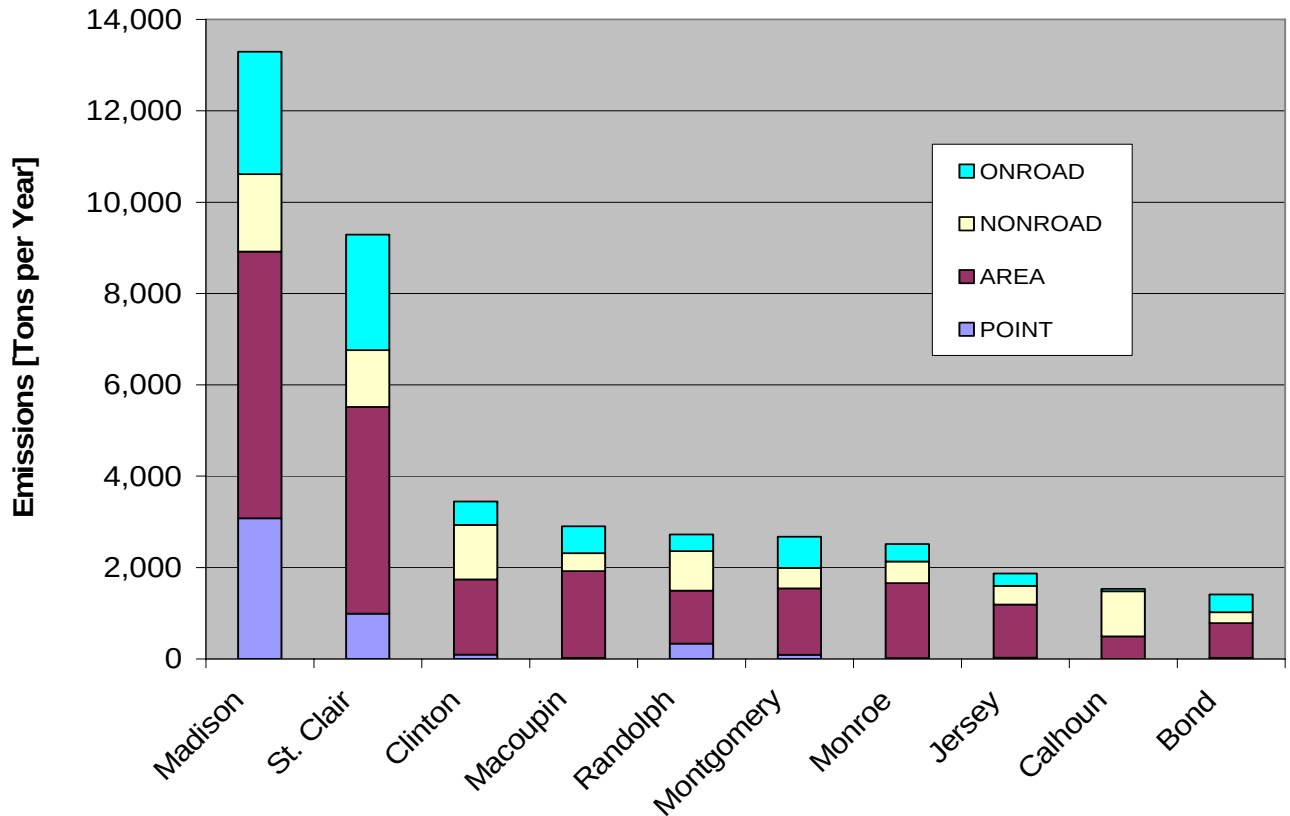
2005 NO_x Emissions by County for the Metro-East St. Louis MSA



NO _x					
COUNTY	POINT	AREA	NONROAD	ONROAD	Total Tons/Yr
Madison	12,001.71	685.34	3,781.44	7,078.55	23,548.00
Montgomery	9,335.96	110.01	1,542.15	1,392.49	12,380.61
St. Clair	399.34	639.00	1,769.74	6,688.92	9,498.03
Randolph	2,868.57	143.16	2,456.42	734.49	6,202.73
Clinton	1,224.70	119.59	1,196.09	1,042.00	3,582.50
Monroe	19.58	92.66	2,082.16	936.88	3,131.36
Macoupin	7.72	150.66	897.24	1,198.60	2,254.33
Bond	9.76	51.19	737.40	789.67	1,588.05
Jersey	0.00	60.53	940.53	552.29	1,553.38
Calhoun	0.01	20.09	861.35	107.95	989.41

Figure 6c

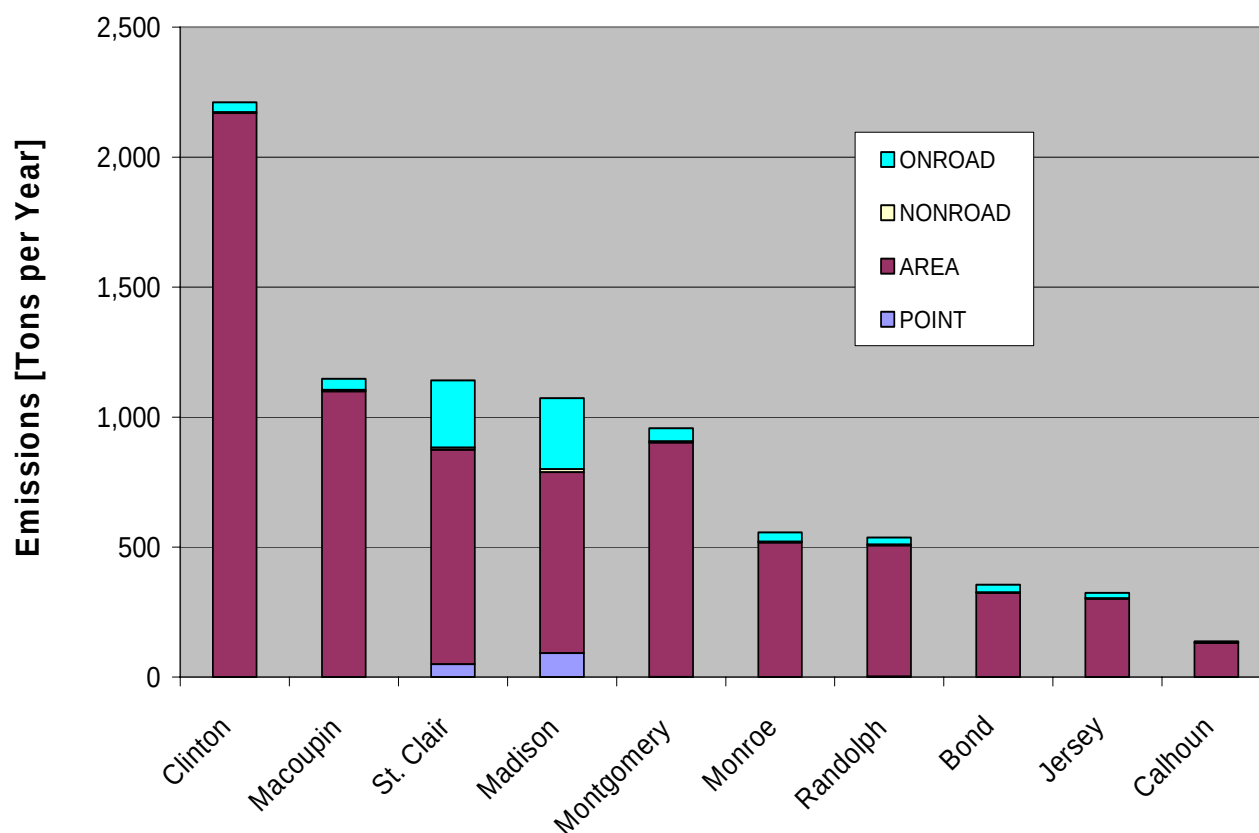
2005 VOC Emissions by County for the Metro-East St. Louis MSA



VOC					
COUNTY	POINT	AREA	NONROAD	ONROAD	Total Tons/Yr
Madison	3,076.90	5,839.25	1,700.63	2,676.25	13,293.03
St. Clair	989.27	4,530.11	1,242.19	2,528.52	9,290.09
Clinton	95.91	1,646.68	1,193.19	512.27	3,448.05
Macoupin	25.00	1,899.22	388.95	589.36	2,902.53
Randolph	332.63	1,163.20	866.90	360.81	2,723.54
Montgomery	89.61	1,453.65	448.25	684.74	2,676.25
Monroe	18.90	1,638.45	475.79	382.81	2,515.95
Jersey	26.67	1,164.06	409.04	271.27	1,871.04
Calhoun	0.00	490.83	989.02	53.04	1,532.89
Bond	22.43	761.62	238.45	388.75	1,411.25

Figure 6d

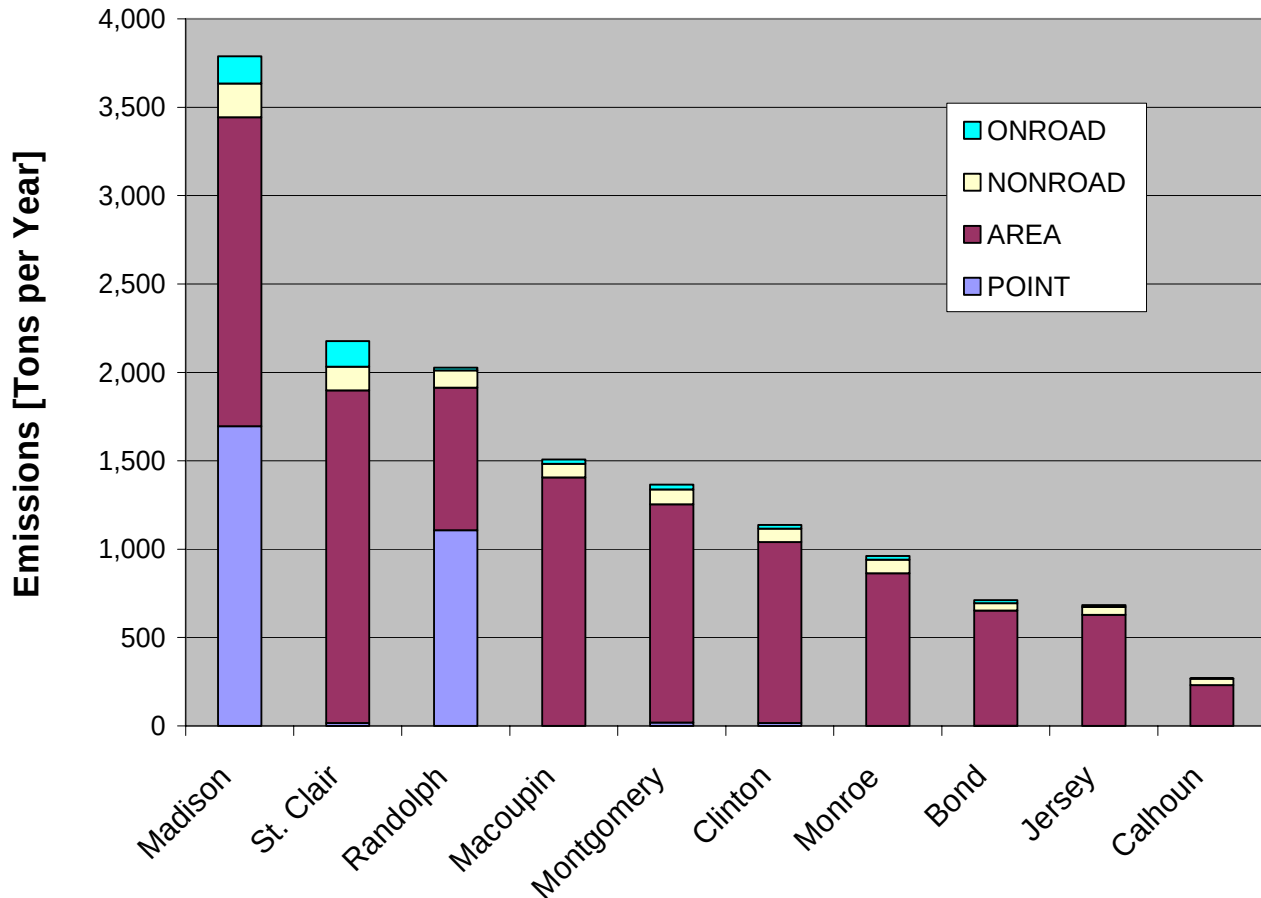
2005 NH₃ Emissions by County for the Metro-East St. Louis MSA



NH ₃					
COUNTY	POINT	AREA	NONROAD	ONROAD	Total Tons/Yr
Clinton	0.21	2,169.60	3.94	37.60	2,211.35
Macoupin	0.12	1,099.72	4.91	43.26	1,148.01
St. Clair	49.86	824.90	8.30	257.86	1,140.92
Madison	92.42	696.43	11.47	272.93	1,073.25
Montgomery	0.70	901.78	4.45	50.09	957.02
Monroe	0.05	517.99	3.36	35.26	556.66
Randolph	2.72	504.03	4.00	26.50	537.25
Bond	0.11	323.89	2.25	28.51	354.76
Jersey	0.00	302.05	2.29	19.92	324.26
Calhoun	0.00	132.45	1.35	3.89	137.69

Figure 6e

2005 PM2.5 Emissions by County for the Metro-East St. Louis MSA



PM2.5					
COUNTY	POINT	AREA	NONROAD	ONROAD	Total Tons/Yr
Madison	1,696.20	1,747.96	190.51	153.70	3,788.37
St. Clair	15.94	1,883.25	133.29	145.22	2,177.70
Randolph	1,107.17	806.53	97.48	14.96	2,026.14
Macoupin	0.19	1,406.59	76.03	24.42	1,507.23
Montgomery	18.79	1,235.05	83.83	28.28	1,365.95
Clinton	16.84	1,023.80	75.53	21.23	1,137.40
Monroe	0.42	863.68	77.74	19.85	961.69
Bond	0.83	652.31	42.38	16.10	711.62
Jersey	0.00	628.75	44.63	11.25	684.63
Calhoun	0.00	231.14	36.62	2.20	269.96

Figure 7a

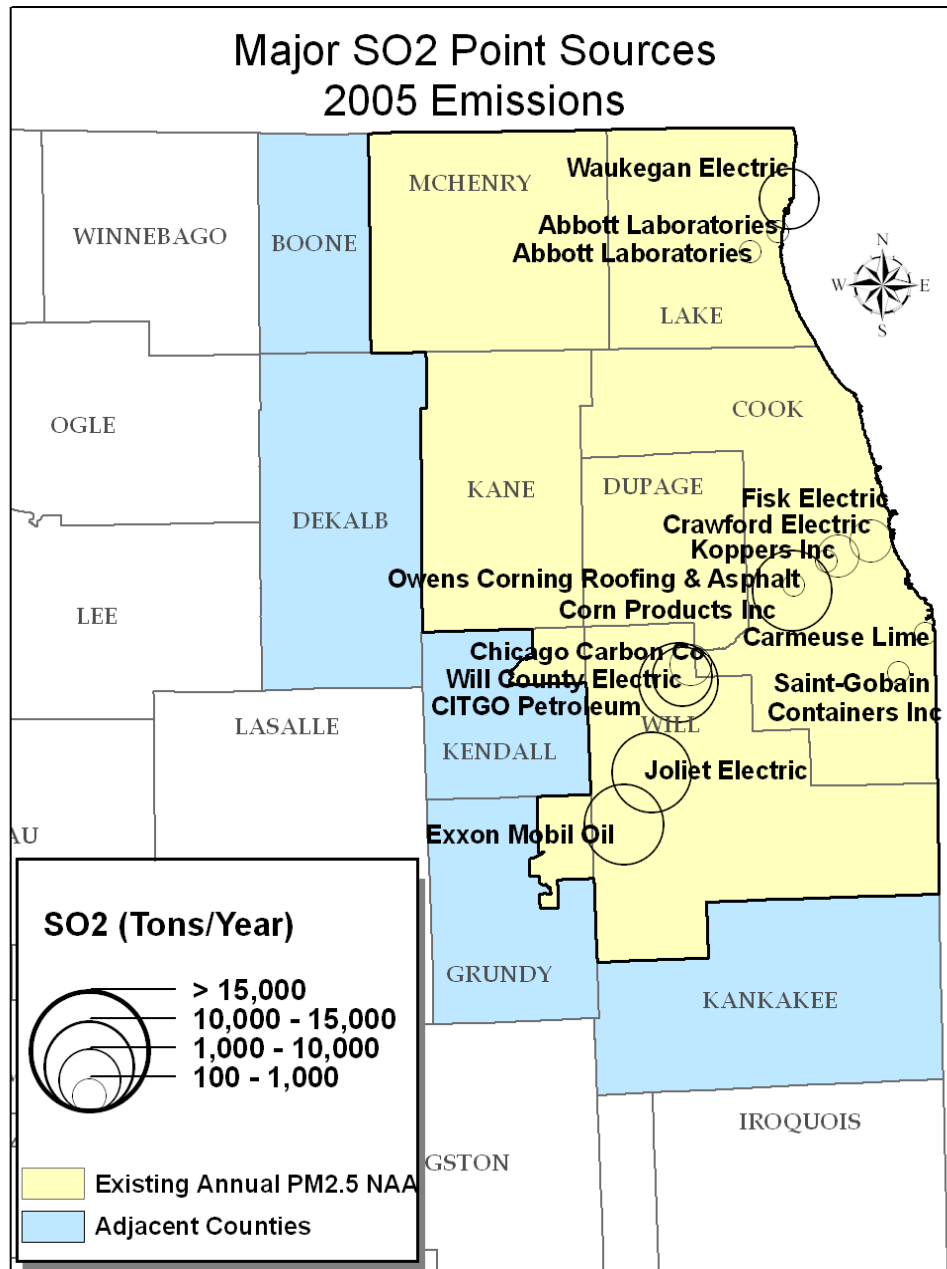


Figure 7b

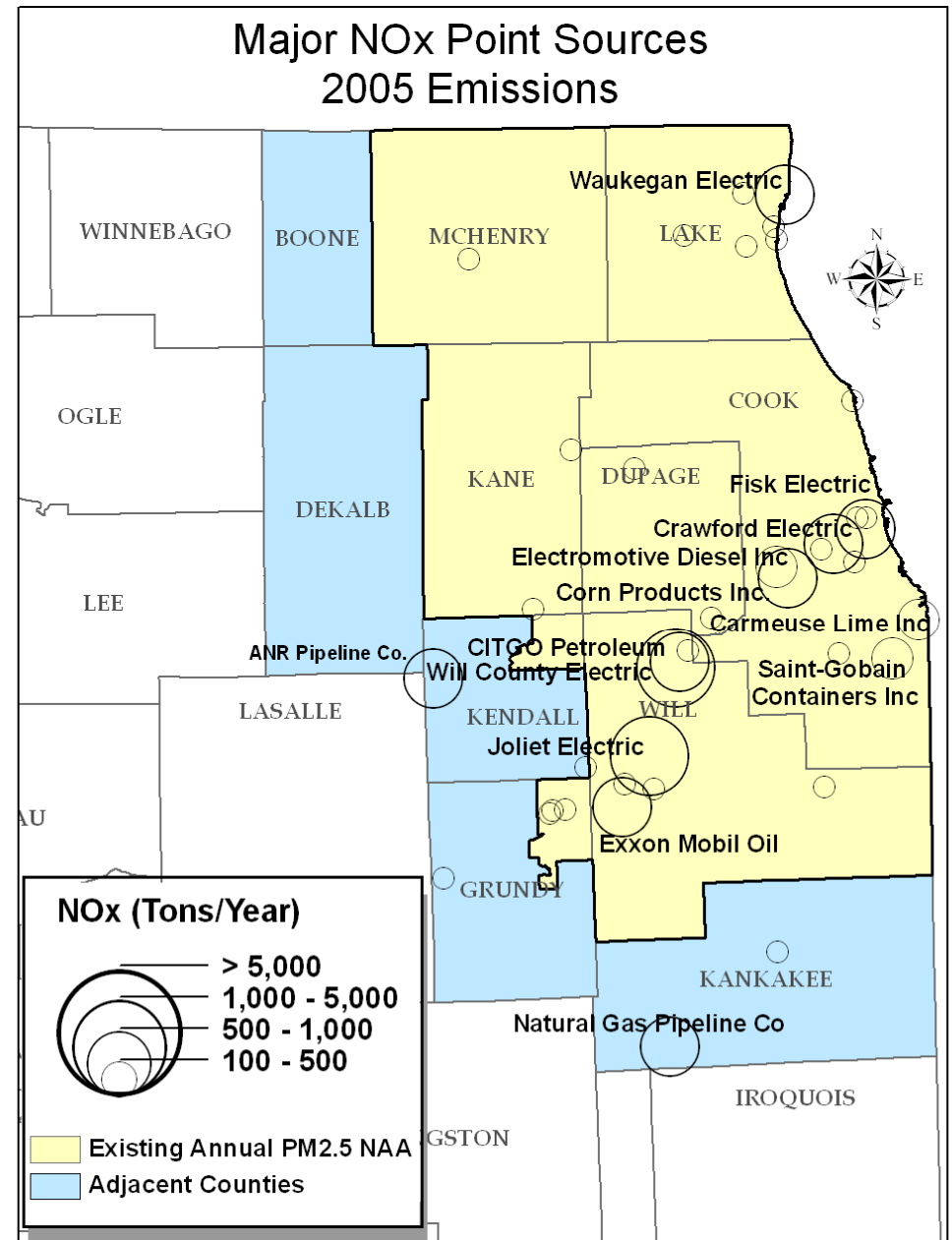


Figure 7c

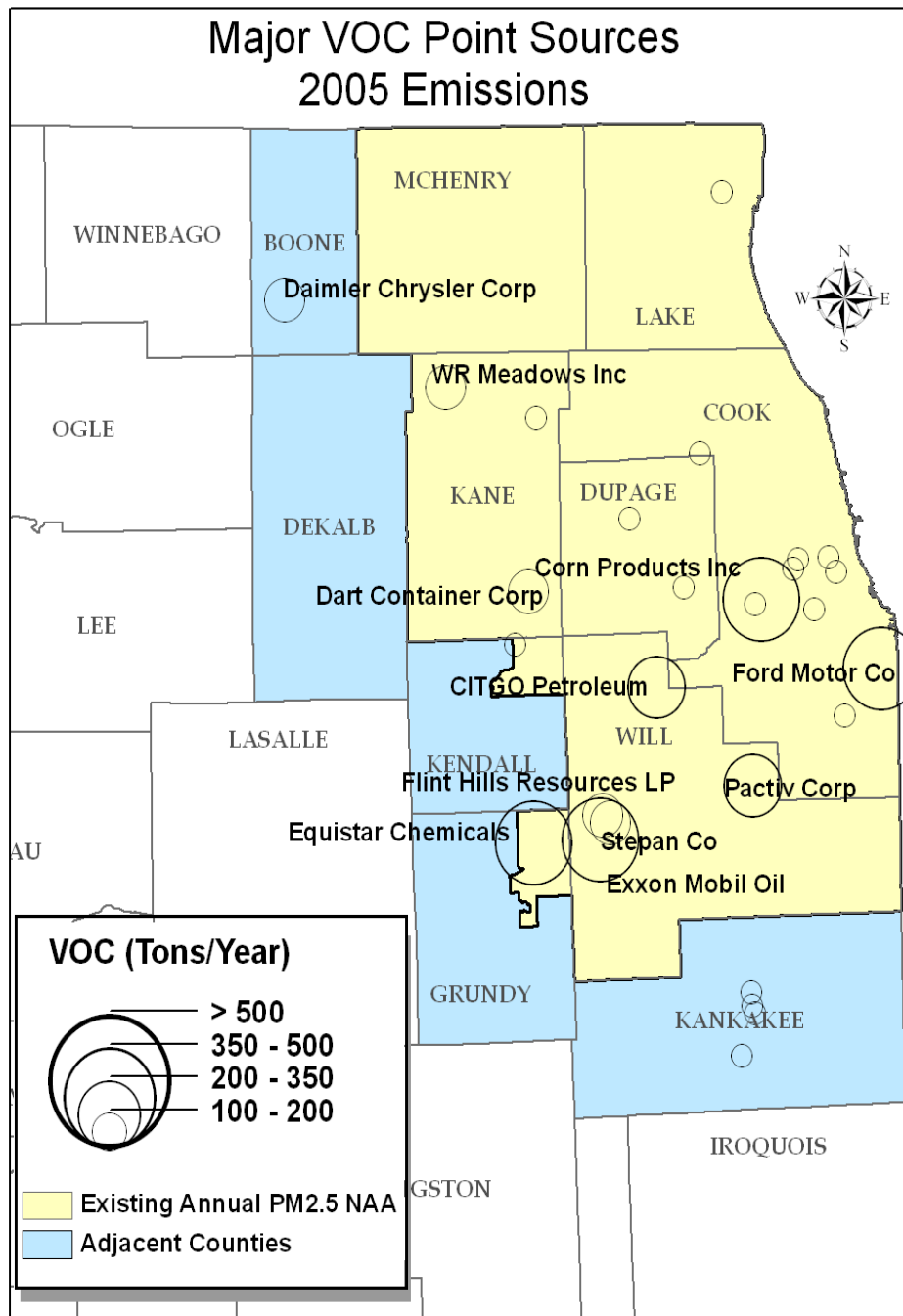


Figure 7d

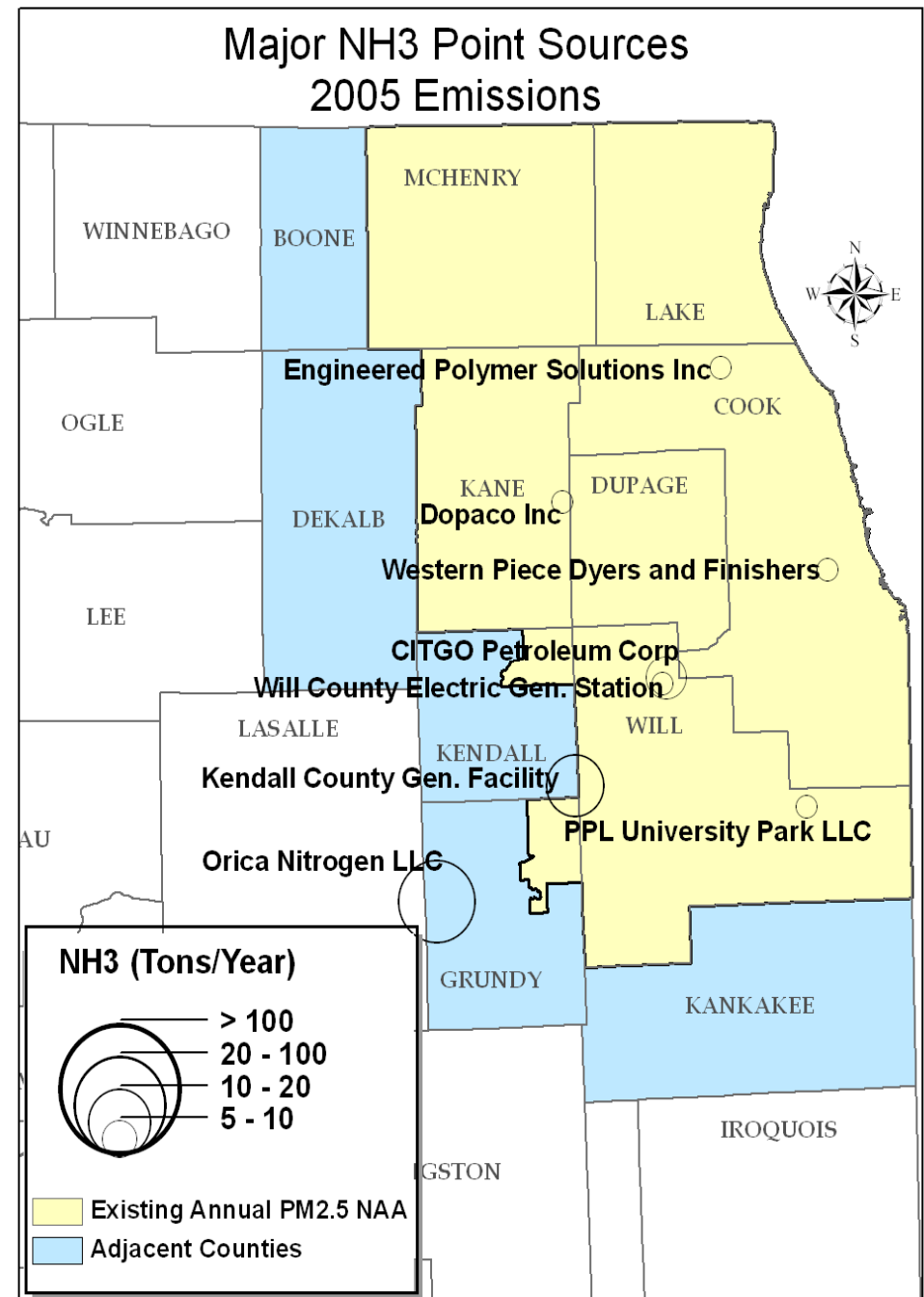


Figure 7e

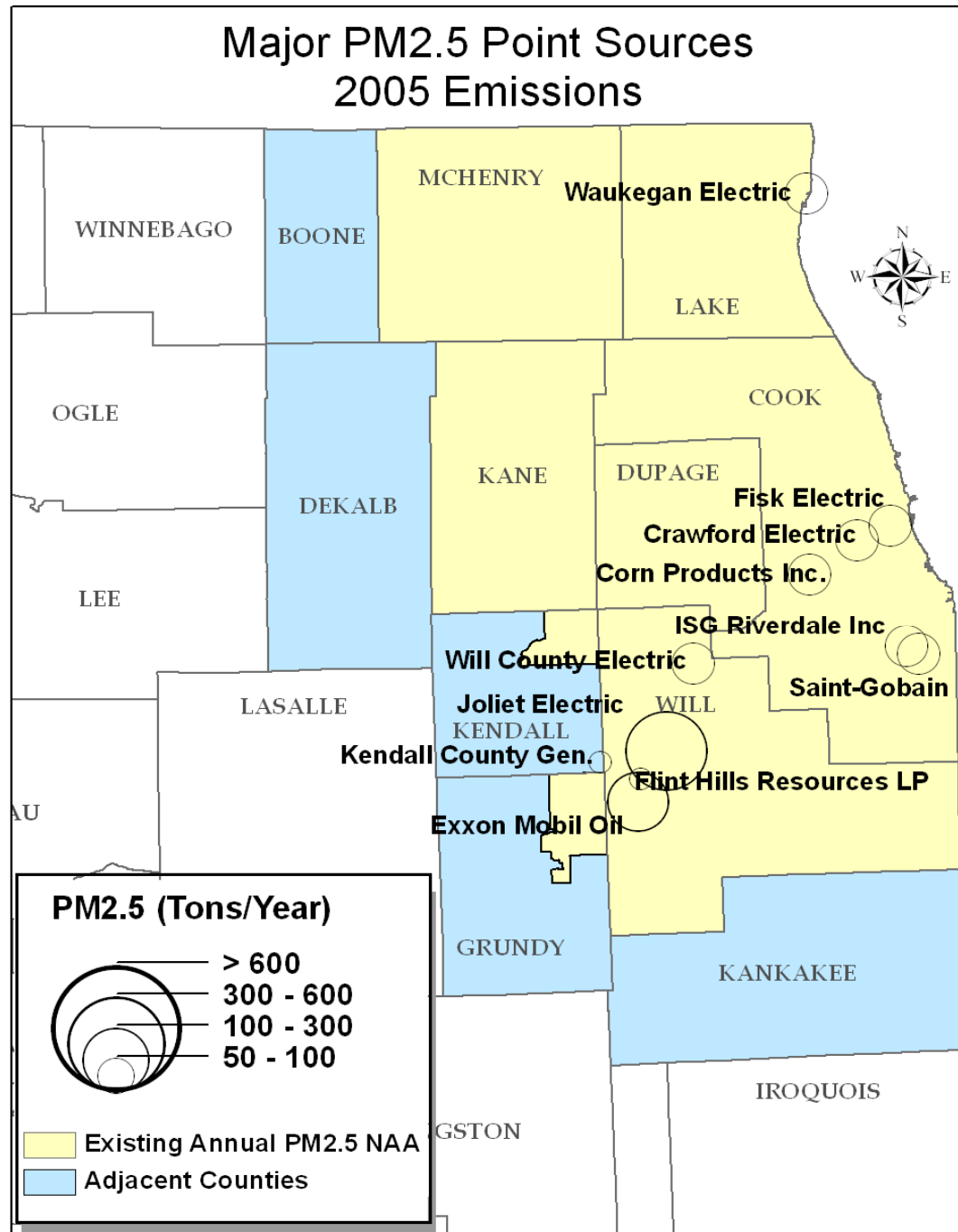


Figure 8a
Major SO₂ Point Sources
2005 Emissions

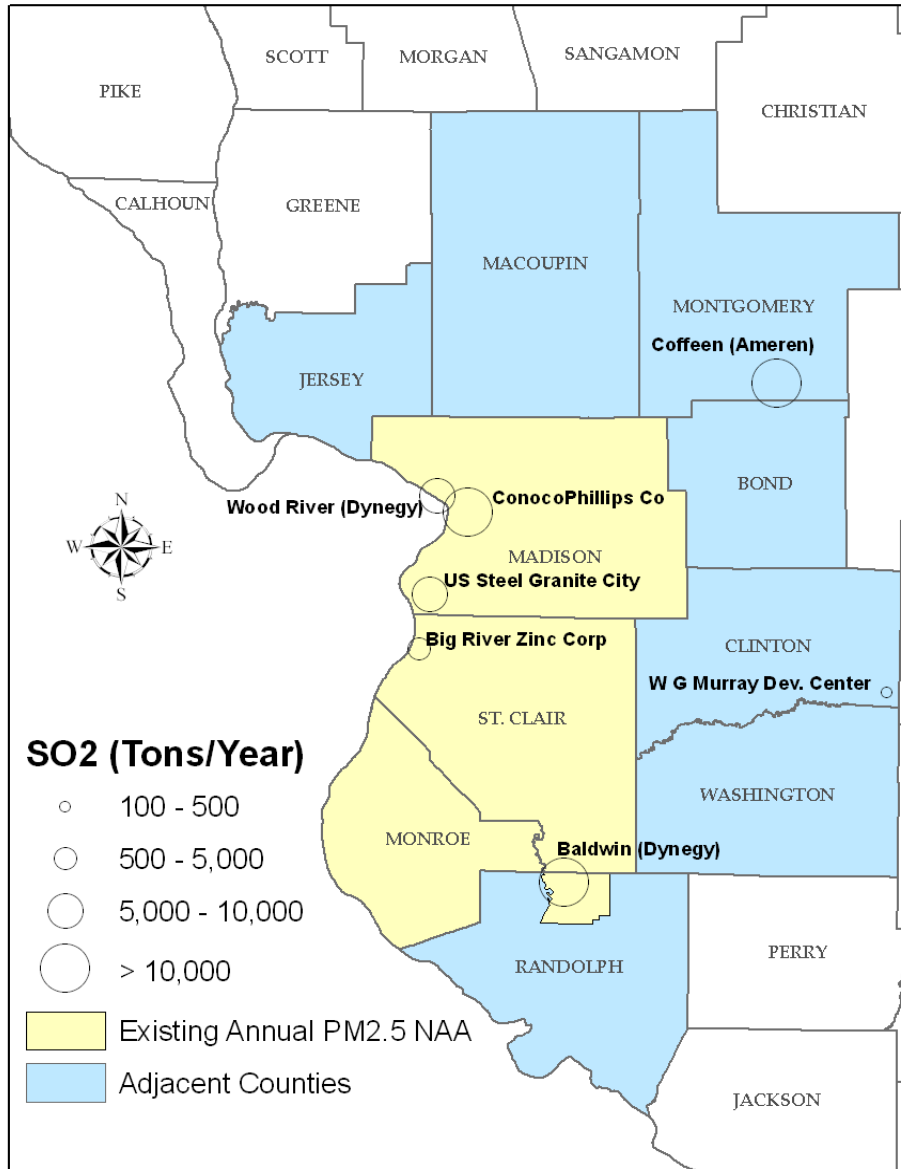


Figure 8b
Major NO_x Point Sources
2005 Emissions

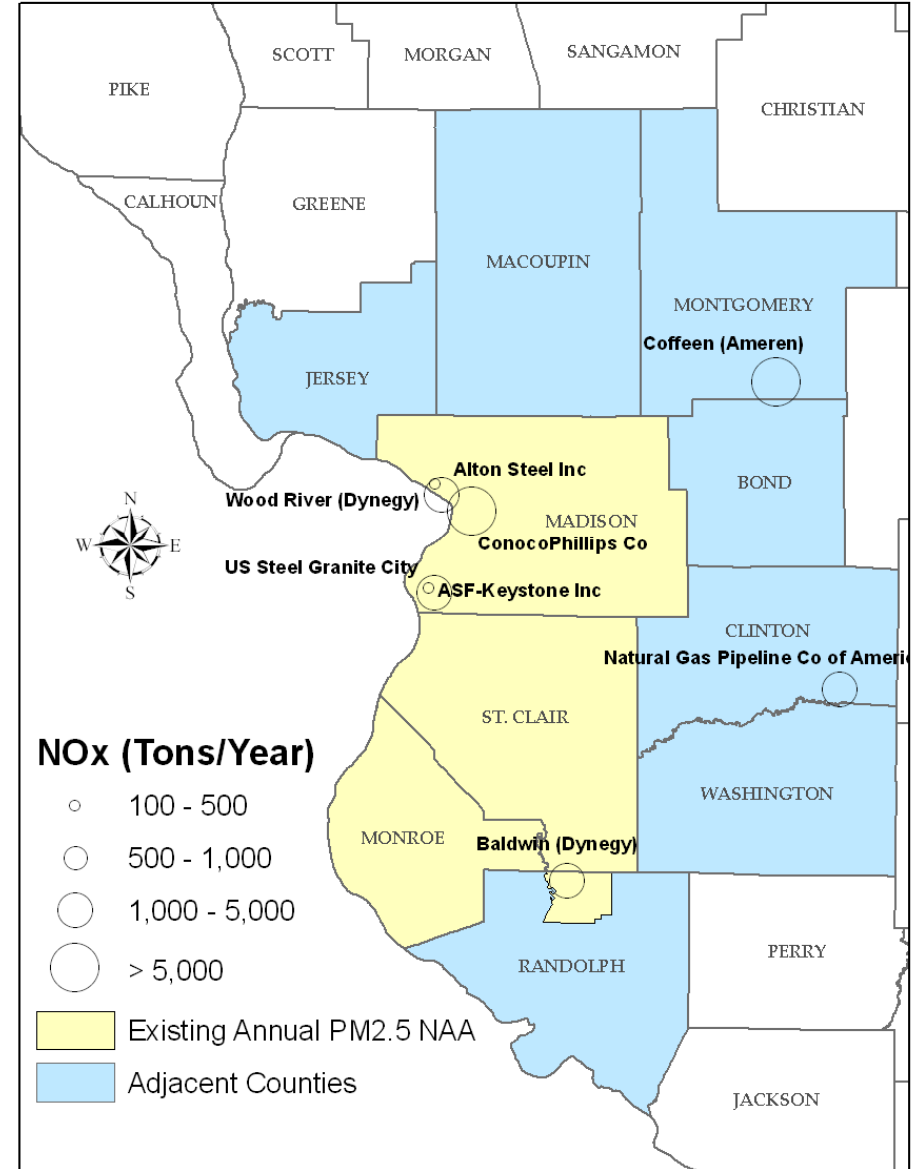


Figure 8c

Major VOC Point Sources 2005 Emissions

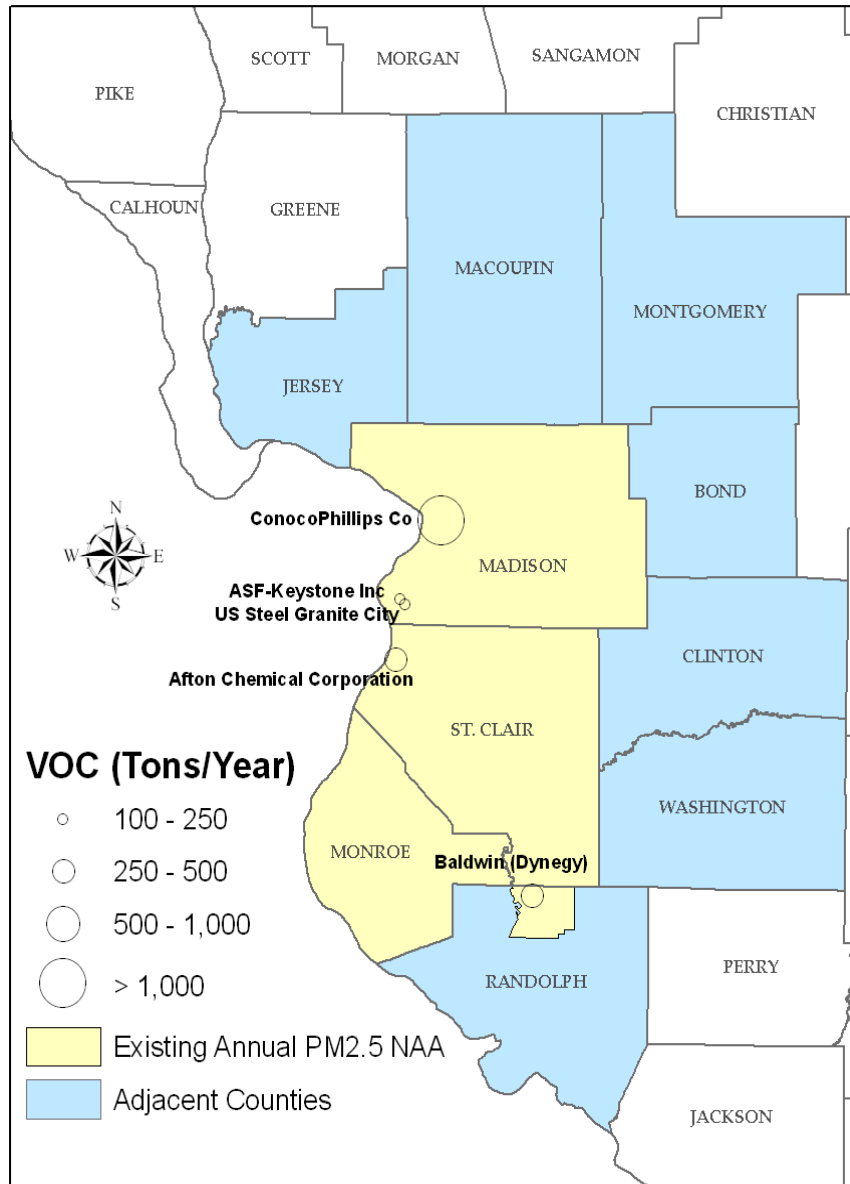


Figure 8d

Major NH3 Point Sources 2005 Emissions

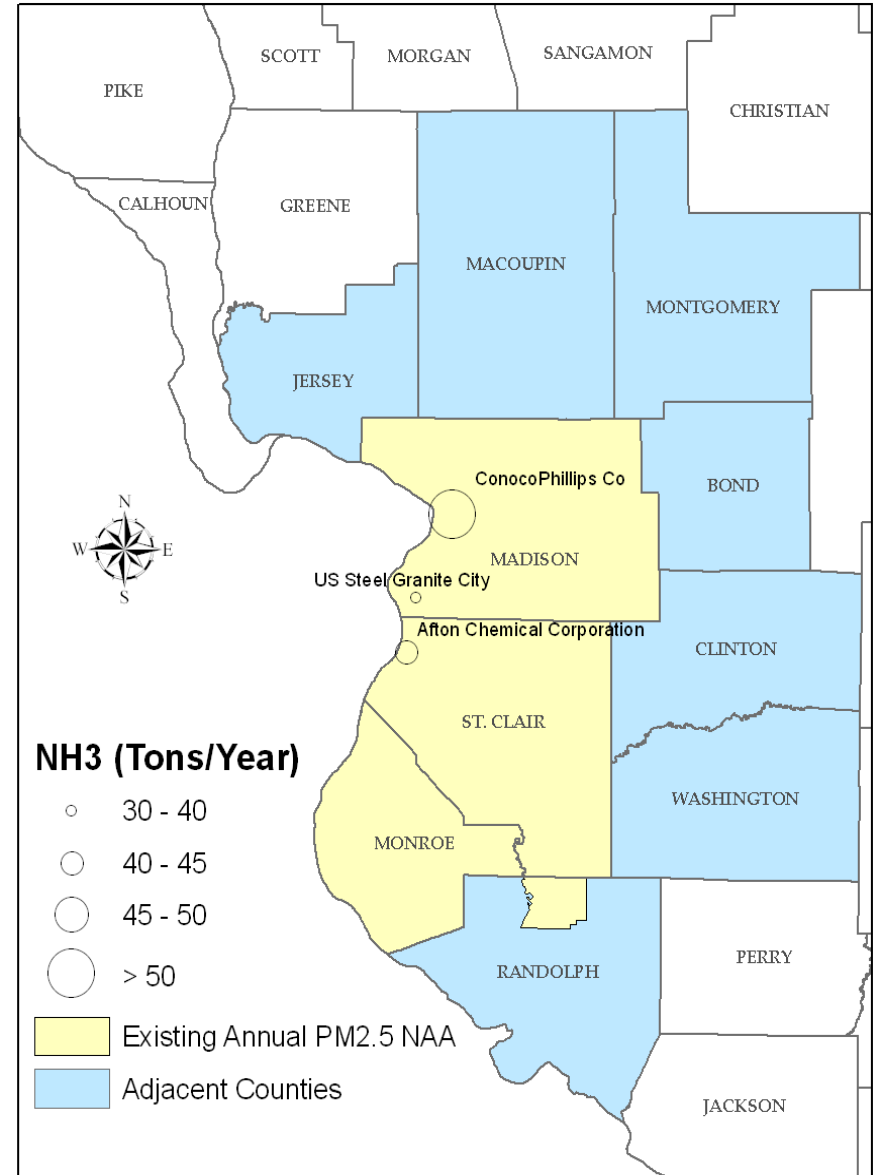


Figure 8e

Major PM2.5 Point Sources

2005 Emissions

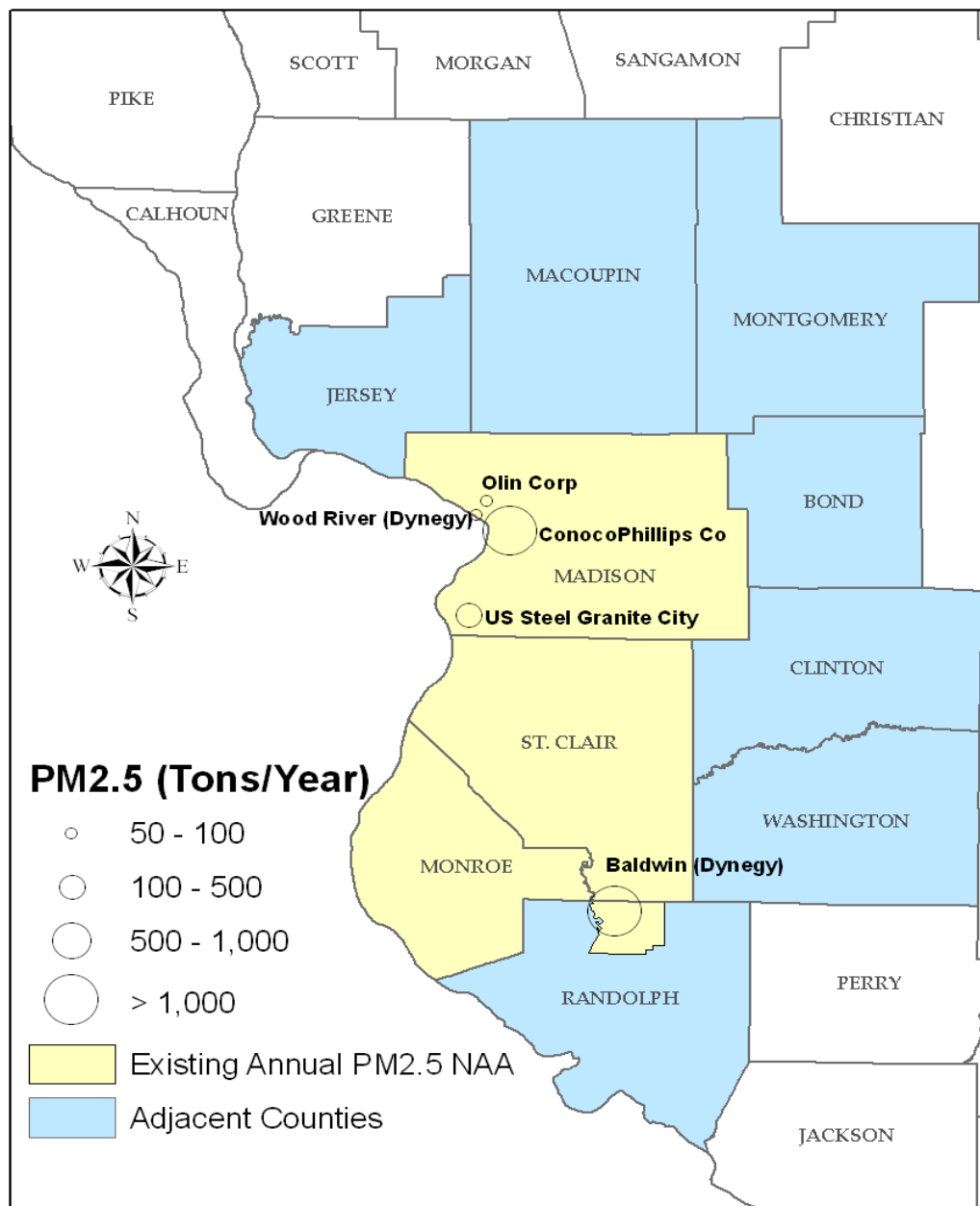


Figure 9

Population Density (2005) by Census Tract

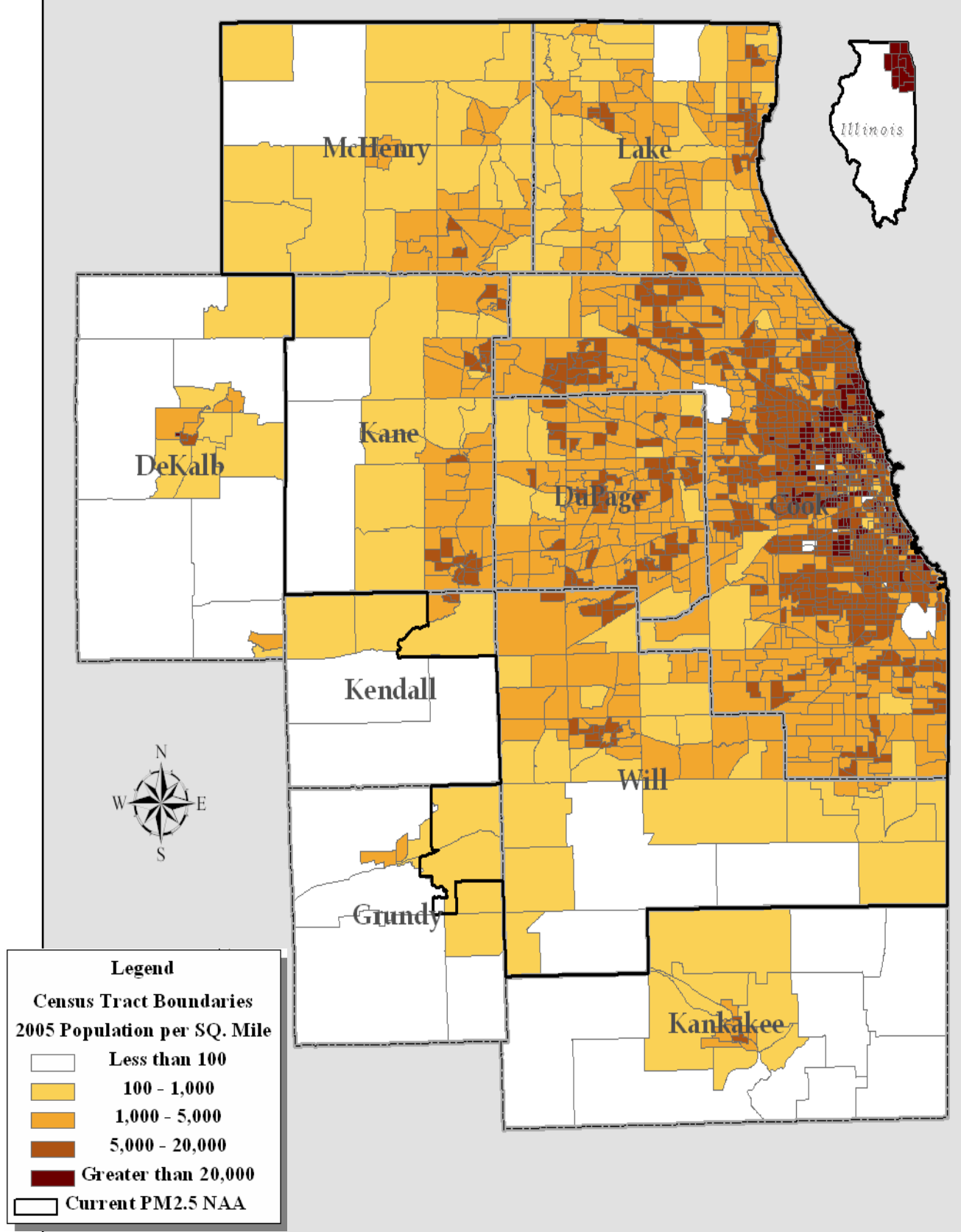
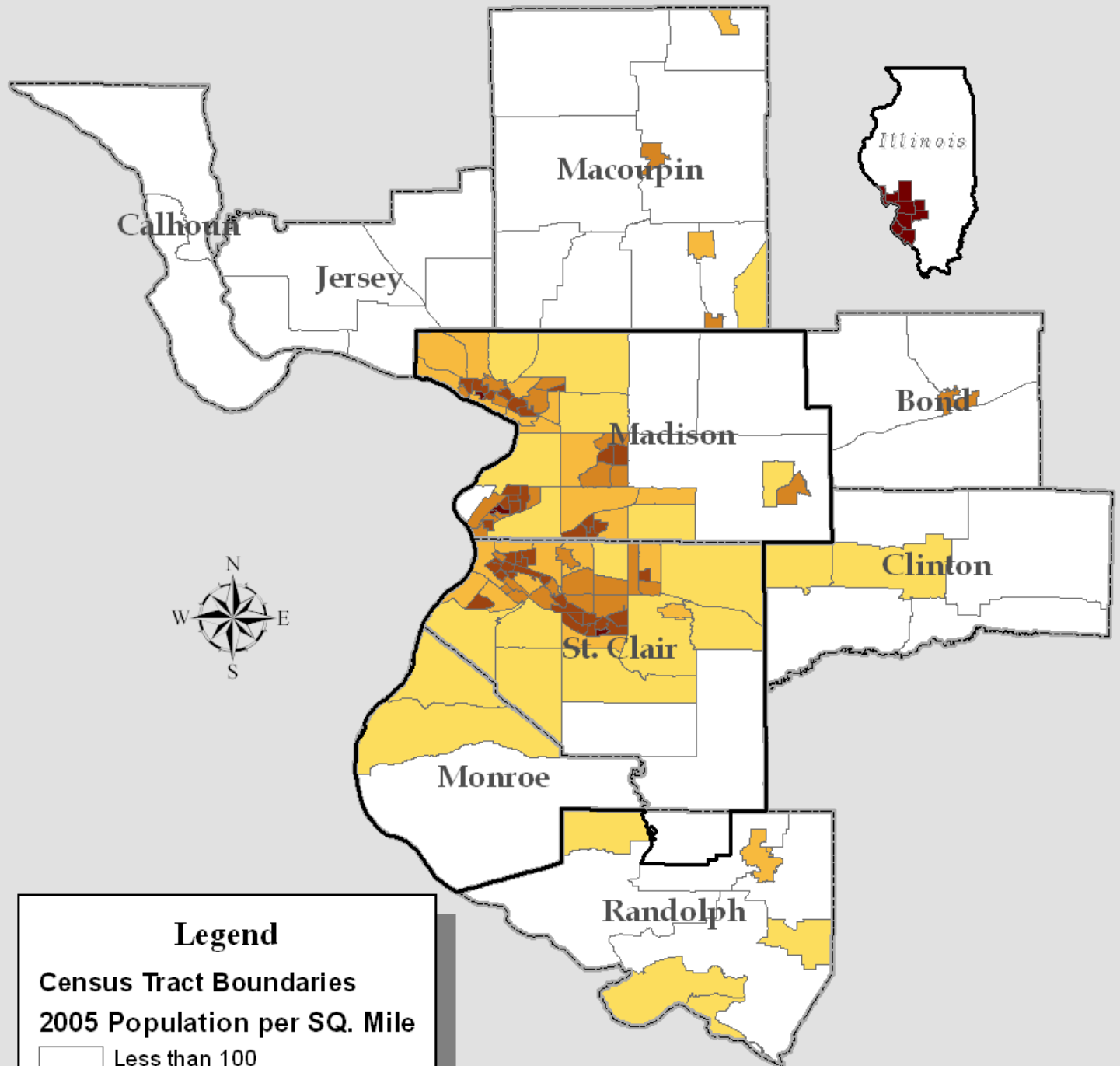


Figure 10

Population Density (2005) by Census Tract



Legend

Census Tract Boundaries
2005 Population per SQ. Mile

-  Less than 100
-  100 - 250
-  250 - 1,000
-  1,000 - 2,000
-  2,000 - 5,000
-  Greater than 5,000
-  Current PM2.5 NAA

Figure 11

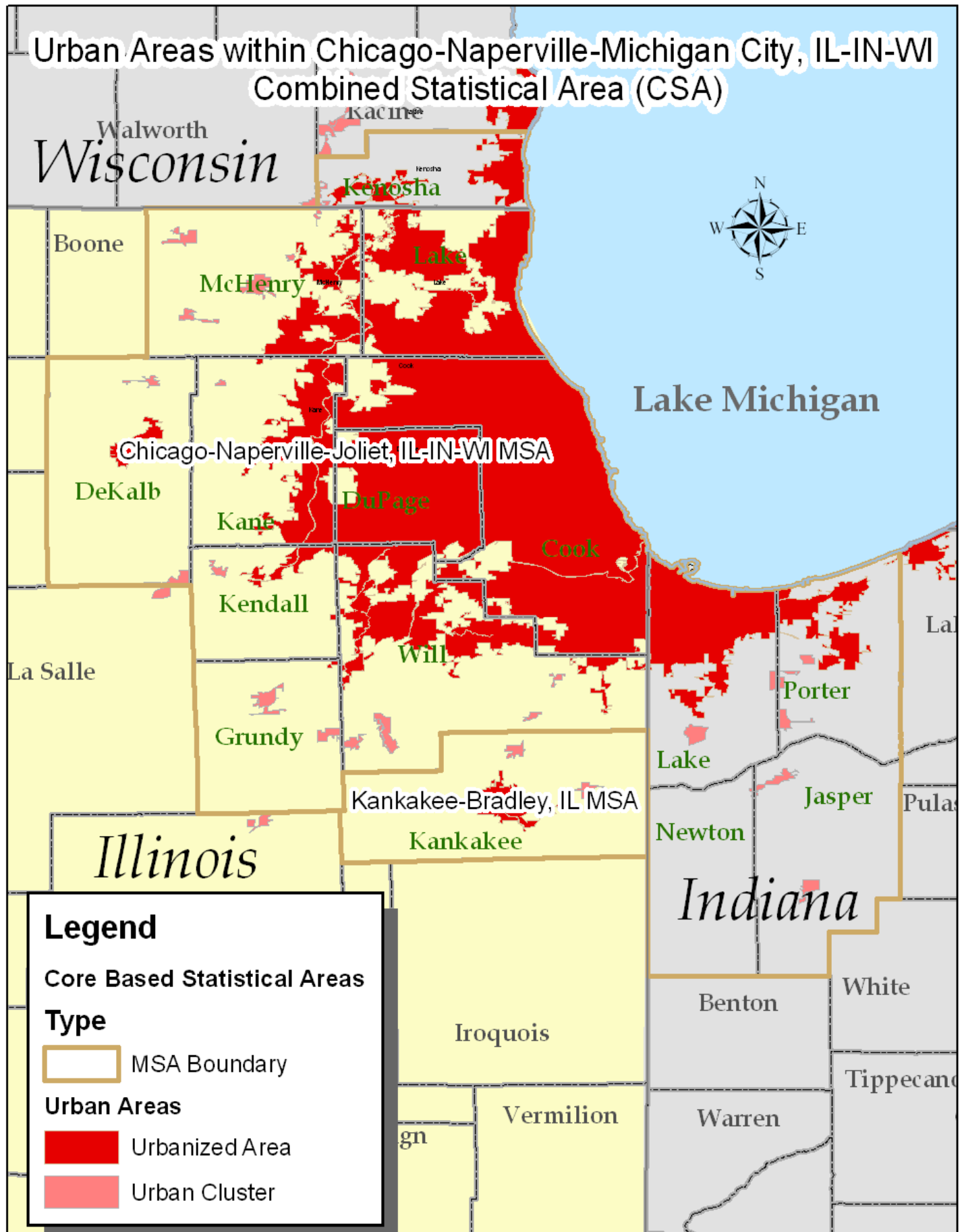


Figure 12



Figure 13

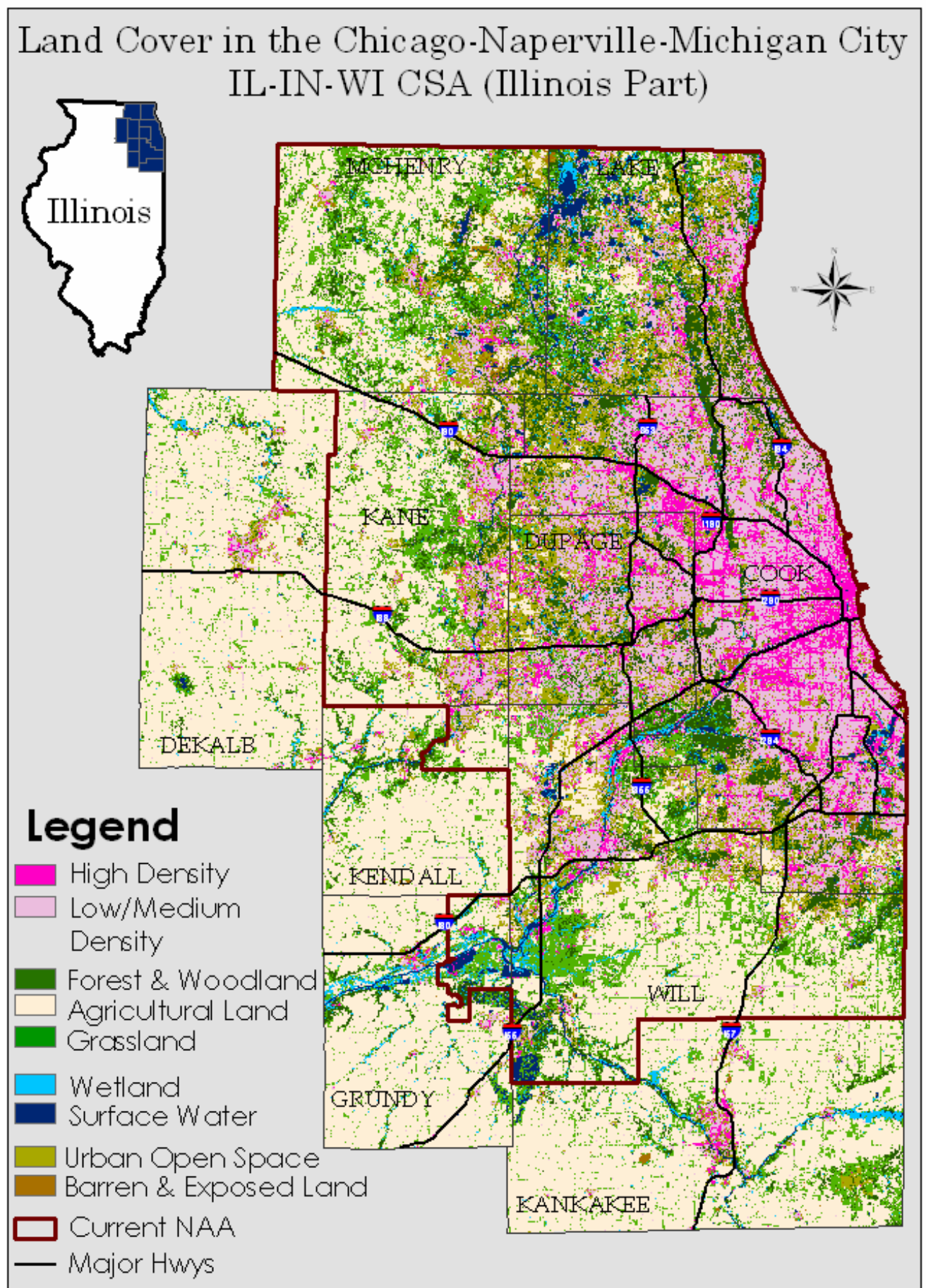


Figure 14

Land Cover in the St. Louis MO-IL MSA (Illinois Part)

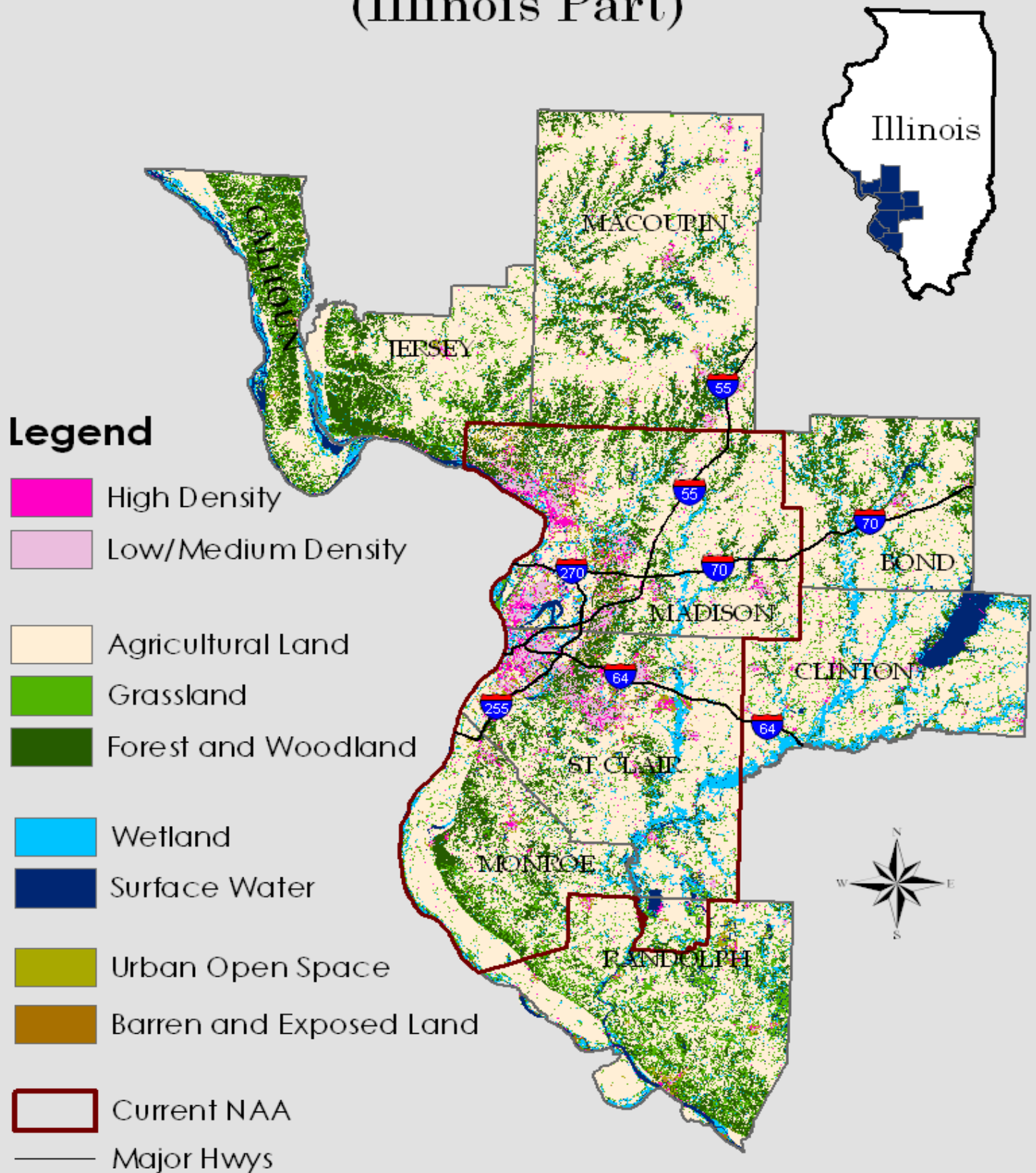


Figure 15

**Population Projections
Total Population by County
Change from 2000 - 2030**



Legend

**Projected Change in Population
Net Population Change**

-  Loss > 10,000
-  1 - 10,000
-  10,000 - 50,000
-  50,000 - 200,000
-  > 200,000

 Annual PM2.5 NAA

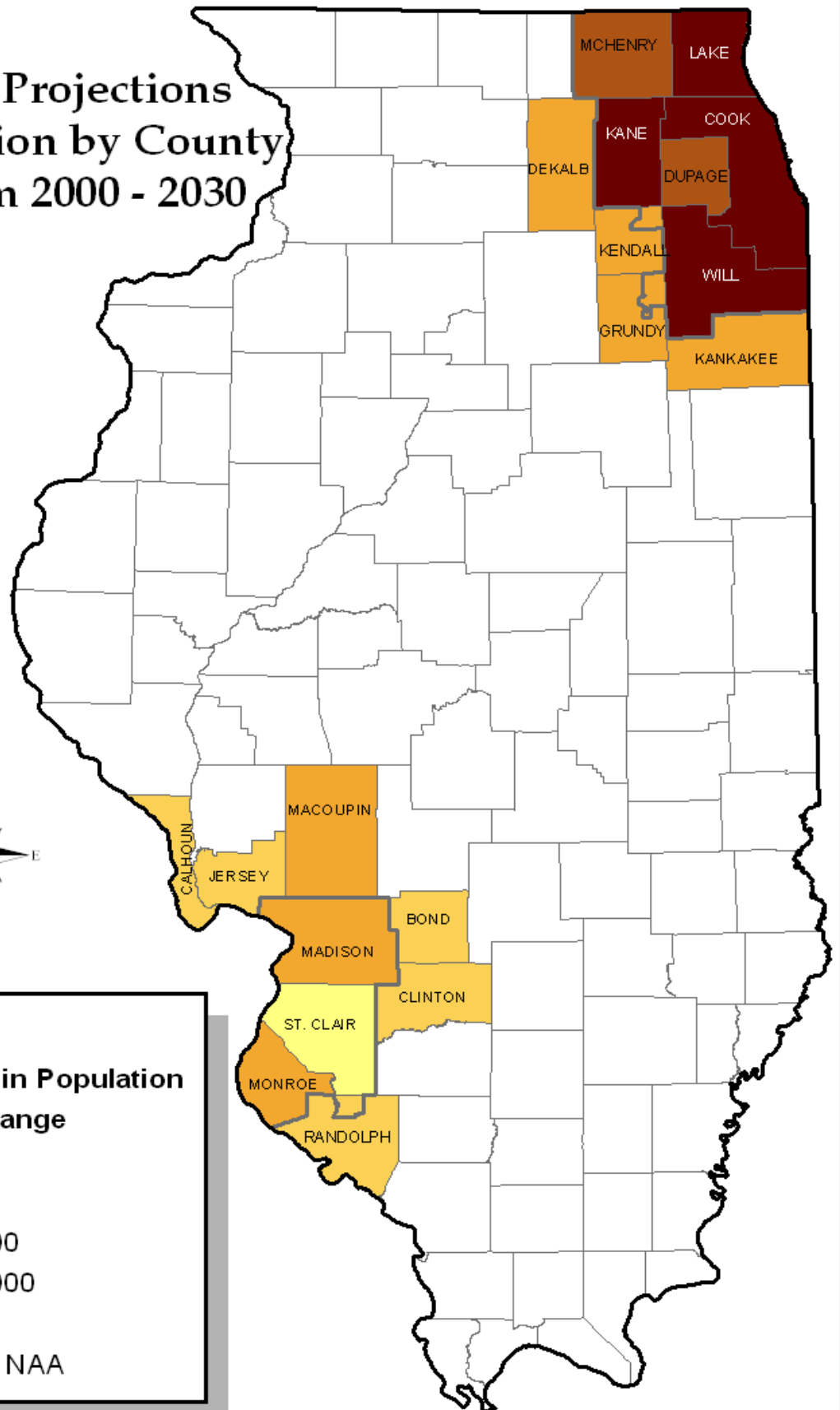


Figure 16

**Occupational Employment
Projections by County
Change from 2004 - 2014**



Legend

**Projected Change in Employment
Net Employment Change**

- Loss > 100
- 1 - 5,000
- 5,000 - 10,000
- 10,000 - 50,000
- > 50,000

Annual PM2.5 NAA

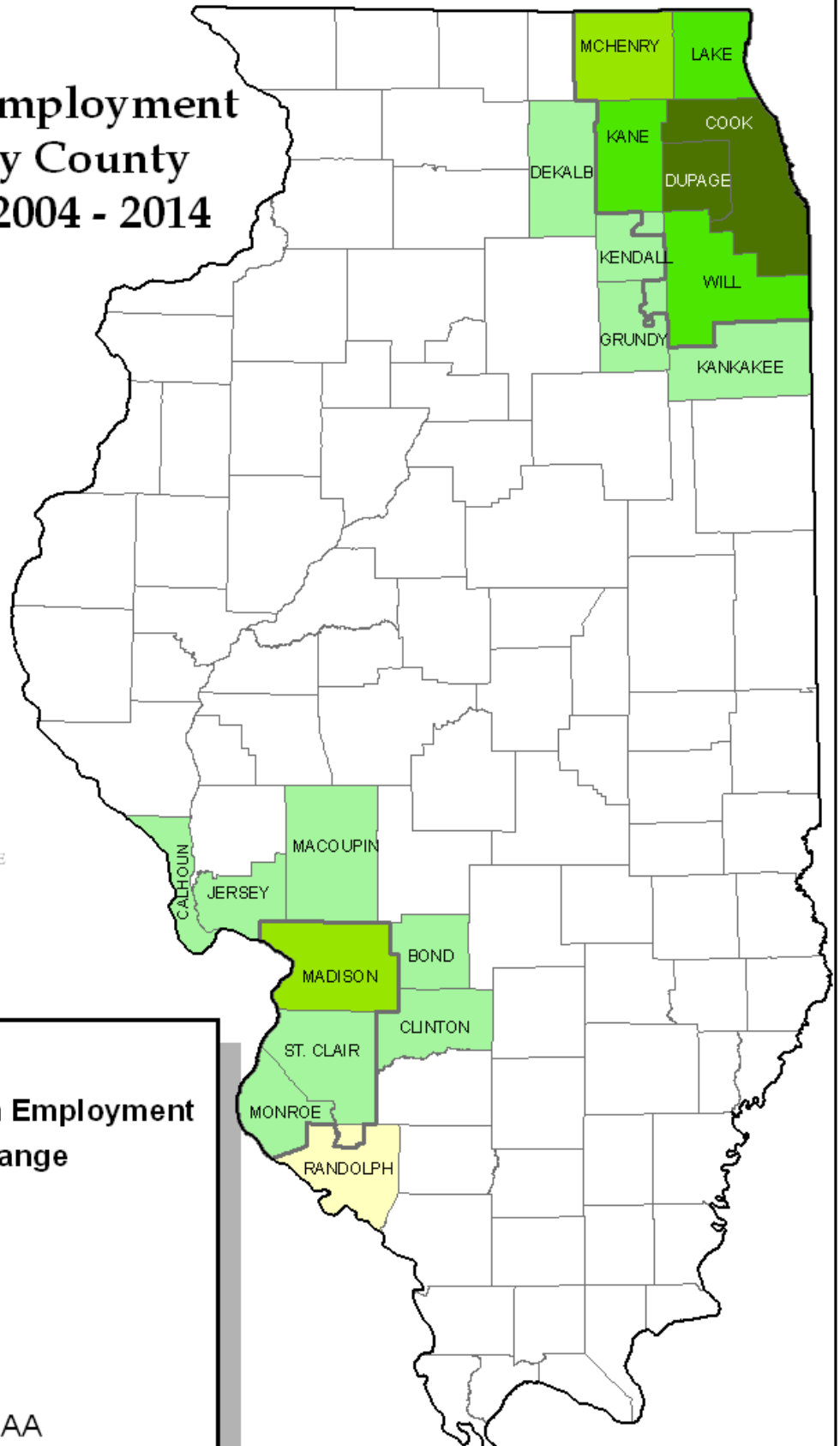


Figure 17

**Average Daily VMT in the
Chicago NAA,
1990-2006**

Data from IDOT

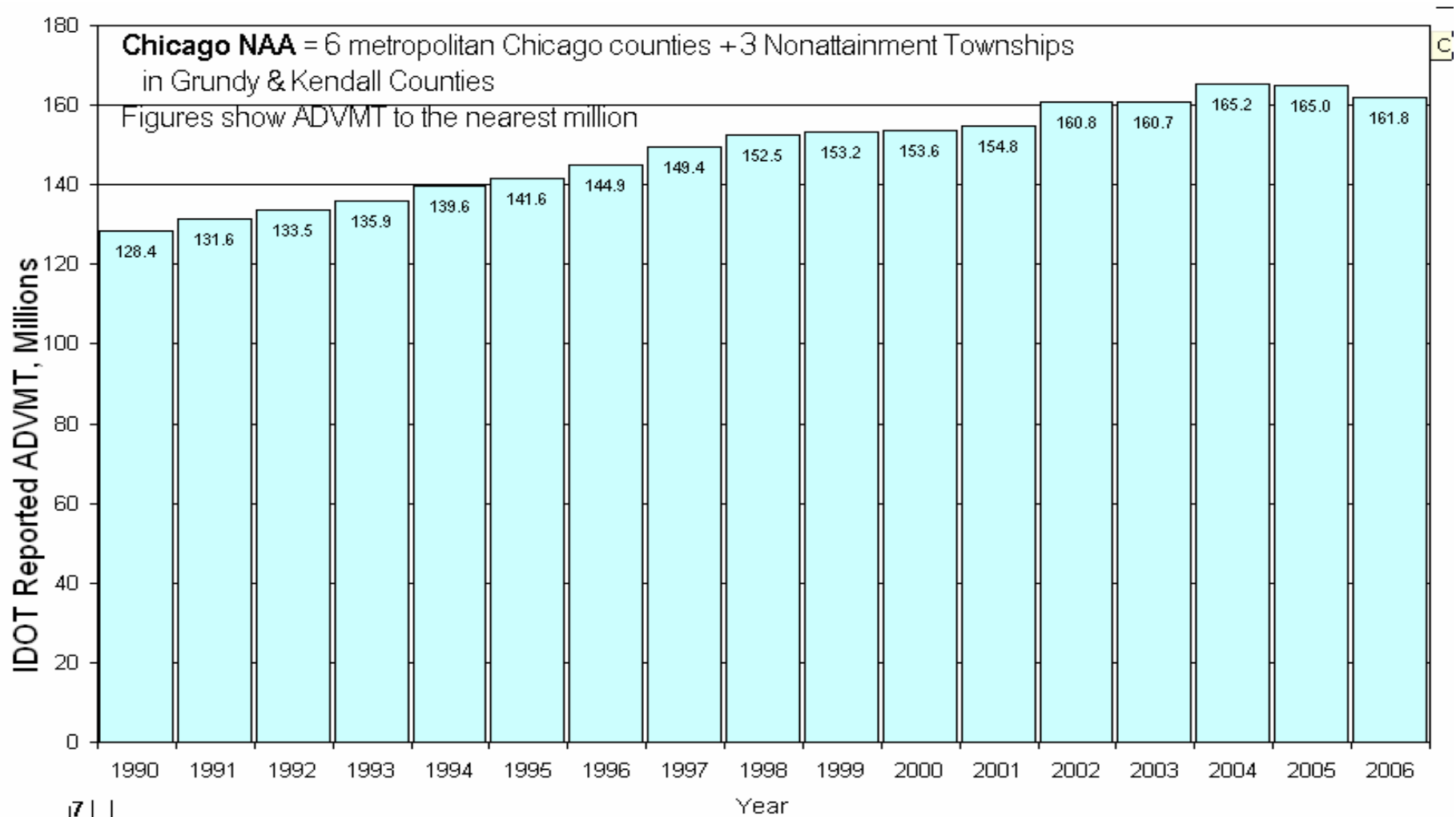


Figure 18

**Average Daily VMT in the
3-County Metro-East NAA,
1990-2006
Data from IDOT**

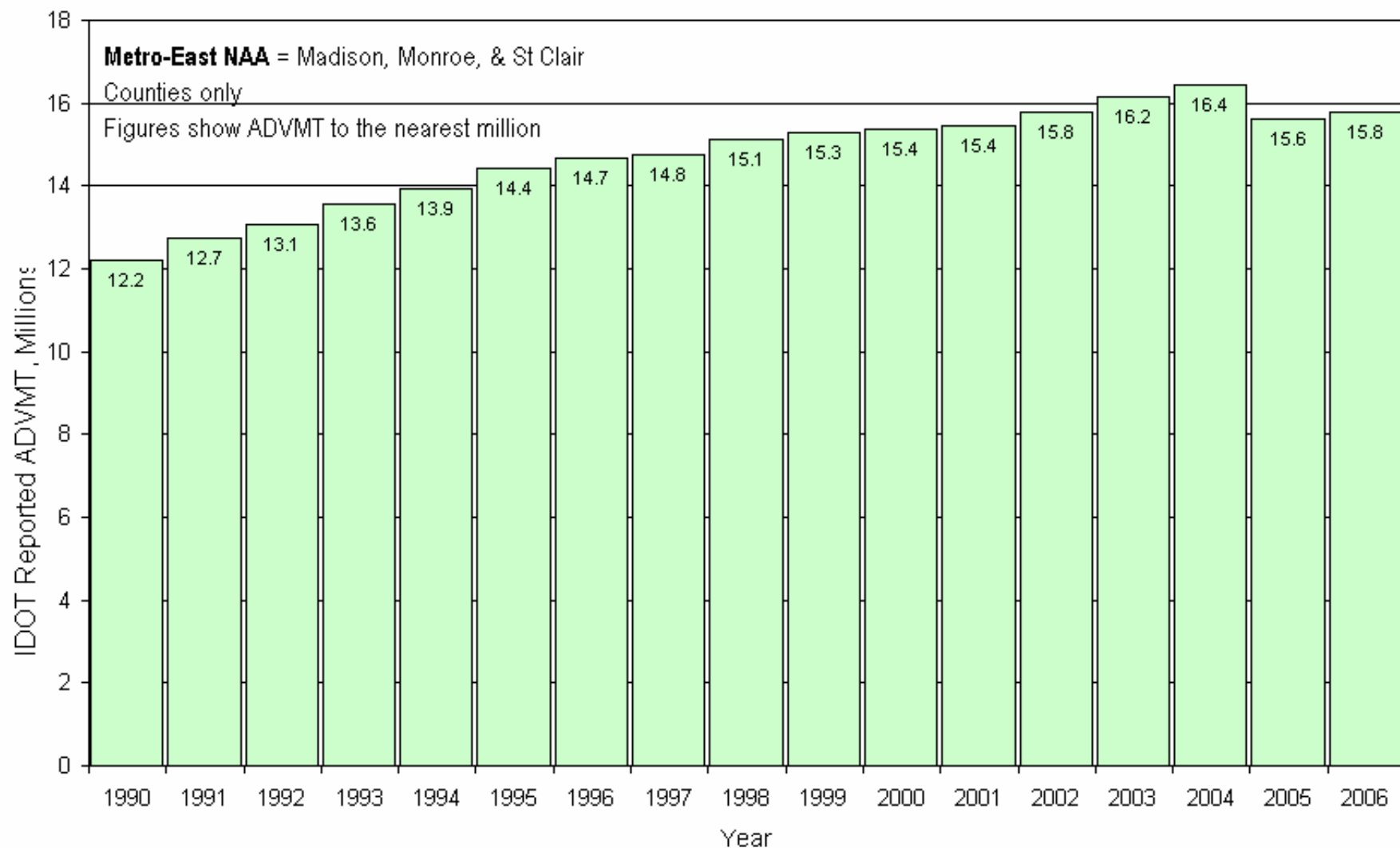


Figure 19
Where People Reside and the Counties
Where they Journey to Work
within the Chicago CSA Counties
Workers 16 years of age and older

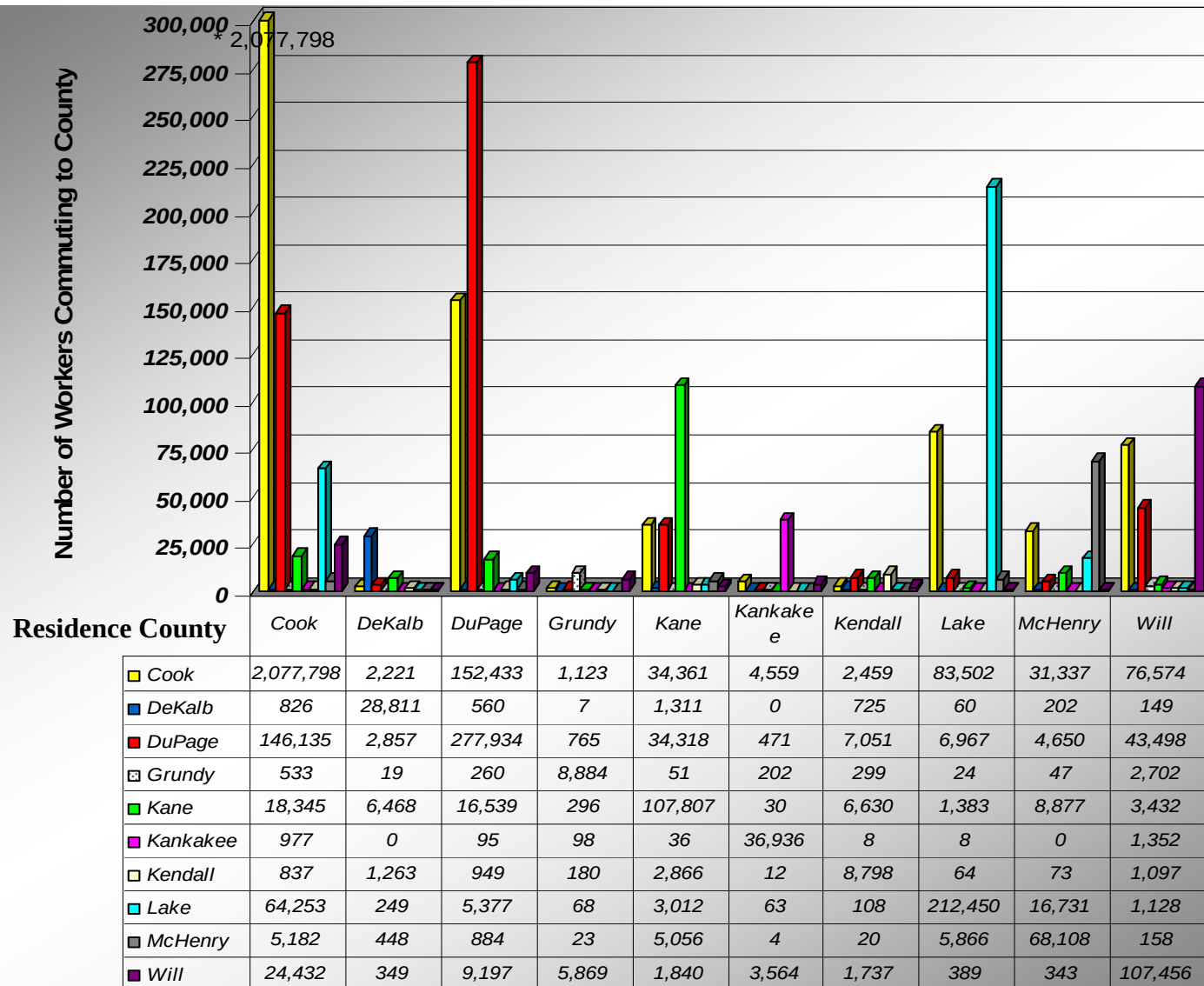


Figure 20

**Where People Reside and the Counties
Where they Journey to Work
within the Metro-East St. Louis Counties
Workers 16 years of age and older**

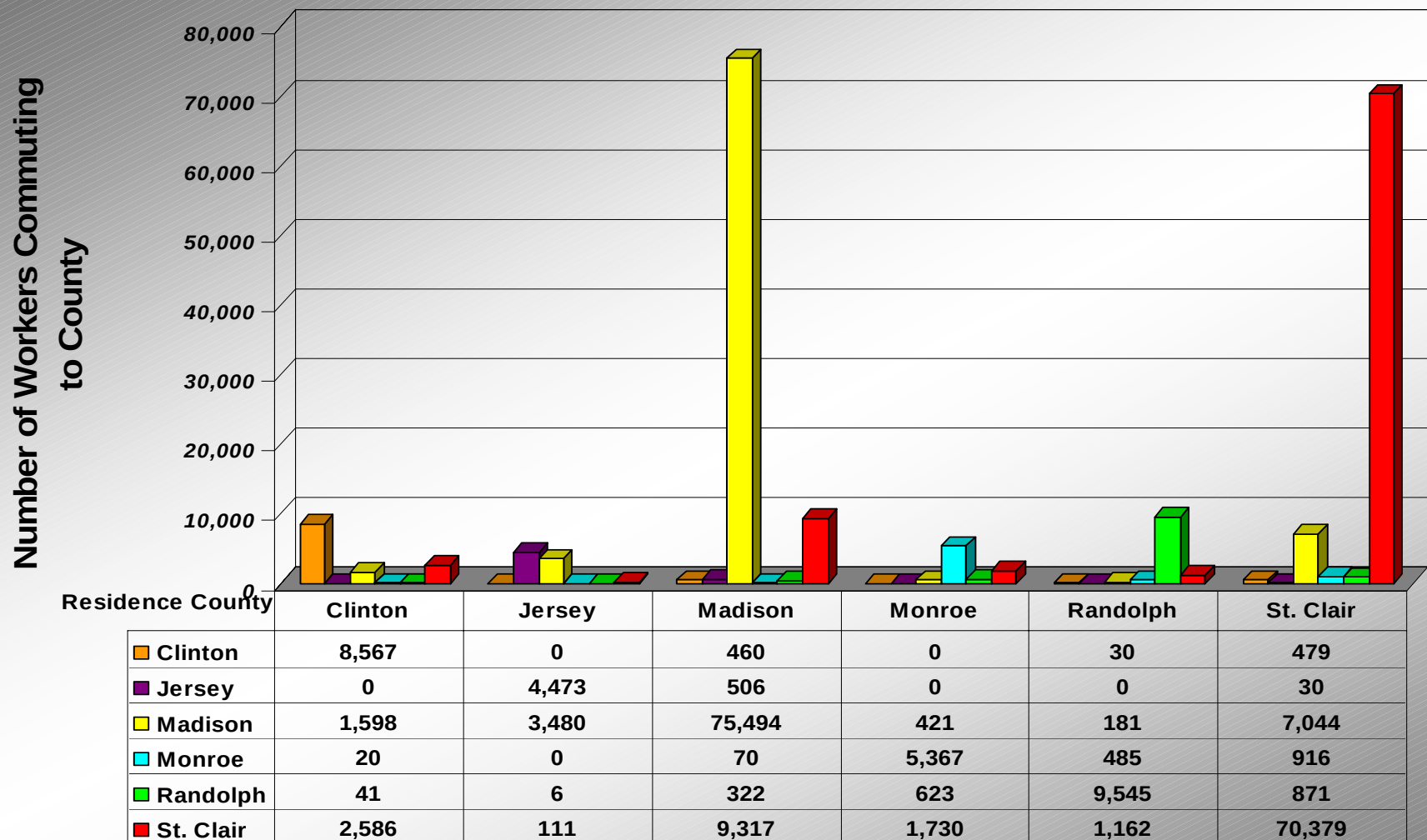


Figure 21
Topography



Figure 22

Meteorology Chicago Area Regionally Influenced High Days

Pollution Rose for Braidwood
2004 - 2006
Days > 25 ug/m3

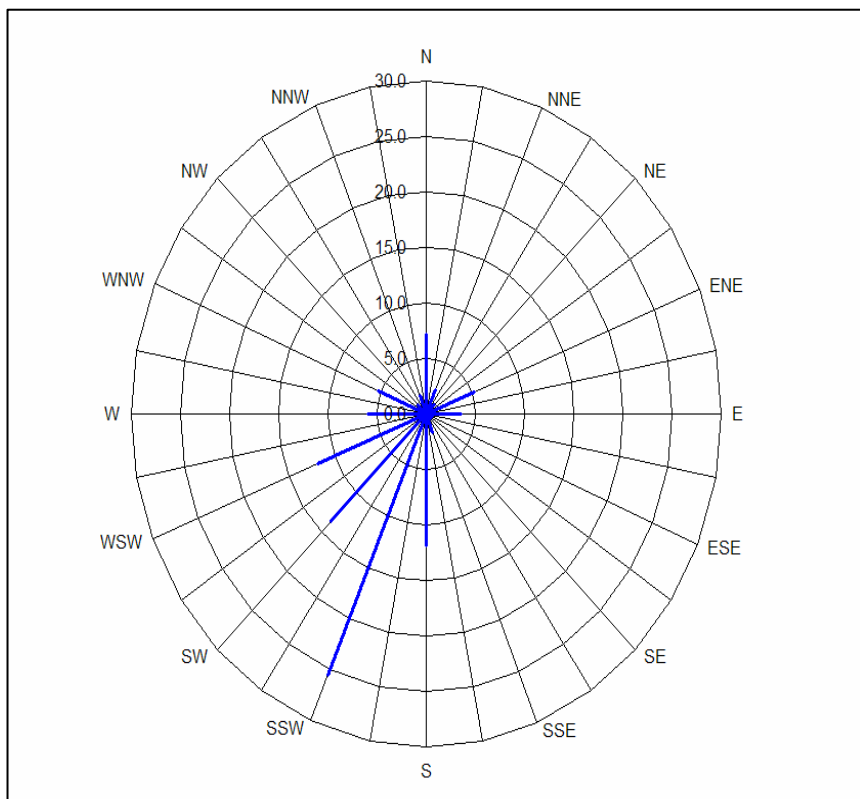
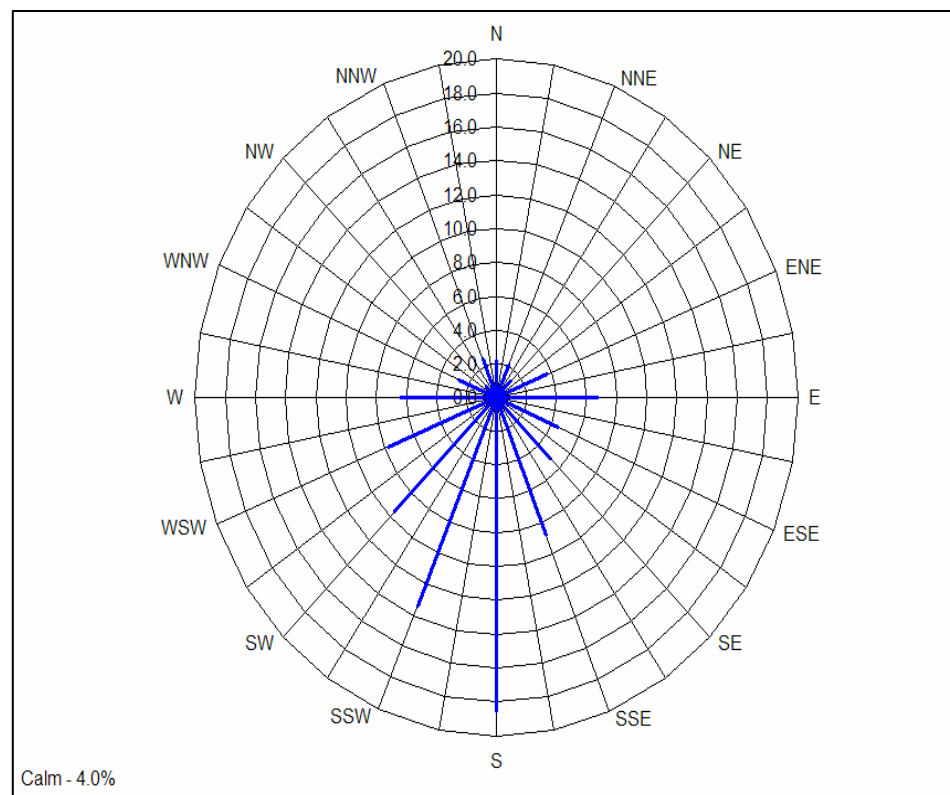


Figure 23

Meteorology Chicago Area High Days

Pollution Rose for all Sites
2004 - 2006
Days > 35 ug/m3



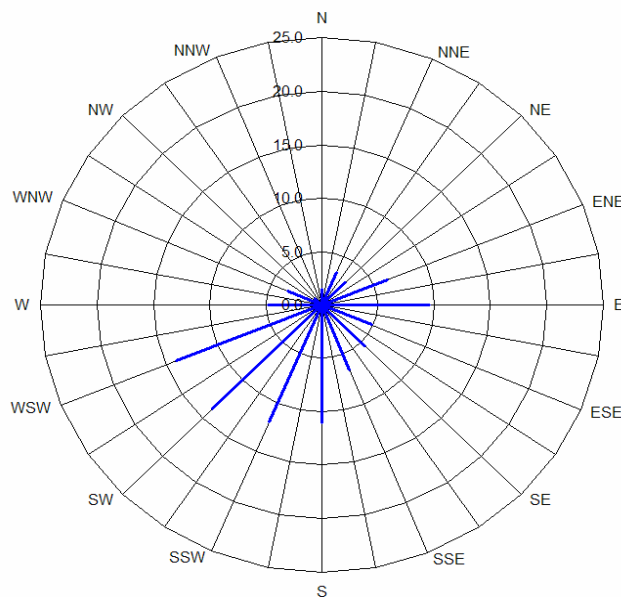
Meteorology based on Schiller Park 2004-2006

Figure 24

Meteorology - McCook (Lyons Twp) PM2.5 Monitoring Location



Pollution Rose for
McCook
Days > 35 ug/m3
2004 - 2006



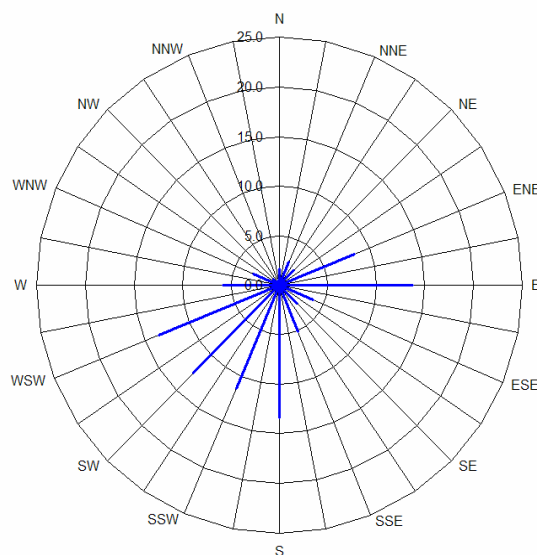
McCook – Lyons Township
Predominant Wind
Directions: WSW-SW, E

Figure 25

Meteorology - Schiller Park PM2.5 Monitoring Location



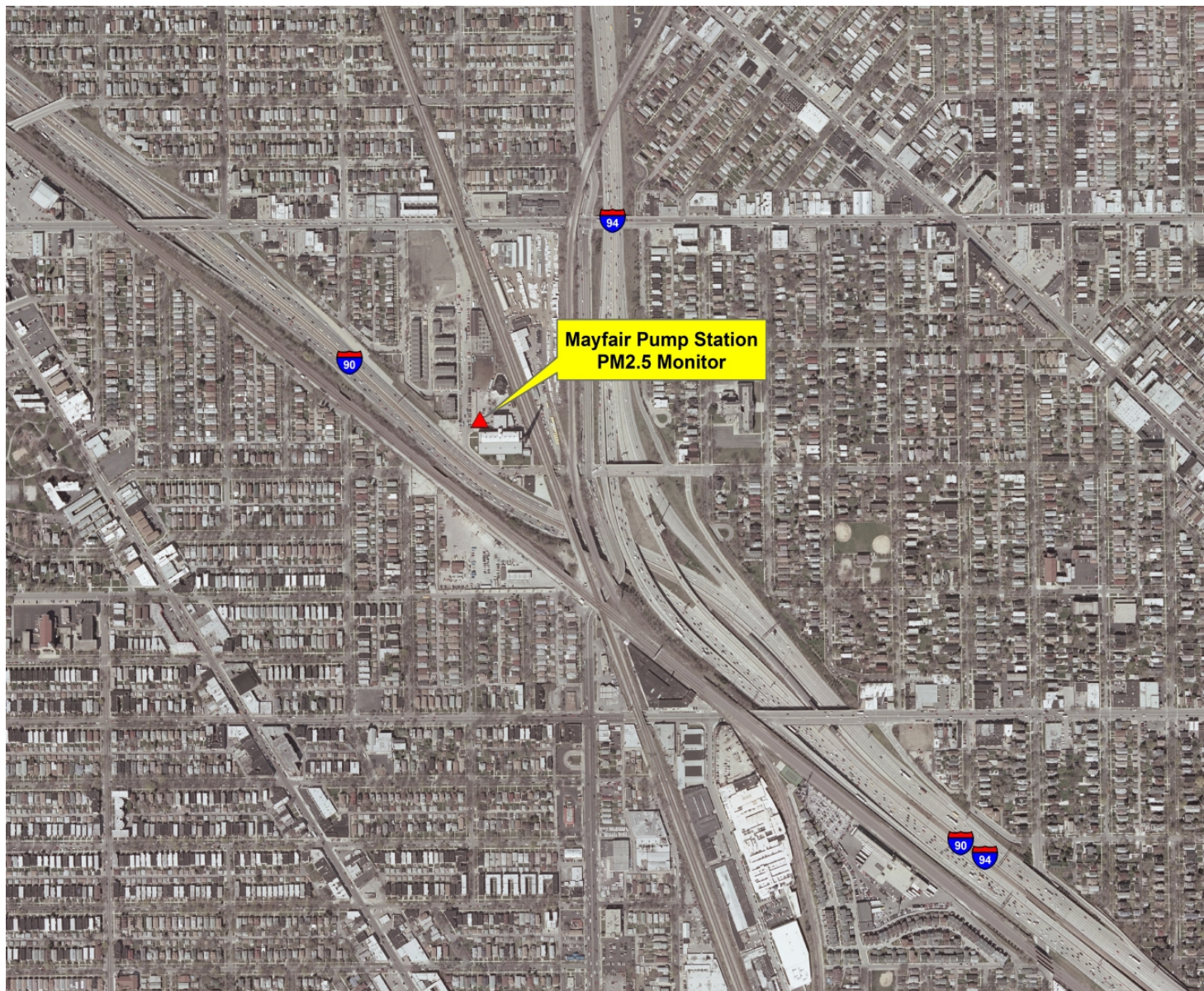
Pollution Rose for
Schiller Park
Days > 35 ug/m3
2004 - 2006



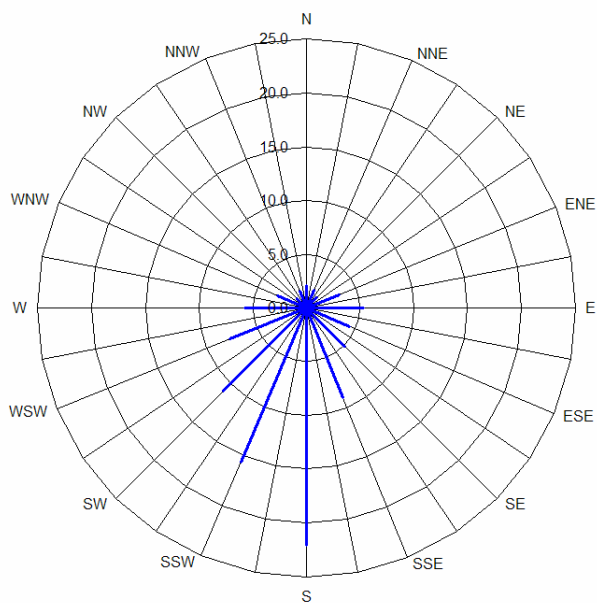
Schiller Park
Predominant Wind
Directions: E. S. WSW-SW

Figure 26

Meteorology - Mayfair Pumping Station PM2.5 Monitoring Location



Pollution Rose for
Mayfair
Days > 35 ug/m3
2004 - 2006



Mayfair
Predominant Wind
Directions: S-SSW

Figure 27

Metro-East Regionally Influenced High Days

Pollution Rose for Houston
2004 - 2006
Days > 25 ug/m3

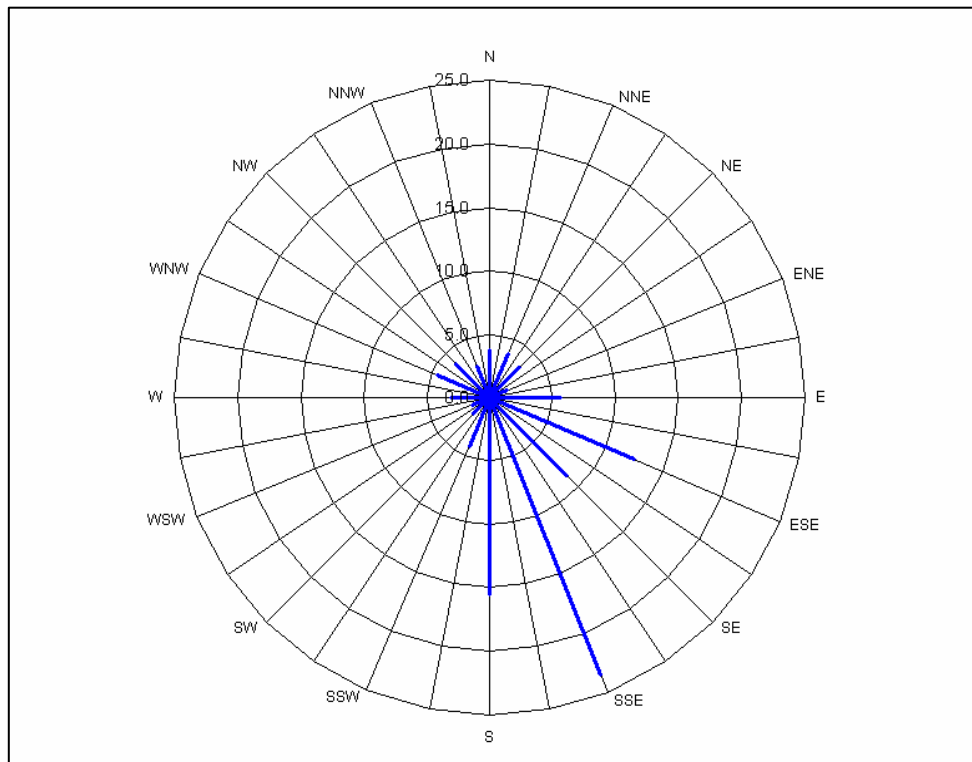
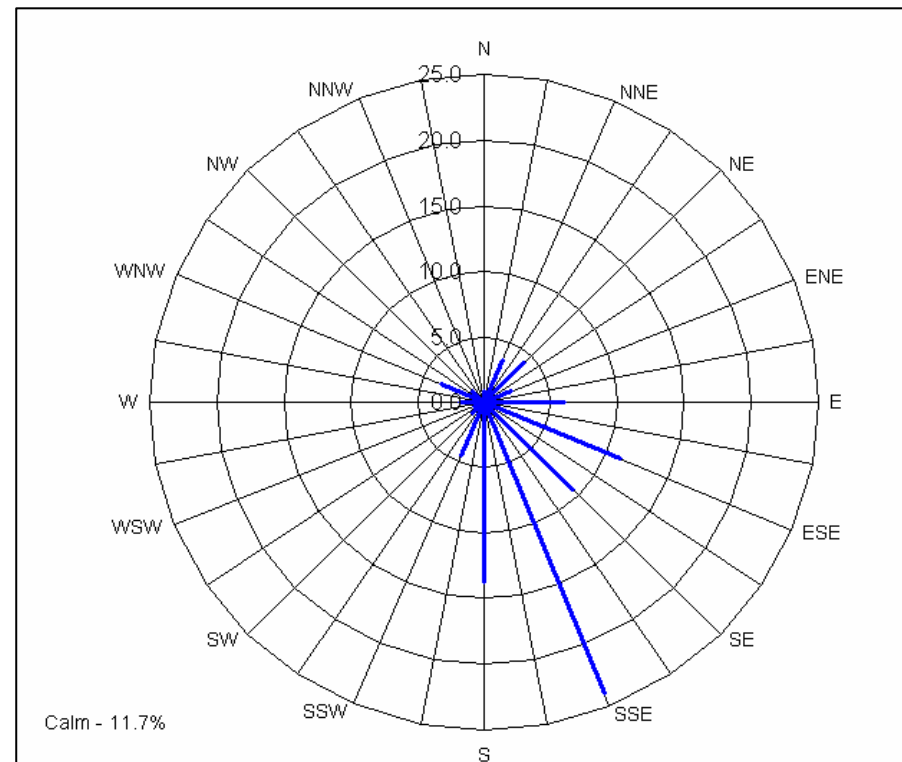


Figure 28

Meteorology Metro-East Area High Days

Pollution Rose for all Sites
2004 - 2006
Days > 35 ug/m3



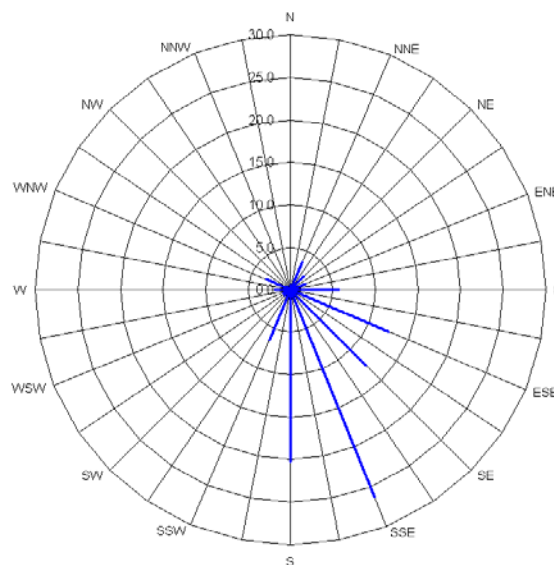
Meteorology based on Edwardsville 2004-2006

Figure 29

Meteorology - Granite City PM2.5 Monitoring Locations



Wind Rose for Granite
City – VFW
Days > 35 ug/m3
2004 - 2006



Granite City – VFW
Predominant Wind
Direction S-SSE

Figure 30

Wind Rose for Wood River
Days > 35 ug/m3
2004 - 2006

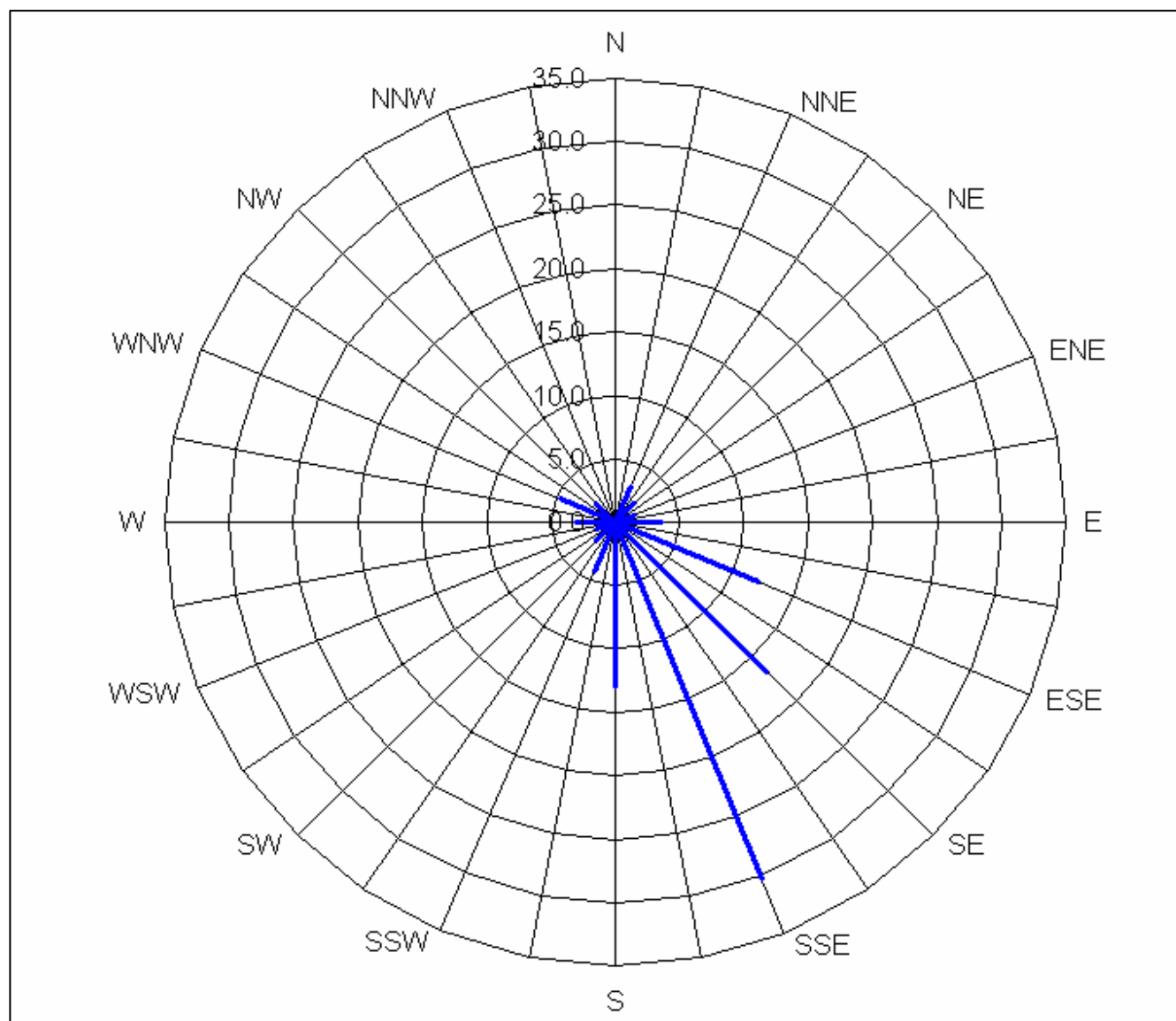


Figure 31

Proposed 24-hour PM_{2.5} Nonattainment Areas

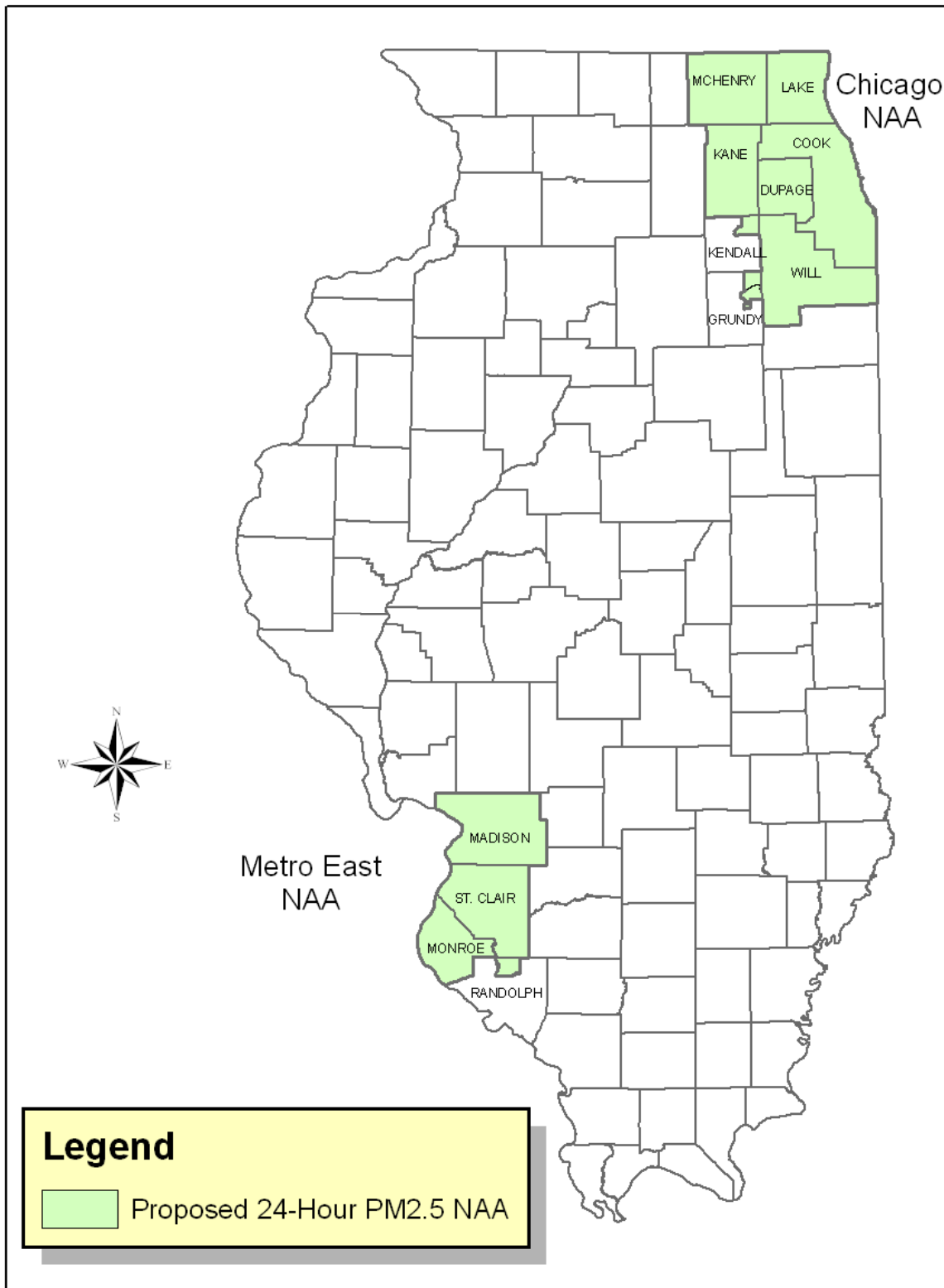


Figure 32
Location of Baldwin Power Plant

