



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

March 11, 2009

Mr. Bharat Mathur
Acting Regional Administrator
U.S. Environmental Protection Agency
Region V
77 West Jackson Boulevard
Chicago, IL 60604-3608

Re: Recommendations Concerning Air Quality
Designations for the 2008 Revised 8-Hour
Ozone National Ambient Air Quality Standard

Dear Mr. Mathur:

This letter is in response to the United States Environmental Protection Agency's (U.S. EPA's) December 4, 2008, guidance memorandum concerning air quality designations for the revised 2008 8-hour ozone National Ambient Air Quality Standard (NAAQS). The guidance indicates U.S. EPA's intention to propose designations in November 2009, and finalize them by March 12, 2010, and requests that states submit recommendations by March 12, 2009.

Enclosed are quality assured monitoring data from 2006 through 2008 for Indiana's ozone monitoring network. Indiana's monitored ozone concentrations have trended downward since 2002, resulting in just twelve Indiana counties (Boone, Clark, Floyd, Greene, Hamilton, Hancock, Lake, Marion, Morgan, Perry, Vanderburgh and Warrick) with design values above the revised 8-hour ozone standard. Indiana expects this downward trend to continue over the next few years with the continued phase-in of recently implemented federal and state regulations.

The following enclosures are also included with this letter:

- Enclosure 1—2006-2008 Indiana Ozone Summary
- Enclosure 2—List of Indiana Counties with Recommendations
- Enclosure 3—Map of Indiana Ozone Nonattainment Recommendations
- Enclosure 4—Indiana's Assessment of the Revised 2008 8-Hour Ozone Standard and Technical Support Documents
 - Appendix A—Indiana Growth Rates and Patterns
 - Appendix B—2006 Indiana Commuting Patterns
 - Appendix C—2005 Indiana Emissions Summary

Monitoring data indicates that Indiana's air quality continues to improve. Indiana firmly believes that the nonattainment boundaries for the revised 8-hour ozone standard should be limited to the counties that actually possess a three-year average ambient monitor-based design value above the standard. With the exception of two ozone monitors in Indiana (Charlestown-Clark County and Inglefield-Vanderburgh

County), monitored values exceed the standard by only 1 to 3 ppb. Because there is a public stigma associated with nonattainment designations, Indiana urges U.S. EPA to carefully review all data, as well as federal and regional modeling of the impact of federal and state control measures prior to imposing undue economic hardships on areas that are adjacent to counties where monitoring data slightly exceeds the revised standard.

Limiting the designated nonattainment areas is further supported by the fact that air emissions in Indiana counties adjacent to the larger urban areas do not significantly contribute to exceeding monitors. Air quality in those counties will be further improved by federal and state control programs, such as the Clean Air Interstate Rule (CAIR) and cleaner engine and fuel standards, which are expected to dramatically reduce the precursors for ozone over the next few years.

Although the Clean Air Act (CAA) requires U.S. EPA to complete the designation process within two years of the effective date of the standard, it does allow U.S. EPA to take up to an additional year to issue designations (i.e., no later than three years after the effective date of the standard). In this case, that enables U.S. EPA to delay issuance of designations until March 12, 2011. Indiana urges U.S. EPA to take advantage of this CAA provision to fully realize the effects from some of the recently implemented federal and state control measures, prior to imposing an undue burden on states and local communities. Technical information within Enclosure 4 illustrates that all but one county in Indiana will likely attain the revised standard by 2012.

Since the U.S. EPA will not designate areas under the revised standard until the completion of the 2009 ozone season (2010 ozone season if designations are delayed another year), Indiana reserves the right to update the recommendations contained within based on the 2007-2009 design values, once available. Indiana also reserves the right to supplement its recommendations with additional technical support information as it becomes available and intends to do so within the next 60 days.

I appreciate the opportunity to provide comments and recommendations to U.S. EPA concerning the designations for the revised 2008 8-hour ozone standard. Likewise, I look forward to working with your staff as U.S. EPA moves forward with the designation process. If you have any questions regarding IDEM's analysis and recommendations, please feel free to contact me at (317) 232-8611 or Dan Murray, Assistant Commissioner, Office of Air Quality, at (317) 232-8222.

Sincerely,



Thomas W. Easterly
Commissioner

TWE/dm/sad/skr
Enclosures

cc: Cheryl L. Newton, U.S. EPA Region 5
John Mooney, U.S. EPA Region 5
Daniel Murray, IDEM-OAQ

2000-2008 Indiana Ozone Summary

Note: Prior to 2008, the ozone standard was 0.08 parts per million (ppm). Attainment was determined by the average of the 4th highest ozone values over a three-year period. A value of 0.085 ppm or above was in violation of the standard. Beginning in 2008, the ozone standard was lowered to 0.075 ppm. Attainment is determined by the average of the 4th highest ozone values over a three-year period. A value of 0.076 ppm or above is a violation of the standard.

County	Site #	Site Name	4th Highest Ozone Value (ppm)									Three-Year Design Value (ppm)						
			2000	2001	2002	2003	2004	2005	2006	2007	2008	00-02	01-03	02-04	03-05	04-06	05-07	06-08
ALLEN	18 003 0002	LEO	0.091	0.082	0.093	0.090	0.073	0.086	0.073	0.077	0.066	0.088	0.088	0.085	0.083	0.077	0.078	0.072
ALLEN	18 003 0004	BEACON STREET	0.081	0.074	0.097	0.084	0.069	0.076	0.071	0.080	0.069	0.084	0.085	0.083	0.076	0.072	0.075	0.073
BOONE	18 011 0001	WHITESTOWN	0.082	0.084	0.099	0.088	0.072	0.082	0.080	0.083	0.073	0.088	0.090	0.086	0.080	0.078	0.081	0.078
CARROLL	18 015 0002	FLORA		0.079	0.096	0.079	0.071	0.075	0.073	0.078	0.065	0.087 ²	0.084	0.082	0.075	0.073	0.075	0.072
CLARK *	18 019 0003/8	CHARLESTOWN / STATE PARK	0.085	0.086	0.100	0.090	0.074	0.080	0.079	0.090	0.075	0.090	0.092	0.088	0.081	0.077	0.083	0.081
DELAWARE	18 035 0010	ALBANY		0.084	0.095	0.085	0.070	0.081	0.072	0.079	0.062	0.089 ²	0.088	0.083	0.078	0.074	0.077	0.071
ELKHART	18 039 0007	BRISTOL			0.099	0.087	0.077	0.086	0.067	0.082	0.068	0.099 ¹	0.093 ²	0.087	0.083	0.076	0.078	0.072
FLOYD	18 043 1004	NEW ALBANY	0.077	0.076	0.097	0.086	0.071	0.080	0.076	0.082	0.075	0.083	0.086	0.084	0.079	0.075	0.079	0.077
GREENE	18 055 0001	PLUMMER	0.090	0.085	0.093	0.088	0.073	0.079	0.076	0.084	0.072	0.089	0.088	0.084	0.080	0.076	0.079	0.077
HAMILTON	18 057 1001	NOBLESVILLE	0.090	0.088	0.101	0.101	0.075	0.087	0.077	0.084	0.073	0.093	0.096	0.092	0.087	0.079	0.082	0.078
HANCOCK	18 059 0003	FORTVILLE	0.086	0.089	0.101	0.092	0.072	0.080	0.075	0.081	0.074	0.092	0.094	0.088	0.081	0.075	0.078	0.076
HENDRICKS	18 063 0004	AVON	0.087	0.083	0.095	0.079	0.071	0.078	0.073	0.079	0.068	0.088	0.085	0.081	0.076	0.074	0.076	0.073
HUNTINGTON	18 069 0002	ROANOKE	0.087	0.082	0.089	0.083	0.069	0.078	0.072	0.078	0.060	0.086	0.084	0.080	0.076	0.073	0.076	0.070
JACKSON	18 071 0001	BROWNSTOWN	0.082	0.084	0.090	0.082	0.068	0.077	0.075	0.078	0.070	0.085	0.085	0.080	0.075	0.073	0.076	0.074
JOHNSON	18 081 0002	TRAFALGAR	0.084	0.082	0.097	0.080	0.073	0.077	0.078	0.080	0.069	0.087	0.086	0.083	0.076	0.076	0.078	0.075
LAKE	18 089 0022	GARY IITRI	0.075	0.083	0.094	0.076	0.064	0.089	0.073	0.085	0.062	0.084	0.084	0.078	0.076	0.075	0.082	0.073
LAKE	18 089 0030	WHITING					0.064	0.088	0.081	0.088	0.062			0.064 ¹	0.076 ²	0.077	0.085	0.077
LAKE	18 089 2006	HAMMOND	0.086	0.090	0.101	0.081	0.067	0.087	0.075	0.077	0.068	0.092	0.090	0.083	0.078	0.076	0.079	0.073
LAPORTE	18 091 0005	MICHIGAN CITY	0.080	0.090	0.107	0.082	0.070	0.084	0.075	0.073	0.059	0.092	0.093	0.086	0.078	0.076	0.077	0.069
LAPORTE	18 091 0010	LAPORTE	0.074	0.079	0.100	0.084	0.068	0.089	0.069	0.078	0.065	0.084	0.087	0.084	0.080	0.075	0.078	0.070
MADISON	18 095 0010	EMPORIA	0.080	0.090	0.104	0.091	0.072	0.078	0.073	0.078	0.065	0.091	0.095	0.089	0.080	0.074	0.076	0.072
MARION	18 097 0050	FORT HARRISON	0.083	0.087	0.100	0.091	0.073	0.080	0.076	0.083	0.075	0.090	0.092	0.088	0.081	0.076	0.079	0.078
MARION	18 097 0057	HARDING STREET	0.078	0.081	0.099	0.075	0.066	0.081	0.076	0.076	0.067	0.086	0.085	0.080	0.074	0.074	0.077	0.073
MARION	18 097 0073	EAST 16TH STREET	0.082	0.081	0.106	0.082	0.071	0.080	0.072	0.080	0.066	0.089	0.089	0.086	0.077	0.074	0.077	0.072
MORGAN	18 109 0005	MONROVIA	0.088	0.082	0.094	0.081	0.072	0.078	0.077	0.084	0.069	0.088	0.085	0.082	0.077	0.075	0.079	0.076
PERRY	18 123 0009	LEOPOLD					0.078	0.086	0.079	0.080	0.073			0.078 ¹	0.082 ²	0.081	0.081	0.077
PORTER	18 127 0024	OGDEN DUNES	0.085	0.085	0.101	0.077	0.069	0.090	0.070	0.084	0.069	0.090	0.087	0.082	0.078	0.076	0.081	0.074
PORTER	18 127 0026	VALPARAISO	0.082	0.077	0.100	0.082	0.072	0.078	0.071	0.080	0.061	0.086	0.086	0.084	0.077	0.073	0.076	0.070
POSEY	18 129 0003	ST. PHILLIPS	0.085	0.079	0.097	0.077	0.071	0.077	0.058	0.080	0.069	0.087	0.084	0.081	0.075	0.068	0.071	0.069
ST. JOSEPH	18 141 0010	POTATO CREEK	0.079	0.078	0.092	0.081	0.073	0.078	0.069	0.075	0.063	0.083	0.083	0.082	0.077	0.073	0.074	0.069
ST. JOSEPH **	18 141 0008/15	ANGELA & EDDY / SHIELDS DRIVE	0.081	0.082	0.100	0.082	0.072	0.084	0.063	0.067	0.058	0.087	0.088	0.084	0.079	0.073	0.071	0.062
ST. JOSEPH	18 141 1007	GRANGER	0.078	0.089	0.104	0.086	0.076	0.086	0.070	0.082	0.069	0.090	0.093	0.088	0.082	0.077	0.079	0.073
SHELBY	18 145 0001	FAIRLAND	0.087	0.093	0.101	0.089	0.071	0.080	0.073	0.082	0.070	0.093	0.094	0.087	0.080	0.074	0.078	0.075
VANDERBURGH	18 163 0012	MILL ROAD	0.081	0.073	0.095	0.081	0.072	0.080	0.075	0.085	0.074	0.083	0.083	0.082	0.077	0.075	0.080	0.078
VANDERBURGH	18 163 0013	INGLEFIELD	0.075	0.072	0.086	0.075	0.058	0.056	0.081	0.088	0.072	0.077	0.077	0.073	0.063	0.065	0.075	0.080
VIGO	18 167 0018	TERRE HAUTE	0.075	0.082	0.082	0.066	0.057	0.064	0.060	0.077	0.059	0.079	0.076	0.068	0.062	0.060	0.067	0.065
VIGO	18 167 0024	SANDCUT		0.083	0.099	0.080	0.072	0.076	0.072	0.073	0.066	0.091 ²	0.087	0.083	0.076	0.073	0.073	0.070
WARRICK	18 173 0008	BOONVILLE	0.073	0.078	0.091	0.076	0.073	0.080	0.078	0.083	0.071	0.080	0.081	0.080	0.076	0.077	0.080	0.077
WARRICK	18 173 0009	LYNNVILLE	0.077	0.075	0.090	0.078	0.066	0.076	0.070	0.080	0.064	0.080	0.081	0.078	0.073	0.070	0.075	0.071
WARRICK	18 173 0011	DAYVILLE						0.077	0.078	0.076	0.060				0.077 ¹	0.077 ²	0.077	0.071

Prior to 2008, Red Numbers are >= 0.085 ppm

Beginning 2008, Red Numbers are >= 0.076 ppm

¹ One Year of Data

2006-2008 Design Value Greater than or Equal to 0.076 ppm

² Two Years of Data

* Clark County ozone monitor was moved from Charlestown to Charlestown State Park in 2007. The 2005-2007 and 2006-2008 design values are calculated from both monitoring sites.

** St. Joseph ozone monitor was moved from Angela & Eddy to Shields Drive on June 1, 2006. The 2004-2006 and 2005-2007 design values are calculated from both monitoring sites. The 2006-2008 design value is calculated from Shields Drive only

This page intentionally left blank.

Enclosure 2

List of Indiana Counties with Recommendations

County (Monitor ID)	2006-2008 Design Value (ppm)	Attainment Status for 1997 Ozone NAAQS	Indiana Recommendation for 2008 Ozone NAAQS	Reason For Recommendation for 2008 Ozone NAAQS
Allen (180030002)	0.072	Attainment with a Maintenance Plan (Redesignation approved 2-12-07)	Attainment	Monitor Values Below Standard
Allen (180030004)	0.073			
Boone (180110001)	0.078	Attainment with a Maintenance Plan (Redesignation approved 10-19-07)	Nonattainment	Monitor Value Above Standard
Carroll (180150002)	0.072	Attainment/Unclassifiable	Attainment	Monitor Value Below Standard
Clark (180190003/8) <small>Clark County ozone monitor was moved from Charlestown to Charlestown State Park in 2007, the 2006-2008 Design Value is calculated from both monitoring sites.</small>	0.081	Attainment with a Maintenance Plan (Redesignation approved 7-19-07)	Nonattainment	Monitor Value Above Standard
Dearborn (Lawrenceburg Township) <small>Note: Indiana does not have an ozone monitor located in Dearborn County</small>	N/A	Nonattainment (Attainment Demonstration sent to U.S. EPA on 4-5-08)	Attainment/Unclassifiable	Insignificant Contributor
Delaware (180350010)	0.071	Attainment with a Maintenance Plan (Redesignation approved 1-3-06)	Attainment	Monitor Value Below Standard
Elkhart (180390007)	0.072	Attainment with a Maintenance Plan (Redesignation approved 7-19-07)	Attainment	Monitor Value Below Standard
Floyd (180431004)	0.077	Attainment with a Maintenance Plan (Redesignation approved 7-19-07)	Nonattainment	Monitor Value Above Standard
Greene (180550001)	0.077	Attainment with a Maintenance Plan (Redesignation approved 12-29-05)	Nonattainment	Monitor Value Above Standard
Hamilton (180571001)	0.078	Attainment with a Maintenance Plan (Redesignation approved 10-19-07)	Nonattainment	Monitor Value Above Standard
Hancock (180590003)	0.076	Attainment with a Maintenance Plan (Redesignation approved 10-19-07)	Nonattainment	Monitor Value Above Standard
Hendricks (180630004)	0.073	Attainment with a Maintenance Plan (Redesignation approved 10-19-07)	Attainment	Monitor Value Below Standard
Huntington (180690002)	0.070	Attainment/Unclassifiable	Attainment	Monitor Value Below Standard
Jackson (180710001)	0.074	Attainment with a Maintenance Plan (Redesignation approved 12-29-05)	Attainment	Monitor Value Below Standard

Red text indicates 2006-2008 design value is greater than or equal to 0.076 ppm				
County (Monitor ID)	2006-2008 Design Value (ppm)	Attainment Status for 1997 Ozone NAAQS	Indiana Recommendation for 2008 Ozone NAAQS	Reason For Recommendation for 2008 Ozone NAAQS
Johnson (180810002)	0.075	Attainment with a Maintenance Plan (Redesignation approved 10-19-07)	Attainment	Monitor Value Below Standard
Lake (180890022)	0.073	Nonattainment (Redesignation pending sent to U.S. EPA on 12-4-08)	Nonattainment	One Monitor Value Above the Standard
Lake (180890030)	0.077			
Lake (180892006)	0.073			
LaPorte (180910005)	0.069	Attainment with a Maintenance Plan (Redesignation approved 7-19-07)	Attainment	Monitor Values Below Standard
LaPorte (180910010)	0.070			
Madison (180950010)	0.072	Attainment with a Maintenance Plan (Redesignation approved 10-19-07)	Attainment	Monitor Value Below Standard
Marion (180970050)	0.078	Attainment with a Maintenance Plan (Redesignation approved 10-19-07)	Nonattainment	One Monitor Value Above the Standard
Marion (180970057)	0.073			
Marion (180970073)	0.072			
Morgan (181090005)	0.076	Attainment with a Maintenance Plan (Redesignation approved 10-19-07)	Nonattainment	Monitor Value Above Standard
Perry (181230009)	0.077	Attainment/Unclassifiable	Nonattainment	Monitor Value Above Standard
Porter (181270024)	0.074	Nonattainment (Redesignation pending sent to U.S. EPA on 12-4-08)	Attainment	Monitor Values Below Standard
Porter (181270026)	0.070			
Posey (181290003)	0.069	Attainment/Unclassifiable	Attainment	Monitor Value Below Standard
St. Joseph (181410010)	0.069	Attainment with a Maintenance Plan (Redesignation approved 7-19-07)	Attainment	Monitor Values Below Standard
St. Joseph (181410015)	0.062			
St. Joseph (181411007)	0.073			
Shelby (181450001)	0.075	Attainment with a Maintenance Plan (Redesignation approved 10-19-07)	Attainment	Monitor Values Below Standard
Vanderburgh (181630012)	0.078	Attainment with a Maintenance Plan (Redesignation approved 1-30-06)	Nonattainment	Monitor Values Above Standard
Vanderburgh (181630013)	0.080			
Vigo (181670018)	0.065	Attainment with a Maintenance Plan (Redesignation approved 2-6-06)	Attainment	Monitor Values Below Standard
Vigo (181670024)	0.070			
Warrick (181730008)	0.077	Attainment with a Maintenance Plan (Redesignation approved 1-30-06)	Nonattainment	One Monitor Value Above the Standard
Warrick (181730009)	0.071			
Warrick (181730011)	0.071			
Red text indicates 2006-2008 design value is greater than or equal to 0.076 ppm				

Note: Indiana is recommending the remainder of the state as Attainment/Unclassifiable

This map of Indiana displays all 92 counties, categorized into three color-coded groups. The Blue group includes 10 counties: Lake, Porter, Laporte, St. Joseph, Elkhart, Allen, Huntington, Carroll, Vigo, and Posey. The Orange group includes 12 counties: Lake, Porter, Laporte, St. Joseph, Elkhart, Allen, Huntington, Carroll, Vigo, Posey, Boone, Hamilton, Hendricks, Marion, Hancock, Morgan, Johnson, Shelby, Greene, Jackson, Clark, and Floyd. The White group includes the remaining 28 counties: Newton, Jasper, Pulaski, Fulton, Kosciusko, Noble, DeKalb, Whitley, Wells, Adams, Benton, White, Cass, Miami, Wabash, Grant, Blackford, Jay, Warren, Tippecanoe, Clinton, Tipton, Madison, Delaware, Randolph, Fountain, Montgomery, Boone, Hamilton, Madison, Delaware, Randolph, Henry, Wayne, Vermillion, Parke, Putnam, Hendricks, Marion, Hancock, Rush, Fayette, Union, Clay, Owen, Morgan, Johnson, Shelby, Franklin, Sullivan, Clay, Owen, Monroe, Brown, Bartholomew, Decatur, Ripley, Dearborn, Lawrence, Jackson, Jennings, Decatur, Ripley, Dearborn, Knox, Daviess, Martin, Lawrence, Jackson, Jennings, Decatur, Ripley, Dearborn, Pike, Dubois, Orange, Washington, Scott, Jefferson, Switzerland, Gibson, Pike, Dubois, Crawford, Harrison, Clark, and Floyd.

Attainment/Unclassifiable
 Attainment-Based on Monitoring Data
 Nonattainment-Based on Monitoring Data

This page intentionally left blank.

Enclosure 4

Indiana's Assessment of the Revised 2008 8-hour Ozone Standard and Technical Support Documents March 2009

U.S. EPA has not finalized its implementation guidance that outlines the process for transitioning from the 1997 8-hour ozone standard to the revised 2008 8-hour ozone standard. This plays a large role in determining the regulatory implications of nonattainment status for various types of areas for the revised 2008 8-hour ozone standard. IDEM urges U.S. EPA to do everything possible to finalize the 2008 8-hour implementation guidance before nonattainment boundaries are finalized. Uncertainty about the implementation requirements has had a definite impact on Indiana's development of recommendations and has made the process more difficult than it would have been had implementation guidance been available for the revised 2008 8-hour ozone standard. In addition, states should have the opportunity to supplement their recommendations to U.S. EPA concerning nonattainment designations under the revised 2008 8-hour ozone standard once a final implementation rule is published. U.S. EPA should not designate areas under the revised 2008 8-hour ozone standard until states have had an opportunity to evaluate the implications of the implementation rule for affected areas and supplement or revise these original recommendations.

IDEM recognizes that U.S. EPA's implementation guidance for the revised 2008 8-hour ozone standard must be consistent with the Clean Air Act. The CAA provided highly specific requirements for the attainment of the 1-hour ozone standard but does not make provisions for an 8-hour ozone standard. IDEM recognizes that U.S. EPA is trying to make the existing language of Subpart 2 of the CAA fit the needs of the revised 8-hour ozone standard, for which it was not designed. In the early days of the CAA when the air pollutants being addressed had very localized impacts, mandatory controls in nonattainment areas were a sensible approach to reducing emissions where air quality was unhealthy. In many cases, the "mandatory" control measures required by the CAA have been extremely effective in reducing pollution levels. As more is learned about the cause and effects of ozone formation, mandatory controls that focus on localized impacts make less and less sense as these controls have been found to produce little to no measurable improvements to air quality. The most significant ozone control programs in recent years, the NO_x SIP Call and CAIR, apply to sources region-wide or nationwide, not just those in designated nonattainment areas. Air quality analyses to date suggest that most of the counties in Indiana where air quality currently does not meet the revised 2008 8-hour ozone standard will meet that standard once CAIR is fully implemented.

The current implementation guidance for the 1997 8-hour ozone standard requires certain mandatory measures for areas of the country. This approach to designations is based on guidance for the 1-hour ozone standard which is out of date. Those mandatory measures are not needed in some areas and are not appropriate mechanisms to make progress towards cleaner air. According to the CAA and U.S. EPA's guidance for implementation of the 1997 8-hour ozone standard, any county designated as nonattainment would be automatically subject to stricter new source review requirements for new and expanding sources. While it makes sense to avoid or minimize increases in emissions in nonattainment areas, these new source review requirements

can have unintended consequences that, in many cases, just push new development to the outskirts of a nonattainment area. As a result, these requirements have contributed to sprawl, loss of farmland, and are inconsistent with policies that promote the development of brownfields. Development immediately adjacent to nonattainment areas can have just as deleterious an effect on local air quality as if the development occurred in the nonattainment area itself. U.S. EPA should avoid to the greatest extent possible mandatory control programs, especially for areas likely to meet the revised 2008 8-hour ozone standard without any additional controls beyond the reductions associated with CAIR.

Indiana counties are significantly impacted by regional transport of ozone and its precursors, Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NO_x.) Reducing ozone precursors on a regional scale has a much greater impact on ground-level ozone levels than reductions achieved on a local scale. The inclusion of adjacent counties based on “cause and contribution” contradicts federal and state control programs. Local “mandatory” controls for ozone do not help expedite attainment of the standard. Designating counties nonattainment that measure air quality which attains the standard, or counties or portions of counties with major stationary sources would serve no purpose. Indiana counties that are currently violating the revised 2008 8-hour NAAQS will attain the standard in advance of the applicable deadline, and the attainment date will not move forward or backward as a result of including surrounding counties based on “cause and contribution”. U.S. EPA’s analyses and LADCO technical modeling to date suggest that all of Indiana will meet the revised 2008 8-hour ozone standard after implementation of currently required state and federal control measures, such as CAIR. Indiana is also developing and implementing statewide VOC rules such as Stage I vapor recovery, degreasing, auto refinishing, Architectural and Industrial Maintenance Coatings, and a Consumer and Commercial Coatings Rule. Statewide applicability of these VOC rules will further benefit air quality while balancing emission reductions statewide and ensure that the Indiana’s air quality will continue to be in attainment of the ozone NAAQS, and provide for an ample margin of safety.

U.S. EPA should reconsider its guidance and previous determination that counties or portions of counties with a large emissions base should be designated as nonattainment based upon the “cause or contribute” rationale. Most of the primary stationary sources within Indiana are already subject to federal control programs, including the CAIR. Since CAIR is considered equivalent to Reasonably Available Control Technology (RACT), these sources would not be subject to the RACT requirements for nonattainment areas as outlined under the 1997 8-hour implementation rule for ozone. As a result, the inclusion of counties beyond those where monitored violations occur will not achieve significant additional emission reductions or advance the attainment date under the revised 2008 8-hour ozone standard.

At a minimum, U.S. EPA should consider the size of any facility or power plant and its emission controls for a county that U.S. EPA feels may be contributing to a downwind monitor violation. For example, the only significant source of ozone precursor emissions in Dearborn County is the American Electric Power (AEP) - Tanners Creek power plant. The AEP-Tanners Creek power plant will be installing Selective Non-Catalytic Reduction (SNCR) technology on three of its four Electric Generating Units (EGUs), with operation to begin in mid-2009. This will achieve an additional 30% reduction in NO_x. The reductions from facilities like the AEP-

Tanners Creek power plant will help improve air quality in the Southeast Indiana region. Designating an area nonattainment based solely on the fact that a facility and/or power plant is located there will not result in any further emission reductions or serve any useful purpose. Unless there is a documented significant contribution from a facility and/or power plant to a nonattainment area, the entire designation and State Implementation Plan (SIP) process will employ U.S. EPA and Indiana staff in a paperwork process that will do nothing to improve Indiana's air quality.

Recognizing that U.S. EPA is obligated to consider a county's contribution to a downwind monitored violation of the standard, sound evidence must exist that demonstrates that a county actually contributes to the downwind violation in order for the upwind county to be designated nonattainment. Counties that measure air quality below the standard, and are not proven to be significantly culpable for a downwind violation, should be designated attainment. Counties for which monitoring data does not exist, and are not proven to be significantly culpable for a downwind violation, should be considered unclassifiable and designated attainment.

In response to the United States Environmental Protection Agency's (U.S. EPA's) December 4, 2008 guidance memorandum titled "Area Designations for the 2008 Revised Ozone National Ambient Air Quality Standards", the Indiana Department of Environmental Management (IDEM) has developed the following evaluation of nonattainment area boundaries for designating areas under the 2008 revised 8-hour ozone National Ambient Air Quality Standard (NAAQS).

Indiana Analysis by Region

Northwest Indiana Area

Background

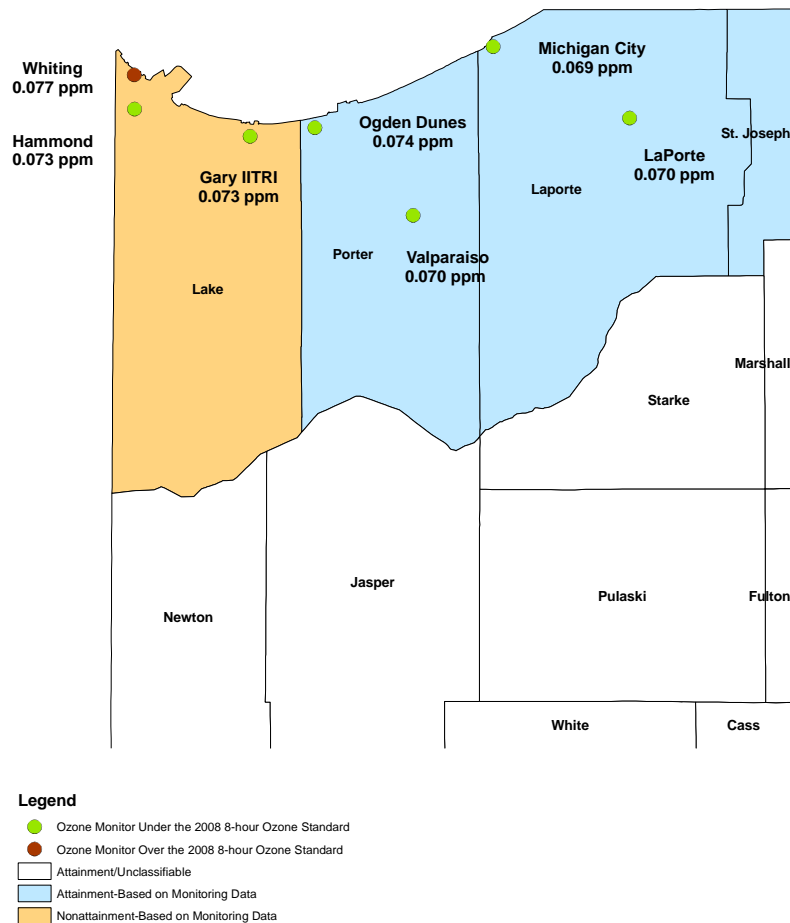
Lake and Porter counties were designated nonattainment under the 1997 8-hour ozone standard as part of the greater Chicago nonattainment area due to the assumed contribution to monitored violations in northeast Illinois. All of the monitor sites in Lake and Porter counties have measured air quality that meets the 1997 8-hour ozone standard since 2007. A Redesignation Petition and Maintenance Plan for the 1997 8-hour ozone standard for Indiana's portion of the Chicago Metropolitan Statistical Area (MSA) is currently pending U.S. EPA approval. The Indiana portion of the Chicago MSA includes Jasper, Lake, Newton and Porter counties. There are no monitors in Jasper or Newton counties.

LaPorte County was designated nonattainment under the 1997 8-hour ozone standard as its own MSA. The two monitor sites in LaPorte County have measured air quality that meets the 1997 8-hour ozone standard since 2005. A Redesignation Petition and Maintenance Plan for the 1997 8-hour ozone standard for LaPorte County was approved by U.S. EPA on July 19, 2007.

Northwest Indiana Monitoring Data

County	Monitor Location	4 th Highest Ozone Values (ppm)			Design Value 2006-2008 (ppm)
		2006	2007	2008	
Lake	Gary IITRI	0.073	0.085	0.062	0.073
Lake	Whiting	0.081	0.088	0.062	0.077
Lake	Hammond	0.075	0.077	0.068	0.073
LaPorte	Michigan City	0.075	0.073	0.059	0.069
LaPorte	LaPorte	0.069	0.078	0.065	0.070
Porter	Ogden Dunes	0.070	0.084	0.069	0.074
Porter	Valparaiso	0.071	0.080	0.061	0.070

Highlighted data means 2006-2008 Design Value is above 0.076 ppm



There are five monitors in the Indiana portion of the Chicago MSA (Lake and Porter counties) and two monitors in the Michigan City (LaPorte County) MSA. Of the five monitors located in Lake and Porter counties, only one of them (Whiting) is over the revised 2008 8-hour

ozone standard. The two monitors located in the LaPorte County are also below the revised 2008 8-hour ozone standard.

There are no ozone monitors located in Newton or Jasper counties in Indiana. Newton County does not have any major stationary sources and does not impact monitored violations in Lake and Porter counties. There is only one stationary source located in Jasper County which is controlled under NO_x SIP Call and CAIR and does not impact monitored violations in Lake or Porter counties. Newton and Jasper counties are essentially rural in nature, do not have measured air quality in excess of the revised 2008 8-hour ozone standard, and are not contributing to elevated ozone levels in the area. Jasper and Newton counties account for a small percentage of the total emissions for the entire MSA. Jasper and Newton counties also have a low population which is not expected to grow and fewer than 10,000 people work and commute outside the counties. Indiana believes there is no reason to include these counties in the nonattainment area. U.S. EPA should keep the nonattainment area for Northwest Indiana as small as possible.

Lake County is the only Indiana county in Northwest Indiana that is over the revised 2008 8-hour ozone standard. Porter County does not significantly impact monitored violations in Lake County or the Chicago area. Indiana has conducted an evaluation to determine the impacts Porter County sources have on ozone monitors in Lake County, Indiana and the Chicago area. As a result, Indiana has determined that emissions from Porter County do not affect the downwind area's ability to attain the ozone standard. Therefore, Porter County should be designated separately from Lake County, Indiana and the rest of the Chicago MSA. Within Illinois' portion of the Chicago MSA there are 18 monitors, of which only one of them (located in Alsip, IL) is over the revised 2008 8-hour ozone standard. The monitors in the Chicago area located closest to the Indiana state line and the lakefront, which should be more directly impacted by emission sources located in Lake and Porter counties, are monitoring attainment of the revised 2008 8-hour ozone standard. If emissions from Lake and Porter counties were significantly contributing to the violating monitors in Illinois, higher levels at the monitors located between Indiana and the violating monitors would be expected. It is unnecessary to extend the restrictions of a nonattainment area beyond Lake County, as it is the only county in Northwest Indiana violating the ozone standard.

Northwest Indiana Zero-Out and Future Year Modeling

Lake Michigan Air Directors Consortium (LADCO) recently performed updated CAMx modeling for ozone to support attainment demonstrations for the five-state LADCO region. This modeling, referred to as "Round 5", uses the most recent emissions inventories and model updates. The Comprehensive Air Quality Model with extensions (CAMx version 4.51), developed by Environ, was the photochemical model used for the 8-hour ozone standard analysis. This model has been accepted by U.S. EPA as an approved air quality model for regulatory analysis. Requirements of the "Guidance on the Use of Models and Other Analyses in Attainment Demonstrations for the 8-hour Ozone NAAQS" (EPA-454/R-05-002, Oct. 2005) are satisfied with the use of CAMx for attainment demonstrations and other air quality related analyses.

2005 baseyear emissions as well as 2005 meteorology were used to conduct the photochemical modeling. The modeling included the implementation of "on-the-books" controls such as U.S. EPA motor vehicle and fuel standards and the Clean Air Interstate Rule (CAIR). In order to demonstrate the impact of Porter County emissions on the controlling ozone monitor in Northwest Indiana, a 2005 baseyear modeling run with all 2005 emissions was conducted. Then, all anthropogenic emissions from Porter County, including all point, area and mobile source emissions were removed (zeroed-out) from the emission files and the model was run again.

The table below, shows the modeling results of the zero-out of all anthropogenic emissions from Porter County on the Whiting, Lake County monitor. The difference between the two results is the ozone impacts (in parts per million) of Porter County emissions on the Whiting ozone monitor.

Results of Zero-out Runs for Northwest Indiana Ozone Monitors

Monitor ID	County	Site	2005 Modeled Design Value (ppm)	2005 Modeled Zero-Out Design Value (ppm)	2005 Modeled Difference (ppm)
180890022	Lake	Gary	0.1004	0.1005	+0.0001
180890030	Lake	Whiting	0.0998	0.0999	+0.0001
180892008	Lake	Hammond	0.0998	0.0999	+0.0001
181270024	Porter	Ogden Dunes	0.1023	0.1023	0.0000
181270026	Porter	Valparaiso	0.0956	0.0956	0.0000

Zeroing-out all anthropogenic emissions from Porter County showed a 0.0001 ppm increase in ozone concentrations at the Whiting monitor as well as the Gary and Hammond monitors in Lake County. These increases in ozone concentration from zeroed-out Porter County emissions indicate NO_x disbenefit. However, the impacts are considered not significant. No other appreciable changes were modeled at surrounding ozone monitors in Lake or Porter County. Ozone decreases were modeled farther away from Porter County. LaPorte County ozone monitors at Michigan City had a 0.0003 ppm ozone decrease while the LaPorte monitor realized a 0.0001 ppm decrease. Ozone monitors in states surrounding Lake Michigan, especially those located on or near the lakeshore realized ozone decreases from 0.0001 to 0.0006 ppm.

Results of Zero-out Runs for MRPO Ozone Monitors

Monitor ID	County	Site	2005 Modeled Design Value	2005 Modeled Zero-Out Design Value	2005 Modeled Difference
180890022	Lake	Gary	0.1004	0.1005	+0.0001
180890030	Lake	Whiting	0.0998	0.0999	+0.0001
180892008	Lake	Hammond	0.0998	0.0999	+0.0001
181270024	Porter	Ogden Dunes	0.1023	0.1023	0.0000
181270026	Porter	Valparaiso	0.0956	0.0956	0.0000
180910005	LaPorte	Michigan City	0.1045	0.1042	-0.0003
180910010	LaPorte	LaPorte	0.1036	0.1035	-0.0001
170317002	Cook – IL	Evanston	0.0997	0.0995	-0.0002

170971002	Lake – IL	Waukegan	0.1009	0.1005	-0.0004
170971007	Lake - IL	IL Beach St. Park	0.1009	0.1005	-0.0004
260050003	Allegan – MI	Holland	0.1019	0.1016	-0.0003
260210014	Berrien – MI	Coloma	0.1043	0.1037	-0.0006
260810020	Kent – MI	Grand Rapids	0.0909	0.0908	-0.0001
260810022	Kent – MI	14 Mile Road	0.0867	0.0866	-0.0001
261210039	Muskegon – MI	Muskegon	0.1010	0.1007	-0.0003
263910005	Ottawa – MI	Jenison	0.0948	0.0947	-0.0001
261530001	Schoolcraft - MI	Seney Natl. Wild.	0.0849	0.0848	-0.0001
550090026	Brown - WI	Green Bay	0.0818	0.0816	-0.0002
550290004	Door – WI	Newport State Park	0.0970	0.0970	0.0000
550370001	Florence – WI	Florence	0.0739	0.0735	-0.0004
550390006	Fond du Lac – WI	Fond du Lac	0.0787	0.0787	0.0000
550590002	Kenosha – WI	Jefferson	0.1011	0.1006	-0.0005
550590019	Kenosha – WI	Pleasant Prairie	0.1011	0.1006	-0.0005
550610002	Kewaunee – WI	Kewaunee	0.0939	0.0936	-0.0003
550710004	Manitowoc – WI	Collins Fire Tower	0.0839	0.0836	-0.0003
550710007	Manitowoc – WI	Two Rivers	0.0996	0.0992	-0.0004
550790010	Milwaukee – WI	Health Center	0.1010	0.1004	-0.0006
550790026	Milwaukee – WI	DNR SER Hdqtrs	0.1015	0.1009	-0.0006
550790041	Milwaukee – WI	UWM N. Campus	0.1015	0.1009	-0.0006
550790044	Milwaukee – WI	Milwaukee	0.0926	0.0923	-0.0003
550790085	Milwaukee – WI	Bayside	0.1041	0.1035	-0.0006
550791025	Milwaukee – WI	S. Milwaukee	0.0992	0.0987	-0.0005
550870009	Outagamie – WI	Appleton	0.0762	0.0760	-0.0002
550890008	Ozaukee – WI	Grafton	0.0873	0.0872	-0.0001
550890009	Ozaukee – WI	Harrington Beach	0.1018	0.1014	-0.0004
551010017	Racine – WI	Racine	0.1012	0.1006	-0.0006
551170006	Sheboygan – WI	Kohler Andre Park	0.0974	0.0970	-0.0004
551170007	Sheboygan – WI	Sheboygan Falls	0.0974	0.0970	-0.0004
551330017	Waukesha – WI	Carroll College	0.0851	0.0850	-0.0001
551330027	Waukesha – WI	Waukesha	0.0851	0.0850	-0.0001

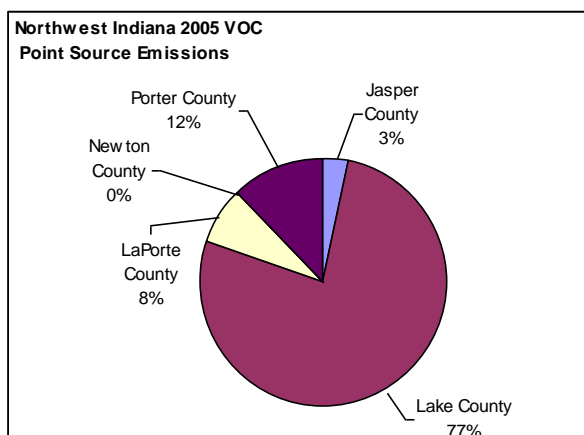
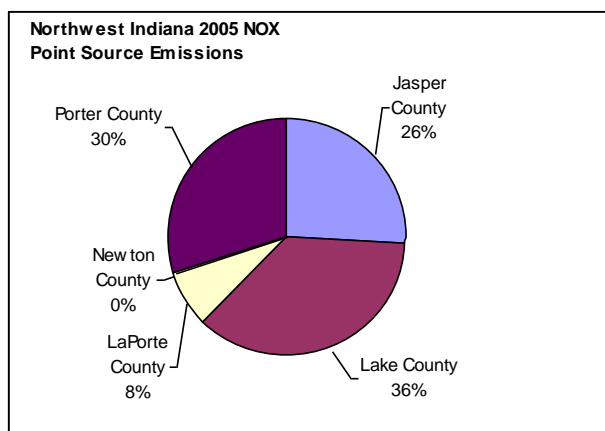
LADCO conducted future year modeling in order to determine the ozone impacts on monitors in the Midwest. The following table outlines LADCO's Round 5 future year modeling results for Lake, Porter and LaPorte County ozone monitors. Results show all monitors with the exception of the Whiting, Lake County monitor meet the 2008 revised 8-hour ozone NAAQS by 2012.

LADCO's Round 5 Future Year Modeling Results for 2009 and 2012

Monitor ID	County	Site	BaseYear D.V.	2009 D.V.	2012 D.V.
180890030	Lake	Whiting	0.0793	0.0770	0.0760
180890022	Lake	Gary	0.0777	0.0750	0.0740
180892008	Lake	Hammond	0.0777	0.0750	0.0740
180910010	LaPorte	LaPorte	0.0777	0.0740	0.0730
180910005	LaPorte	Michigan City	0.0770	0.0730	0.0720
181270024	Porter	Ogden Dunes	0.0783	0.0750	0.0740
181270026	Porter	Valparaiso	0.0753	0.0720	0.0710

Northwest Indiana Emissions Data

2005 Point Source Emissions (Tons Per Year)				
	NO _x	% of MSA	VOC	% of MSA
Jasper County	16,844.17	25.78%	239.19	3.40%
Lake County	23,769.48	36.38%	5,402.00	76.79%
LaPorte County	5,175.87	7.92%	536.42	7.63%
Newton County	0.00	0.00%	0.00	0.00%
Porter County	19,550.84	29.92%	857.07	12.18%
Total	65,340.36		7,034.68	



Note: These charts do not account for emissions from Illinois sources, which would alter the ratios significantly.

Because most of the area in Lake and Porter counties is urban, the two counties account for 66.3% of the area's total NO_x emissions. Sources within Lake and Porter counties account for 88.9% of the VOC emissions from stationary sources. There are no major stationary sources located within Newton county. It does not appear that the emissions from Newton County have a significant impact on air quality within the MSA. Overall ozone values have continued to drop and NO_x and VOC emissions are expected to decrease throughout the Midwest over the next few years when CAIR has been fully implemented.

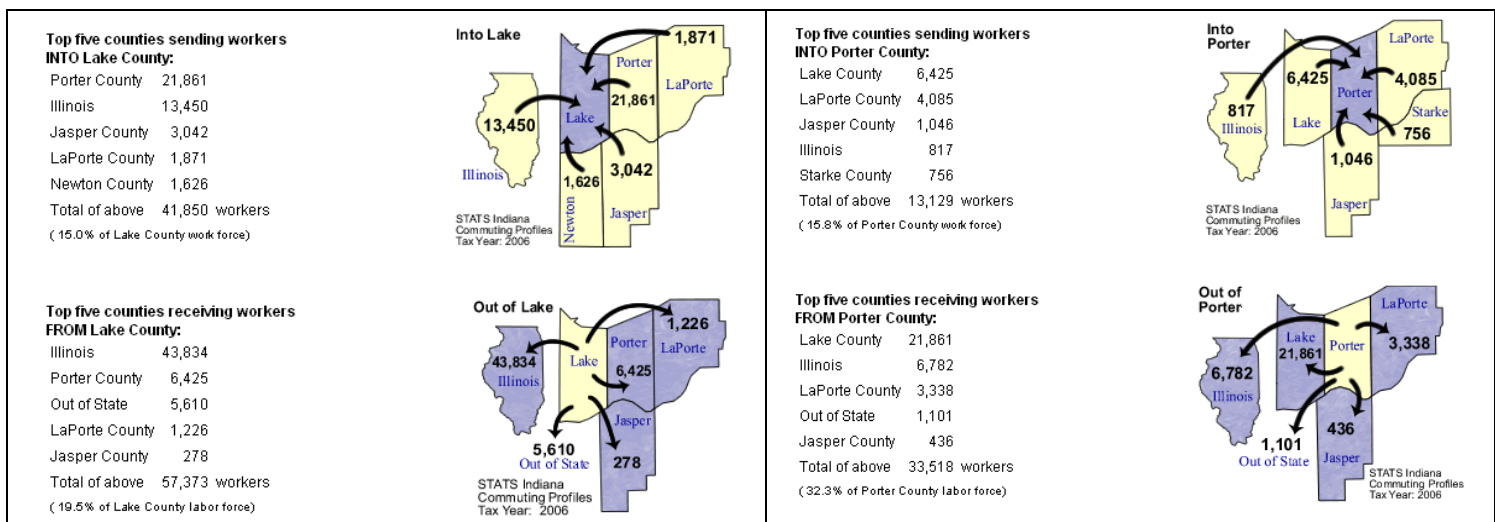
Lake and Porter counties are subject to the most stringent group of emission controls within the State of Indiana. This collection of permanent and enforceable controls is equally as stringent as those that apply elsewhere within the Chicago MSA and in some cases are more stringent. Vehicles registered in Lake and Porter counties are subject to reformulated gasoline and enhanced vehicle inspection and maintenance requirements. Indiana maintains a comprehensive vehicle inspection and maintenance program in Lake and Porter counties for all vehicles of model year 1976 and newer. Lake and Porter counties' vehicle inspection and maintenance program is more stringent than that which applies to the vast majority of the fleet that accounts for the Vehicle Miles Traveled (VMT) and long-term idling in close proximity to the monitoring sites.

Level of Control of Emission Sources

NO_x emissions within Northwest Indiana are projected to decline by almost 42% between 2005 and 2020. Emission reduction benefits from federal rules are factored into the emission totals. These rules include the NO_x SIP Call, Clean Air Interstate Rule (CAIR), Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements, the Highway Heavy-Duty Engine Rule, and the Non-Road Diesel Engine Rule. In fact most of the major ozone precursor sources within the area are subject to the NO_x SIP Call, CAIR or RACT requirements.

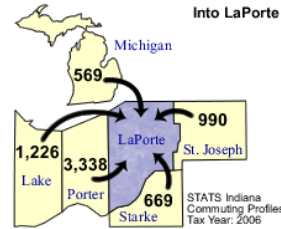
Northwest Indiana Traffic Patterns

2006 Commuting Patterns					
	Total Workforce: Number of persons who live in County and work	Number of persons who live AND work in County	Number of persons who live in County and work in another County	Percent In County	Percent Out of County
Jasper County	21,368	15,124	6,244	70.8%	29.2%
Lake County	293,662	234,264	59,398	79.8%	20.2%
LaPorte County	68,494	57,268	11,226	83.6%	16.4%
Newton County	9,468	5,766	3,702	60.9%	39.1%
Porter County	103,805	68,933	34,872	66.4%	33.6%



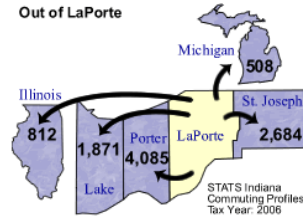
**Top five counties sending workers
INTO LaPorte County:**

Porter County	3,338
Lake County	1,226
St. Joseph County	990
Starke County	669
Michigan	569
Total of above	6,822 workers
(10.5% of LaPorte County work force)	



**Top five counties receiving workers
FROM LaPorte County:**

Porter County	4,085
St. Joseph County	2,684
Lake County	1,871
Illinois	812
Michigan	508
Total of above	9,960 workers
(14.5% of LaPorte County labor force)	



Within Northwest Indiana, LaPorte County maintains the highest concentration (83.6%) of employment by residents of the county, compared to the other counties within the area. Lake (79.8%) county is also high. The majority of the traffic congestion occurs in Lake County. A significant level of commuting occurs from the surrounding counties to Lake and Porter counties. In fact Lake, LaPorte and Porter Counties have the largest level of commuting to and from each other in Northwest Indiana.

Northwest Indiana Growth Rates and Patterns

	Population 1990	Population 2000	Percent Change from 1990 to 2000	Population Estimate 2007	Percent Change from 2000 to 2007	Population Estimate 2010	Percent Change from 2000 to 2010	Population Estimate 2020	Percent Change from 2000 to 2020
Jasper County	24,823	30,043	17.4%	32,275	6.9%	32,534	7.7%	35,206	14.7%
Lake County	475,594	484,564	1.9%	492,104	1.5%	483,183	-0.3%	503,203	3.7%
LaPorte County	107,066	110,106	2.8%	109,787	-0.3%	110,376	0.2%	110,656	0.5%
Newton County	13,551	14,586	7.1%	14,014	-3.9%	14,444	-1.0%	14,097	-3.3%
Porter County	128,932	146,798	12.2%	160,578	8.6%	156,755	6.4%	175,175	16.2%

Evaluation for Northwest Indiana

March 12, 2009 Designation Recommendations for Northwest Indiana:

Jasper County	Attainment/Unclassifiable
Lake County	Nonattainment
LaPorte County	Attainment
Newton County	Attainment/Unclassifiable
Porter County	Attainment

Central Indiana Area

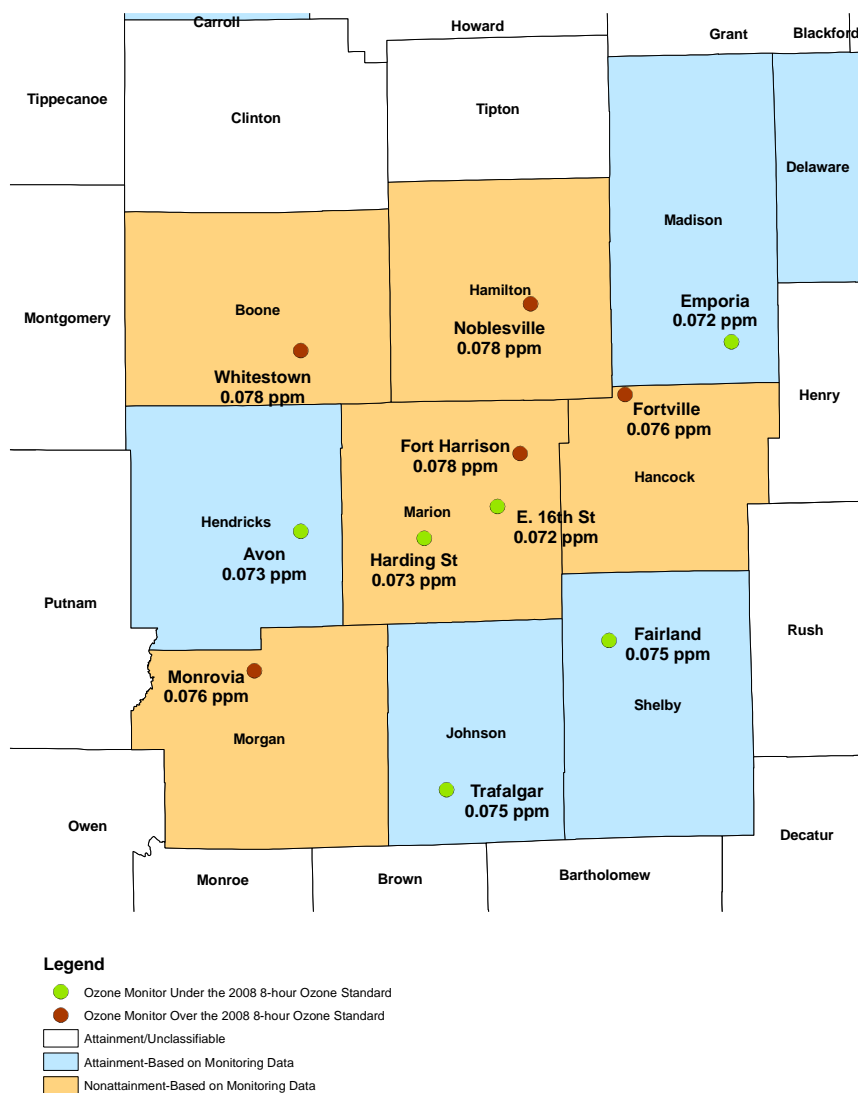
Background

Eight of the ten counties in the Indianapolis MSA were designated nonattainment under the 1997 8-hour ozone standard. Madison County was also designated nonattainment under the 1997 8-hour ozone standard as part of the Central Indiana nonattainment area. All of the monitor sites in Central Indiana, within the Indianapolis and Anderson MSAs, have measured air quality that meets the 1997 8-hour ozone standard since 2005. A Redesignation Petition and Maintenance Plan for the Central Indiana nonattainment area was approved by U.S. EPA on October 19, 2007. The Indianapolis MSA includes Boone, Brown, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, Putnam and Shelby counties. The Anderson MSA includes Madison County. There are ozone monitors in every county in Central Indiana except Brown and Putnam counties.

Central Indiana Monitoring Data

County	Monitor Location	4 th Highest Ozone Values (ppm)			Design Value 2006-2008 (ppm)
		2006	2007	2008	
Boone	Whitestown	0.080	0.083	0.073	0.078
Hamilton	Noblesville	0.077	0.084	0.073	0.078
Hancock	Fortville	0.075	0.081	0.074	0.076
Hendricks	Avon	0.073	0.079	0.068	0.073
Johnson	Trafalgar	0.078	0.080	0.069	0.075
Madison	Emporia	0.073	0.078	0.065	0.072
Marion	Fort Harrison	0.076	0.083	0.075	0.078
Marion	Harding Street	0.076	0.076	0.067	0.073
Marion	East 16 th Street	0.072	0.080	0.066	0.072
Morgan	Monrovia	0.077	0.084	0.069	0.076
Shelby	Fairland	0.073	0.082	0.070	0.075

Highlighted data means 2006-2008 Design Value is above 0.076 ppm



There are ten monitors in the Indianapolis MSA (located in Boone, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan and Shelby counties) and one monitor in the Anderson MSA (Madison County). Of the ten monitors in the Indianapolis MSA, five of them are over the revised 2008 8-hour ozone standard. The monitor in the Anderson MSA is below the revised ozone 2008 8-hour ozone standard. Brown and Putnam counties do not have any major stationary sources and do not impact monitored violations in Central Indiana. Therefore, it is unnecessary to extend the restrictions of a nonattainment area within the Indianapolis MSA to any county other than the counties that have a monitored violation.

Central Indiana Zero-Out and Future Year Modeling

Lake Michigan Air Directors Consortium (LADCO) recently performed updated CAMx modeling for ozone to support attainment demonstrations for the five-state LADCO region. This modeling, referred to as “Round 5”, uses the most recent emissions inventories and model updates. The Comprehensive Air Quality Model with extensions (CAMx version 4.51),

developed by Environ, was the photochemical model used for the 8-hour ozone standard analysis. This model has been accepted by U.S. EPA as an approved air quality model for regulatory analysis. Requirements of the “Guidance on the Use of Models and Other Analyses in Attainment Demonstrations for the 8-hour Ozone NAAQS” (EPA-454/R-05-002, Oct. 2005) are satisfied with the use of CAMx for attainment demonstrations and other air quality related analyses.

2005 baseyear emissions as well as 2005 meteorology were used to conduct the photochemical modeling. The modeling included the implementation of "on-the-books" controls such as U.S. EPA motor vehicle and fuel standards and the Clean Air Interstate Rule (CAIR). In order to demonstrate the impact of Hendricks County emissions on the controlling ozone monitor in Central Indiana, a 2005 baseyear modeling run with all 2005 emissions was conducted. Then, all anthropogenic emissions from Hendricks County, including all point, area and mobile source emissions were removed (zeroed-out) from the emission files and the model was run again.

The table below shows the modeling results of zeroing-out all anthropogenic emissions from Hendricks County on the Noblesville, Hamilton County monitor. The difference between the two results is the ozone impacts in parts per million (ppm) of Hendricks County emissions on the Noblesville ozone monitor.

Modeling Results of Zero-out Runs - Central Indiana Ozone Monitors

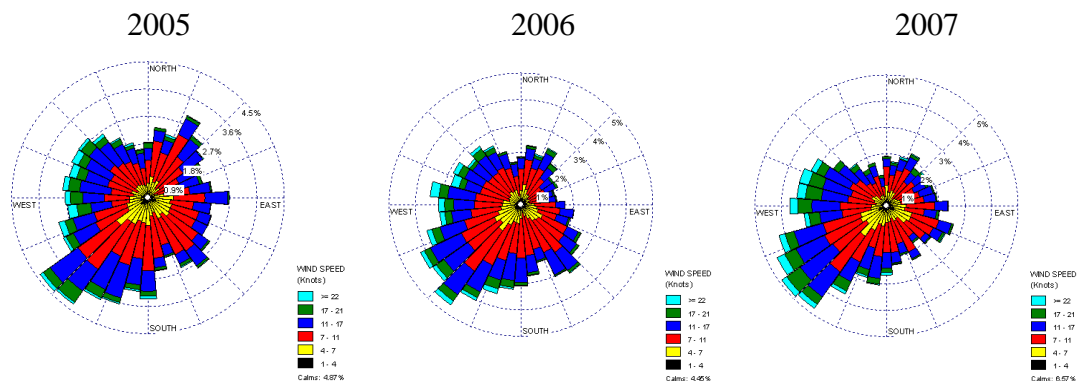
Monitor ID	County	Site	2005 Modeled Design Value (ppm)	2005 Modeled Zero-Out Design Value (ppm)	2005 Modeled Difference (ppm)
180110001	Boone	Whitestown	0.0872	0.0872	0.0000
180571001	Hamilton	Noblesville	0.0935	0.0935	0.0000
180590003	Hancock	Fortville	0.0926	0.0925	-0.0001
180630004	Hendricks	Avon	0.0895	0.0895	0.0000
180810002	Johnson	Trafalgar	0.0839	0.0839	0.0000
180950010	Madison	Emporia	0.0902	0.0900	-0.0002
180970050	Marion	Fort Harrison	0.0954	0.0954	0.0000
180970057	Marion	Harding Street	0.0957	0.0957	0.0000
180970073	Marion	E. 16 th Street	0.0964	0.0963	-0.0001
181090005	Morgan	Monrovia	0.0864	0.0864	0.0000
181450001	Shelby	Fairland	0.0916	0.0916	0.0000

Zeroing-out all anthropogenic emissions from Hendricks County showed no ozone impacts at the Noblesville monitor and a decrease in ozone of 0.0002 ppm at the Madison County monitor and 0.0001 ppm at the Hancock County monitor and Indianapolis monitor in Marion County.

Johnson and Shelby Counties, based on their locations to the south and southeast, would not be expected to show any appreciable ozone impacts on the Noblesville ozone monitor. Madison County, located to the east of the Noblesville ozone monitor, would be expected to show negligible ozone impacts on the monitor. The wind roses below show the winds during 2005 through 2007, with prevailing winds from the southwest. Therefore, any ozone precursors

from counties to the south, southeast and east would have minimal impacts on the Noblesville ozone monitor.

Wind Rose for Indianapolis –2005, 2006 and 2007



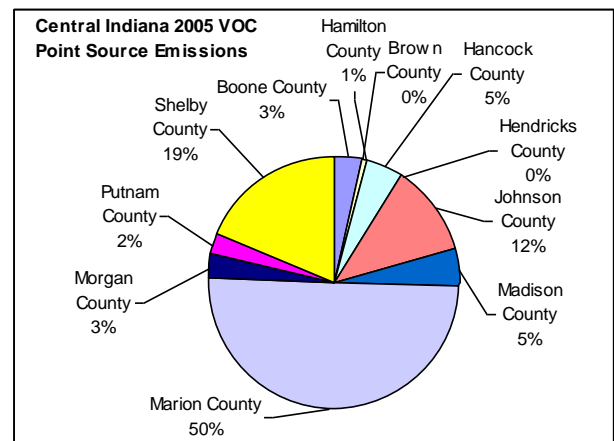
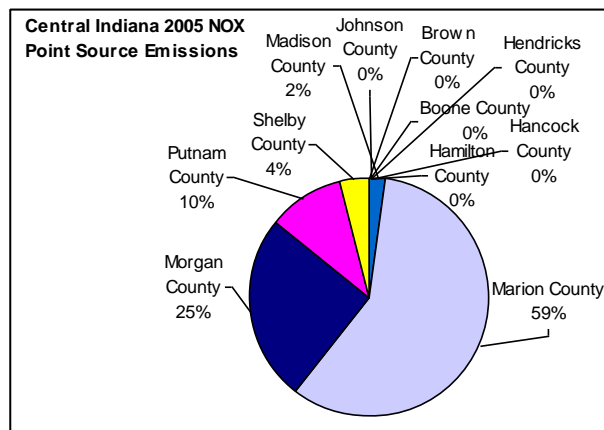
LADCO conducted future year modeling in order to determine the ozone impacts on monitors in the Midwest. The following table outlines LADCO’s Round 5 future year modeling results for Boone, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan and Shelby County ozone monitors. Results show all monitors meet the 2008 revised 8-hour ozone NAAQS by 2012.

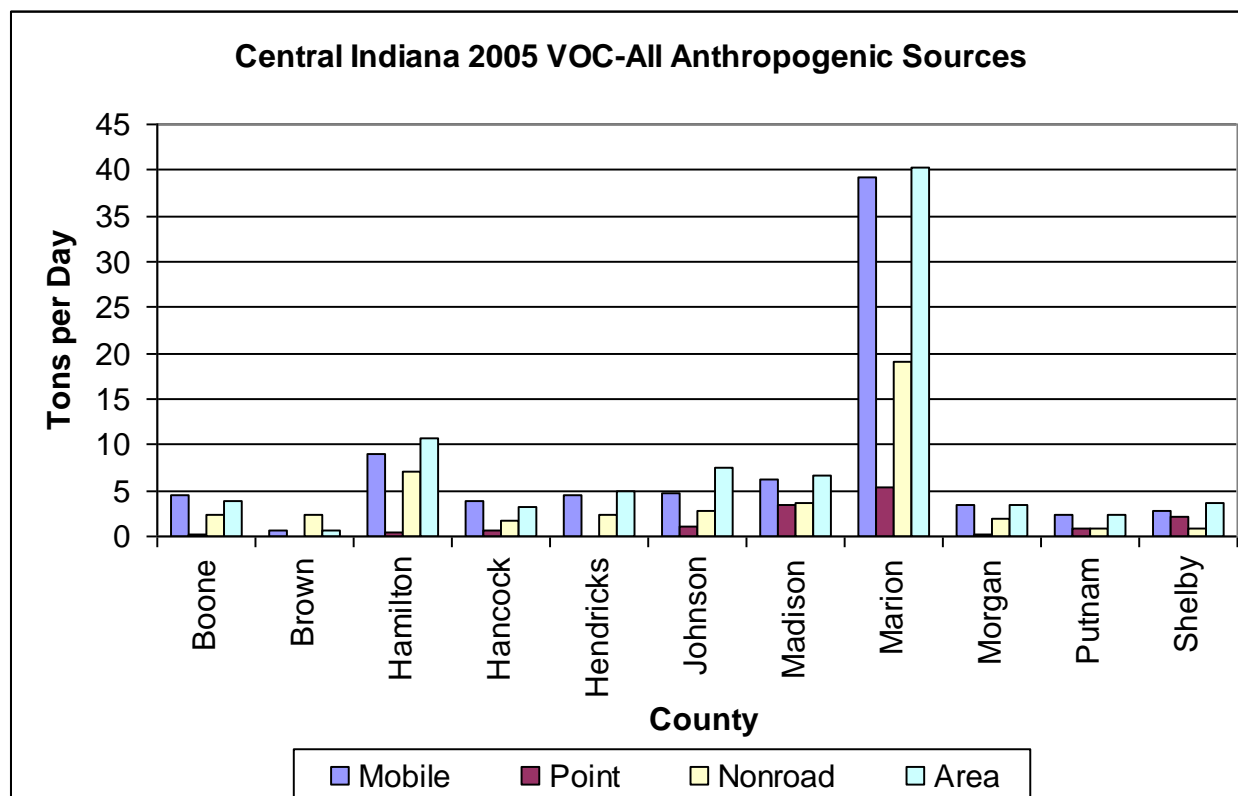
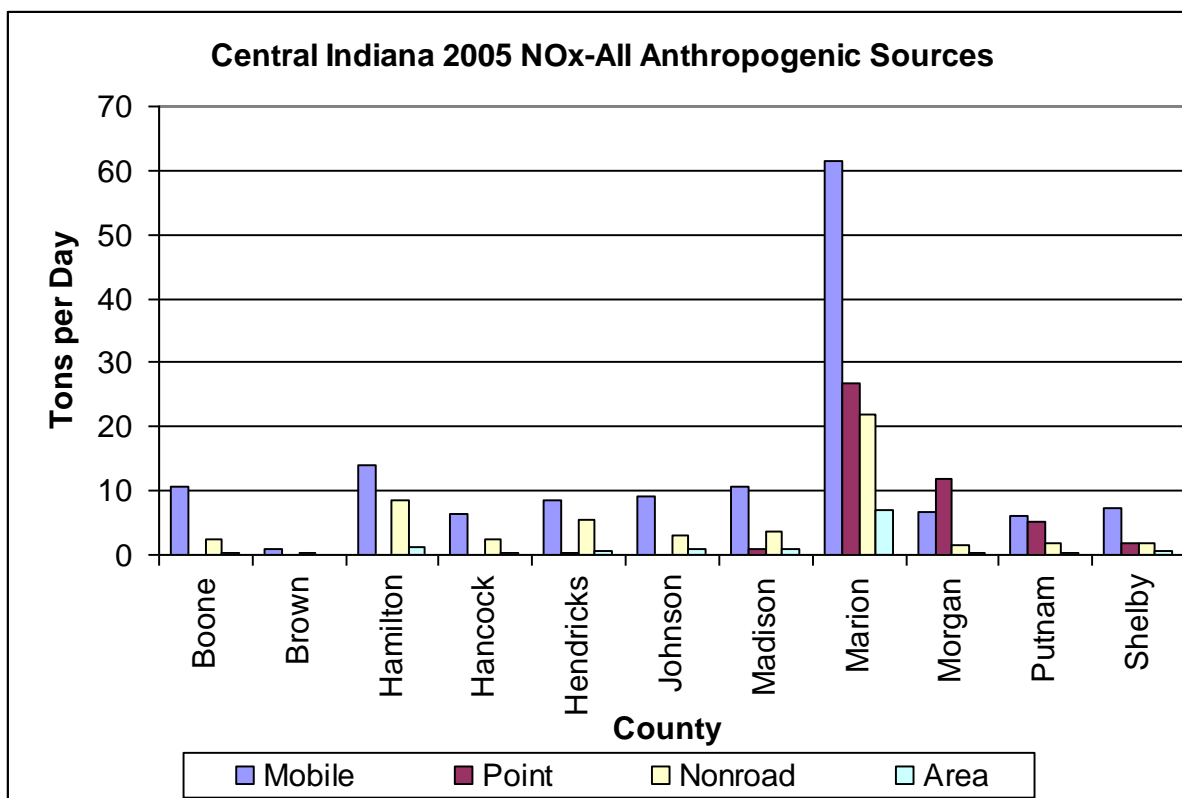
LADCO’s Round 5 Future Year Modeling Results for 2009 and 2012

Monitor ID	County	Site	BaseYear D.V.	2009 D.V.	2012 D.V.
180110001	Boone	Whitestown	0.0797	0.0750	0.0730
180571001	Hamilton	Noblesville	0.0827	0.0780	0.0750
180590003	Hancock	Fortville	0.0780	0.0730	0.0710
180630004	Hendricks	Avon	0.0753	0.0710	0.0690
180810002	Johnson	Trafalgar	0.0767	0.0720	0.0700
180970050	Marion	Fort Harrison	0.0787	0.0750	0.0730
180970057	Marion	Harding St	0.0750	0.0720	0.0710
180970073	Marion	Indianapolis	0.0757	0.0720	0.0700
180970042	Marion	Mann Road	0.0727	0.0700	0.0680
181090005	Morgan	Monrovia	0.0777	0.0730	0.0710
181450001	Shelby	Fairland	0.0773	0.0740	0.0720

Central Indiana Emissions Data

2005 Point Source Emissions (Tons Per Year)				
	NO _x	% of Area	VOC	% of Area
Boone County	0.00	0.00%	106.50	3.47%
Brown County	0.00	0.00%	0.00	0.00%
Hamilton County	28.51	0.16%	17.13	0.55%
Hancock County	13.30	0.07%	153.08	4.99%
Hendricks County	0.00	0.00%	0.04	0.00%
Johnson County	6.48	0.03%	364.63	11.88%
Madison County	334.74	1.91%	139.70	4.55%
Marion County	10,207.22	58.29%	1,536.68	50.10%
Morgan County	4,456.81	25.45%	96.25	3.13%
Putnam County	1,789.47	10.21%	75.38	2.45%
Shelby County	673.03	3.84%	577.49	18.82%
TOTAL	17,509.56		3,066.88	





Because the majority of Central Indiana is urban, the majority of the area's emissions come from Marion County. Marion County accounts for 58.29% of the area's total NO_x point source emissions and 49.90% of the area's total VOC point source emissions. The only counties within Central Indiana with major stationary sources are Marion and Morgan counties. Point source emissions from the other counties in Central Indiana are negligible and do not have a significant impact on air quality within the MSAs. The comparison of all the anthropogenic (point, area, mobile and nonroad) sources for Central Indiana shows that Marion county dominates the emissions inventory in Central Indiana. All of the other counties within Central Indiana have very similar anthropogenic emission totals. The counties in Central Indiana that meet the 2008 revised 8-hour ozone standard (Hendricks, Johnson, Madison and Shelby counties) have very low anthropogenic emission totals for NO_x and VOC. Based on the zero-out modeling of Hendricks County emissions, it would be anticipated that zeroing out of emissions from Johnson, Madison and Shelby counties would have similar ozone impacts to those from Hendricks County and not impact monitor violations in Central Indiana. Overall ozone values have continued to drop and NO_x and VOC emissions are expected to decrease throughout the Midwest over the next few years when CAIR has been fully implemented.

Level of Control of Emission Sources

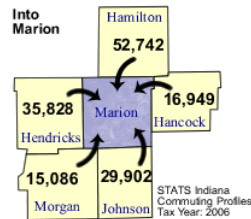
Marion County has the highest emissions of any of the counties in Central Indiana, but emissions are expected to decrease in the near future. The Indianapolis Power and Light (IPL)-Harding Street power plant located in Marion County is currently controlled by low NO_x burner technology with separated overfire air. Since these control units are in place prior to the attainment date, emissions from the IPL-Harding Street power plant are not expected to increase in the near future. Morgan County contributes a small portion of the emissions to the Central Indiana area from the IPL-Eagle Valley power plant. This power plant is currently controlled by low NO_x burner technology with separated overfire air. These controls are expected to remain in place and emissions from this plant should not increase in the future. The other counties in Central Indiana have similar emissions which are not contributing to the Indianapolis area. Most of the major ozone precursor sources within the area are subject to the NO_x SIP Call, CAIR or RACT requirements.

Central Indiana Traffic Patterns

2006 Commuting Patterns					
	Total Workforce: Number of persons who live in County and work	Number of persons who live AND work in County	Number of persons who live in County and work in another County	Percent In County	Percent Out of County
Boone County	35,330	19,972	15,358	56.5%	43.5%
Brown County	10,535	6,071	4,464	57.6%	42.4%
Hamilton County	160,076	97,104	62,972	60.7%	39.3%
Hancock County	45,409	24,158	21,251	53.2%	46.8%
Hendricks County	85,956	44,395	41,561	51.6%	48.4%
Johnson County	86,886	50,804	36,082	58.5%	41.5%
Madison County	82,881	65,138	17,743	78.6%	21.4%
Marion County	530,578	494,693	35,885	93.2%	6.8%
Morgan County	45,798	25,142	20,656	54.9%	45.1%
Putnam County	22,430	16,054	6,376	71.6%	28.4%
Shelby County	29,288	20,738	8,550	70.8%	29.2%

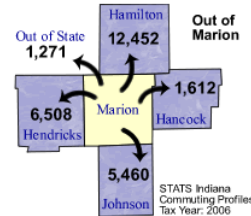
Top five counties sending workers INTO Marion County:

Hamilton County 52,742
Hendricks County 35,828
Johnson County 29,902
Hancock County 16,849
Morgan County 15,086
Total of above 150,507 workers
(21.6% of Marion County work force)



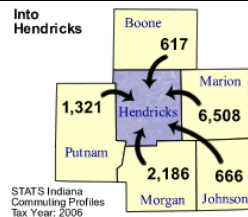
Top five counties receiving workers FROM Marion County:

Hamilton County 12,452
Hendricks County 6,508
Johnson County 5,460
Hancock County 1,612
Out of State 1,271
Total of above 27,303 workers
(5.1% of Marion County labor force)



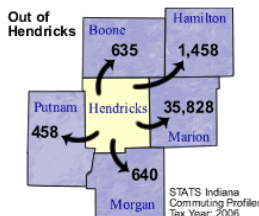
Top five counties sending workers INTO Hendricks County:

Marion County 6,508
Morgan County 2,186
Putnam County 1,321
Johnson County 666
Boone County 617
Total of above 11,298 workers
(19.5% of Hendricks County work force)



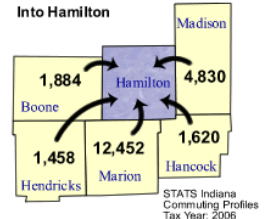
Top five counties receiving workers FROM Hendricks County:

Marion County 35,828
Hamilton County 1,458
Morgan County 640
Boone County 635
Putnam County 458
Total of above 39,019 workers
(45.4% of Hendricks County labor force)



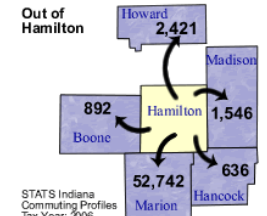
Top five counties sending workers INTO Hamilton County:

Marion County 12,452
Madison County 4,830
Boone County 1,884
Hancock County 1,620
Hendricks County 1,458
Total of above 22,244 workers
(17.6% of Hamilton County work force)



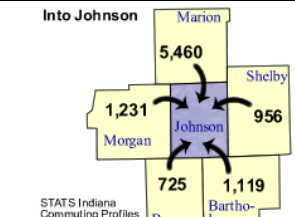
Top five counties receiving workers FROM Hamilton County:

Marion County 52,742
Howard County 2,421
Madison County 1,546
Boone County 892
Hancock County 636
Total of above 58,237 workers
(36.4% of Hamilton County labor force)



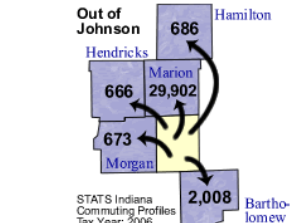
Top five counties sending workers INTO Johnson County:

Marion County 5,460
Morgan County 1,231
Bartholomew County 1,119
Shelby County 956
Brown County 725
Total of above 9,491 workers
(15.2% of Johnson County work force)



Top five counties receiving workers FROM Johnson County:

Marion County 29,902
Bartholomew County 2,008
Hamilton County 686
Morgan County 673
Hendricks County 666
Total of above 33,935 workers
(39.1% of Johnson County labor force)



Within Central Indiana, Marion County maintains the highest concentration (93.2%) for employment by residents of the county, compared to the other counties within the area. Madison (71.6%), Putnam (71.6%), and Shelby (70.8%) counties are also high. The majority of the traffic congestion occurs in Marion County. A significant level of commuting occurs from the surrounding counties to Marion County, namely Hamilton, Hendricks and Johnson counties.

Central Indiana Growth Rates and Patterns

	Population 1990	Population 2000	Percent Change from 1990 to 2000	Population Estimate 2007	Percent Change from 2000 to 2007	Population Estimate 2010	Percent Change from 2000 to 2010	Population Estimate 2020	Percent Change from 2000 to 2020
Boone County	38,147	46,107	17.3%	54,137	14.8%	56,319	18.1%	66,186	30.3%
Brown County	14,080	14,957	5.9%	14,670	-1.9%	16,419	8.9%	15,168	1.4%
Hamilton County	108,936	182,740	40.4%	261,661	30.2%	298,642	38.8%	380,611	52.0%
Hancock County	45,527	55,391	17.8%	66,305	16.5%	67,426	17.8%	80,018	30.8%
Hendricks County	75,717	104,093	27.3%	134,558	22.6%	146,966	29.2%	175,070	40.5%
Johnson County	88,109	115,209	23.5%	135,951	15.3%	140,736	18.1%	161,585	28.7%
Madison County	130,669	133,358	2.0%	131,312	-1.5%	129,019	-3.3%	124,918	-6.3%
Marion County	797,159	860,454	7.4%	876,804	1.9%	866,409	0.7%	915,850	6.0%
Morgan County	55,920	66,689	16.1%	69,874	4.6%	71,862	7.2%	75,167	11.3%
Putnam County	30,315	36,019	15.8%	37,014	2.7%	38,484	6.4%	39,430	8.7%
Shelby County	40,307	43,445	7.2%	44,063	1.4%	43,934	1.1%	43,415	-0.0%

Central Indiana has had very rapid growth extending outward from Marion County into the counties of Hamilton, Hendricks and Johnson.

Evaluation for Central Indiana

March 12, 2009 Designation Recommendations for Central Indiana:

Boone County	Nonattainment
Brown County	Attainment/Unclassifiable
Hamilton County	Nonattainment
Hancock County	Nonattainment
Hendricks County	Attainment
Johnson County	Attainment
Madison County	Attainment
Marion County	Nonattainment
Morgan County	Nonattainment
Putnam County	Attainment/Unclassifiable
Shelby County	Attainment

Greene County, Indiana (Bloomington MSA)

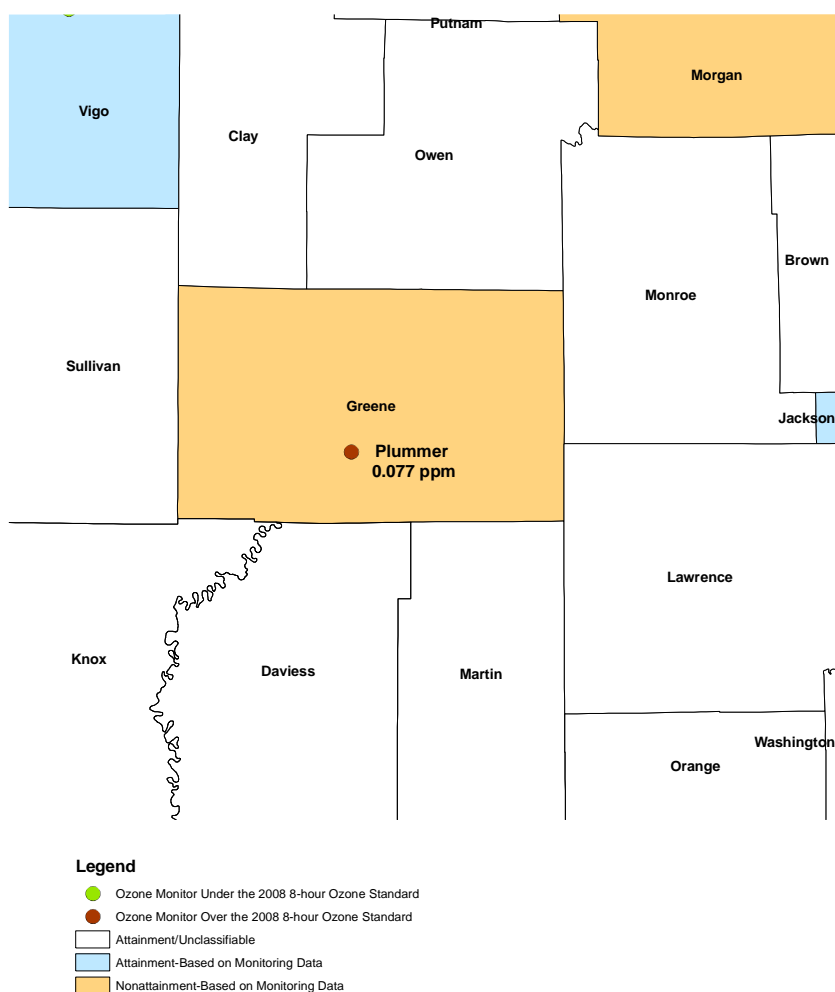
Background

Greene County, which is part of the Bloomington MSA, was designated nonattainment under the 1997 8-hour ozone standard. The monitor site in Greene County has measured air quality that meets the 1997 8-hour ozone standard since 2003. A Redesignation Petition and Maintenance Plan for Greene County was approved by U.S. EPA on December 29, 2005. The Bloomington MSA includes Greene, Monroe and Owen counties. There are no ozone monitors in Monroe or Owen counties.

Bloomington MSA Monitoring Data

County	Monitor Location	4 th Highest Ozone Values (ppm)			Design Value 2006-2008 (ppm)
		2006	2007	2008	
Greene	Plummer	0.076	0.084	0.072	0.077

Highlighted data means 2006-2008 Design Value is above 0.076 ppm



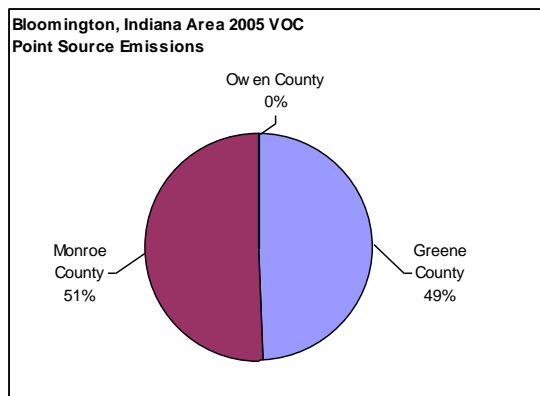
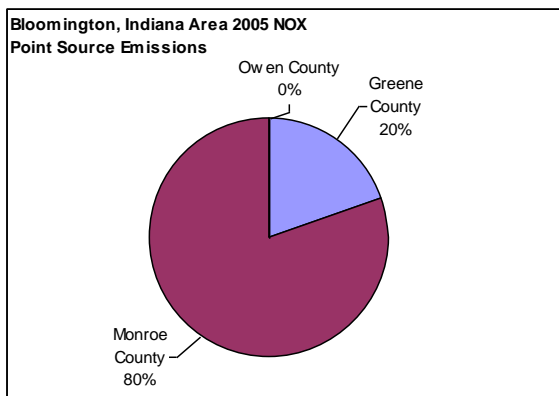
There is only one monitor located within the Bloomington MSA in Greene County and it is over the revised 2008 8-hour ozone standard. Within the Bloomington MSA, Monroe County accounts for the majority of the emissions, population, and vehicle miles traveled (VMT). Greene and Owen counties do not have any major stationary sources and do not impact monitored violations in the Bloomington MSA.

Greene County's air quality is dominated by regional transport of NO_x into the area. U.S. EPA should recognize that local controls (including stricter permitting requirements) will not contribute to improved air quality and that regional controls will be effective over the next few years when the CAIR rule is fully implemented. Indiana believes there is no reason to include the other counties in the nonattainment area. The other counties in the MSA are essentially rural in nature, do not have measured air quality in excess of the revised 2008 8-hour ozone standard, and are not contributing to elevated ozone levels in the area. Indiana strongly encourages U.S. EPA to consider Greene County as a rural area affected by overwhelming transport.

LADCO conducted future year modeling in order to determine the ozone impacts on monitors in the Midwest. LADCO's Round 5 future year results for the Greene County ozone monitor show a modeled concentration of 0.0770 ppm by 2009 and a modeled concentration of 0.0750 ppm by 2012, meeting the 2008 revised 8-hour ozone NAAQS.

Bloomington MSA Emissions Data

2005 Point Source Emissions (Tons Per Year)				
	NO_x	% of Area	VOC	% of Area
Greene County	95.45	19.59%	177.56	49.26%
Monroe County	391.55	80.40%	182.86	50.73%
Owen County	0.00	0.00%	0.00	0.00%
TOTAL	487.00		360.42	



Monroe County accounts for 80.40% of the area's total NO_x emissions and 50.73% of the area's total VOC emissions. There are no major stationary sources located in the area and emissions from Greene and Owen counties do not have a significant impact on air quality within

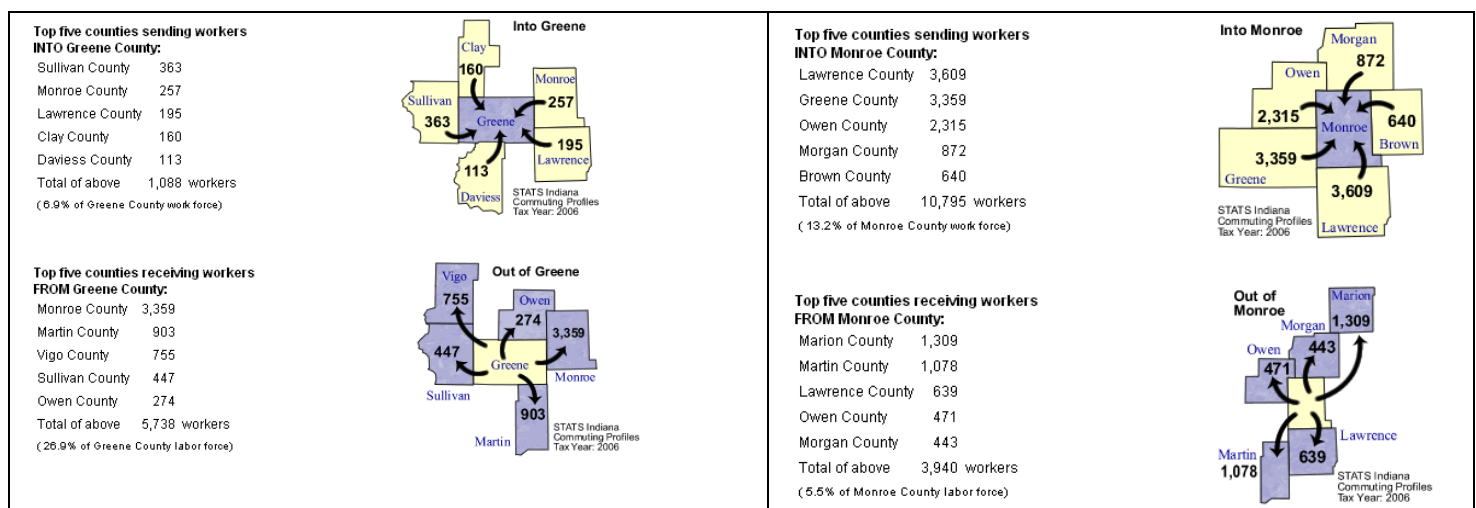
the MSA. Overall ozone values have continued to drop and NO_x and VOC emissions are expected to decrease throughout the Midwest over the next few years when CAIR has been fully implemented.

Level of Control of Emission Sources

Most of the major ozone precursor sources within the area are subject to the NO_x SIP Call, CAIR or RACT requirements.

Bloomington MSA Traffic Patterns

2006 Commuting Patterns					
	Total Workforce: Number of persons who live in County and work	Number of persons who live AND work in County	Number of persons who live in County and work in another County	Percent In County	Percent Out of County
Greene County	21,300	14,123	7,177	66.3%	33.7%
Monroe County	72,002	66,253	5,749	92.0%	8.0%
Owen County	13,571	8,092	5,479	59.6%	40.4%



Monroe County maintains the highest concentration (92.0%) for employment by residents of the county, compared to the other counties within the area. The majority of the traffic congestion occurs in Monroe County and a significant level of commuting occurs from the surrounding counties to Monroe County

Bloomington MSA Growth Rates and Patterns

	Population 1990	Population 2000	Percent Change from 1990 to 2000	Population Estimate 2007	Percent Change from 2000 to 2007	Population Estimate 2010	Percent Change from 2000 to 2010	Population Estimate 2020	Percent Change from 2000 to 2020
Greene County	30,410	33,157	8.3%	32,692	-1.4%	33,334	0.5%	33,421	0.8%
Monroe County	108,978	120,563	9.6%	128,643	6.3%	132,940	9.3%	130,014	7.3%
Owen County	17,281	21,786	20.7%	22,398	2.7%	24,264	10.2%	24,851	12.3%

The Bloomington MSA has not grown very rapidly over the past decade, nor is it expected to in the future. There are no expectations for regional growth that would adversely affect air quality.

Evaluation for Bloomington MSA

March 12, 2009 Designation Recommendations for Bloomington MSA:

Greene County	Nonattainment
Monroe County	Attainment/Unclassifiable
Owen County	Attainment/Unclassifiable

Southeastern Indiana

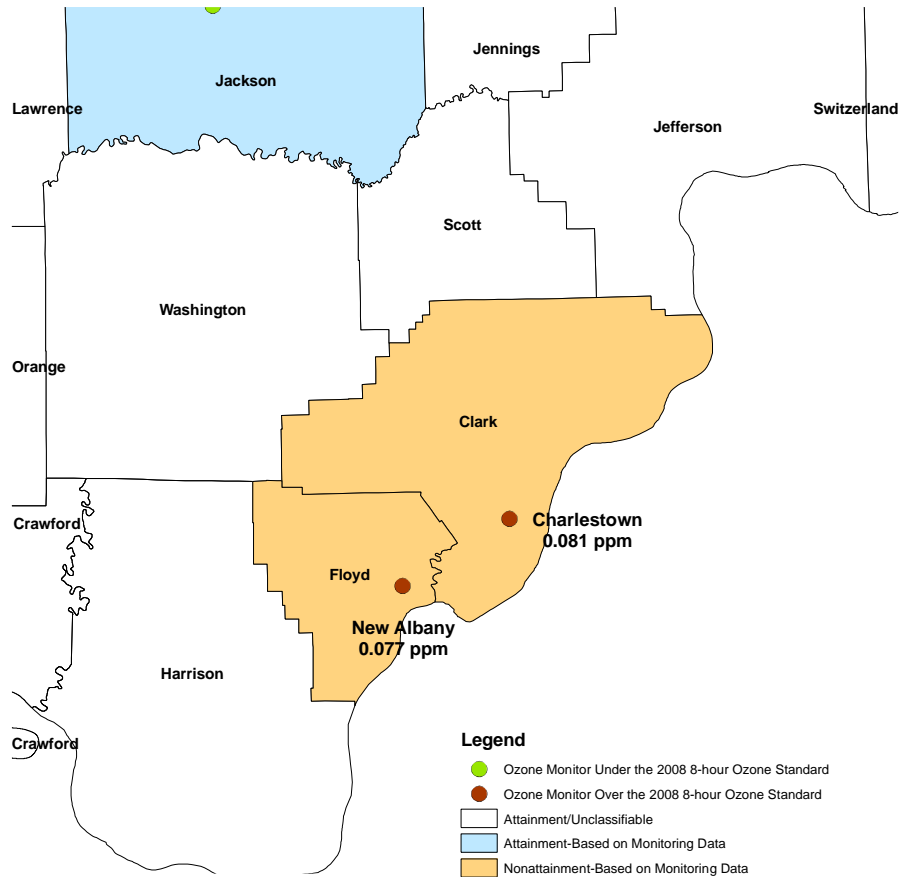
Background

Clark and Floyd counties, which are part of the Louisville, Kentucky MSA, were designated nonattainment under the 1997 8-hour ozone standard. The monitor sites in Clark and Floyd counties have measured air quality that meets the 1997 8-hour ozone standard since 2003. A Redesignation Petition and Maintenance Plan for Clark and Floyd counties was approved by U.S. EPA on July 19, 2007. Indiana's portion of the Louisville, Kentucky MSA includes Clark, Floyd, Harrison and Washington counties. There are no ozone monitors in Harrison or Washington counties.

Southeastern Indiana Monitoring Data

County	Monitor Location	4 th Highest Ozone Values (ppm)			Design Value 2006-2008 (ppm)
		2006	2007	2008	
Clark	Charlestown	0.079	0.090	0.075	0.081
Floyd	New Albany	0.076	0.082	0.075	0.077

Highlighted data means 2006-2008 Design Value is above 0.076 ppm



There are two monitors located within Indiana's portion of the Louisville, KY MSA and both are over the revised 2008 8-hour ozone standard. Within the Louisville MSA, Jefferson County, Kentucky accounts for the majority of the emissions, population, and vehicle miles traveled (VMT). Southeast Indiana's air quality is dominated by regional transport of NO_x into the region. Indiana does not believe that emissions from Clark and Floyd counties affect the downwind area's ability to attain the ozone standard, noting that Clark and Floyd counties are downwind of Louisville. Indiana believes there is no reason to include any other Indiana counties in the nonattainment area. Harrison and Washington counties do not have any major stationary sources and do not impact monitored violations in the Louisville area. Harrison and Washington counties in Indiana are essentially rural in nature, do not have measured air quality in excess of the revised 2008 8-hour ozone standard, and are not contributing to elevated ozone levels in the area. Modeling shows that both Clark and Floyd counties will meet the revised 2008 8-hour ozone standard when regional NO_x levels decrease. Air quality will continue to improve when the CAIR rule is fully implemented.

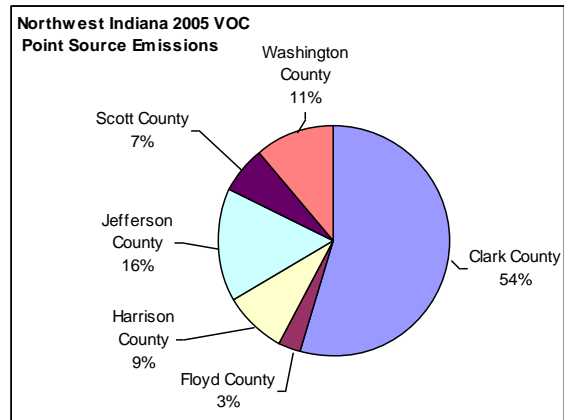
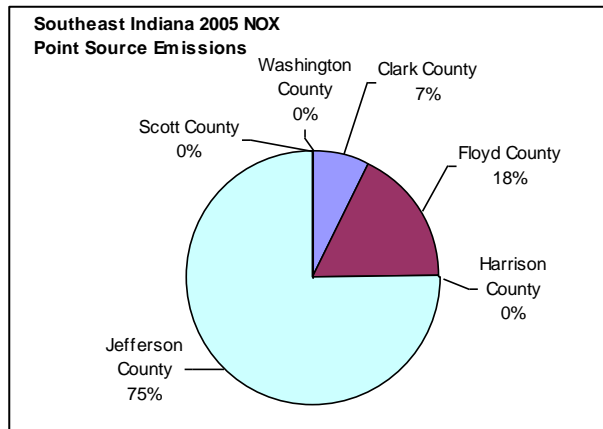
LADCO conducted future year modeling in order to determine the ozone impacts on monitors in the Midwest. The following table outlines LADCO's Round 5 future year modeling results for Clark and Floyd County ozone monitors. Results show both monitors meet the 2008 revised 8-hour ozone NAAQS by 2009 and 2012.

LADCO's Round 5 Future Year Modeling Results for 2009 and 2012

Monitor ID	County	Site	BaseYear D.V.	2009 D.V.	2012 D.V.
180190003	Clark	Charlestown	0.0790	0.0750	0.0740
180431004	Floyd	New Albany	0.0777	0.0740	0.0730

Southeastern Indiana Emissions Data

2005 Point Source Emissions (Tons Per Year)				
	NO_x	% of Area	VOC	% of Area
Clark County	2,225.53	7.37%	1,169.83	54.39%
Floyd County	5,305.99	17.58%	68.20	3.17%
Harrison County	5.60	0.01%	190.31	8.84%
Jefferson County	22,629.02	74.98%	340.60	15.83%
Scott County	9.73	0.03%	141.26	6.56%
Washington County	1.76	0.00%	240.51	11.18%
TOTAL	30,177.63		2,150.71	



Note: These charts do not account for emissions from Kentucky sources, which would alter the ratios significantly.

Jefferson County, Indiana accounts for 74.98% of the area's total NO_x emissions and Clark County accounts for 54.39% of the area's total VOC emissions. The only major stationary source outside of the Louisville MSA is located in Jefferson County, Indiana. Jefferson County, Indiana is downwind from Clark and Floyd counties and emissions from Jefferson County, Indiana do not impact the Louisville MSA. Emissions from Harrison, Scott and Washington counties do not have a significant impact on air quality within the MSA. Overall ozone values have continued to drop and NO_x and VOC emissions are expected to decrease throughout the Midwest over the next few years when CAIR has been fully implemented. Louisville, Kentucky is the core of the MSA and its population and emissions are significantly higher than those in Clark and Floyd counties.

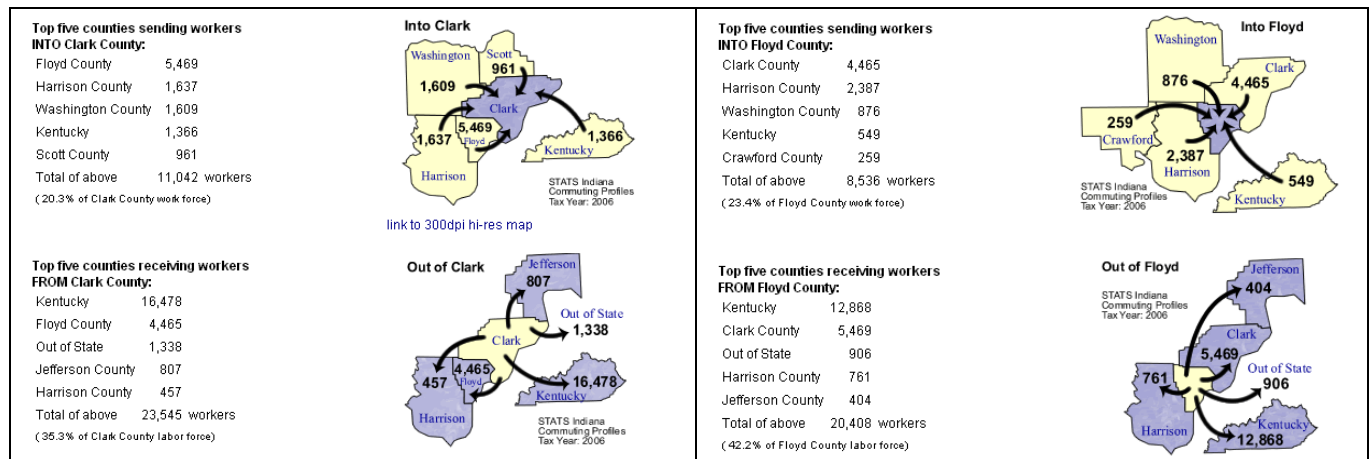
Level of Control of Emission Sources

The only major stationary source located in the Indiana portion of the Louisville MSA is located in Floyd County. The Gallagher power plant located in Floyd County is currently controlled by low NO_x burner technology with separated overfire air. The Duke Energy Indiana - Gallagher Station power plant is installing selective catalytic reduction systems on all four of its electric generating units anticipating operation starting in 2015.

The major stationary source located in Jefferson County, Indiana is downwind of the Louisville MSA. The Indiana Kentucky Electric Corporation - Clifty Creek power plant is currently controlled by selective catalytic reduction and overfire air. Indiana does not believe that the current or future emissions from the Clifty Creek power plant are affecting the monitor violations in Clark and Floyd counties. Most of the other major ozone precursor sources within the Louisville area are subject to the NO_x SIP Call, CAIR or RACT requirements.

Southeastern Indiana Traffic Patterns

2006 Commuting Patterns					
	Total Workforce: Number of persons who live in County and work	Number of persons who live AND work in County	Number of persons who live in County and work in another County	Percent In County	Percent Out of County
Clark County	66,760	42,078	24,682	63.0%	37.0%
Floyd County	48,350	27,319	21,031	56.5%	43.5%
Harrison County	25,597	15,051	10,546	58.8%	41.2%
Jefferson County	21,104	17,929	3,175	85.0%	15.0%
Scott County	14,977	10,491	4,486	70.0%	30.0%
Washington County	17,601	11,553	6,048	65.6%	34.4%



Within the Southeastern Indiana area, the highest concentrations of employment by residents of the county and vehicle miles traveled (VMT) is split between Clark and Floyd counties. Although mild urban growth is occurring in neighboring counties, the majority of the region's VMT and traffic congestion is generated within the core urban areas of Jeffersonville (Clark County) and New Albany (Floyd County), and Clark (63.0%) and Floyd (56.5%) counties maintain high concentrations for employment, compared to the other counties within the area. The majority of the traffic congestion occurs in Clark and Floyd counties. A significant level of commuting occurs from the surrounding counties to Clark and Floyd counties. In fact, those two counties have the largest level of commuting to and from each other in Southeastern Indiana.

Southeastern Indiana Growth Rates and Patterns

	Population 1990	Population 2000	Percent Change from 1990 to 2000	Population Estimate 2007	Percent Change from 2000 to 2007	Population Estimate 2010	Percent Change from 2000 to 2010	Population Estimate 2020	Percent Change from 2000 to 2020
Clark County	87,774	96,472	9.0%	105,035	8.2%	101,969	5.4%	111,310	13.3%
Floyd County	64,404	70,823	9.1%	73,064	3.1%	71,992	1.6%	73,569	3.7%
Harrison County	29,890	34,325	12.9%	36,810	6.8%	38,203	10.2%	41,185	16.7%
Jefferson County	29,797	31,705	6.0%	32,704	3.1%	33,293	4.8%	34,209	7.3%
Scott County	20,991	22,960	8.6%	23,679	3.0%	24,947	8.0%	25,850	11.2%
Washington County	23,717	27,223	12.9%	27,920	2.5%	29,613	8.1%	30,015	9.3%

Southeastern Indiana as a region has not grown very rapidly over the past decade, nor is it expected to in the future. There are signs of population shifts, but no expectation for regional growth that would adversely affect air quality.

Evaluation for Southeastern Indiana

March 12, 2009 Designation Recommendations for Southeastern Indiana:

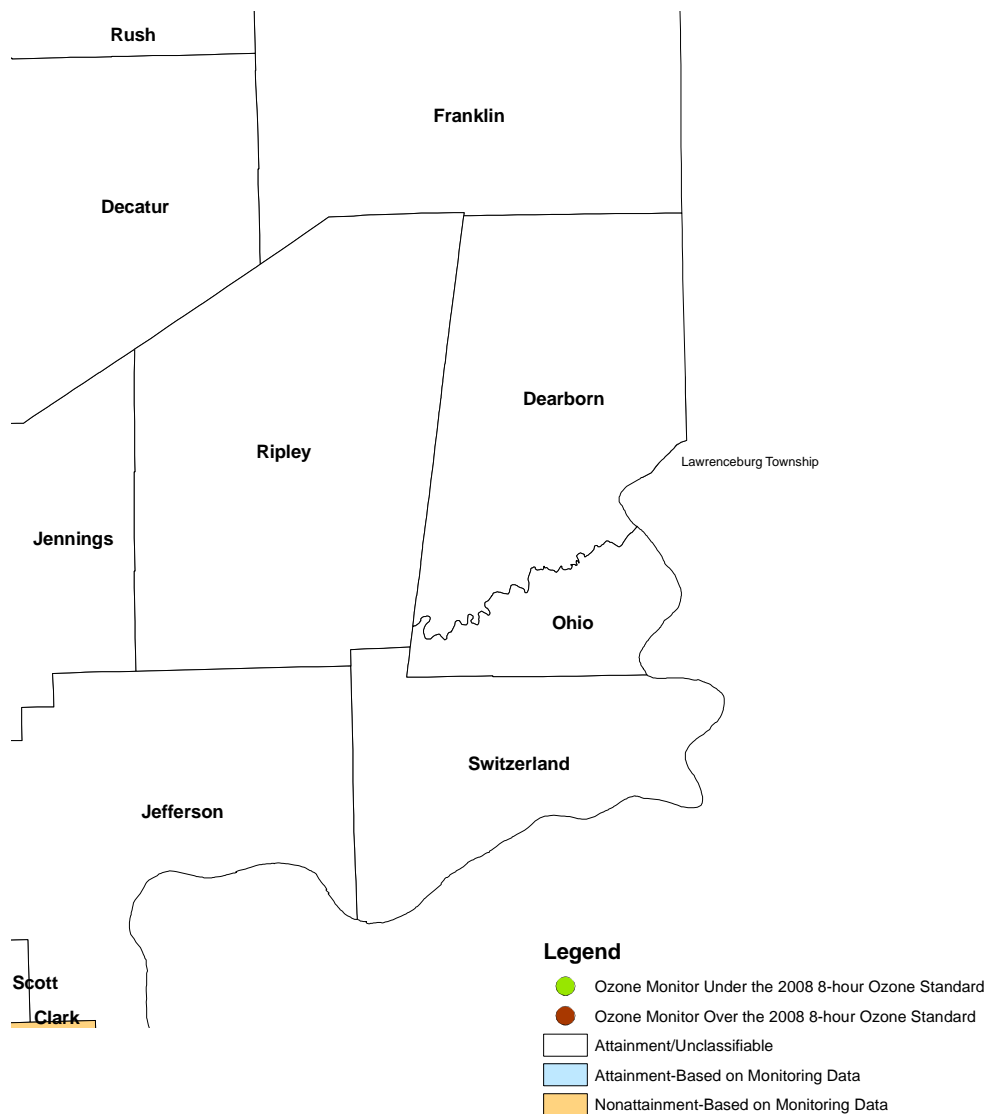
Clark County	Nonattainment
Floyd County	Nonattainment
Harrison County	Attainment/Unclassifiable
Jefferson County	Attainment/Unclassifiable
Scott County	Attainment/Unclassifiable
Washington County	Attainment/Unclassifiable

Dearborn County, Indiana

Background

Lawrenceburg Township in Dearborn County, Indiana, which is part of the Cincinnati, Ohio MSA, was designated nonattainment under the 1997 8-hour ozone standard. There are no ozone monitoring sites in Dearborn County, Indiana. An attainment demonstration was sent to U.S. EPA on April 5, 2008, which states that the area will attain the ozone standard by 2009. Indiana's portion of the Cincinnati, Ohio MSA includes Dearborn, Franklin and Ohio counties.

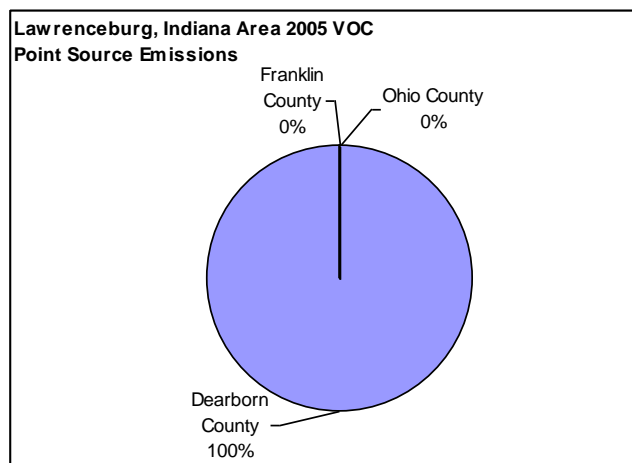
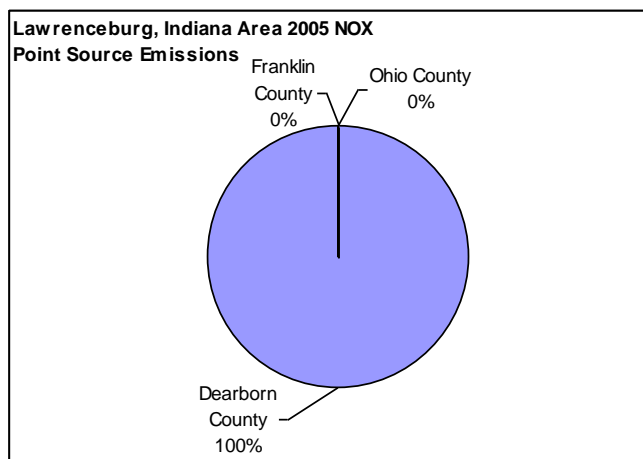
Dearborn County, Indiana Monitoring Data



There are no monitors located in the Indiana portion of the Cincinnati MSA. Within the Cincinnati MSA, Hamilton County, Ohio accounts for the majority of the emissions, population, and vehicle miles traveled (VMT). If monitors were located in the Indiana portion of the MSA, it is reasonable to assume that the values would be consistent with background values elsewhere in the state and Midwest. Therefore, Indiana does not believe the ozone concentrations in this area exceed the revised 2008 8-hour ozone standard. Additionally, based on analysis of similar urban areas, Indiana does not believe that emissions from Dearborn County and surrounding counties contribute significantly to ozone values elsewhere in the Cincinnati MSA.

Dearborn County, Indiana Emissions Data

2005 Point Source Emissions (Tons Per Year)				
	NO _x	% of Area	VOC	% of Area
Dearborn County	10,407.81	100.00%	1,204.44	100.00%
Franklin County	0.00	0.00%	0.00	0.00%
Ohio County	0.00	0.00%	0.00	0.00%
TOTAL	10,407.81		1,204.44	



Note: These charts do not account for emissions from Ohio sources, which would alter the ratios significantly.

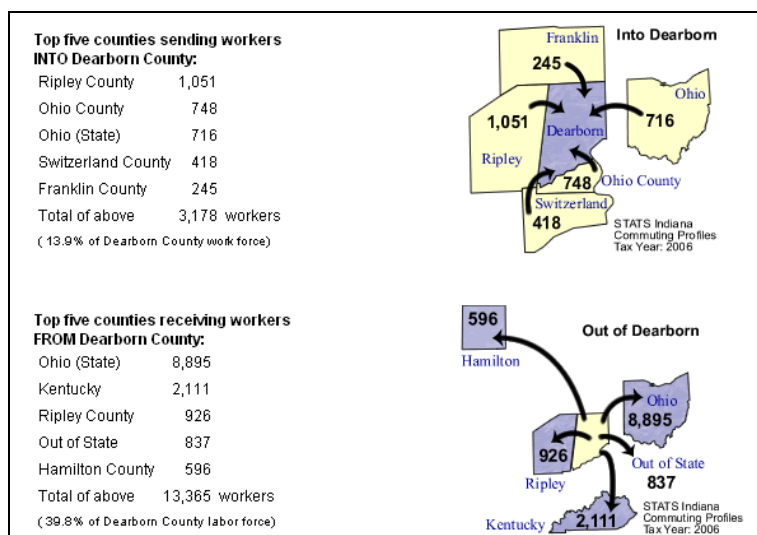
Dearborn County accounts for 100% of Indiana's portion of the Cincinnati MSA's total NO_x and total VOC emissions. The only major stationary source in the area is located in Lawrenceburg Township in Dearborn County. Essentially the rest of Dearborn County along with the rest of Indiana's portion (Franklin and Ohio counties) of the Cincinnati MSA are rural in nature. Emissions from Franklin and Ohio counties do not have a significant impact on air quality within the MSA. Overall ozone values have continued to drop and NO_x emissions are expected to decrease throughout the Midwest over the next few years when CAIR has been fully implemented.

Level of Control of Emission Sources

The American Electric Power (AEP) -Tanner's Creek Generating Station power plant, located in Lawrenceburg Township in Dearborn County, is covered by a consent decree and several, but not all, electric generating units will have to apply controls. Currently the power plant is controlled by low NO_x burner technology (dry bottom only) and overfire air. AEP-Tanner's Creek Generating Station will be installing selective non-catalytic reduction systems on three of its four electric generating units, with operation to begin in mid-2009. This will achieve an additional 30% reduction in NO_x. Indiana believes that emissions from Dearborn County do not affect the downwind area's ability to attain the revised 2008 8-hour ozone standard. Most of the other major ozone precursor sources within the Cincinnati area are subject to the NO_x SIP Call, CAIR or RACT requirements.

Dearborn County, Indiana Traffic Patterns

2006 Commuting Patterns					
	Total Workforce: Number of persons who live in County and work	Number of persons who live AND work in County	Number of persons who live in County and work in another County	Percent In County	Percent Out of County
Dearborn County	33,559	19,067	14,492	56.8%	43.2%
Franklin County	15,585	8,456	7,129	54.3%	45.7%
Ohio County	4,126	2,201	1,925	53.3%	46.7%



Dearborn County, Indiana Growth Rates and Patterns

	Population 1990	Population 2000	Percent Change from 1990 to 2000	Population Estimate 2007	Percent Change from 2000 to 2007	Population Estimate 2010	Percent Change from 2000 to 2010	Population Estimate 2020	Percent Change from 2000 to 2020
Dearborn County	38,835	46,109	15.8%	49,759	7.3%	50,855	9.3%	54,017	14.6%
Franklin County	19,580	22,151	11.6%	23,234	4.7%	24,035	7.8%	24,413	9.3%
Ohio County	5,315	5,623	5.5%	5,772	2.6%	6,092	7.7%	6,220	9.6%

Dearborn, Franklin and Ohio counties have not grown very rapidly over the past decade, nor are they expected to in the future. There are no expectations for regional growth that would adversely affect air quality.

Evaluation for Dearborn County, Indiana

March 12, 2009 Designation Recommendations for Lawrenceburg, Indiana Area:

Dearborn County	Attainment/Unclassifiable
Franklin County	Attainment/Unclassifiable
Ohio County	Attainment/Unclassifiable

Southwestern Indiana

Background

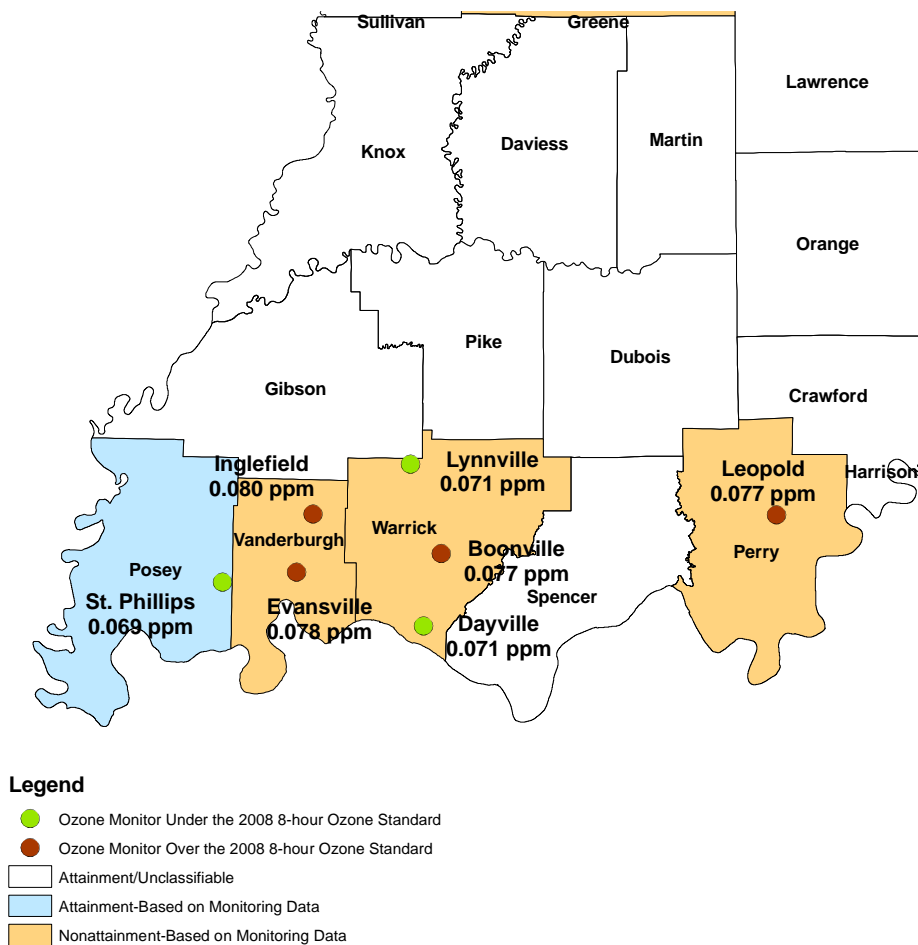
Vanderburgh and Warrick counties, which are part of the Evansville, MSA, were designated nonattainment under the 1997 8-hour ozone standard. The monitor sites in Vanderburgh and Warrick counties have measured air quality that meets the 1997 8-hour ozone standard since 2002. A Redesignation Petition and Maintenance Plan for Vanderburgh and Warrick counties was approved by U.S. EPA on January 30, 2006. The Evansville MSA includes Gibson, Posey, Vanderburgh and Warrick. There are ozone monitors in every county in the Evansville MSA except for Gibson County.

Perry County is not part of an MSA and was designated attainment under the 1997 8-hour ozone standard.

Southwestern Indiana Monitoring Data

County	Monitor Location	4 th Highest Ozone Values (ppm)			Design Value 2006-2008 (ppm)
		2006	2007	2008	
Perry	Leopold	0.079	0.080	0.073	0.077
Posey	St. Phillips	0.058	0.080	0.069	0.069
Vanderburgh	Mill Road	0.075	0.085	0.074	0.078
Vanderburgh	Inglefield	0.081	0.088	0.072	0.080
Warrick	Boonville	0.078	0.083	0.071	0.077
Warrick	Lynnville	0.070	0.080	0.064	0.071
Warrick	Dayville	0.078	0.076	0.060	0.071

Highlighted data means 2006-2008 Design Value is above 0.076 ppm



There are six monitors located within the Evansville MSA and three of them are over the revised 2008 8-hour ozone standard. Within the Evansville MSA, Vanderburgh and Warrick counties account for the majority of the emissions, population, and vehicle miles traveled (VMT). Indiana also has a monitor in Leopold in nearby Perry County. The monitor in Leopold is over the revised 2008 8-hour ozone standard.

Southwest Indiana's air quality is clearly dominated by the many large sources of NO_x in the region. Ozone levels have been decreasing over the past few years as NO_x controls have been installed at many of these sources. Air quality will continue to improve when the CAIR rule is fully implemented. The only monitors in the region that exceed the revised 2008 8-hour ozone standard are in Vanderburgh and Warrick counties. Indiana believes there is no reason to include the other counties in the nonattainment area. U.S. EPA should keep the nonattainment areas as small as possible. The prevailing wind direction is from southwest, south and southeast, which means that Vanderburgh County emissions are not dominating the ozone readings in Warrick County, directly to the east. It is the regional levels of NO_x to the south and southwest of Warrick County that are primarily causing the high levels. Modeling shows that both Vanderburgh and Warrick counties will meet the revised 2008 8-hour ozone standard when regional NO_x levels decrease. Perry County's air quality is dominated by regional transport of

NO_x into the area. Air quality will continue to improve when the CAIR rule is fully implemented. Perry County is not located within an MSA but the monitor exceeds the revised 2008 8-hour ozone standard. Indiana believes there is no reason to include other counties, other than Perry County, in the nonattainment area. The other counties in the area are essentially rural in nature, do not have measured air quality in excess of the revised 2008 8-hour ozone standard, and are not contributing to elevated ozone levels in Perry County. Indiana strongly encourages U.S. EPA to consider Perry County as a rural area affected by overwhelming transport.

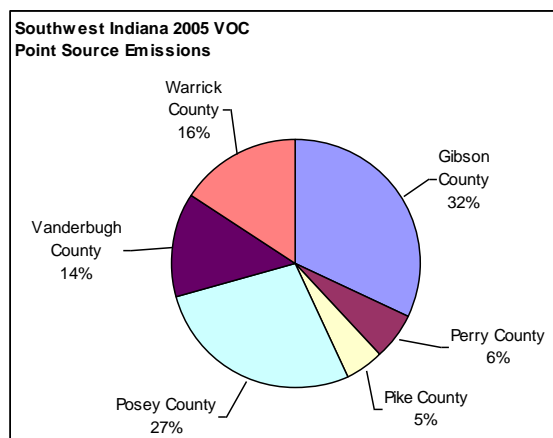
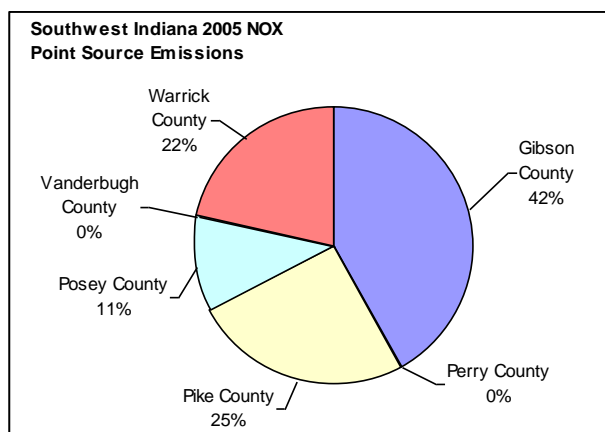
LADCO conducted future year modeling in order to determine the ozone impacts on monitors in the Midwest. The following table outlines LADCO's Round 5 future year modeling results for Posey, Vanderburgh and Warrick County ozone monitors. Results show all monitors in Southwest Indiana meet the 2008 revised 8-hour ozone NAAQS by 2009 and 2012. There is insufficient data to determine the baseyear design value in order to conduct future-year modeling for Perry County at this time.

LADCO's Round 5 Future Year Modeling Results for 2009 and 2012

Monitor ID	County	Site	BaseYear D.V.	2009 D.V.	2012 D.V.
181290003	Posey	St. Phillips	0.0717	0.0680	0.0670
181630012	Vanderburgh	Mill Road	0.0773	0.0730	0.0720
181630013	Vanderburgh	Inglefield	0.0677	0.0640	0.0630
181730008	Warrick	Boonville	0.0777	0.0740	0.0730
181730011	Warrick	Dayville	0.0775	0.0740	0.0730
181730009	Warrick	Lynnville	0.0727	0.0700	0.0690

Southwestern Indiana Emissions Data

2005 Point Source Emissions (Tons Per Year)				
	NO _x	% of Area	VOC	% of Area
Gibson County	30,364.55	41.80%	1,236.72	31.88%
Perry County	91.61	0.12%	239.83	6.18%
Pike County	18,299.68	25.19%	197.77	5.09%
Posey County	8,064.24	11.10%	1,064.64	27.44%
Vanderburgh County	119.04	0.16%	524.03	13.50%
Warrick County	15,689.05	21.60%	616.29	15.88%
TOTAL	72,628.17		3,879.28	



Gibson County accounts for 41.80% of the area's total NO_x emissions and 31.88% of the area's total VOC emissions. Gibson County is downwind of the Evansville area and does not impact monitor violations in Vanderburgh and Warrick counties. Vanderburgh County has significantly lower emissions than surrounding counties in Southwestern Indiana. There are no major stationary sources in Perry County and emissions from that county are not impacting the Evansville MSA. Overall, ozone values have continued to drop and NO_x and VOC emissions are expected to decrease throughout the Midwest over the next few years when CAIR has been fully implemented. Reductions expected to occur in Warrick and Gibson counties over the next two years will significantly alter the contribution from these counties and further improve air quality in the near future.

Level of Control of Emission Sources

NO_x emissions from electric generating units in the Southwestern Indiana area have decreased substantially during the past few years. The decrease in NO_x can be largely attributed to those electric generating units located within and surrounding the Southwest Indiana area that have reduced their NO_x emissions as a result of the NO_x SIP Call.

The Southern Indiana Gas and Electric Company, Inc. (SIGECO) - F.B. Culley power plant located in Warrick County was required to shut down one of its electric generating units. The other two electric generating units are under a consent decree to operate at 95% efficiency at all times the units are in operation. With the consent decree, the controls result in a significant reduction in NO_x emissions. These controls will be in place prior to the attainment date and emissions from the power plant will not increase in the near future. The ALCOA – Warrick Operations power plant located in Warrick County is currently controlled by Low NO_x Burner Technology with Overfire Air. These controls are in place prior to the attainment date. Indiana believes that emissions from Warrick County do not affect the downwind area's ability to attain the ozone standard. Most of the other major ozone precursor sources within the Evansville area are subject to the NO_x SIP Call, CAIR or RACT requirements.

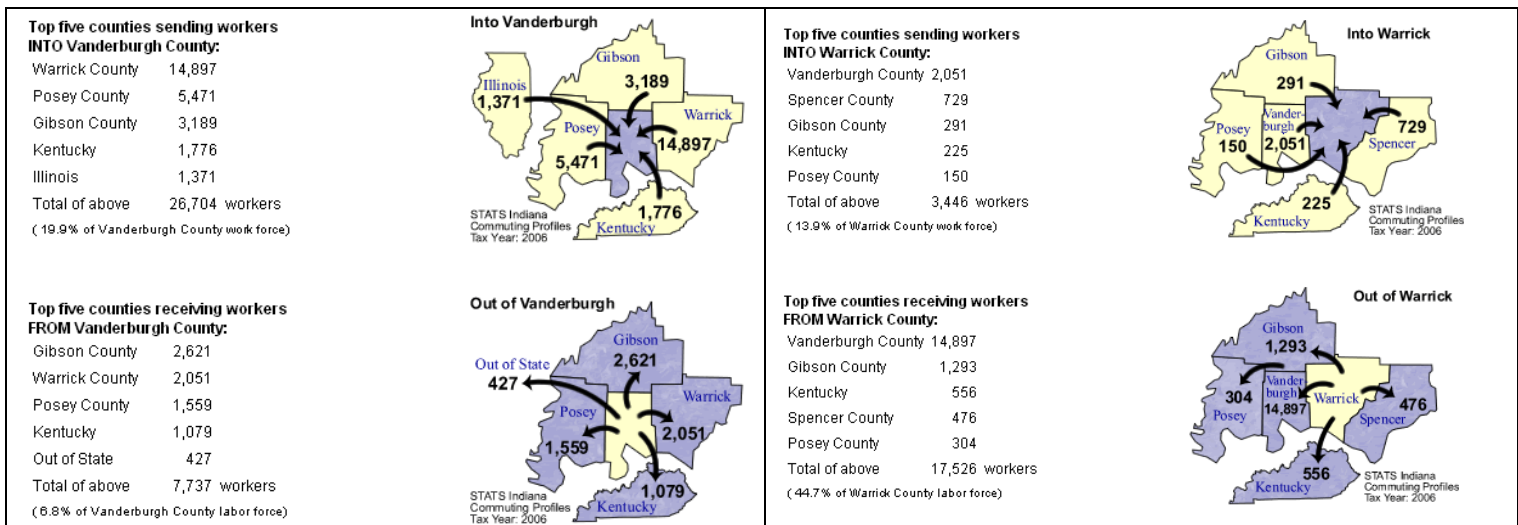
Comparison of 2005 Estimated and 2020 Projected Emission Estimates for Southwestern Indiana (Annual Tons)

	2005	2020	Change	% Change
NO_x	100,738.05	33,920.55	-66,817.50	66.33%

NO_x emissions within the Southwestern Indiana area are projected to decline by 66.33% between 2005 and 2020. Emission reduction benefits from federal rules covering the NO_x SIP Call, CAIR, Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements, the Highway Heavy-Duty Engine Rule and the Nonroad Diesel Engine Rule are factored into the percent changes. Further, due to the implementation of the NO_x SIP Call and CAIR, NO_x and ozone levels entering this area will also be decreasing.

Southwestern Indiana Traffic Patterns

2006 Commuting Patterns					
	Total Workforce: Number of persons who live in County and work	Number of persons who live AND work in County	Number of persons who live in County and work in another County	Percent In County	Percent Out of County
Gibson County	22,589	17,739	4,850	78.5%	21.5%
Perry County	12,448	9,204	3,244	73.9%	26.1%
Pike County	8,955	5,379	3,576	60.1%	39.9%
Posey County	18,217	11,752	6,465	64.5%	35.5%
Vanderburgh County	113,021	104,474	8,547	92.4%	7.6%
Warrick County	39,248	20,834	18,414	53.1%	46.9%



Within the Evansville MSA, Vanderburgh (92.4%) County maintains the highest concentration of employment by residents of the county, compared to the other counties within the area. The majority of the traffic congestion occurs in Vanderburgh and Warrick counties. A significant level of commuting occurs from the surrounding counties to Vanderburgh and

Warrick counties. These two counties have the largest level of commuting to and from each other.

Southwestern Indiana Growth Rates and Patterns

	Population 1990	Population 2000	Percent Change from 1990 to 2000	Population Estimate 2007	Percent Change from 2000 to 2007	Population Estimate 2010	Percent Change from 2000 to 2010	Population Estimate 2020	Percent Change from 2000 to 2020
Gibson County	31,913	32,500	1.8%	32,754	0.8%	32,904	1.2%	35,004	7.2%
Perry County	19,107	18,899	-1.1%	18,916	0.0%	18,709	-1.0%	18,738	-0.9%
Pike County	12,509	12,837	2.6%	12,605	-1.8%	13,317	3.6%	12,986	1.1%
Posey County	25,968	27,061	4.0%	26,262	-3.0%	26,605	-1.7%	26,053	-3.7%
Vanderburgh County	165,058	171,922	4.0%	174,425	1.4%	174,355	1.4%	174,827	1.7%
Warrick County	44,920	52,383	14.2%	57,090	8.2%	56,631	7.5%	62,845	16.6%

Southwestern Indiana as a region has not grown very rapidly over the past decade, nor is it expected to in the future. There are signs of population shifts, but no expectation for regional growth that would adversely affect air quality.

Evaluation for Southwestern Indiana

March 12, 2009 Designation Recommendations for Southwestern Indiana:

Gibson County	Attainment/Unclassifiable
Perry County	Nonattainment
Pike County	Attainment/Unclassifiable
Posey County	Attainment
Vanderburgh County	Nonattainment
Warrick County	Nonattainment