

National Ambient Air Quality Standards for PM_{2.5}
Attainment Analysis

Lake Michigan Air Directors Consortium

December 21, 2009

DATA SUMMARY

1997 24-Hour PM_{2.5} Standard = 65.0 µg/m³
2006 24-Hour PM_{2.5} Standard = 35.5 µg/m³

Number of PM_{2.5} Monitors Exceeding the 2006 24-Hour PM_{2.5} Standard Based on 2006 – 2008 Data:

- Illinois – 0 out of 39 (0.0%)
- Indiana – 0 out of 37 (0.0%)
- Michigan – 1 out of 27 (3.7%)
- Minnesota – 0 out of 17 (0.0%)
- Ohio – 4 out of 45 (8.9%)
- Wisconsin – 4 out of 21 (19.0%)

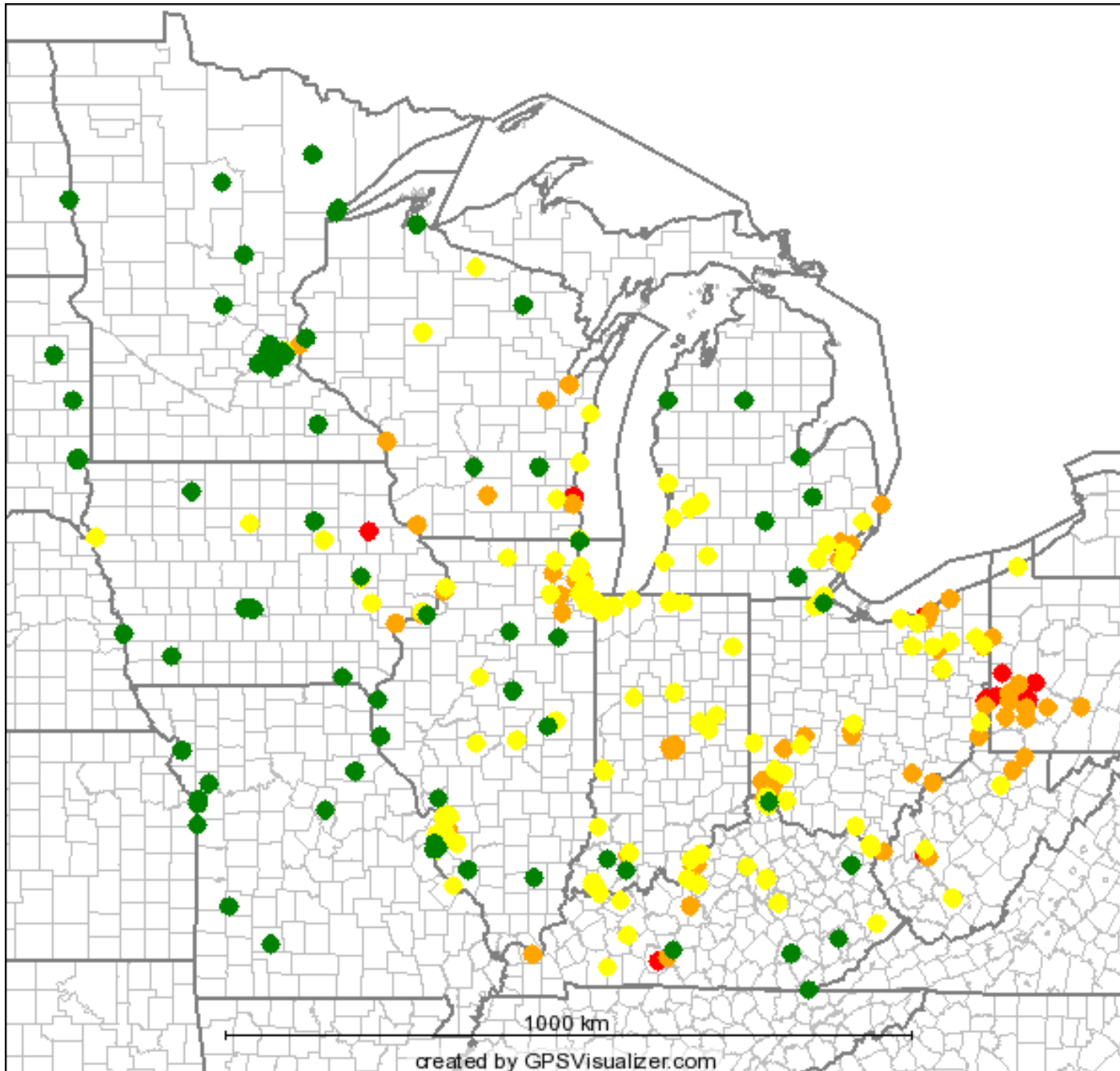
The following maps are included






- 2006 – 2008 PM_{2.5} Design Values
- Percent Change in PM_{2.5} Design Values Compared to 2006 – 2008
- 2009 Critical Values

The included tables list PM_{2.5} 24-hour design values for all active air quality monitors, as of 2008, for the following time periods: 2003 – 2005, 2004 – 2006, 2005 – 2007, and 2006 – 2008. The state-specific design values are sorted based on 2006 – 2008 data and shaded according to their nearness to exceeding the 24-hour PM_{2.5} standard. Finally, a table of 2009 critical values is provided.

Reference: <http://www.epa.gov/airtrends/values.html>

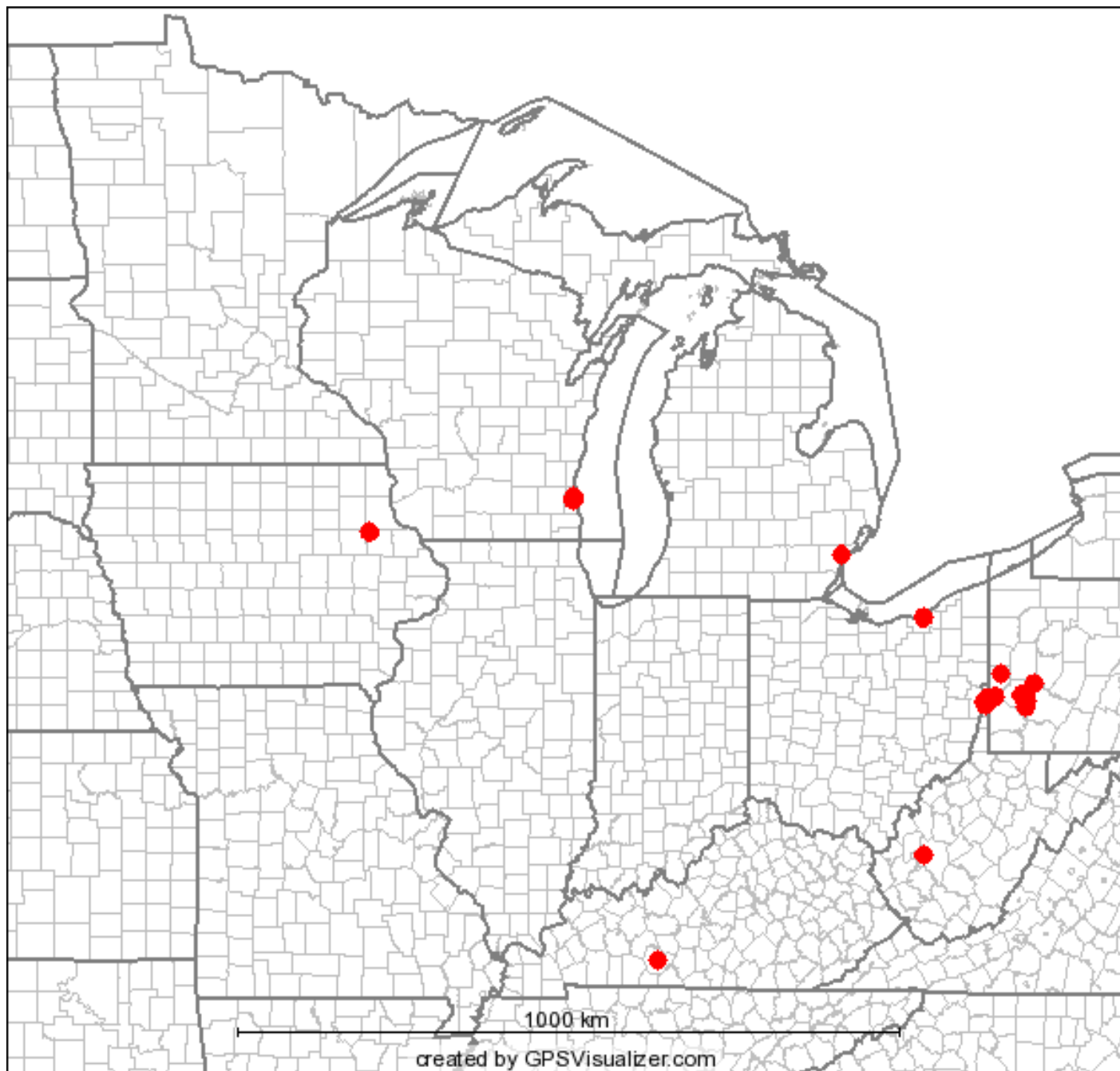
2006 – 2008
Fine Particulate
Matter (PM_{2.5})
24-Hr Design Value
Attainment Analysis








	Exceeds the 1997 Standard > 65 µg/m ³
	Exceeds the 2006 Standard 36 µg/m ³ - 65 µg/m ³
	> 90% of the 2006 Standard 32 µg/m ³ - 35 µg/m ³
	> 80% of the 2006 Standard 28 µg/m ³ - 31 µg/m ³
	< 80% of the 2006 Standard < 28 µg/m ³

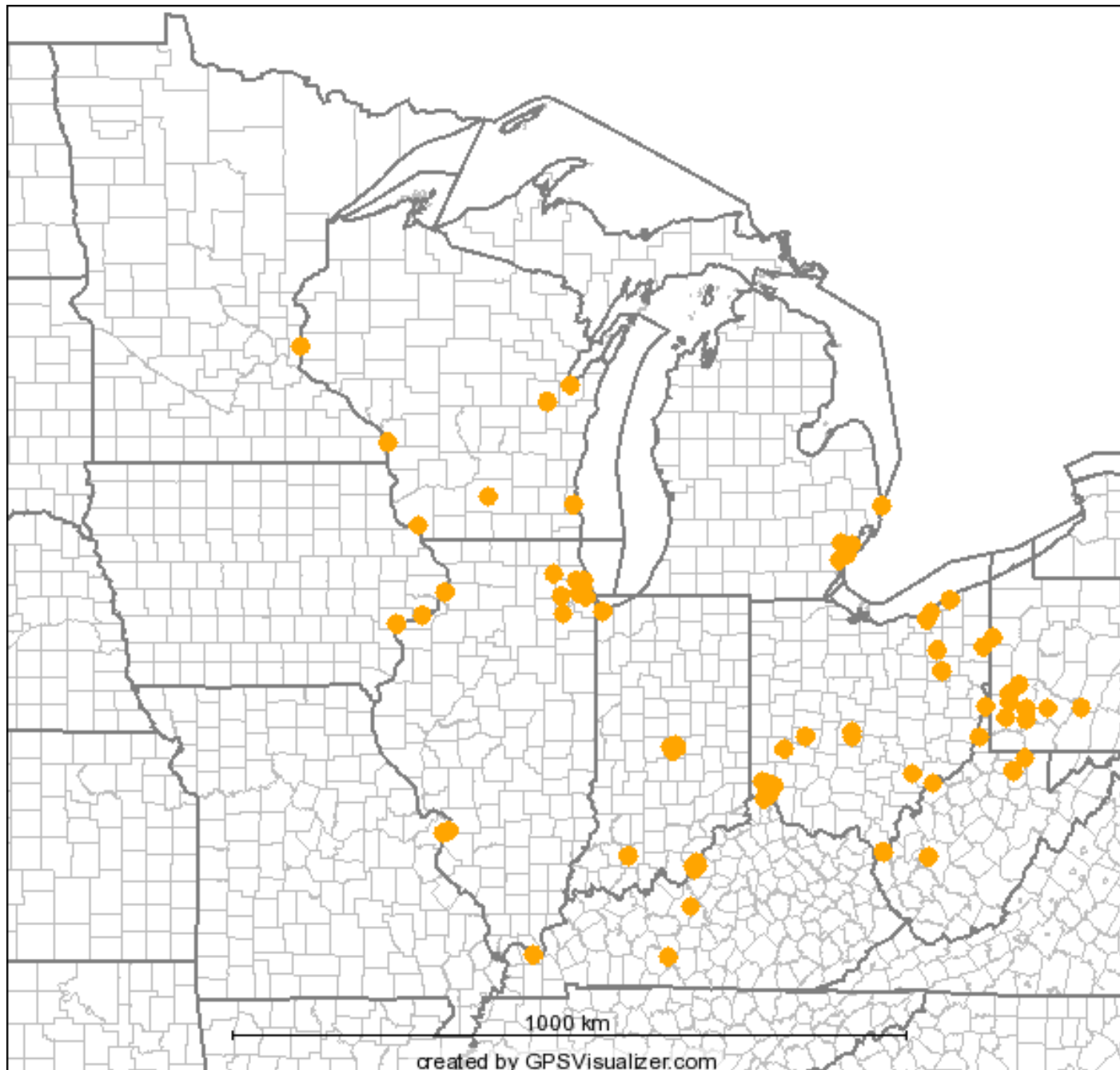
2006 – 2008 Fine Particulate Matter (PM_{2.5})






24-Hr Design Value Attainment Analysis



	Exceeds the 1997 Standard > 65 $\mu\text{g}/\text{m}^3$
	Exceeds the 2006 Standard 36 $\mu\text{g}/\text{m}^3$ - 65 $\mu\text{g}/\text{m}^3$
	> 90% of the 2006 Standard 32 $\mu\text{g}/\text{m}^3$ - 35 $\mu\text{g}/\text{m}^3$
	> 80% of the 2006 Standard 28 $\mu\text{g}/\text{m}^3$ - 31 $\mu\text{g}/\text{m}^3$
	< 80% of the 2006 Standard < 28 $\mu\text{g}/\text{m}^3$

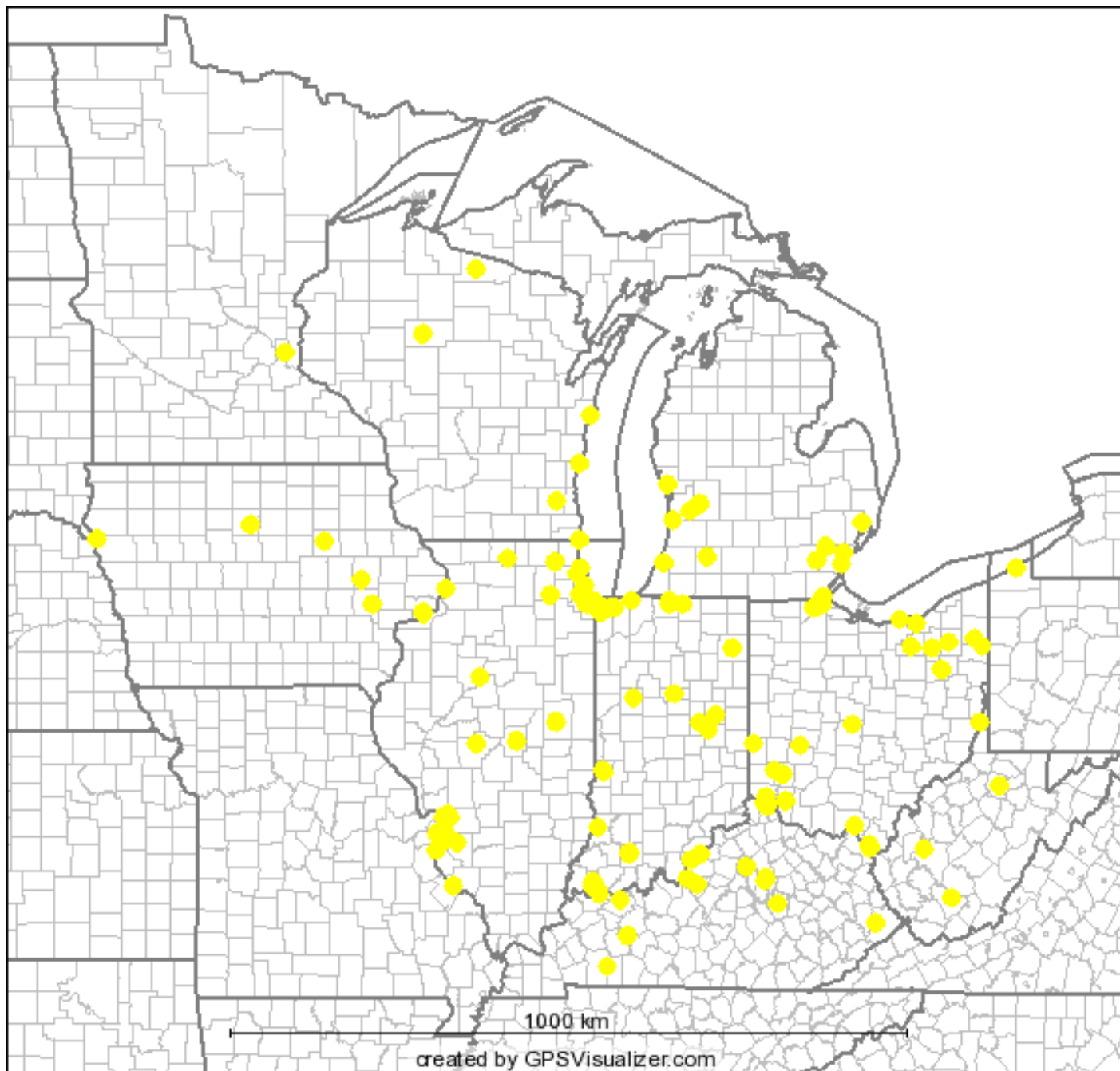
2006 – 2008
Fine Particulate
Matter (PM_{2.5})
24-Hr Design Value
Attainment Analysis








	Exceeds the 1997 Standard > 65 $\mu\text{g}/\text{m}^3$
	Exceeds the 2006 Standard 36 $\mu\text{g}/\text{m}^3$ - 65 $\mu\text{g}/\text{m}^3$
	> 90% of the 2006 Standard 32 $\mu\text{g}/\text{m}^3$ - 35 $\mu\text{g}/\text{m}^3$
	> 80% of the 2006 Standard 28 $\mu\text{g}/\text{m}^3$ - 31 $\mu\text{g}/\text{m}^3$
	< 80% of the 2006 Standard < 28 $\mu\text{g}/\text{m}^3$

2006 – 2008 Fine Particulate Matter (PM_{2.5})

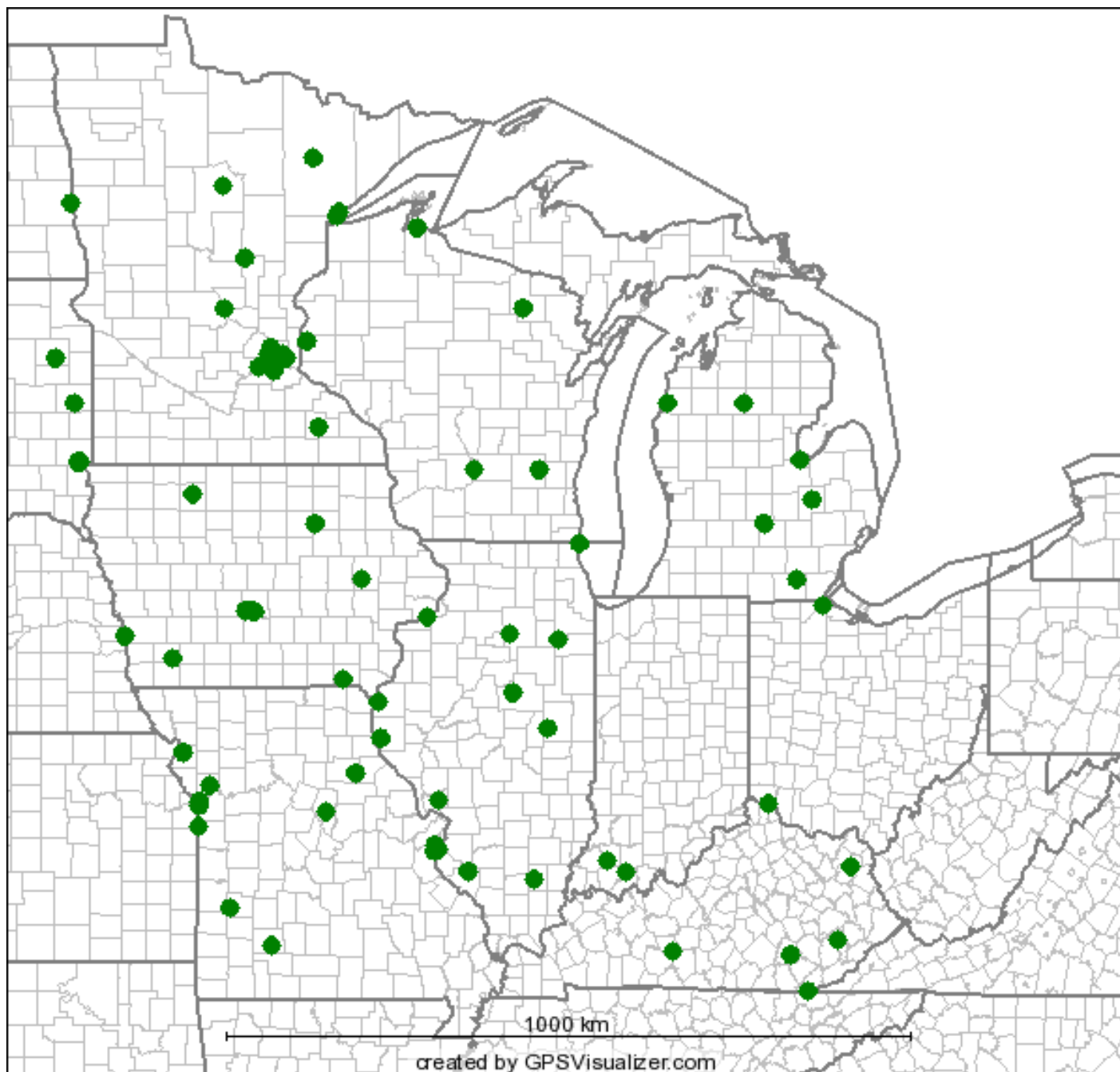
24-Hr Design Value Attainment Analysis








	Exceeds the 1997 Standard > 65 $\mu\text{g}/\text{m}^3$
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	> 90% of the 2006 Standard 32 $\mu\text{g}/\text{m}^3$ - 35 $\mu\text{g}/\text{m}^3$
	> 80% of the 2006 Standard 28 $\mu\text{g}/\text{m}^3$ - 31 $\mu\text{g}/\text{m}^3$
	< 80% of the 2006 Standard < 28 $\mu\text{g}/\text{m}^3$

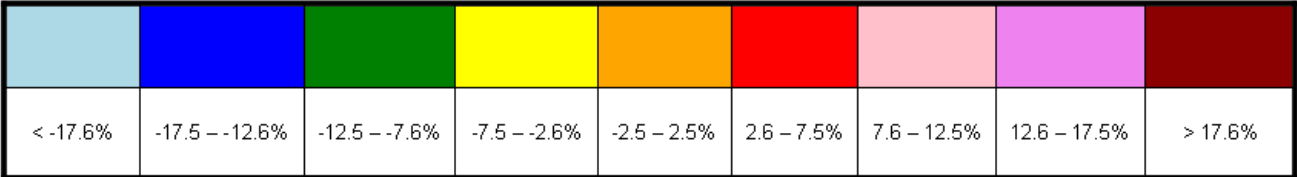
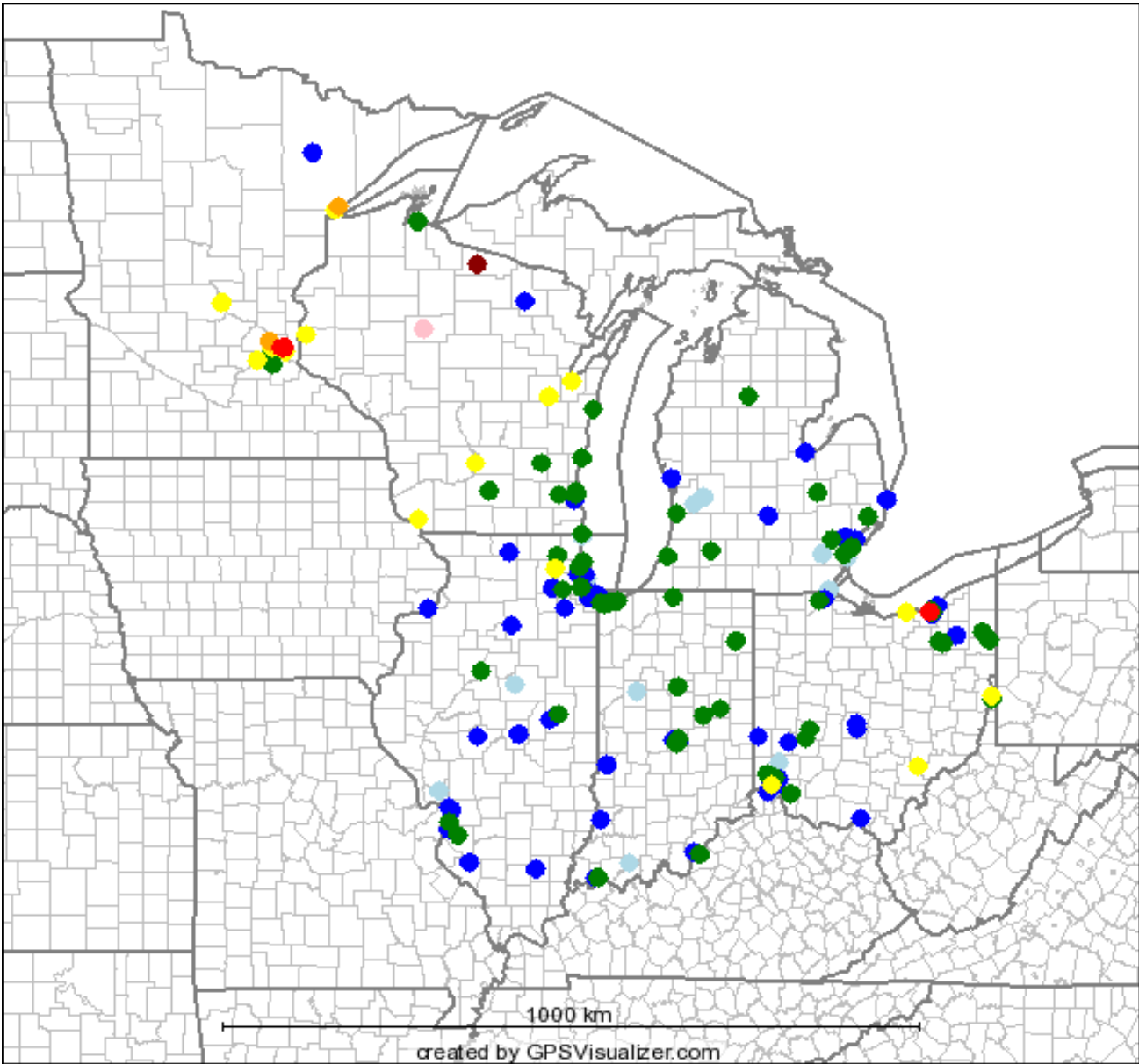
2006 – 2008 Fine Particulate Matter (PM_{2.5})

24-Hr Design Value Attainment Analysis



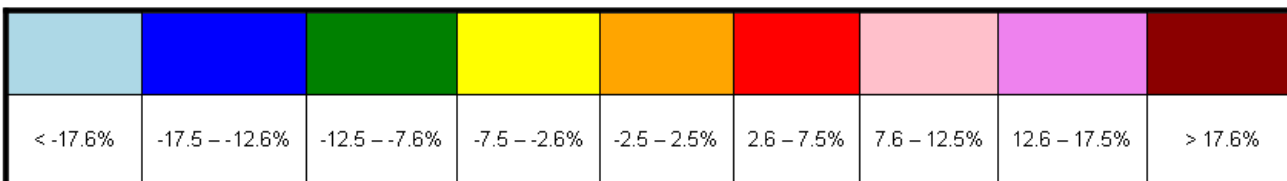
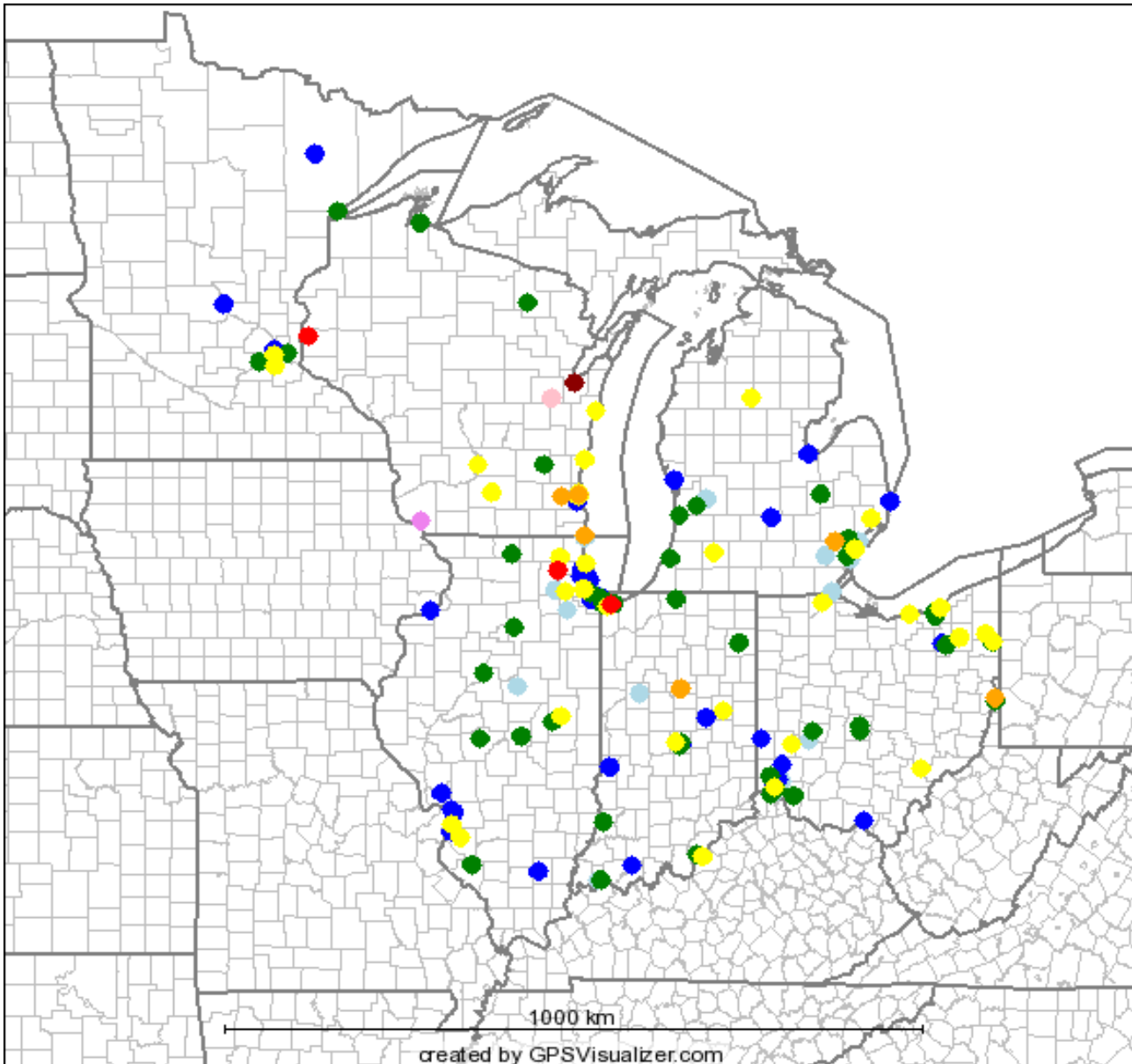
	Exceeds the 1997 Standard > 65 $\mu\text{g}/\text{m}^3$
	Exceeds the 2006 Standard 36 $\mu\text{g}/\text{m}^3$ - 65 $\mu\text{g}/\text{m}^3$
	> 90% of the 2006 Standard 32 $\mu\text{g}/\text{m}^3$ - 35 $\mu\text{g}/\text{m}^3$
	> 80% of the 2006 Standard 28 $\mu\text{g}/\text{m}^3$ - 31 $\mu\text{g}/\text{m}^3$
	< 80% of the 2006 Standard < 28 $\mu\text{g}/\text{m}^3$

Percent Change 2005/07 – 2006/08 24-Hour PM2.5 Design Values



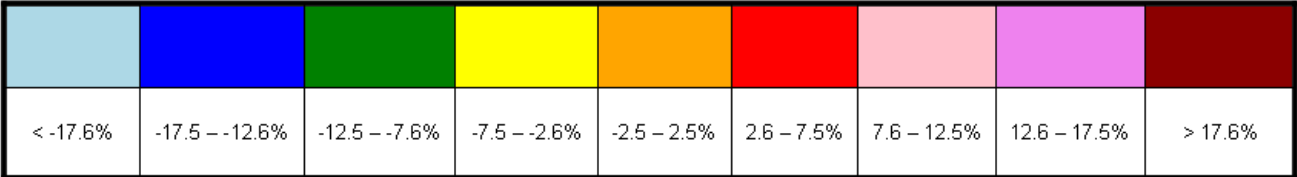
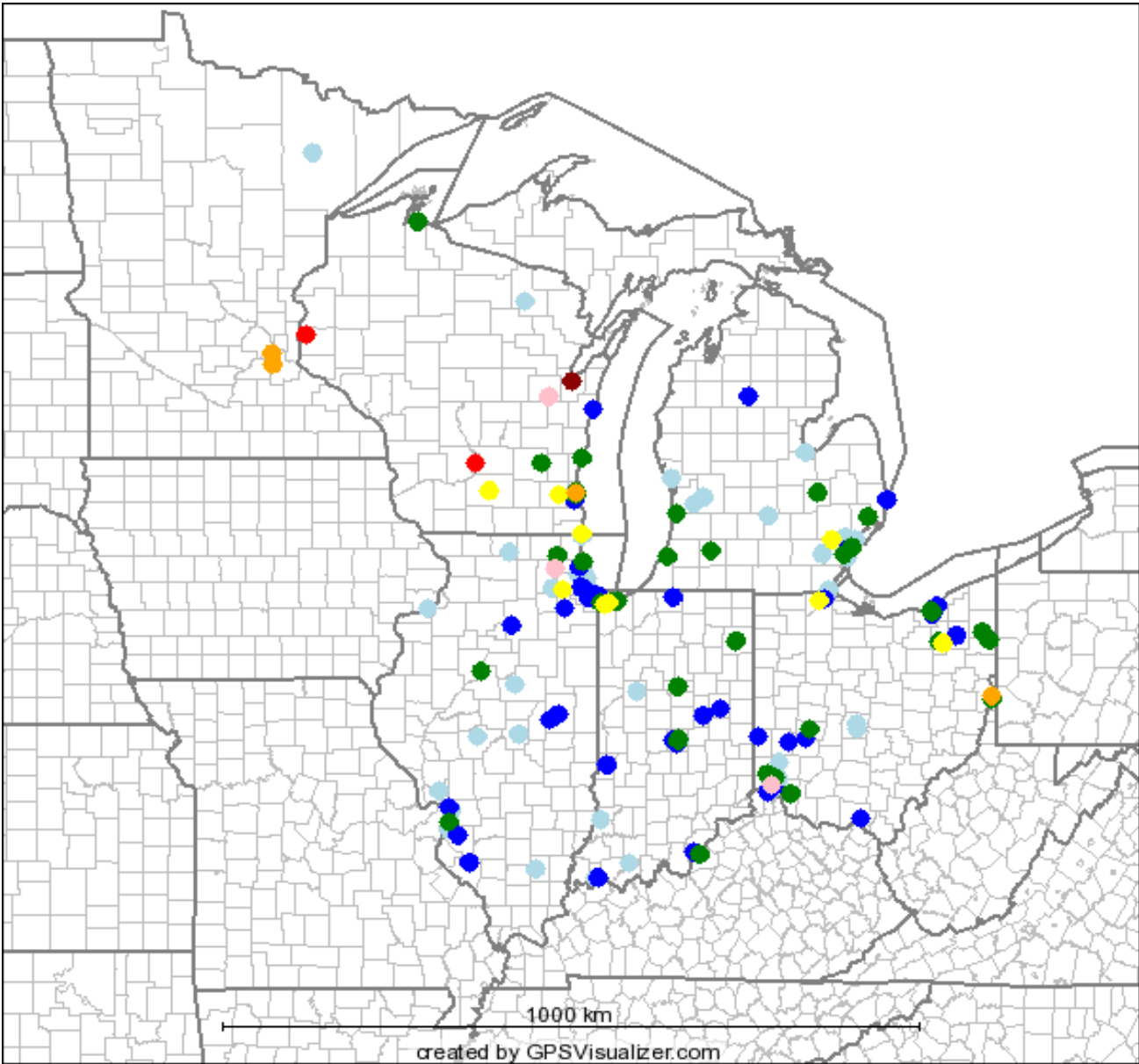
BIGGEST DECREASE		
	SITE ID	% CHANGE
1	170971007	-22.9%
2	261610008	-20.5%
3	261630036	-19.4%
4	260810020	-19.4%
5	181570008	-19.4%
6	170313301	-18.4%
7	390170003	-18.4%
8	261150005	-18.4%
9	170310057	-18.4%
10	390610040	-18.4%
BIGGEST INCREASE		
	SITE ID	% CHANGE
1	551250001	31.8%
2	551198001	11.5%
3	271230871	7.4%
4	271230868	3.8%
5	390350027	2.9%
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-

Percent Change 2004/06 – 2006/08 24-Hour PM2.5 Design Values



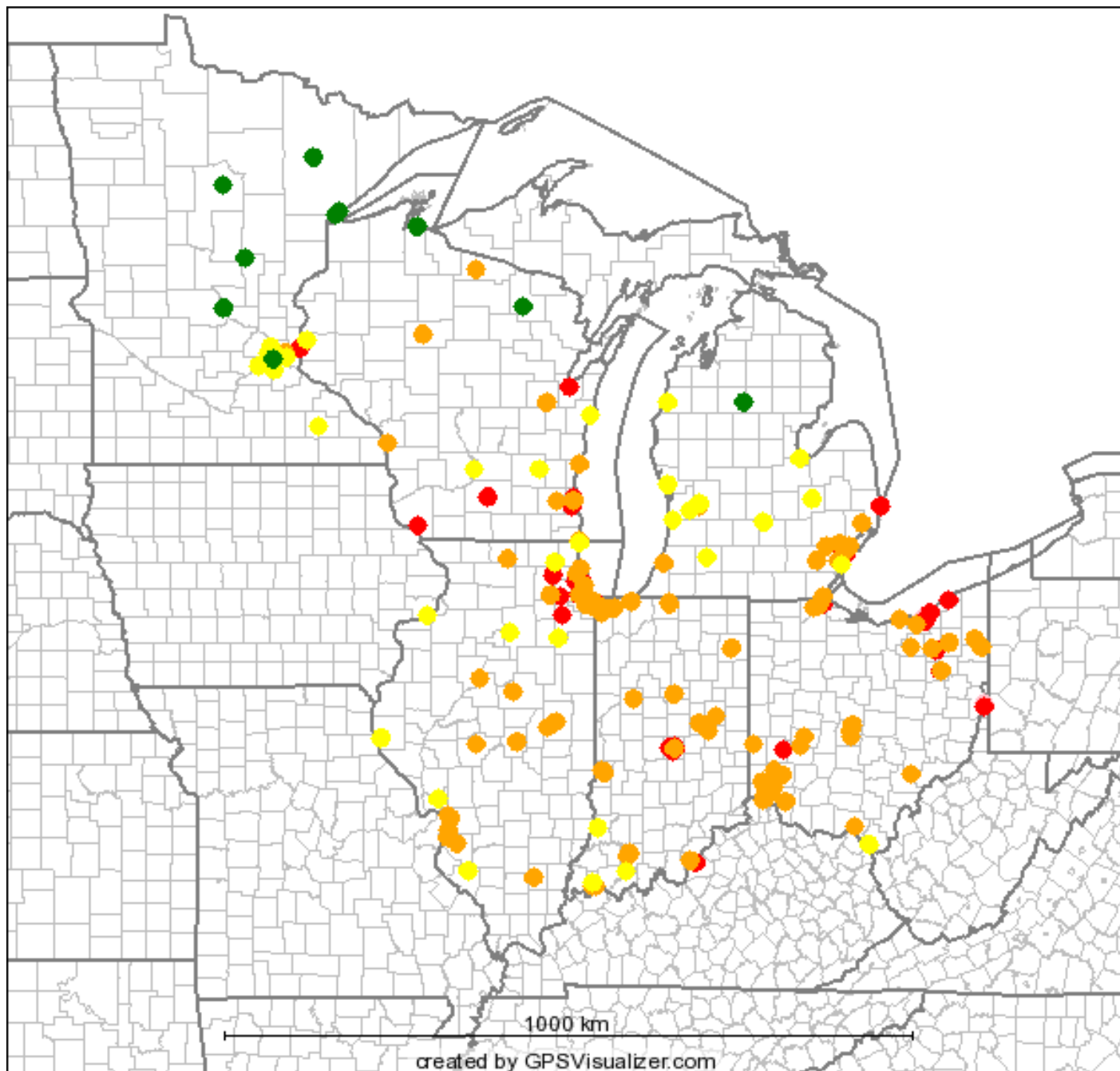
BIGGEST DECREASE		
	SITE ID	% CHANGE
1	261610008	-22.5%
2	261630019	-21.6%
3	390610040	-21.6%
4	261630036	-20.9%
5	171132003	-20.5%
6	261150005	-20.0%
7	181630006	-19.5%
8	171971002	-19.0%
9	260810020	-19.0%
10	170310050	-18.9%
BIGGEST INCREASE		
	SITE ID	% CHANGE
1	550090005	20.8%
2	550430009	16.0%
3	550870009	11.5%
4	170890003	5.6%
5	551091002	5.3%
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-






Percent Change 2003/05 – 2006/08 24-Hour PM2.5 Design Values



BIGGEST DECREASE		
	SITE ID	% CHANGE
1	170971007	-29.5%
2	261610008	-27.9%
3	261630036	-26.1%
4	260810020	-24.4%
5	170313301	-24.4%
6	181570008	-24.4%
7	390170003	-24.4%
8	261150005	-24.3%
9	170310057	-23.9%
10	390610040	-23.7%
BIGGEST INCREASE		
	SITE ID	% CHANGE
1	550090005	31.8%
2	390610014	12.1%
3	170890003	11.8%
4	550870009	11.5%
5	551110007	6.7%
6	551091002	5.3%
7	-	-
8	-	-
9	-	-
10	-	-

2009
Fine Particulate
Matter (PM2.5)
24-Hr Critical Value



	< 30.1 µg/m ³
	30.1 µg/m ³ – 40.0 µg/m ³
	40.1 µg/m ³ – 50.0 µg/m ³
	50.1 µg/m ³ – 60.0 µg/m ³
	> 60.0 µg/m ³

ILLINOIS

COUNTY	SITE ID	2003 - 2005	2004 - 2006	2005 - 2007	2006 - 2008
Cook	170311016	46	42	40	35
Madison	171191007	40	39	39	35
Cook	170310052	41	40	40	33
Cook	170313103	46 ¹	40	39	33
Cook	170316005	42	39	37	33 ¹
Madison	171190023	38	36	37 ¹	33 ¹
Kane	170890003	34	32	35	33
Cook	170310076	39	38	37	32
Will	171971002	37	36	37	32
DuPage	170434002	36	33	35	32
Madison	171190024	-	-	33 ¹	32 ¹
Cook	170313301	43	40	38	31
Cook	170310057	39	36	38	31
Cook	170312001	41	37	36	31
Cook	170310022	39	35	36	31
Madison	171192009	35	34	36	31
Cook	170314201	32	30	34	30
Peoria	171430037	34	32	33	30
Winnebago	172010013	47 ¹	37 ¹	35	29
Kane	170890007	44 ¹	35 ¹	35	29
Cook	170310050	38	35	35	29
Madison	171193007	34	33	35	29
Saint Clair	171630010	34	33	34	29
Sangamon	171670012	34	32	34	29
Macon	171150013	34	31	34	29
Cook	170314007	36	33	33	29
Saint Clair	171634001	33	31	33	29
Champaign	170190004	32	30	33	29
McHenry	171110001	33	31	31	28
Lake	170971007	31	33	35	27
McLean	171132003	43 ¹	34 ¹	33	27
Jersey	170831001	33 ¹	31	33	27
Hamilton	170650002	39 ¹	31 ¹	32	27
Champaign	170191001	32	28	31	27
Will	171971011	32	30	32 ¹	26
Rock Island	171613002	31	30	31	26
La Salle	170990007	29	28	30	26
Randolph	171570001	30	27	30	26
Adams	170010007	-	-	29 ¹	24 ¹

¹ Incomplete Data Capture

LEGEND

	Exceeds 1997 Standard	> 65 µg/m ³
	Exceeds 2006 Standard	36 - 65 µg/m ³
	> 90% of 2006 Standard	32 - 35 µg/m ³
	> 80% of 2006 Standard	28 - 31 µg/m ³
	< 80% of 2006 Standard	< 28 µg/m ³

INDIANA

COUNTY	SITE ID	2003 - 2005	2004 - 2006	2005 - 2007	2006 - 2008
Marion	180970043	38	38	40	35
Clark	180190006	37	37	39	35
Marion	180970066	38	37	40	34
Marion	180970081	38	37	39	34
Marion	180970078	38	35	37	33
Marion	180970083	36	35 ¹	37	33
Lake	180890026	41	38	36	33
Dubois	180370004	-	34 ¹	34 ¹	32 ¹
Elkhart	180390008	-	-	-	31 ¹
Lake	180890006	35	34	36	31
Lake	180890022	44	38	35	31
Lake	180890031	39 ¹	33 ¹	34	31
Dubois	180370005	-	32 ¹	34 ¹	31
Knox	180830004	36	36	36	30
Vanderburgh	181630006	35	34	36	30
Dubois	180372001	37	34	35	30 ¹
Vigo	181670023	36	34	35	30
Lake	180892010	36	32	35	30
Floyd	180431004	34	32	35	30
Allen	180030004	35	32	33	30
Lake	180892004	34	32	33	30
Howard	180670003	33	31	33	30
Tippecanoe	181570008	37	34	36	29
Vigo	181670018	35	34 ¹	35 ¹	29
Madison	180950009	34	32	33	29
Vanderburgh	181630016	34	32	33	29
St. Joseph	181410014	34	31	33	29
LaPorte	180910011	34	32 ¹	32 ¹	29
Lake	180890027	34	31	32 ¹	29
Porter	181270024	32	31	32	29
Clark	180190008	-	-	-	28 ¹
Vanderburgh	181630012	34	32	33	28 ¹
Delaware	180350006	34	31	32	28
Henry	180650003	32	30 ¹	32 ¹	28 ¹
St. Joseph	181410015	-	25 ¹	28 ¹	28 ¹
Spencer	181470009	33	31	33	27
Gibson	180510012	-	-	-	25 ¹

¹ Incomplete Data Capture

LEGEND

	Exceeds 1997 Standard	> 65 µg/m ³
	Exceeds 2006 Standard	36 - 65 µg/m ³
	> 90% of 2006 Standard	32 - 35 µg/m ³
	> 80% of 2006 Standard	28 - 31 µg/m ³
	< 80% of 2006 Standard	< 28 µg/m ³

MICHIGAN

COUNTY	SITE ID	2003 - 2005	2004 - 2006	2005 - 2007	2006 - 2008
Wayne	261630033	44	44	43	37
St. Clair	261470005	39	39	41	35
Wayne	261630015	40	41	40	35
Wayne	261630016	45	42	41	34
Wayne	261630019	41	41	40	33
Oakland	261250001	40	39	40	33
Wayne	261630039	44 ¹	38 ¹	37	33
Wayne	261630001	40	38	36	32
Wayne	261630038	47 ¹	41	40	31 ¹
Washtenaw	261610008	41	38	39	31
Monroe	261150005	40	39	38	31
Macomb	260990009	35	36	35	31
Wayne	261630025	37	34	34	31
Allegan	260050003	34	34	34	30
Wayne	261630036	38	37	36	29
Kent	260810020	37	37	36	29
Berrien	260210014	32	30	32	29
Ottawa	261390005	35	34	34	28
Muskegon	261210040	37	35	33	28
Kalamazoo	260770008	33	30	31	28
Kent	260810007	-	-	30 ¹	28 ¹
Ingham	260650012	32	32	32	27
Bay	260170014	32	32	31	26
Genesee	260490021	32	30	29	26
Manistee	261010922	-	26 ¹	26 ¹	25 ¹
Lenawee	260910007	-	-	-	23 ¹
Missaukee	261130001	25 ¹	24	25	22

¹ Incomplete Data Capture

LEGEND

	Exceeds 1997 Standard	> 65 µg/m ³
	Exceeds 2006 Standard	36 - 65 µg/m ³
	> 90% of 2006 Standard	32 - 35 µg/m ³
	> 80% of 2006 Standard	28 - 31 µg/m ³
	< 80% of 2006 Standard	< 28 µg/m ³

MINNESOTA

COUNTY	SITE ID	2003 - 2005	2004 - 2006	2005 - 2007	2006 - 2008
Washington	271630446	-	-	47 ¹	35 ¹
Ramsey	271230871	26	26	27	29
Olmsted	271095008	29 ¹	30 ¹	30 ¹	27 ¹
Ramsey	271230868	31	29	26	27
Ramsey	271230866	29	27	27	26
Hennepin	270531007	26	25	25	25
Hennepin	270532006	28	26	25 ¹	24 ¹
Hennepin	270530961	26	26	25	23
Dakota	270370470	25	26	25	23
Hennepin	270530963	28	26	24	23
Scott	271390505	26	25	24	23
Saint Louis	271377551	23	24	24	23
Mille Lacs	270953051	22	22	22	21 ¹
Cass	270210001	17	19	18	21 ¹
Stearns	271453052	25 ¹	23 ¹	21	20
Saint Louis	271377550	19	19	20	20
Saint Louis	271377001	20	21	20	17

¹ Incomplete Data Capture

LEGEND

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	Exceeds 2006 Standard	36 - 65 µg/m ³
	> 90% of 2006 Standard	32 - 35 µg/m ³
	> 80% of 2006 Standard	28 - 31 µg/m ³
	< 80% of 2006 Standard	< 28 µg/m ³

OHIO

COUNTY	SITE ID	2003 - 2005	2004 - 2006	2005 - 2007	2006 - 2008
Cuyahoga	390350038	47	43	42	38
Jefferson	390810017	42	40	40	37
Cuyahoga	390350060	46	41	40	36
Cuyahoga	390350027	39	36	35	36
Hamilton	390610014	39	39	37	35
Stark	391510017	38	37	36	35 ¹
Hamilton	390618001	40	40	41	34
Jefferson	390811001	46	43	38	34
Butler	390170016	37	37	38	34
Summit	391530017	40	38	37	34
Hamilton	390617001	40	39	38	33
Cuyahoga	390350065	41	37	38	33
Hamilton	390610042	37	37	38	33
Cuyahoga	390350045	42	37	37	33
Hamilton	390610006	45 ¹	39 ¹	38	32
Franklin	390490024	40	38	38	32
Franklin	390490025	39	38	38	32
Montgome	391130032	40	36	37	32
Cuyahoga	390350034	38	35	37	32
Mahoning	390990014	38	37	36	32
Hamilton	390610043	36	35	36	32
Clark	390230005	35	35	36	32
Lake	390853002	-	28 ¹	34 ¹	32
Athens	390090003	32	32	33	32
Butler	390170003	41	38	38	31
Hamilton	390610040	36	36	38	31
Scioto	391450013	34	33	36	31
Trumbull	391550007	38	36	35	31
Mahoning	390990005	36	35	35	31
Lucas	390950025	37	34	35	31 ¹
Cuyahoga	390351002	35	33 ¹	35 ¹	31
Lucas	390950026	37	34	34	31
Lorain	390933002	32	31	32	31
Lucas	390950024	39	35	35	30
Portage	391330002	34	34	35	30
Summit	391530023	38	37	34	30
Clermont	390250022	38 ¹	35 ¹	34	30
Stark	391510020	36	33 ¹	33 ¹	30 ¹
Franklin	390490081	34	33 ¹	33 ¹	30 ¹
Warren	391650007	-	-	34 ¹	29 ¹
Preble	391351001	34 ¹	32	34	29
Greene	390570005	29 ¹	31 ¹	33	29
Medina	391030003	39 ¹	34 ¹	32 ¹	29
Lawrence	390870012	-	-	-	28 ¹
Lucas	390950028	-	-	-	21 ¹

¹ Incomplete Data Capture

LEGEND

	Exceeds 1997 Standard	> 65 µg/m ³
	Exceeds 2006 Standard	36 - 65 µg/m ³
	> 90% of 2006 Standard	32 - 35 µg/m ³
	> 80% of 2006 Standard	28 - 31 µg/m ³
	< 80% of 2006 Standard	< 28 µg/m ³

WISCONSIN

COUNTY	SITE ID	2003 - 2005	2004 - 2006	2005 - 2007	2006 - 2008
Milwaukee	550790026	33	38	41	37
Milwaukee	550790043	39	41	40	36
Milwaukee	550790010	37	39	40	36
Milwaukee	550790099	37	38	39	36
Brown	550090005	36	37	37	35
Dane	550250047	35	35	37	34
Grant	550430009	34	34	35	34
Milwaukee	550790059	35	35	37	32
Outagamie	550870009	30	34	34	32
La Crosse	550630012	33 ¹	32 ¹	33 ¹	32
Waukesha	551330027	36	36	34	31
Kenosha	550590019	30 ¹	32	34	31
Ozaukee	550890009	30 ¹	31	34	30
Taylor	551198001	25 ¹	25	26	29
Vilas	551250001	22	24	22	29
Manitowoc	550710007	28	29	32	28
Dodge	550270007	33	32	30	27
Sauk	551110007	29 ¹	29	28	26
St. Croix	551091002	28 ¹	26 ¹	27	25
Forest	550410007	22 ¹	24 ¹	25	21
Ashland	550030010	17	18	21	19

¹ Incomplete Data Capture

LEGEND

	Exceeds 1997 Standard	> 65 µg/m ³
	Exceeds 2006 Standard	36 - 65 µg/m ³
	> 90% of 2006 Standard	32 - 35 µg/m ³
	> 80% of 2006 Standard	28 - 31 µg/m ³
	< 80% of 2006 Standard	< 28 µg/m ³

Site ID	Latitude	Longitude	2009 Critical Value
390350038	41.476944	-81.681944	27.4
390810017	40.366104	-80.615002	27.8
390350060	41.493955	-81.678542	29.7
390350027	41.4775	-81.703056	29.8
271630445	45.01876	-92.78027	33.4
550430009	42.69215	-90.68637	34.9
390350065	41.446389	-81.661944	35.2
391510017	40.786667	-81.394444	35.2
170316005	41.86442642	-87.74890238	35.5
170434002	41.77107094	-88.15253365	35.6
391530017	41.063333	-81.468611	35.6
170311016	41.80116701	-87.8319447	35.8
390350045	41.471667	-81.657222	36.0
390811001	40.321944	-80.606389	36.1
171971002	41.52688509	-88.11647381	36.4
180190006	38.277675	-85.740153	36.4
271630446	45.02798	-92.77415	36.6
550790099	43.039722	-87.920556	36.8
390610014	39.194167	-84.478889	37.0
170890003	42.050403	-88.28001471	37.8
180970043	39.744957	-86.166496	38.1
550250047	43.073333	-89.435833	38.1
261630033	42.30667449	-83.14875385	38.2
261630015	42.30278647	-83.10653043	38.2
390350034	41.555	-81.575	38.3
550790010	43.016667	-87.933333	38.6
170313103	41.96519348	-87.87626473	38.6
171191007	38.70453426	-90.13967484	38.6
550790059	42.955	-87.934167	38.8
180970081	39.788903	-86.214628	38.9
180890026	41.57323878	-87.40590529	39.1
550790026	43.061111	-87.9125	39.2
261470005	42.95333627	-82.45622878	39.2
550090005	44.516667	-87.993889	39.2
170310052	41.96548483	-87.74992806	39.3
390853002	41.7225	-81.241944	39.3
180970066	39.760437	-86.108848	39.5
391130032	39.760278	-84.187778	39.5
170310076	41.75139998	-87.71348815	39.6
170310022	41.68716544	-87.53931548	39.6
390950025	41.661944	-83.479444	39.7
180970078	39.811097	-86.114469	40.0
261630039	42.32334127	-83.0684731	40.0
170310057	41.91286212	-87.72272345	40.1
390618001	39.180278	-84.491944	40.1
390230005	39.928889	-83.809722	40.2
180970083	39.774944	-86.122053	40.3
390933002	41.463056	-82.114444	40.4
170313301	41.78276601	-87.80537679	40.5
390170016	39.338333	-84.566389	40.5

Site ID	Latitude	Longitude	2009 Critical Value
261250001	42.46306341	-83.18319868	40.8
390990005	41.1111111	-80.645278	40.8
180890031	41.598505	-87.342991	40.9
550790043	43.02641	-87.91111	41.1
390351002	41.395556	-81.818056	41.2
391550007	41.214167	-80.7875	41.2
390090003	39.4425	-81.908611	41.3
171192009	38.90308534	-90.14316803	41.5
261630038	42.33500824	-83.10956346	41.6
390950026	41.620556	-83.641389	41.6
170312001	41.66210943	-87.69646652	41.9
390950024	41.644167	-83.546667	42.0
180030004	41.094722	-85.101944	42.1
390990014	41.095868	-80.658426	42.1
261630016	42.35780806	-83.09603295	42.2
180890022	41.606667	-87.304722	42.4
390617001	39.16	-84.457778	42.5
390170003	39.493611	-84.353889	42.6
180890006	41.63612714	-87.44084318	42.7
261630019	42.43084042	-83.00013754	42.7
551330027	43.020278	-88.215	42.8
171190024	38.7006315	-90.14476267	42.8
390610042	39.105	-84.551111	43.1
180892010	41.67834877	-87.50834545	43.1
180892004	41.58549644	-87.47448613	43.2
550630012	43.778	-91.225	43.4
271230871	44.95939	-93.03587	43.5
261610008	42.24056548	-83.59960223	43.8
390490025	39.928056	-82.981111	43.9
391510020	40.800556	-81.373333	43.9
171150013	39.86683389	-88.92559445	44.1
180431004	38.308056	-85.834167	44.3
390610043	39.290278	-84.414444	44.3
390490024	39.998333	-82.993056	44.5
391450013	38.754167	-82.9175	44.6
170314201	42.13999619	-87.79922692	44.6
170890007	41.78471651	-88.32937361	44.7
171430037	40.697007	-89.58473722	44.8
390610006	39.278499	-84.365974	44.8
181270024	41.6175	-87.199167	44.9
180670003	40.48547921	-86.13287862	45.0
261630001	42.22862014	-83.20820002	45.0
550870009	44.306944	-88.395556	45.0
181410014	41.66346025	-86.20782578	45.1
551198001	45.203889	-90.6	45.1
551250001	46.048056	-89.653611	45.2
180370005	38.404778	-86.928322	45.3
180370004	38.369436	-86.959031	45.3
261630025	42.42306297	-83.426263	45.4
550590019	42.504722	-87.8093	45.5

Site ID	Latitude	Longitude	2009 Critical Value
170310050	41.70756959	-87.56857386	45.6
550890009	43.498056	-87.81	45.7
181630006	37.97172743	-87.56723567	45.7
261150005	41.763889	-83.471944	45.7
180890027	41.54659252	-87.42648132	45.9
391530023	41.088056	-81.541667	45.9
391330002	41.164167	-81.235	46.1
170190004	40.1237962	-88.22953098	46.2
390610040	39.128611	-84.504167	46.3
171193007	38.86066947	-90.10585111	46.6
171634001	38.52963143	-89.99284962	46.7
180950009	40.11197515	-85.6799522	46.8
181570008	40.431639	-86.8525	46.8
170314007	42.06028469	-87.86322543	46.9
181670023	39.45623805	-87.37055314	46.9
170191001	40.05224171	-88.37254916	47.1
390570005	39.808056	-83.886944	47.1
180372001	38.39144308	-86.92916033	47.3
180910011	41.70721161	-86.8912157	47.3
170650002	38.08215516	-88.6249434	47.4
172010013	42.26308105	-89.09276716	47.4
391030003	41.102778	-81.911667	47.5
181410015	41.696692	-86.214683	47.6
390490081	40.087778	-82.959722	47.7
391351001	39.835556	-84.720833	47.8
171670012	39.83192087	-89.64416359	48.1
171630010	38.61203448	-90.16047663	48.4
181630016	37.97443645	-87.53228857	48.5
260990009	42.73139412	-82.79346283	48.6
271230868	44.95072	-93.09827	48.6
391650007	39.427797	-84.202208	48.7
260210014	42.19778954	-86.30969398	48.7
171132003	40.51873537	-88.99689571	49.2
181670018	39.486111	-87.401389	49.2
180650003	40.011667	-85.523611	49.3
390250022	39.082319	-84.144193	49.4
180350006	40.201141	-85.38799856	49.8
260810007	42.95611721	-85.67911703	50.0
260050003	42.76778555	-86.14857722	50.3
170971007	42.4675733	-87.81004705	50.9
171110001	42.22144166	-88.24220734	50.9
171971011	41.22153707	-88.19096718	51.3
260770008	42.27806667	-85.54188992	51.3
261390005	42.89445066	-85.85273402	51.3
261630036	42.18728938	-83.15390528	51.6
271230866	44.89926	-93.01708	51.6
550710007	44.138611	-87.616111	51.7
181630012	38.021667	-87.569444	51.9
260810020	42.98417304	-85.67133874	51.9
180830004	38.74088201	-87.48473316	52.1

Site ID	Latitude	Longitude	2009 Critical Value
550270007	43.435	-88.527778	52.1
261210040	43.23306082	-86.23858006	52.1
181470009	38.16752303	-86.98321416	52.2
270531007	45.03972	-93.29874	52.3
271095008	43.996908	-92.450366	53.0
551091002	45.124444	-92.6625	53.1
170990007	41.29301454	-89.04942498	53.2
260650012	42.73861787	-84.53463315	53.5
170831001	39.11053947	-90.32407986	53.6
171570001	38.17627761	-89.78845862	53.9
551110007	43.435556	-89.680278	54.5
390870010	38.519722	-82.665556	54.8
270532006	44.94805	-93.34315	55.3
171613002	41.51472697	-90.51735026	55.6
260490021	43.04722419	-83.67015909	55.6
270530963	44.95366	-93.25821	56.9
260170014	43.57139061	-83.89072068	57.7
170010007	39.91540937	-91.33586832	57.8
261010922	44.30700008	-86.24264864	58.8
270370470	44.73846	-93.23725	59.6
271390505	44.791437	-93.512534	59.6
271377551	46.76643	-92.13354	60.6
270530961	44.87551	-93.25892	61.3
261130001	44.31055542	-84.89186532	62.2
271453052	45.549839	-94.13345	63.0
270210001	47.159942	-94.150987	64.0
271377550	46.81826	-92.08936	64.1
270953051	46.2053	-93.75945	64.7
550030010	46.61455	-90.69868	71.0
550410007	45.56498	-88.80859	72.9
271377001	47.523355	-92.536305	78.6