Future Modeling Platform Base Year Determination

APPENDIX D
ANNUAL AND SEASONAL PERCENTAGE OF DAYS OVER THE ANNUAL 12.0 µg/m^3 $PM_{2.5}$ NAAQS MAPS

October 9, 2013 FINAL

The following maps in this Appendix show the percentage of days the 24-hour $PM_{2.5}$ concentration at a site exceeded the 12.0 µg/m³ Annual $PM_{2.5}$ NAAQS annually and by season. Only sites that have a 2010-12 Annual $PM_{2.5}$ Design Value greater than the current 12.0µg/m³ Annual $PM_{2.5}$ NAAQS are shown on the maps:

- Figures D-1 to D-6 – Annual percentages
- Figures D-7 to D-12 – Winter (January, February and December) percentages
- Figures D-13 to D-18 – Spring (March – May) percentages
- Figures D-19 to D-24 – Summer (June – August) percentages
- Figures D-25 to D-30 – Fall/Autumn (September – November) percentages

FIGURE D-1:

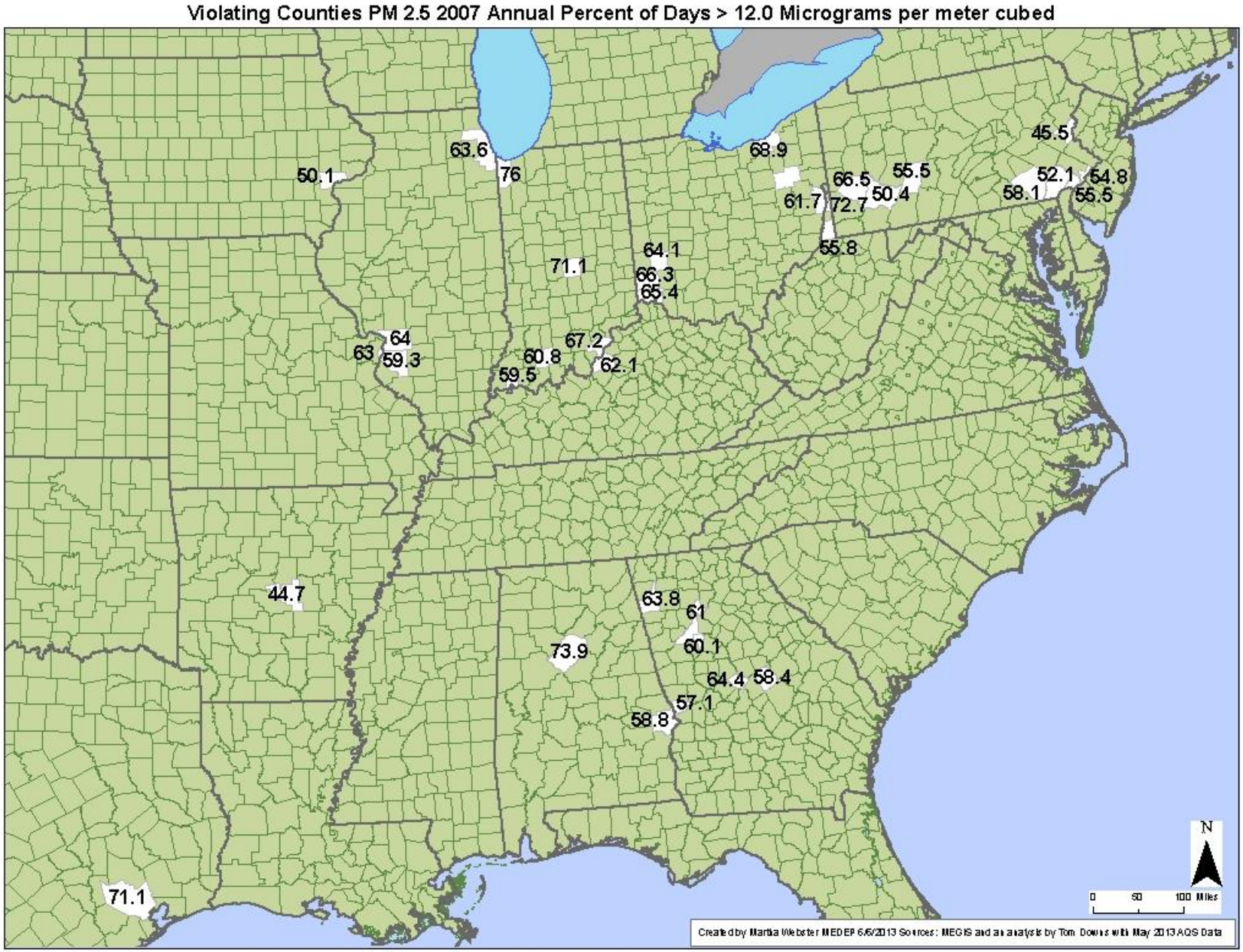
Violating Counties PM 2.5 2007 Annual Percent of Days > 12.0 Micrograms per meter cubed
50.1
63.6
76
68.9
45.5
66.5
55.5
52.1
54.8
61.7
72.7
50.4
58.1
55.5
55.8
64.1
71.1
66.3
65.4
64
63
59.3
67.2
60.8
62.1
59.5
44.7
63.8
61
60.1
73.9
64.4
58.4
57.1
58.8
71.1
N
0
50
100 Miles
Created by Martha Webster MEDEP 6/6/2013 Sources: MEGIS and air analysis by Tom Downs with May 2013 AQS Data

FIGURE D-2:

Violating Counties PM 2.5 2008 Annual Percent of Days > 12.0 Micrograms per meter cubed

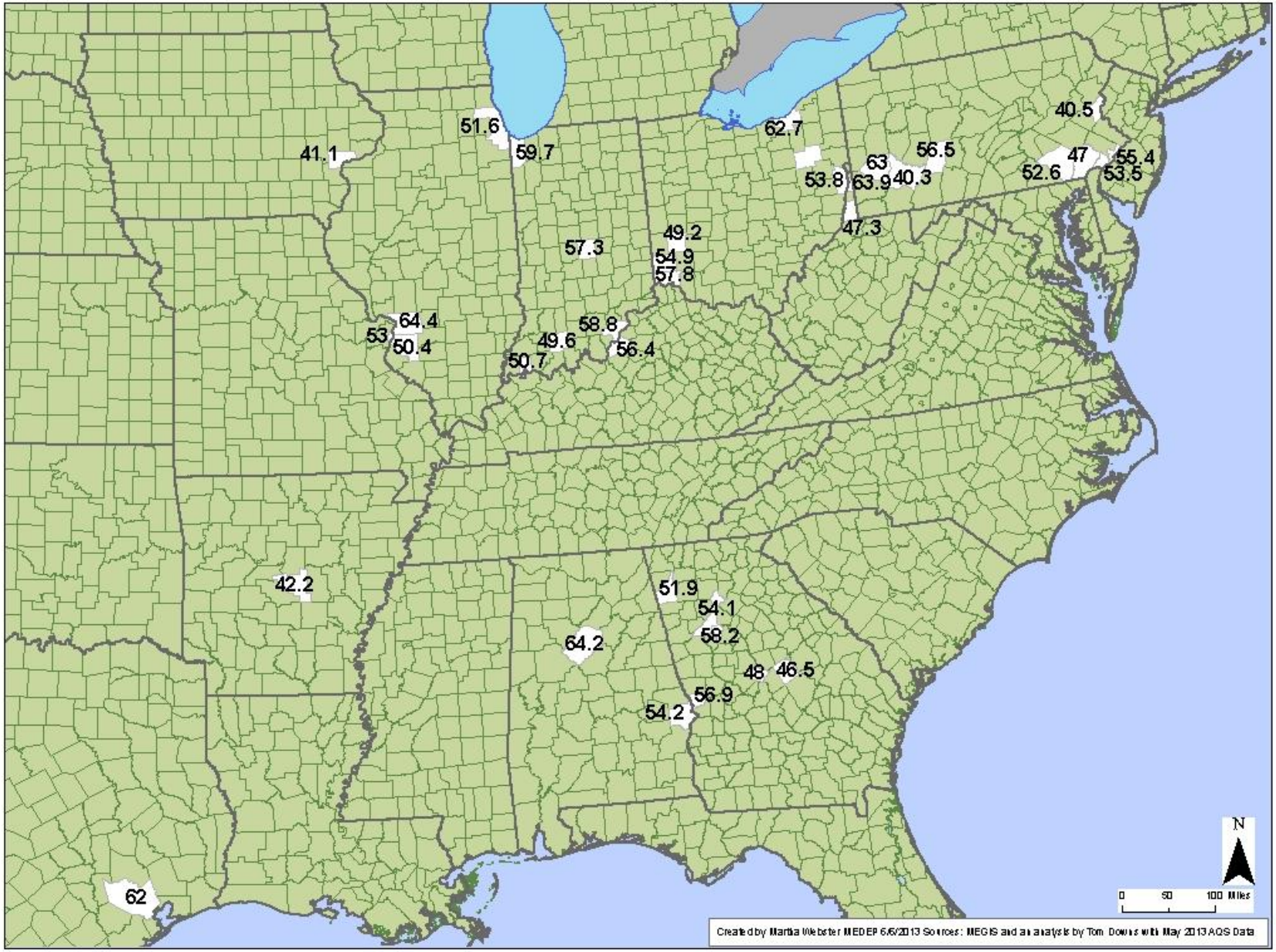

FIGURE D-3:

Violating Counties PM 2.5 2009 Annual Percent of Days > 12.0 Micrograms per meter cubed

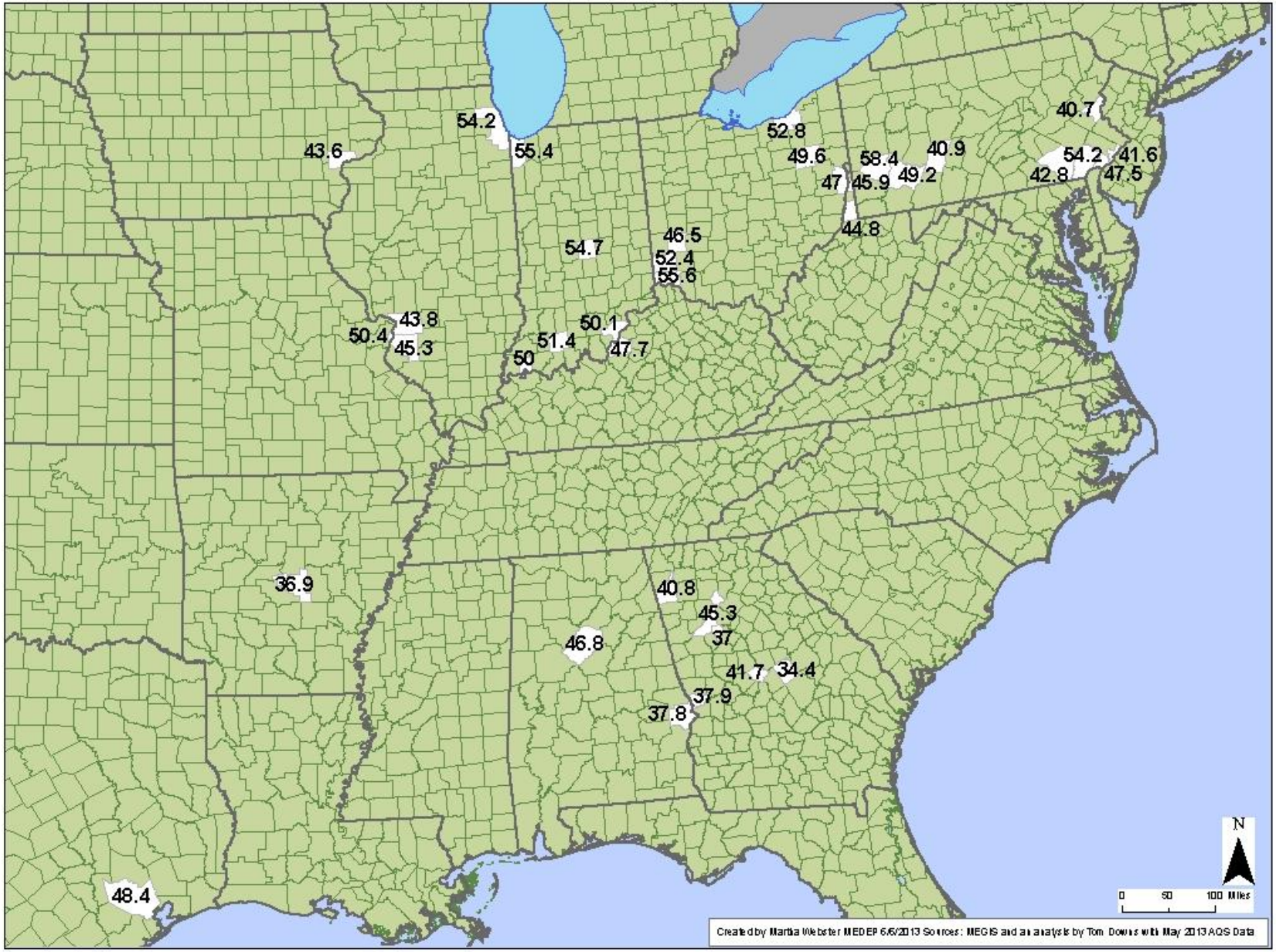

FIGURE D-4:

Violating Counties PM 2.5 2010 Annual Percent of Days > 12.0 Micrograms per meter cubed

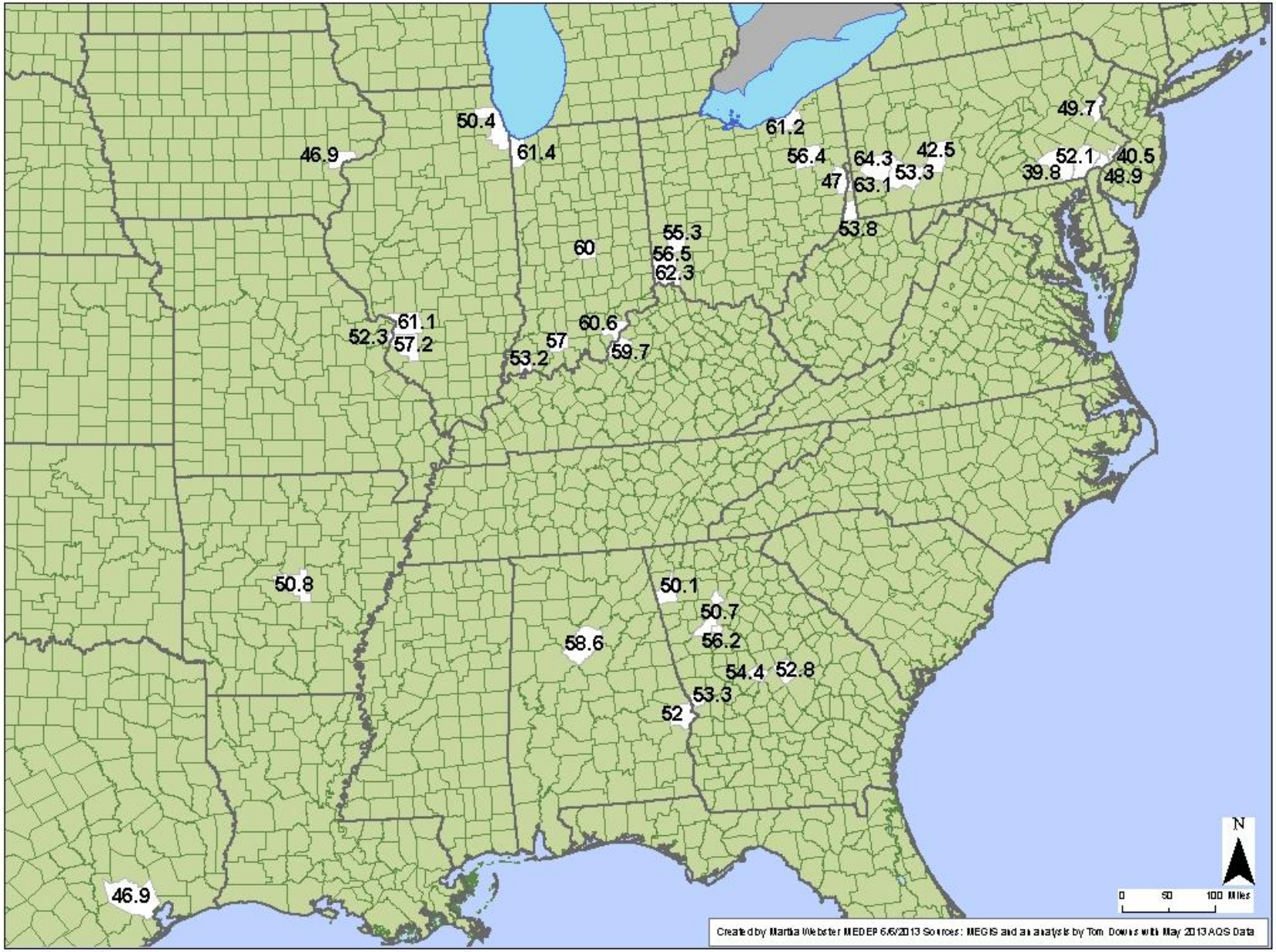

FIGURE D-5:

Violating Counties PM 2.5 2011 Annual Percent of Days > 12.0 Micrograms per meter cubed

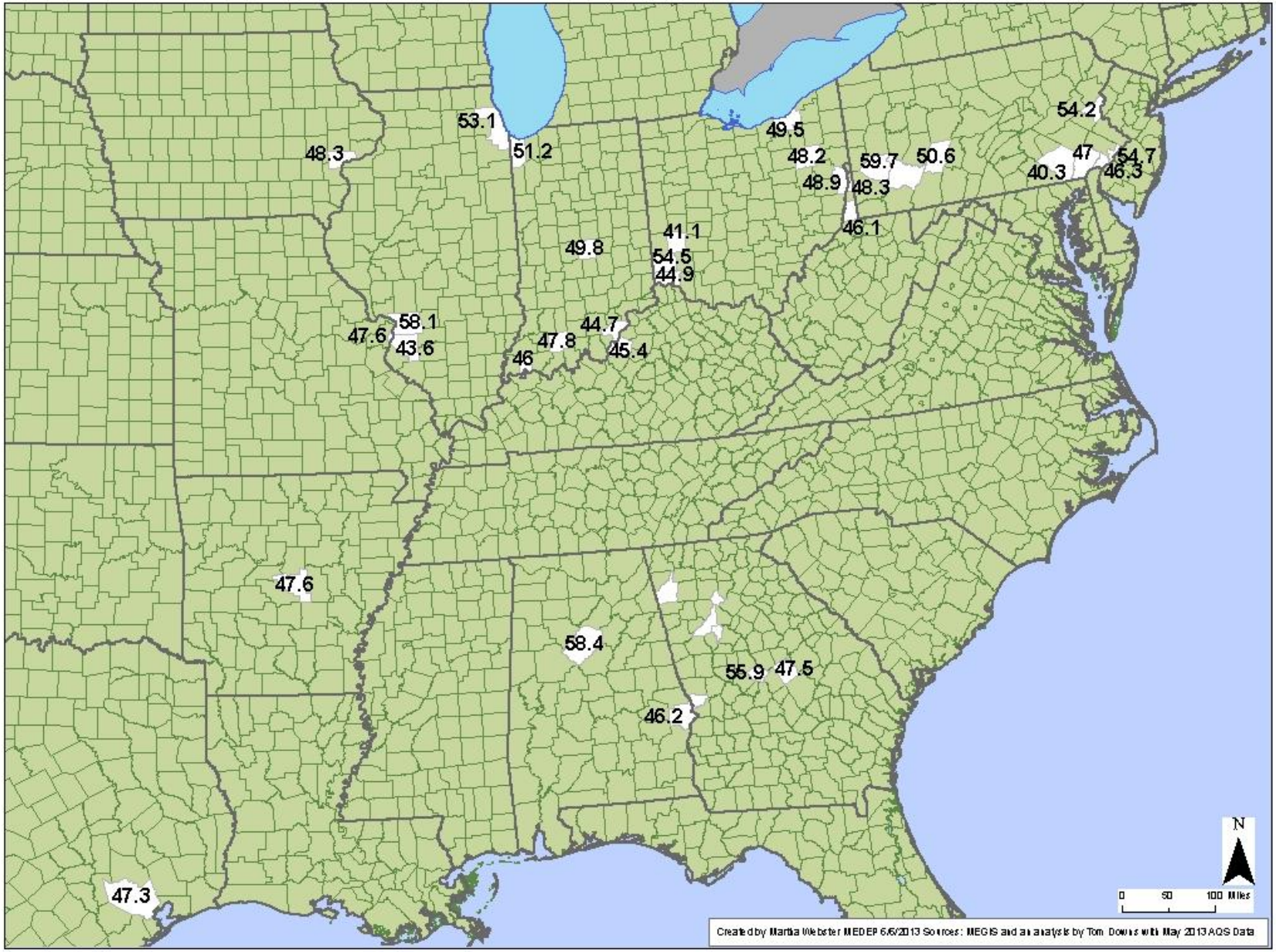

FIGURE D-6:

Violating Counties PM 2.5 2012 Annual Percent of Days > 12.0 Micrograms per meter cubed

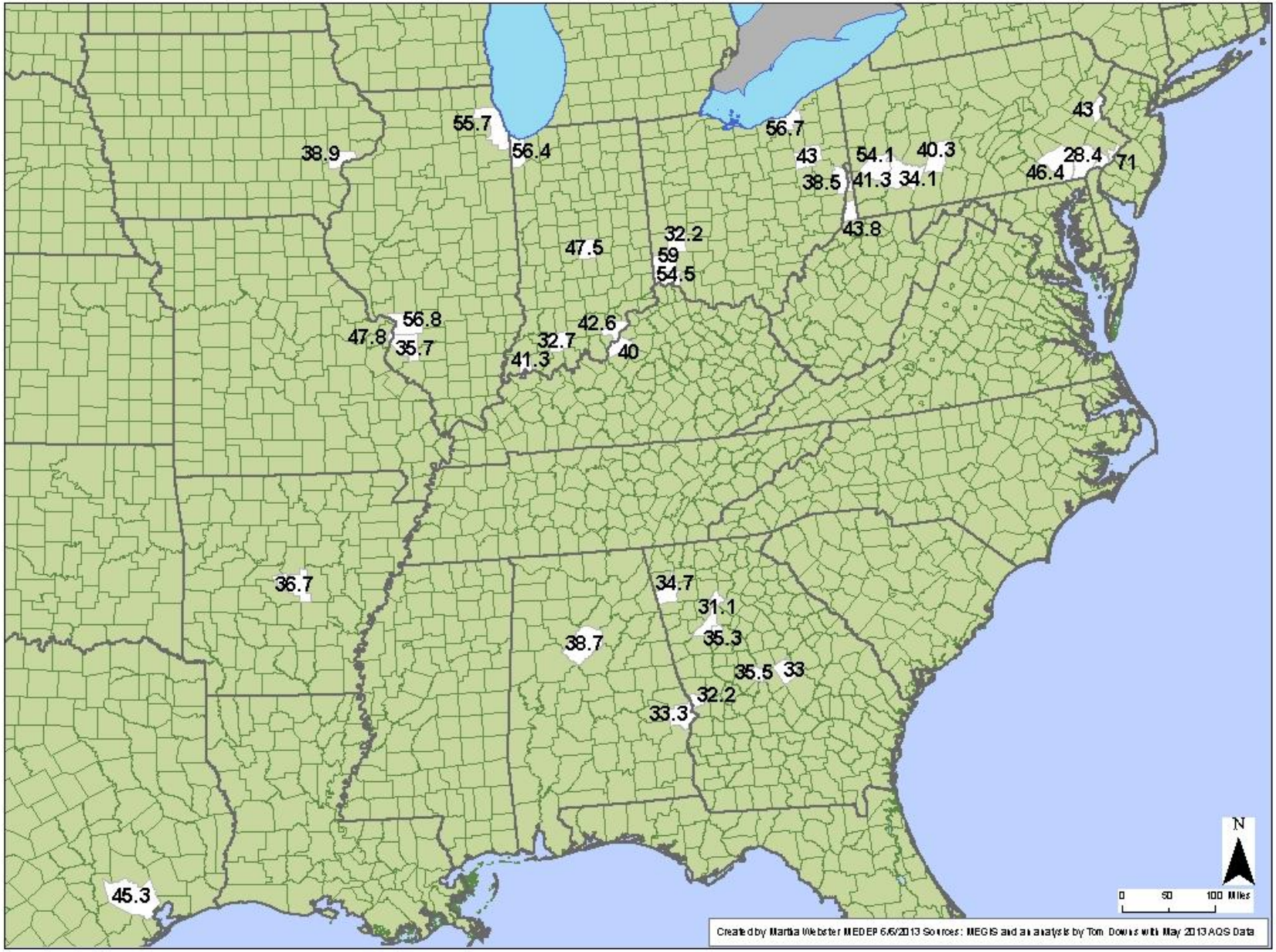

FIGURE D-7:

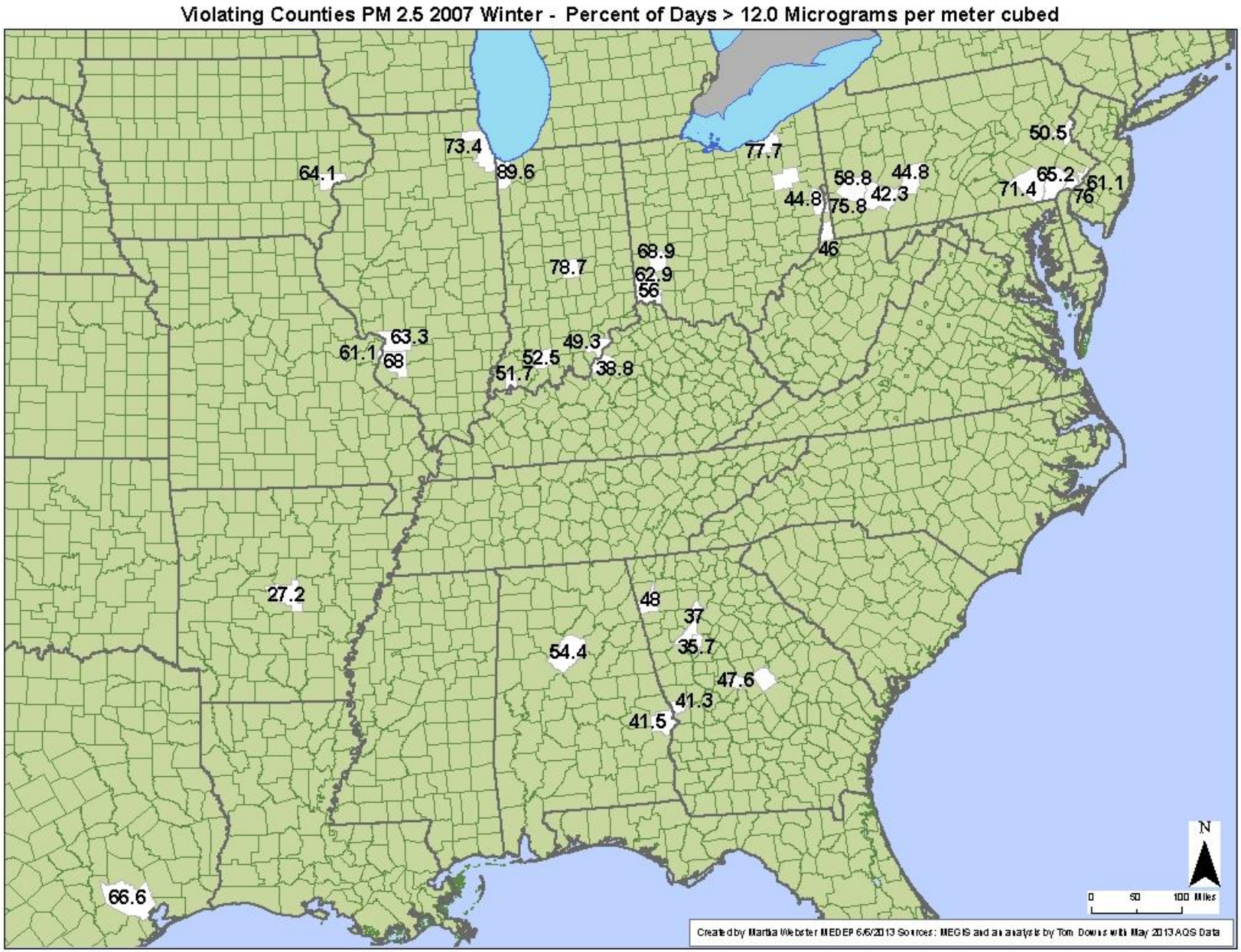
Violating Counties PM 2.5 2007 Winter - Percent of Days > 12.0 Micrograms per meter cubed
73.4
89.6
64.1
77.7
50.5
58.8
44.8
65.2
61.1
71.4
76
44.8
75.8
42.3
46
68.9
78.7
62.9
56
63.3
61.1
68
49.3
52.5
51.7
38.8
27.2
48
37
35.7
54.4
47.6
41.3
41.5
66.6
N
0
50
100 Miles
Created by Martha Webster MEDEP 6/6/2013 Sources: MEGIS and air analysis by Tom Downs with May 2013 AQS Data

FIGURE D-8:

Violating Counties PM 2.5 2008 Winter - Percent of Days > 12.0 Micrograms per meter cubed

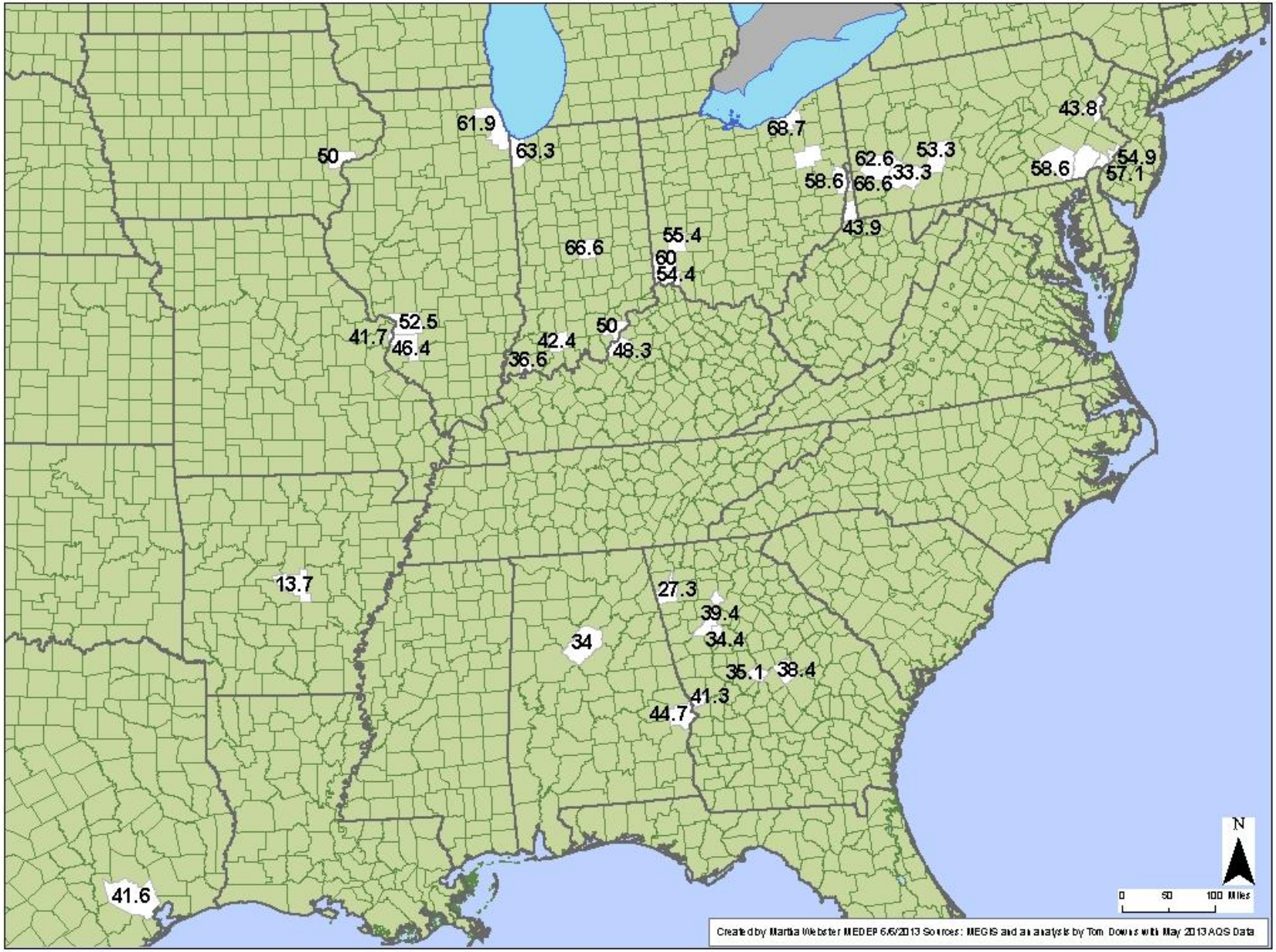

FIGURE D-9:

Violating Counties PM 2.5 2009 Winter - Percent of Days > 12.0 Micrograms per meter cubed

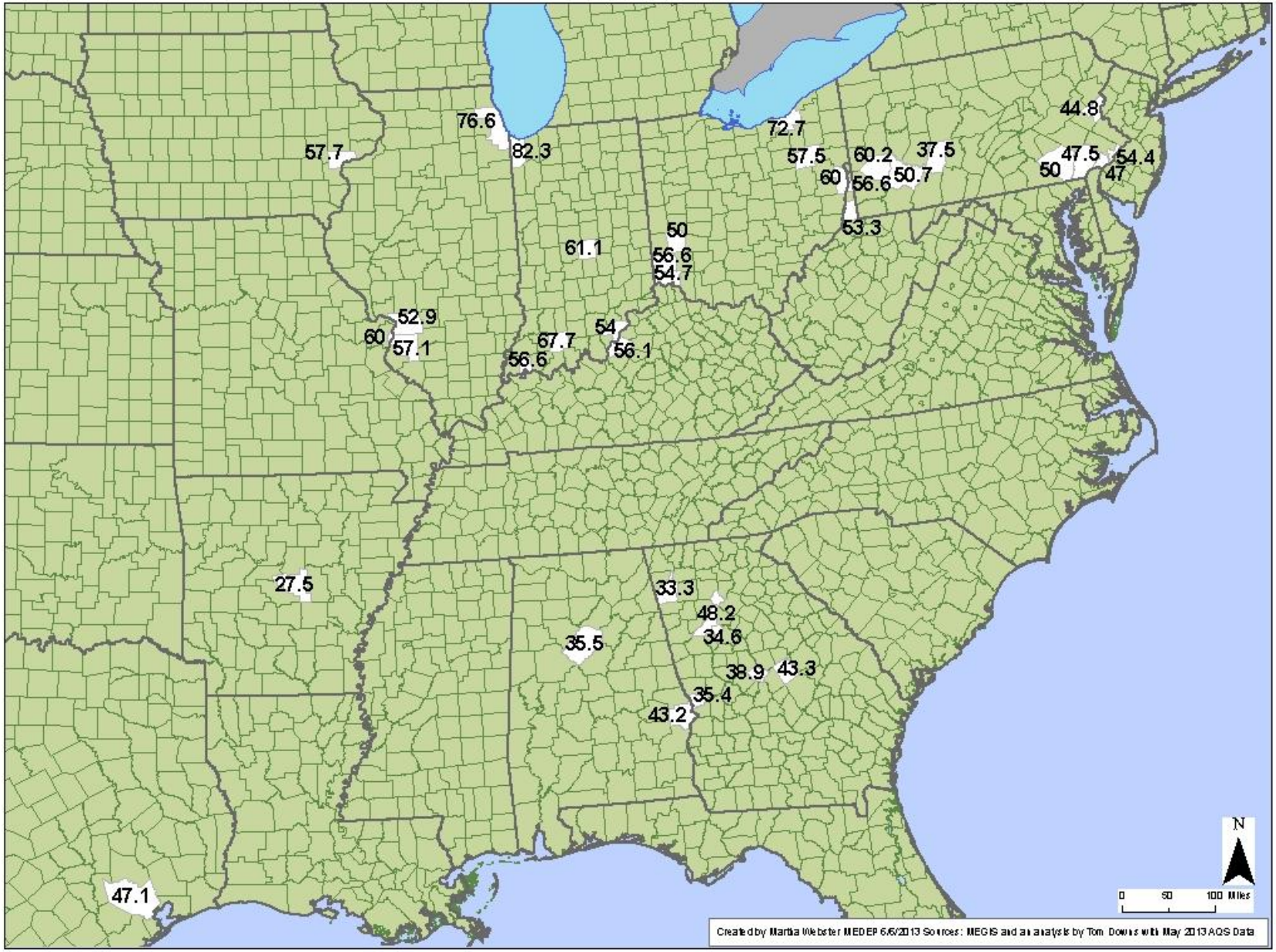

FIGURE D-10:

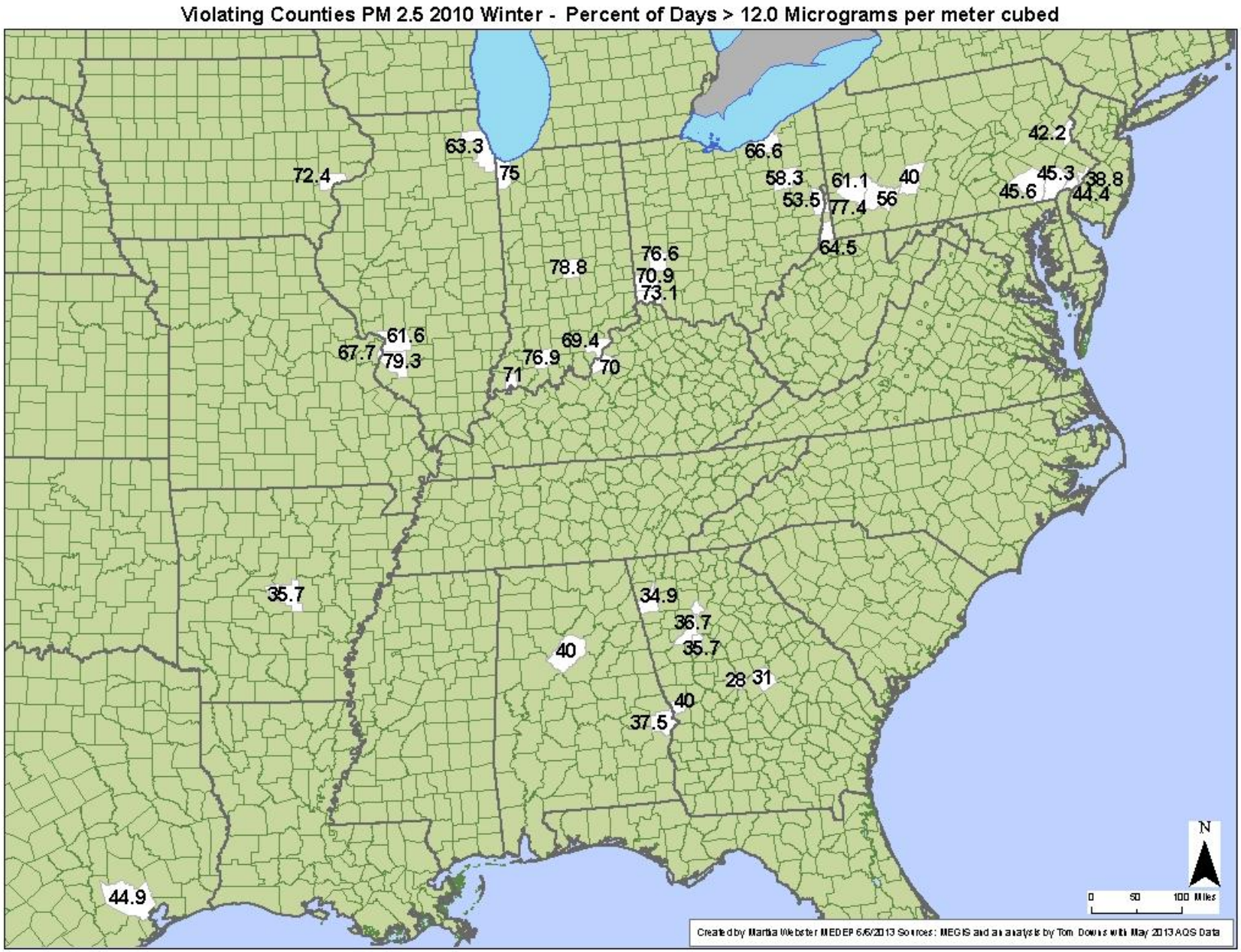
Violating Counties PM 2.5 2010 Winter - Percent of Days > 12.0 Micrograms per meter cubed
63.3
75
72.4
66.6
42.2
58.3
61.1
40
45.3
38.8
45.6
44.4
53.5
77.4
56
64.5
76.6
78.8
70.9
73.1
61.6
67.7
79.3
69.4
76.9
71
70
35.7
34.9
36.7
35.7
40
28
31
40
37.5
44.9
N
0
50
100 Miles
Created by Martha Webster MEDEP 6/6/2013 Sources: MEGIS and air analysis by Tom Downs with May 2013 AQS Data

FIGURE D-11:

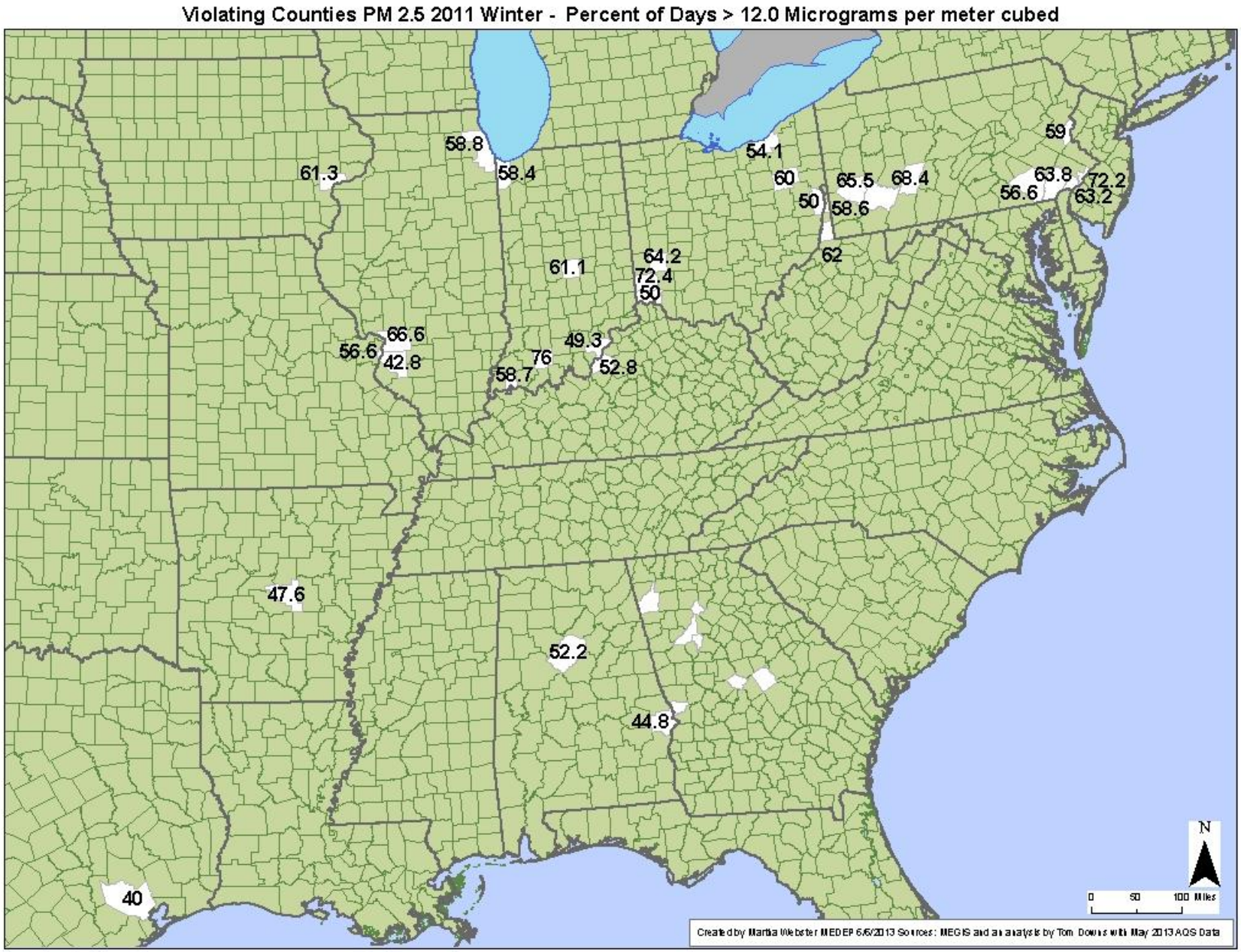
Violating Counties PM 2.5 2011 Winter - Percent of Days > 12.0 Micrograms per meter cubed
58.8
61.3
58.4
54.1
59
60
65.5
68.4
63.8
72.2
56.6
63.2
50
58.6
62
64.2
61.1
72.4
50
66.6
56.6
42.8
49.3
76
58.7
52.8
47.6
52.2
44.8
40
N
0
50
100 Miles
Created by Martha Webster MEDEP 6/6/2013 Sources: MEGIS and air analysis by Tom Downs with May 2013 AQS Data

FIGURE D-12:

Violating Counties PM 2.5 2012 Winter - Percent of Days > 12.0 Micrograms per meter cubed

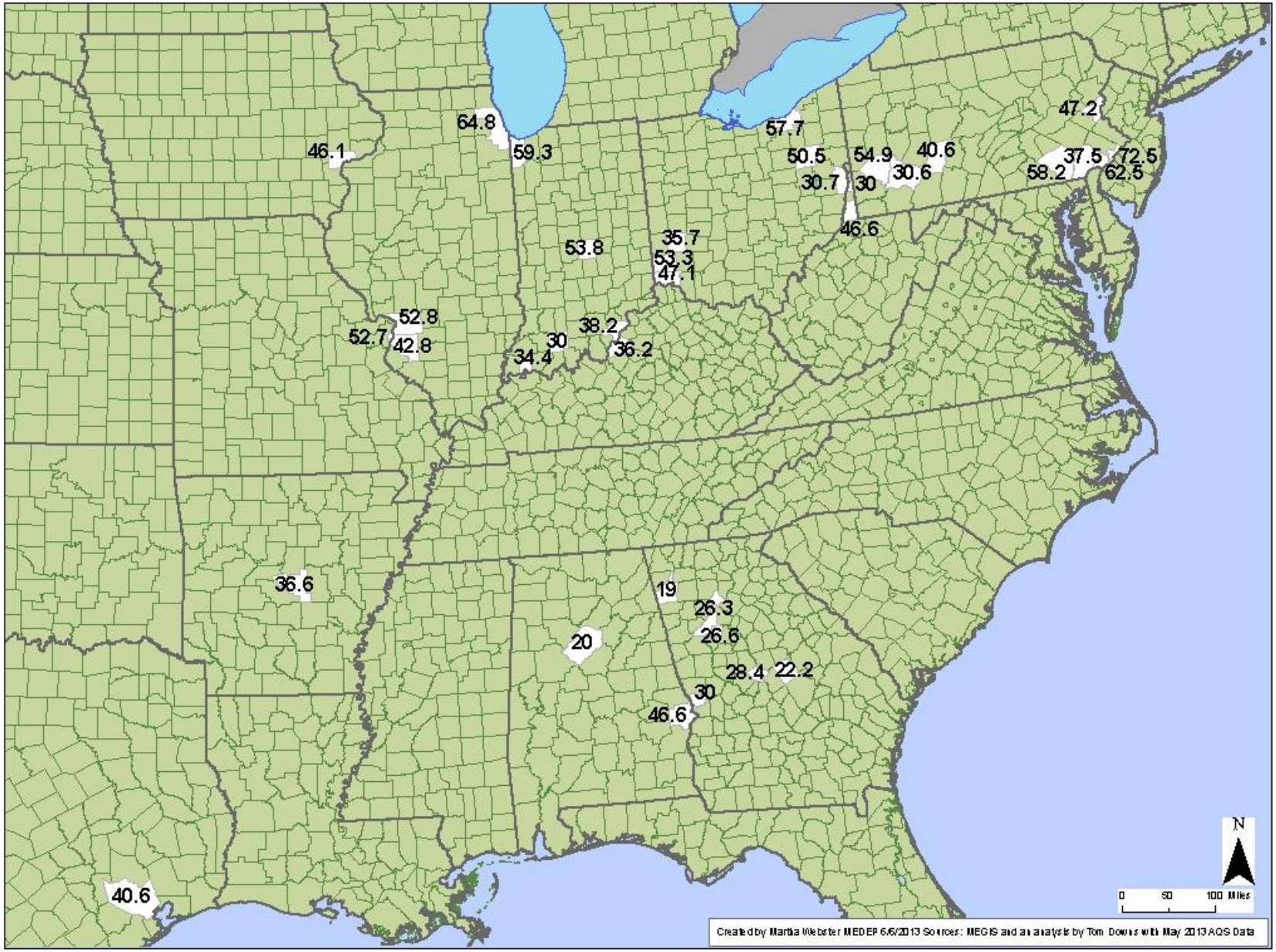

FIGURE D-13:

Violating Counties PM 2.5 2007 Spring - Percent of Days > 12.0 Micrograms per meter cubed

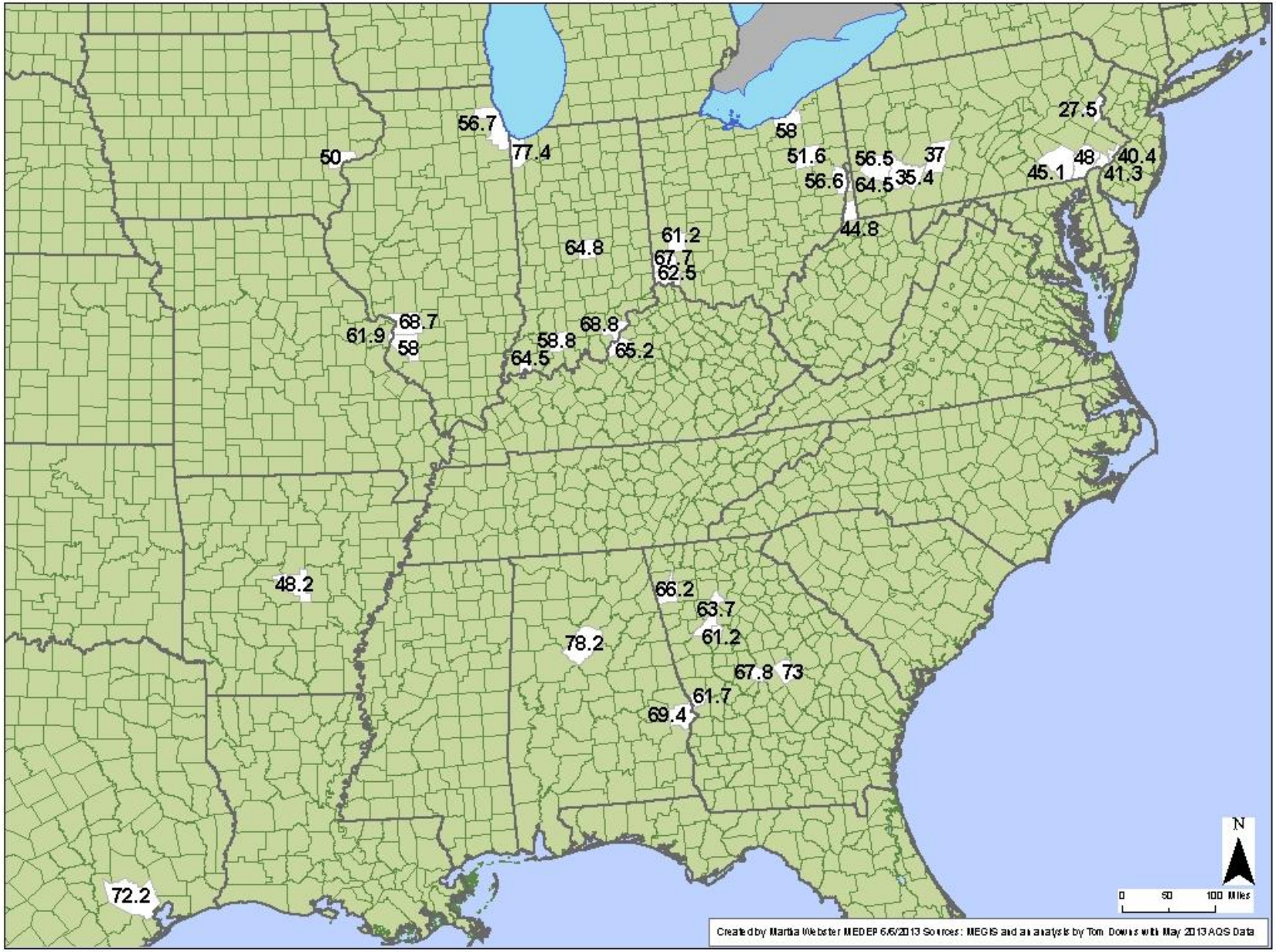

FIGURE D-14:

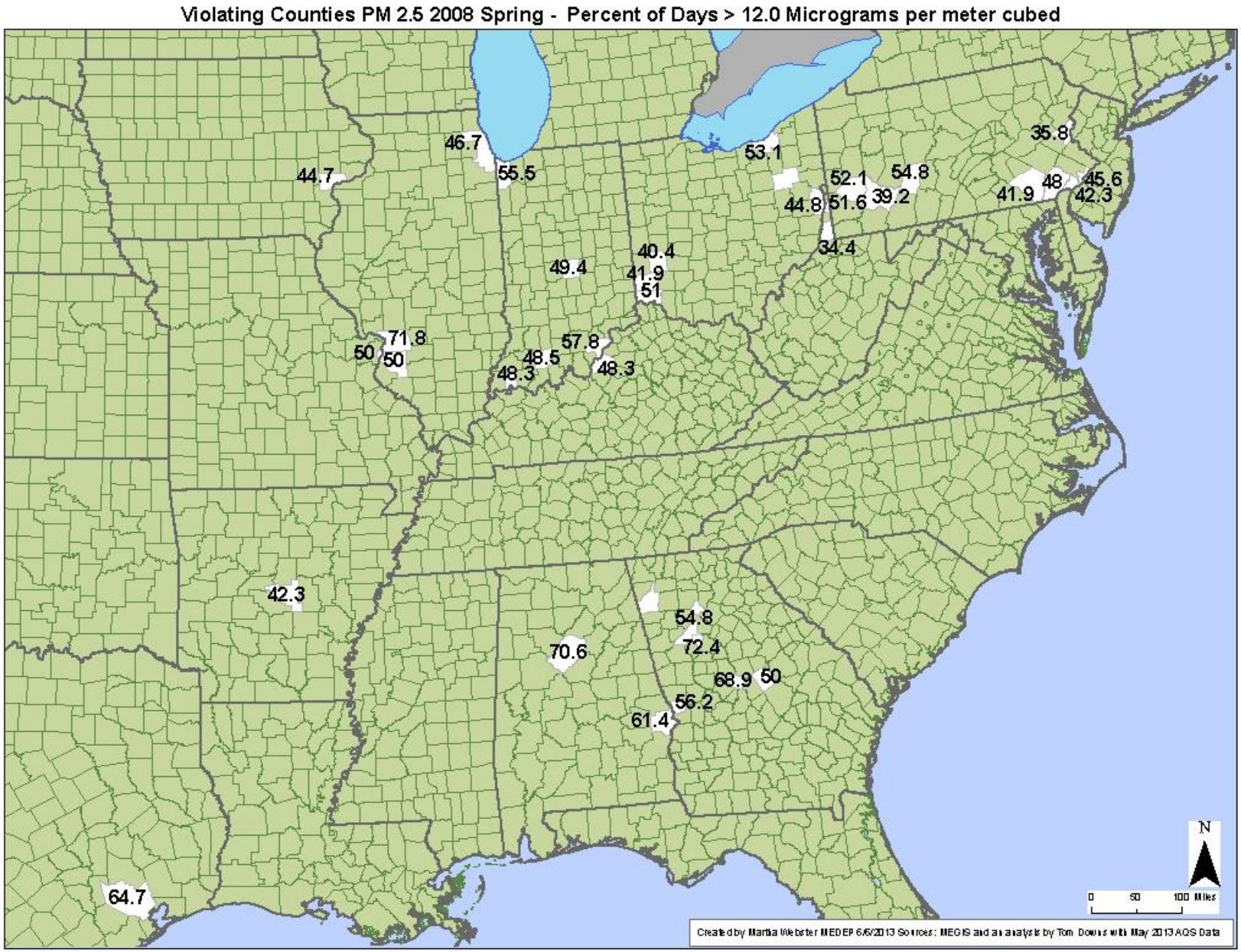
Violating Counties PM 2.5 2008 Spring - Percent of Days > 12.0 Micrograms per meter cubed
46.7
44.7
55.5
53.1
35.8
52.1
54.8
48
45.6
44.8
51.6
39.2
41.9
42.3
34.4
40.4
49.4
41.9
51
71.8
50
50
57.8
48.5
48.3
48.3
42.3
54.8
72.4
70.6
68.9
50
56.2
61.4
64.7
N
0
50
100 Miles
Created by Martha Webster MEDEP 6/6/2013 Sources: MEGIS and air analysis by Tom Downs with May 2013 AQS Data

FIGURE D-15:

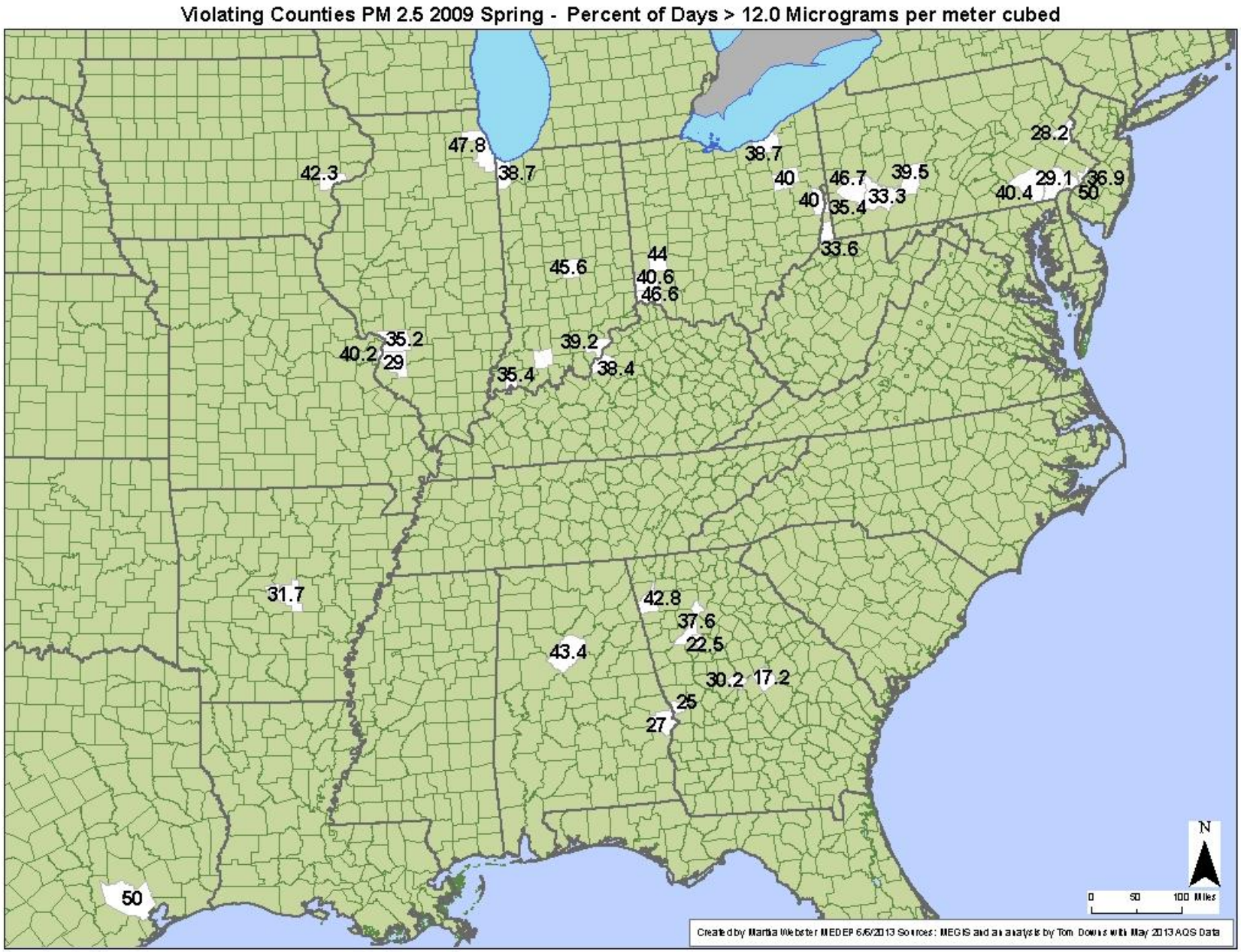
Violating Counties PM 2.5 2009 Spring - Percent of Days > 12.0 Micrograms per meter cubed
47.8
38.7
42.3
38.7
40
46.7
39.5
28.2
40
35.4
33.3
40.4
29.1
36.9
50
33.6
44
45.6
40.6
46.6
35.2
40.2
29
39.2
35.4
38.4
31.7
42.8
37.6
22.5
43.4
30.2
17.2
25
27
50
N
0
50
100 Miles
Created by Martha Webster MEDEP 6/6/2013 Sources: MEGIS and air analysis by Tom Downs with May 2013 AQS Data

FIGURE D-16:

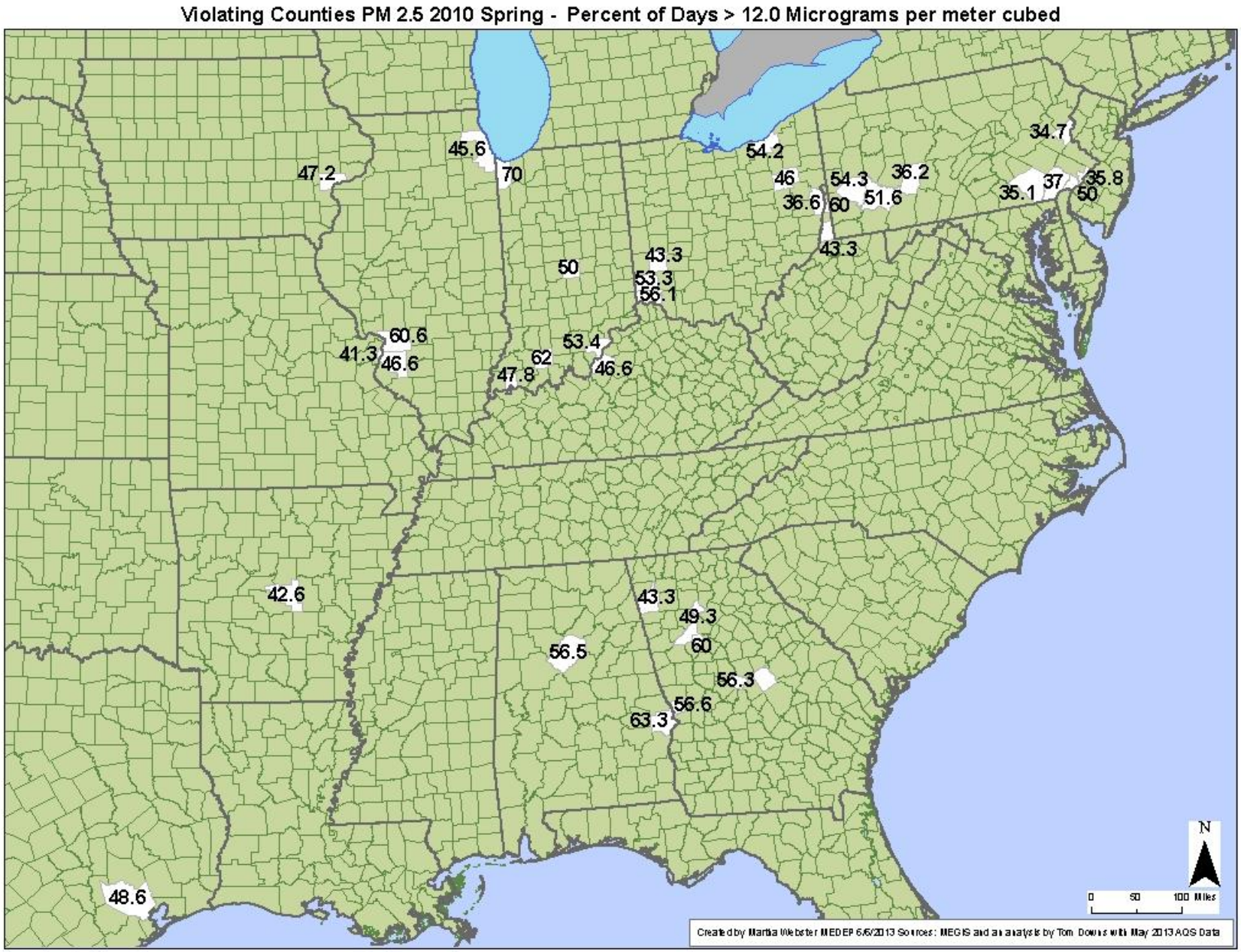
Violating Counties PM 2.5 2010 Spring - Percent of Days > 12.0 Micrograms per meter cubed
45.6
47.2
70
54.2
34.7
46
54.3
36.2
35.8
36.6
60
51.6
35.1
37
50
43.3
50
43.3
53.3
56.1
60.6
41.3
46.6
53.4
62
47.8
46.6
42.6
43.3
49.3
60
56.5
56.3
56.6
63.3
48.6
N
0
50
100 Miles
Created by Martha Webster MEDEP 6/6/2013 Sources: MEGIS and air analysis by Tom Downs with May 2013 AQS Data

FIGURE D-17:

Violating Counties PM 2.5 2011 Spring - Percent of Days > 12.0 Micrograms per meter cubed

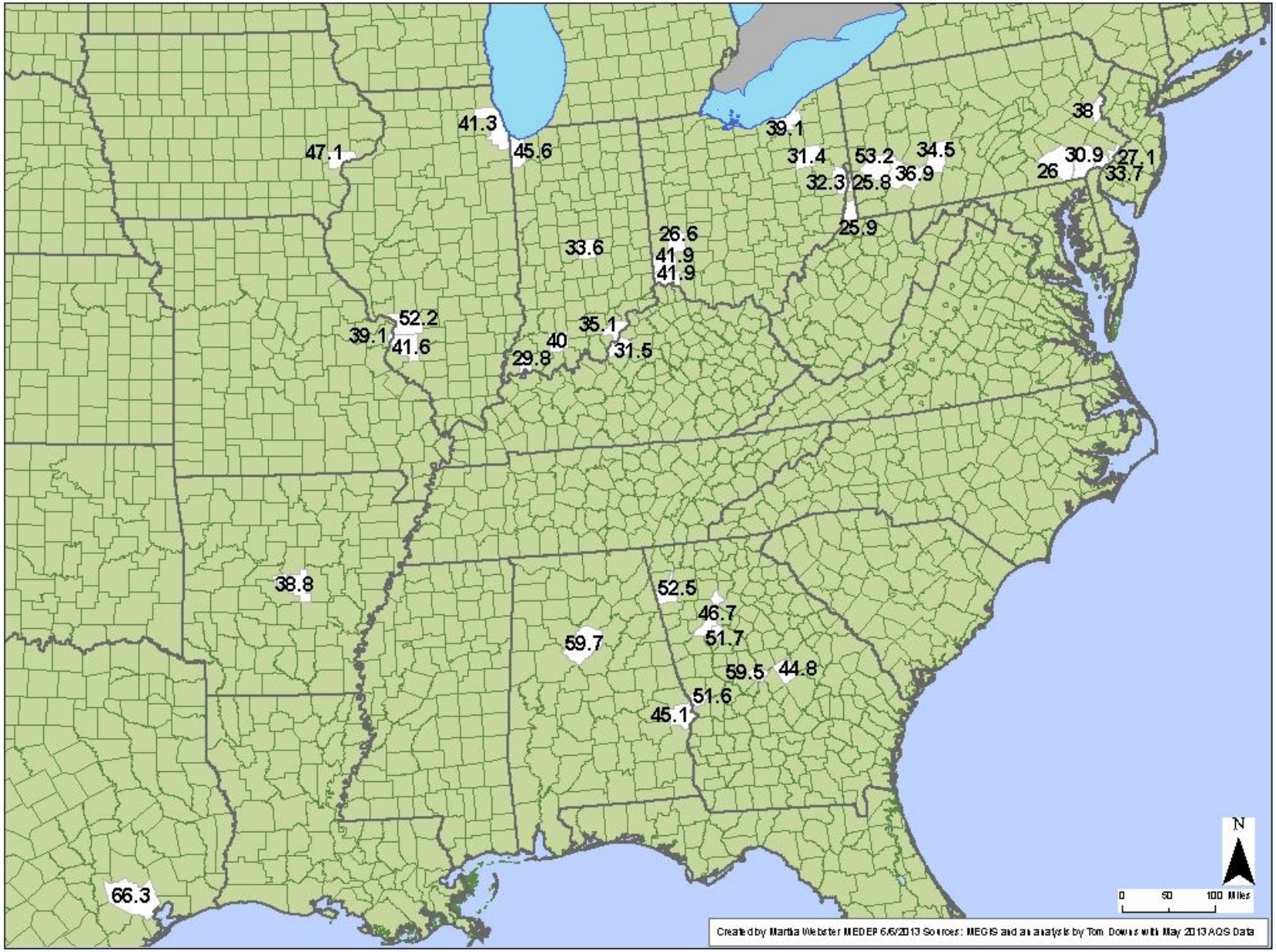

FIGURE D-18:

Violating Counties PM 2.5 2012 Spring - Percent of Days > 12.0 Micrograms per meter cubed

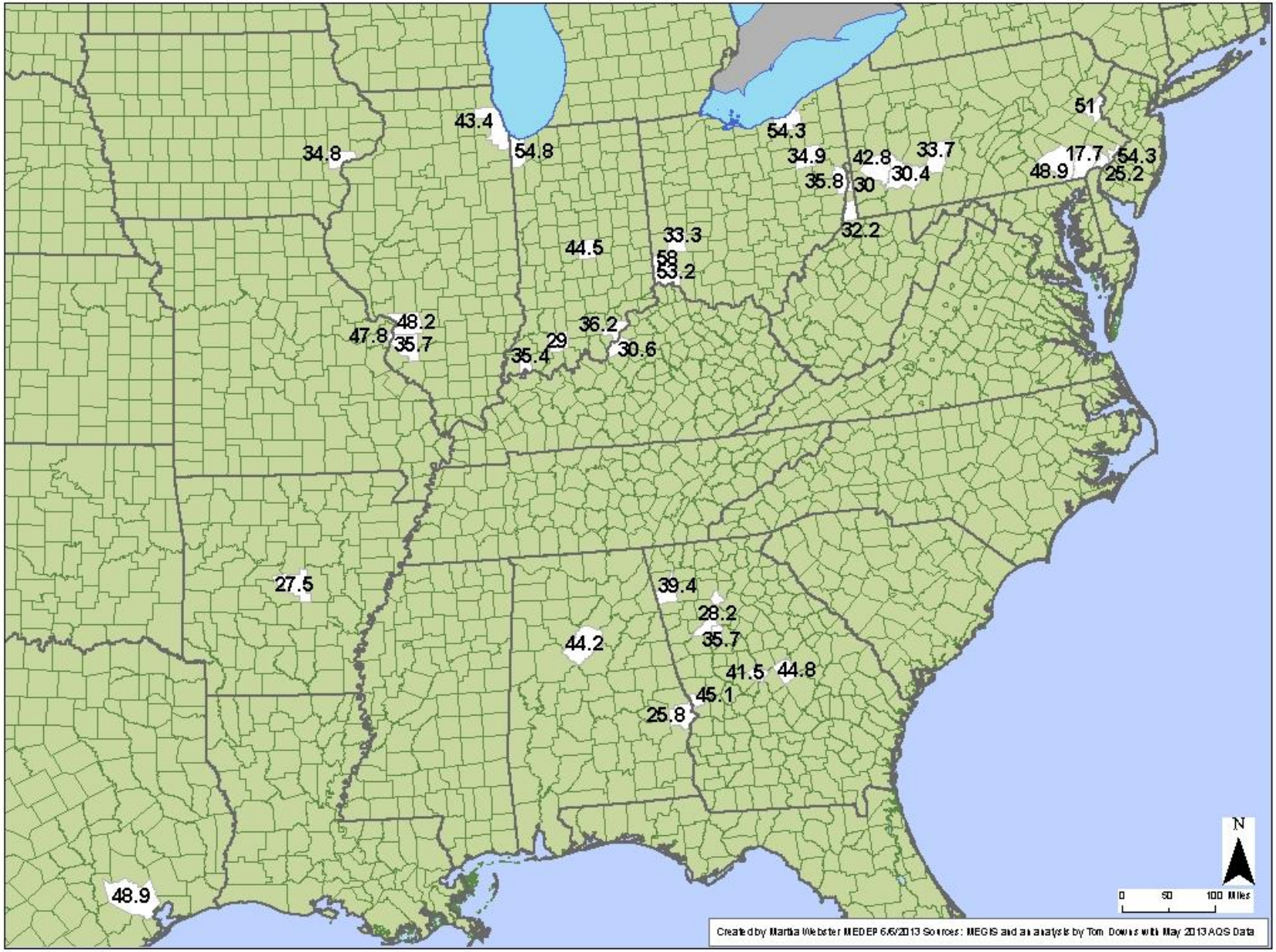

FIGURE D-19:

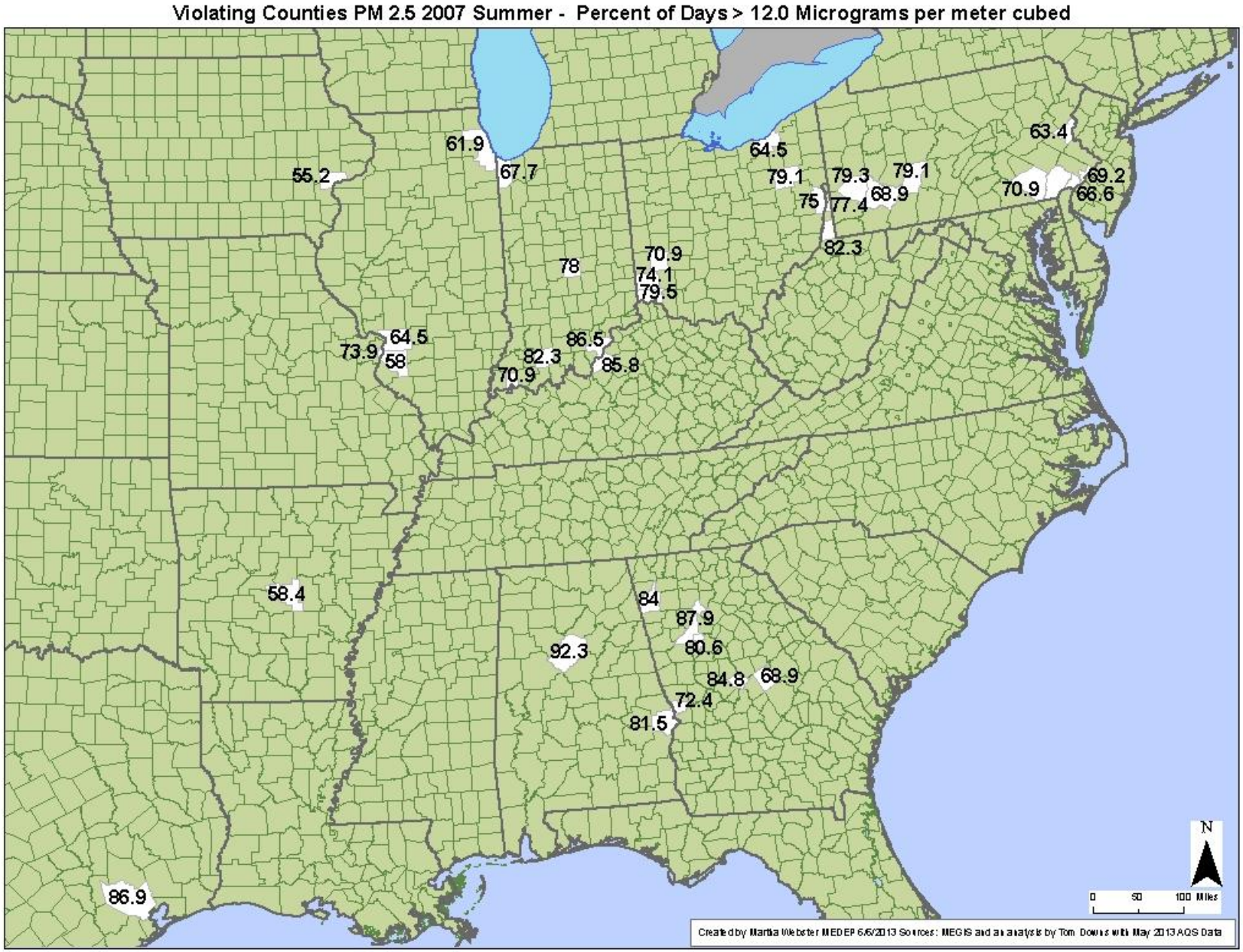
Violating Counties PM 2.5 2007 Summer - Percent of Days > 12.0 Micrograms per meter cubed
61.9
67.7
55.2
64.5
63.4
79.1
79.3
79.1
69.2
66.6
70.9
75
77.4
68.9
82.3
78
70.9
74.1
79.5
64.5
73.9
58
86.5
82.3
85.8
70.9
58.4
84
87.9
80.6
92.3
84.8
68.9
72.4
81.5
86.9
N
0
50
100 Miles
Created by Martha Webster MEDEP 6/6/2013 Sources: MEGIS and air analysis by Tom Downs with May 2013 AQS Data

FIGURE D-20:

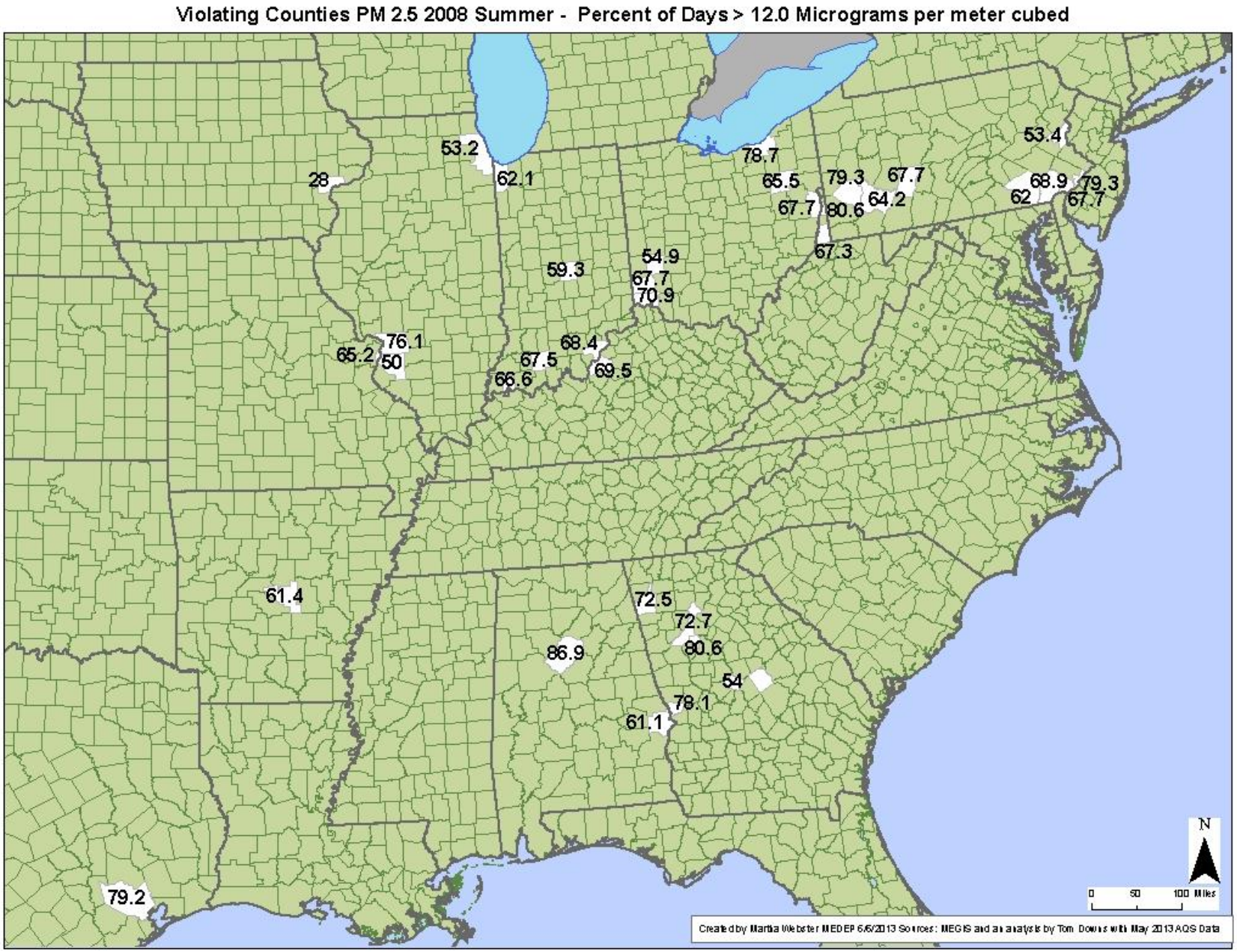
Violating Counties PM 2.5 2008 Summer - Percent of Days > 12.0 Micrograms per meter cubed
53.2
28
62.1
78.7
65.5
79.3
67.7
53.4
68.9
79.3
62
67.7
67.7
80.6
64.2
67.3
59.3
54.9
67.7
70.9
76.1
65.2
50
68.4
67.5
66.6
69.5
61.4
72.5
72.7
80.6
86.9
54
78.1
61.1
79.2
N
0
50
100 Miles
Created by Martha Webster MEDEP 6/6/2013 Sources: MEGIS and air analysis by Tom Downs with May 2013 AQS Data

FIGURE D-21:

Violating Counties PM 2.5 2009 Summer - Percent of Days > 12.0 Micrograms per meter cubed

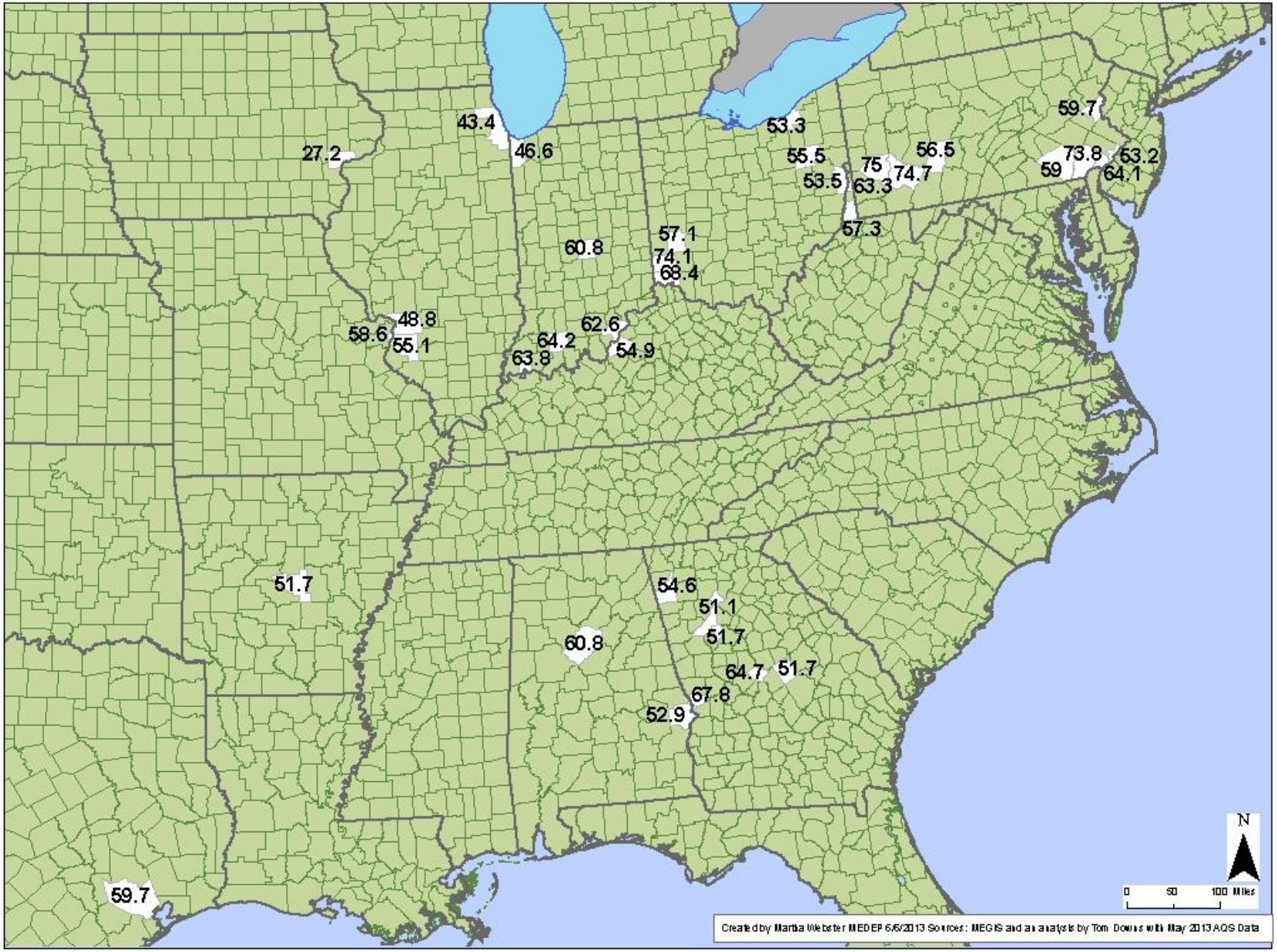

FIGURE D-22:

Violating Counties PM 2.5 2010 Summer - Percent of Days > 12.0 Micrograms per meter cubed

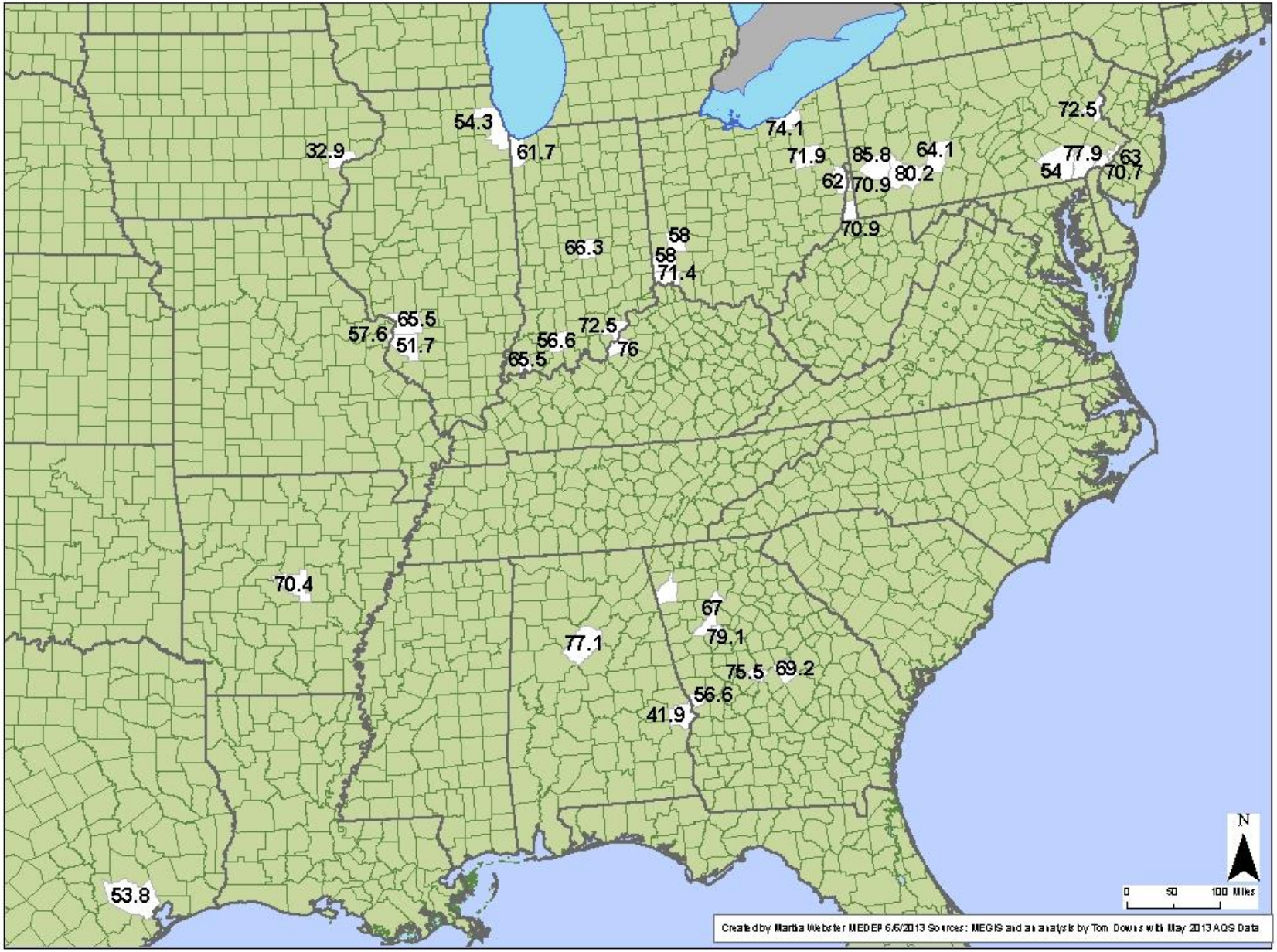

FIGURE D-23:

Violating Counties PM 2.5 2011 Summer - Percent of Days > 12.0 Micrograms per meter cubed

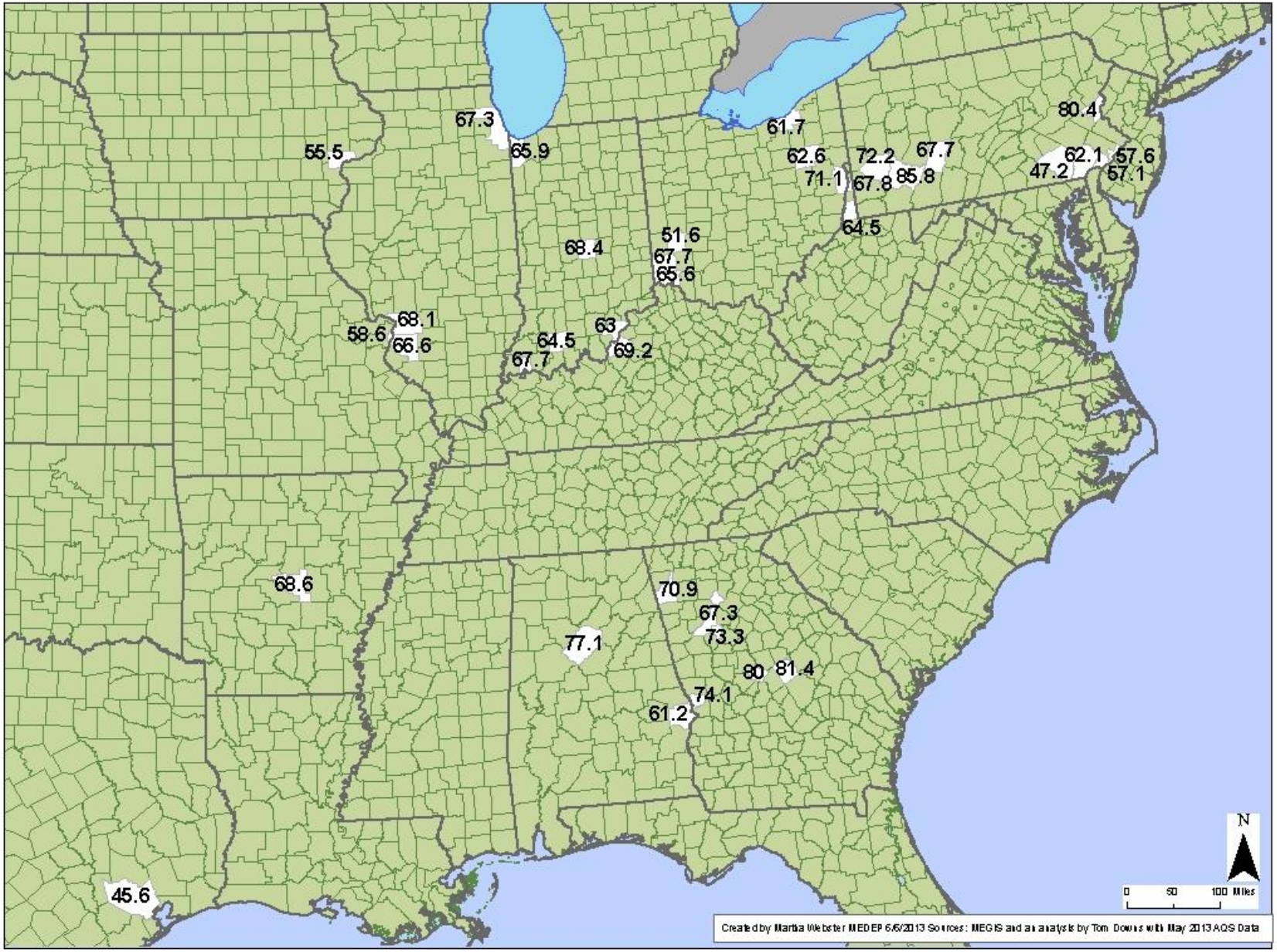

FIGURE D-24:

Violating Counties PM 2.5 2012 Summer - Percent of Days > 12.0 Micrograms per meter cubed

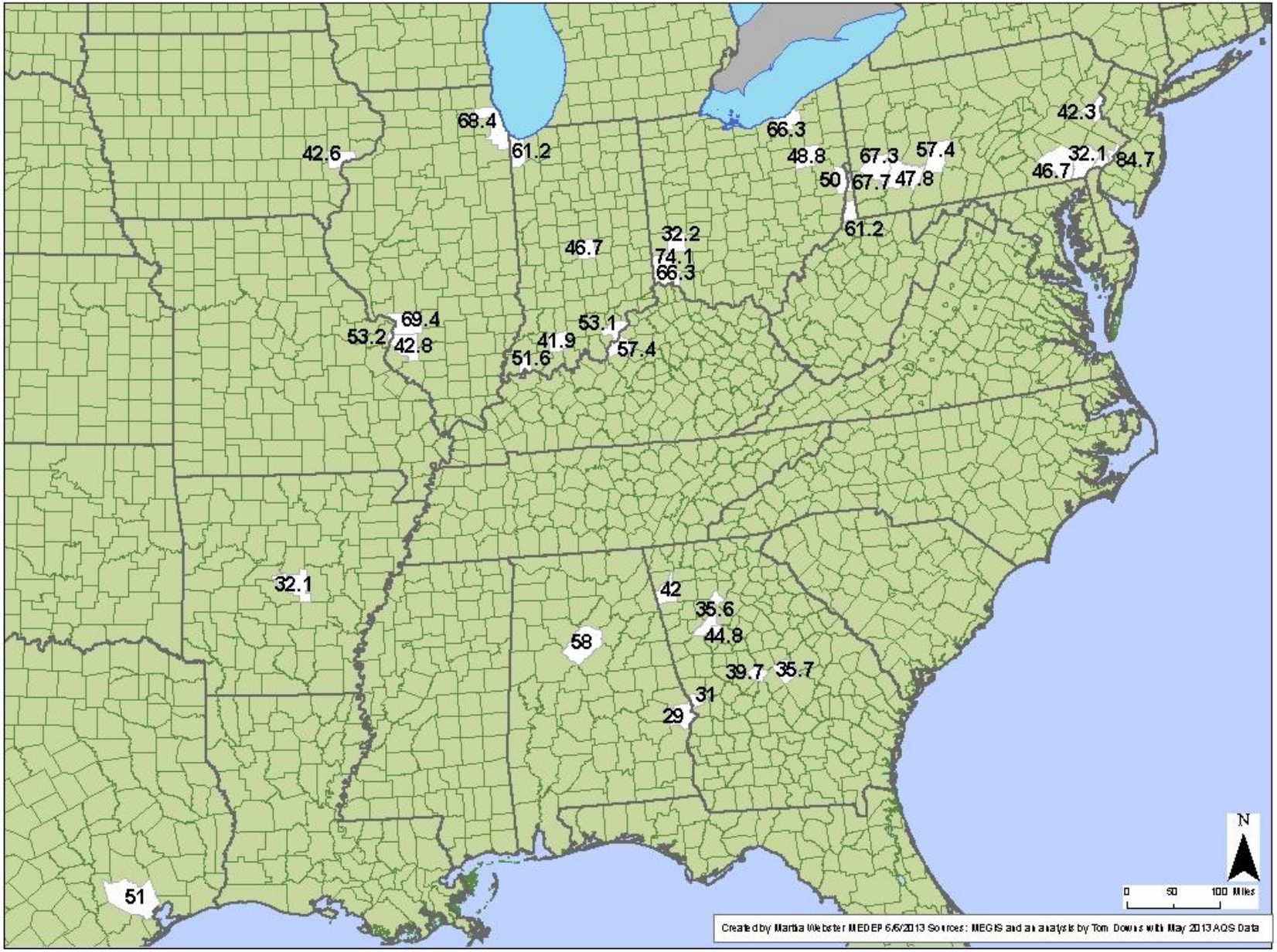

FIGURE D-25:

Violating Counties PM 2.5 2007 Fall - Percent of Days > 12.0 Micrograms per meter cubed

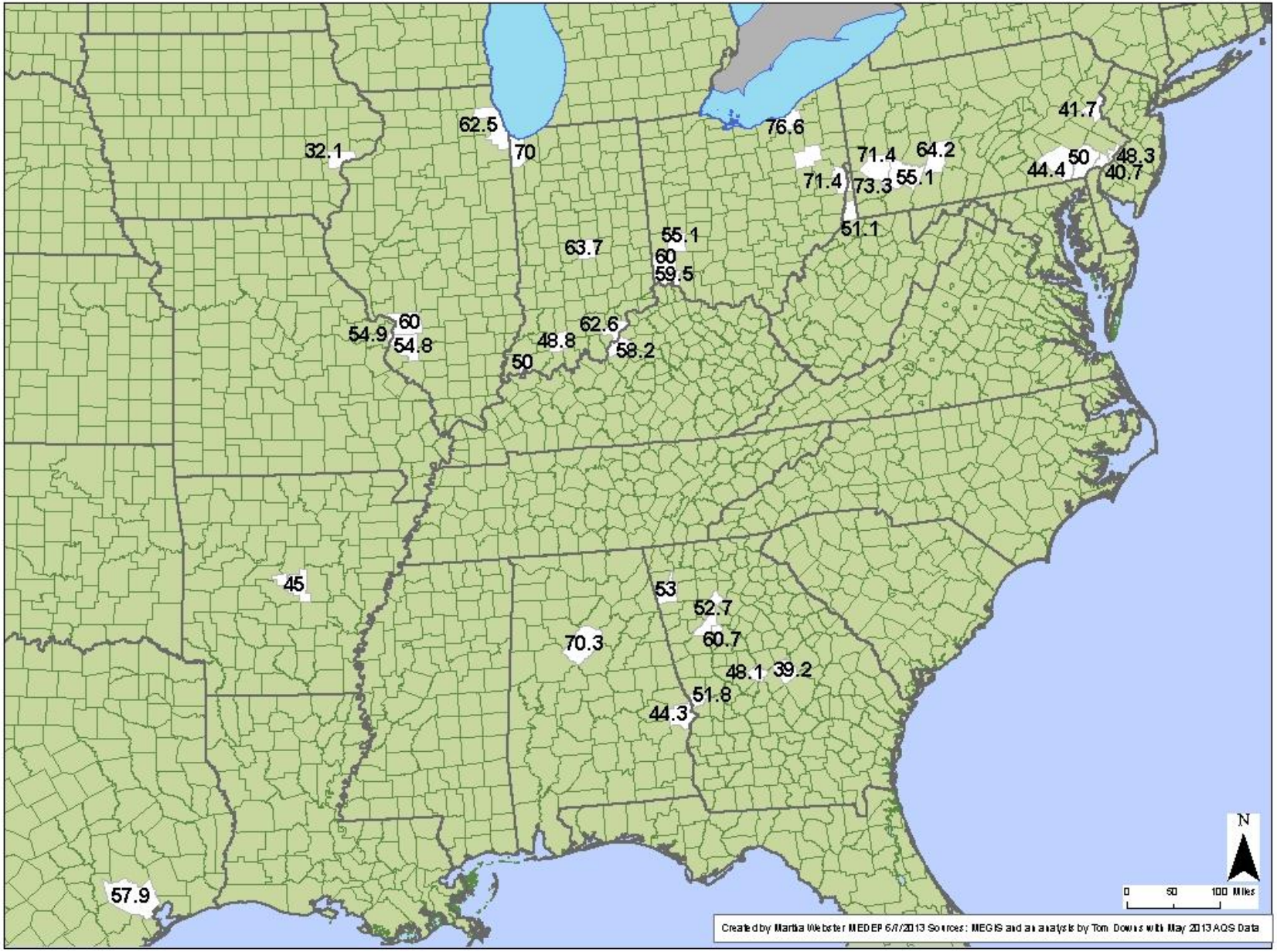

FIGURE D-26:

Violating Counties PM 2.5 2008 Fall - Percent of Days > 12.0 Micrograms per meter cubed

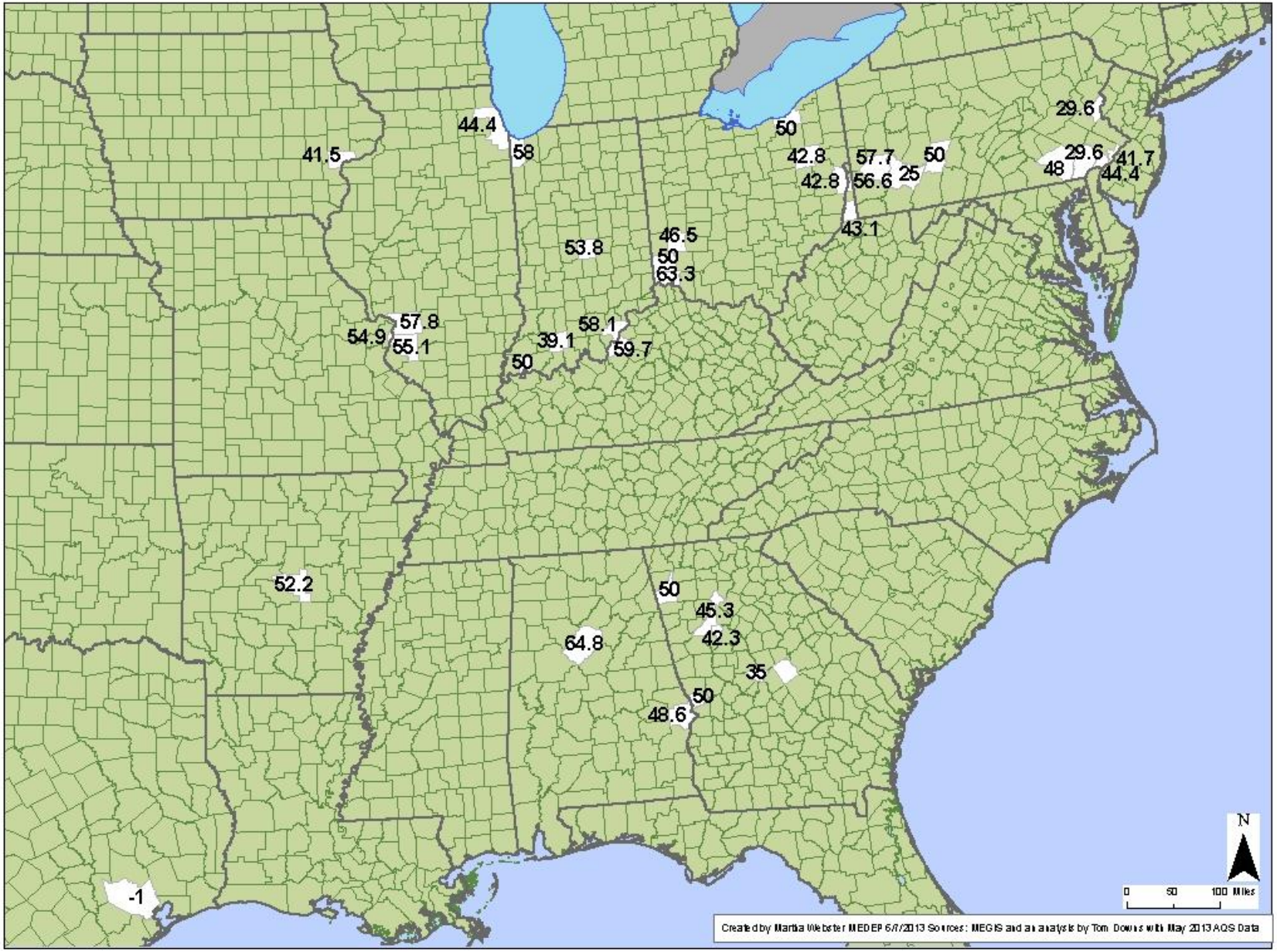

FIGURE D-27:

Violating Counties PM 2.5 2009 Fall - Percent of Days > 12.0 Micrograms per meter cubed

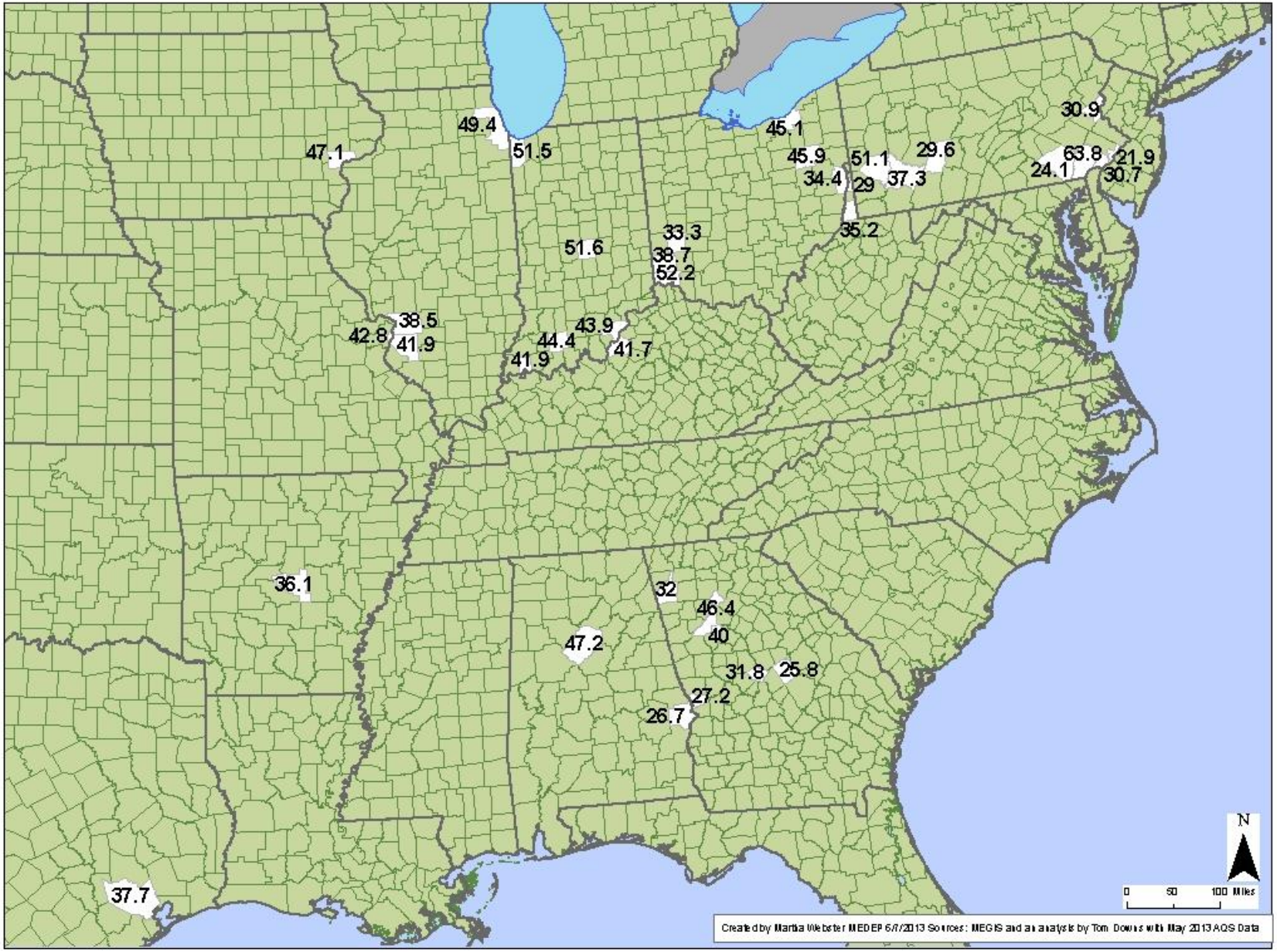

FIGURE D-28:

Violating Counties PM 2.5 2010 Fall - Percent of Days > 12.0 Micrograms per meter cubed

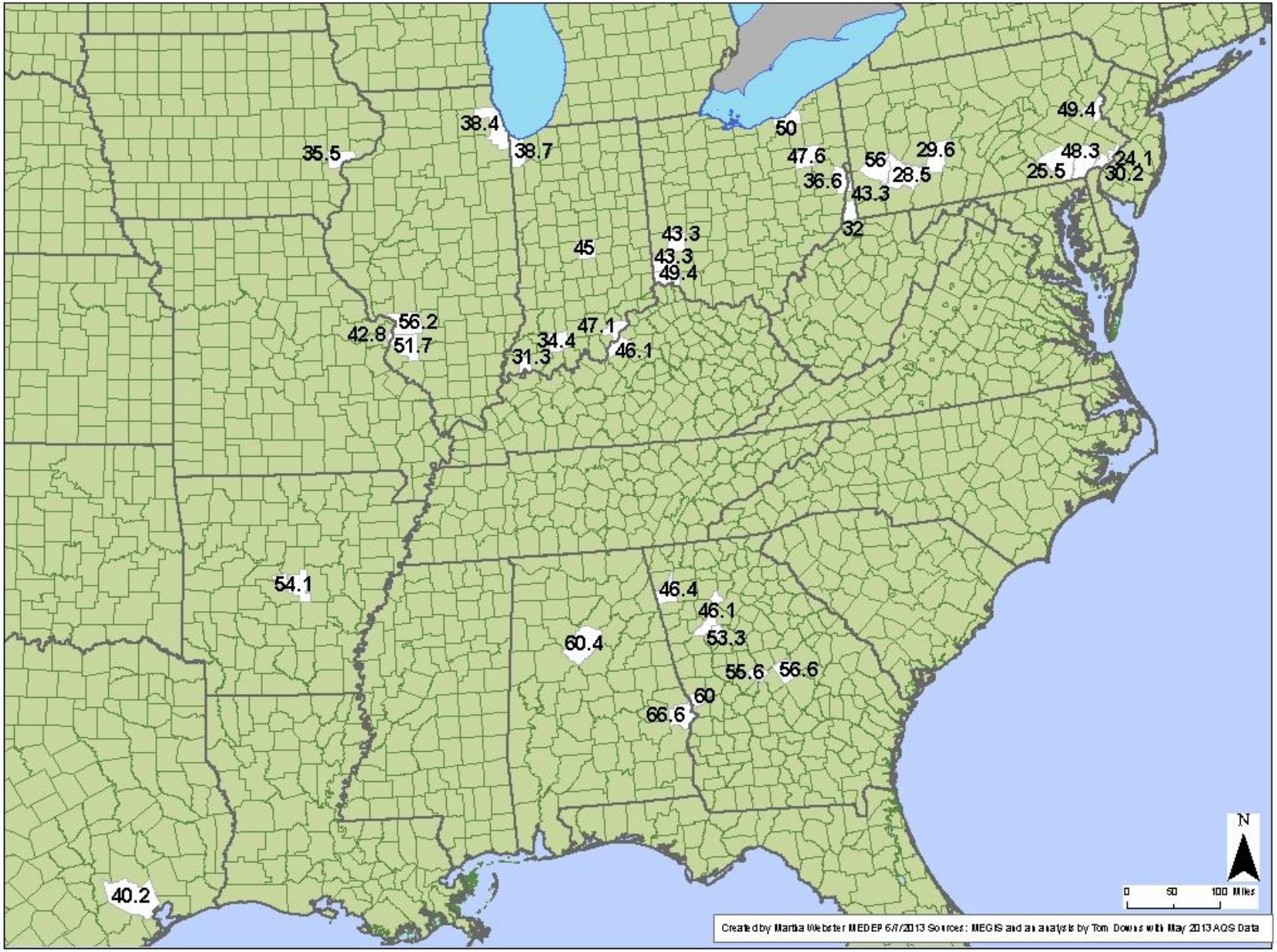

FIGURE D-29:

Violating Counties PM 2.5 2011 Fall - Percent of Days > 12.0 Micrograms per meter cubed

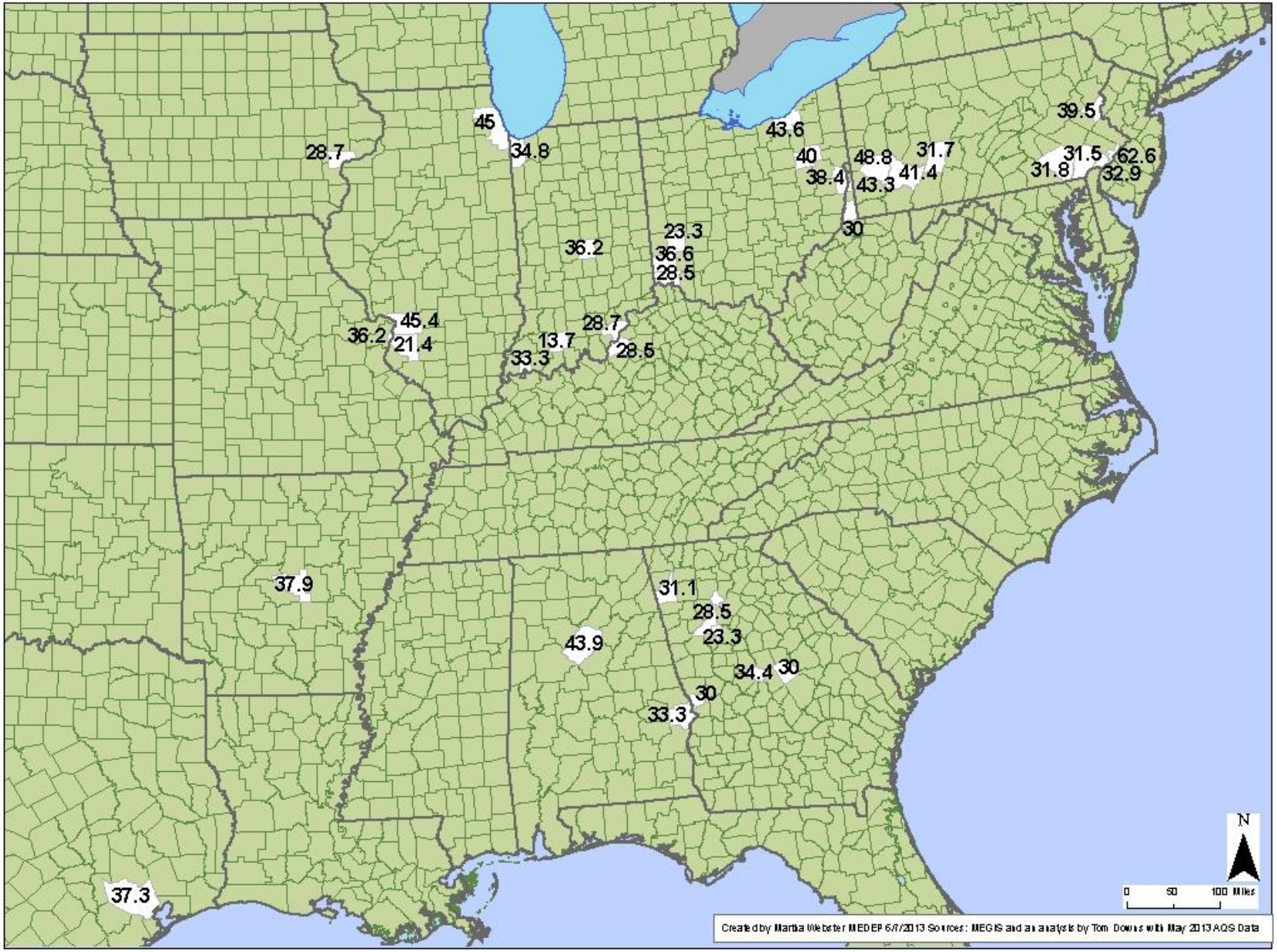

FIGURE D-30:

Violating Counties PM 2.5 2012 Fall - Percent of Days > 12.0 Micrograms per meter cubed