Janet McCabe
Assistant Commissioner
IDEM-Office of Air Quality
(317) 232-8222
Jmccabe@dem.state.in.us

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Region's History With 1-Hour Ozone Standard

- 1990 - Area classified as a "marginal" nonattainment area pursuant to CAA amendments.
  - Nonattainment area includes St. Joseph and Elkhart Counties

- 1994 - Area Redesignated to Attainment (Classified as a Maintenance Area)
  - Maintenance plan in place to ensure no backsliding.

- 1994 -2002 Area continues to attain the 1-hour standard.

Overview of the Eight-Hour Ozone Standard

- July 17, 1997 - U.S. EPA announced new stricter national ambient air quality standards (NAAQS) for ground-level ozone.
- May 1999 new standards challenged in court.
- Spring 2000 - U.S. EPA released guidance concerning the designation process. States were encouraged to provide recommendations to U.S. EPA by June 30, 2000.
- June 30, 2000 - Indiana's original 8-hour nonattainment assessment was submitted to U.S. EPA.
- February 27, 2001 – U.S. Supreme Court upholds 8-hour ozone standard after designations delayed due to legal challenges.
- November 14, 2002 - U.S. EPA issues memorandum stating that designations will be final by April 2004. States are asked to submit recommendations by April 15, 2003.
- February 27, 2003 - U.S. EPA issues memorandum granting states until July 15, 2003 to submit recommendations.

IDEM
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Overview of the Eight-Hour Ozone Standard

Layout of U.S. EPA's Proposed Process for Designations

November 14, 2002 U.S. EPA memorandum outlines the schedule for designating areas under the 8-hour ozone (O_3) standard.

- Consistent with Section 107 of the Clean Air Act, U.S. EPA is requesting States to provide designation recommendations to the Regional Administrator by July 15, 2003.
- 2000-2002 monitoring data should be used for devising recommendations. However, U.S. EPA will use the 2001-2003 data for promulgating final designations if the data are available and quality assured.
- Also Per Section 107 of the Clean Air Act, if U.S. EPA intends to modify recommendations made by the Governor, the Administrator must notify the State and provide an opportunity to demonstrate why any proposed modification is inappropriate. Such notification must be given no later than 120 days prior to promulgation of designations.
- Designations will be final by April 15, 2004.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Overview of the Eight-Hour Ozone Standard

State Implementation Plan and Attainment Deadlines

- States will have until 2007 (three years from the date of designation) to submit State Implementation Plans (SIPs) to U.S. EPA. A SIP outlines the control strategies and technical information to demonstrate how and when the area will achieve attainment of the standard.

- Attainment dates will likely be established based on nonattainment classifications (marginal, moderate, serious, severe, extreme). In Indiana, the attainment dates will likely range from 2007 to 2013.

- U.S. EPA expects to propose rules in Spring 2003 concerning ozone nonattainment classifications, attainment dates, and any mandatory ozone control measures.

IDEM
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

U.S. EPA 8-Hour Schedule

Early 2003	Publish proposed implementation rule
July 2003	States provide designation recommendations
Late 2003	Publish final implementation rule
April 2004	EPA signs final nonattainment designations (effective shortly after*)
April-May 2007	Nonattainment area SIPs submitted to EPA (3 years from effective date)
2007-2021	Range of attainment dates

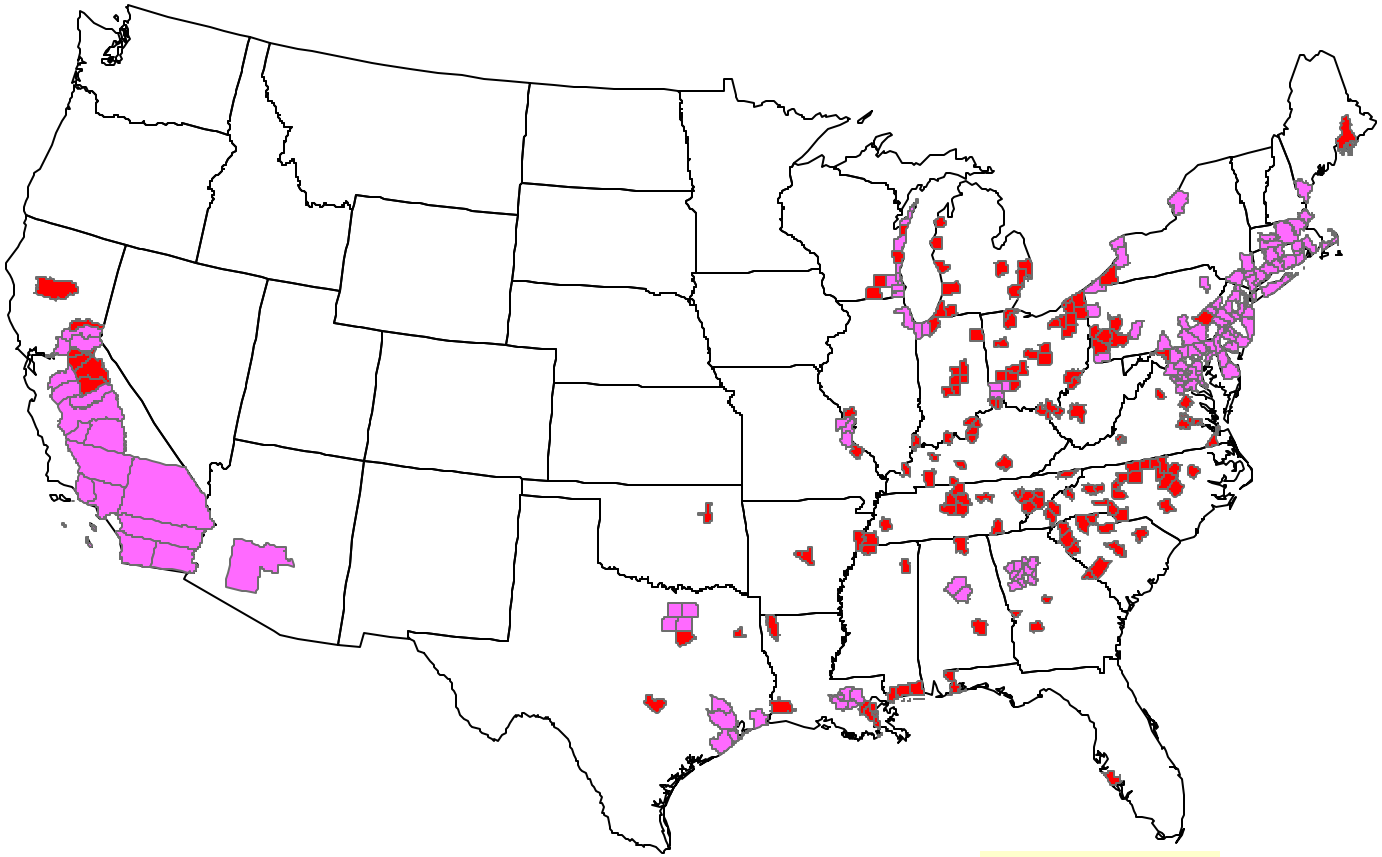
IDEM
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Harmonization of 8-hr Ozone and PM2.5

- End of 2003—Finalize O3 NAAQS implementation rule
- 2003-2004--propose and finalize PM2.5 implementation rule
- 2004 --Designate nonattainment and attainment areas under 8-hr ozone standard (after receiving recommendations from states). *Note: The statutory deadline for 8-hour ozone designations has passed, and EPA has negotiated settlement agreement on designations.*
- 2004--Designate nonattainment and attainment areas under PM2.5 standard (after receiving recommendations from states)
- 2007--States submit plans for implementing ozone and PM2.5 NAAQS (including state rules for emission reductions)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Counties violating the 8-hr ozone NAAQS
1999-2001



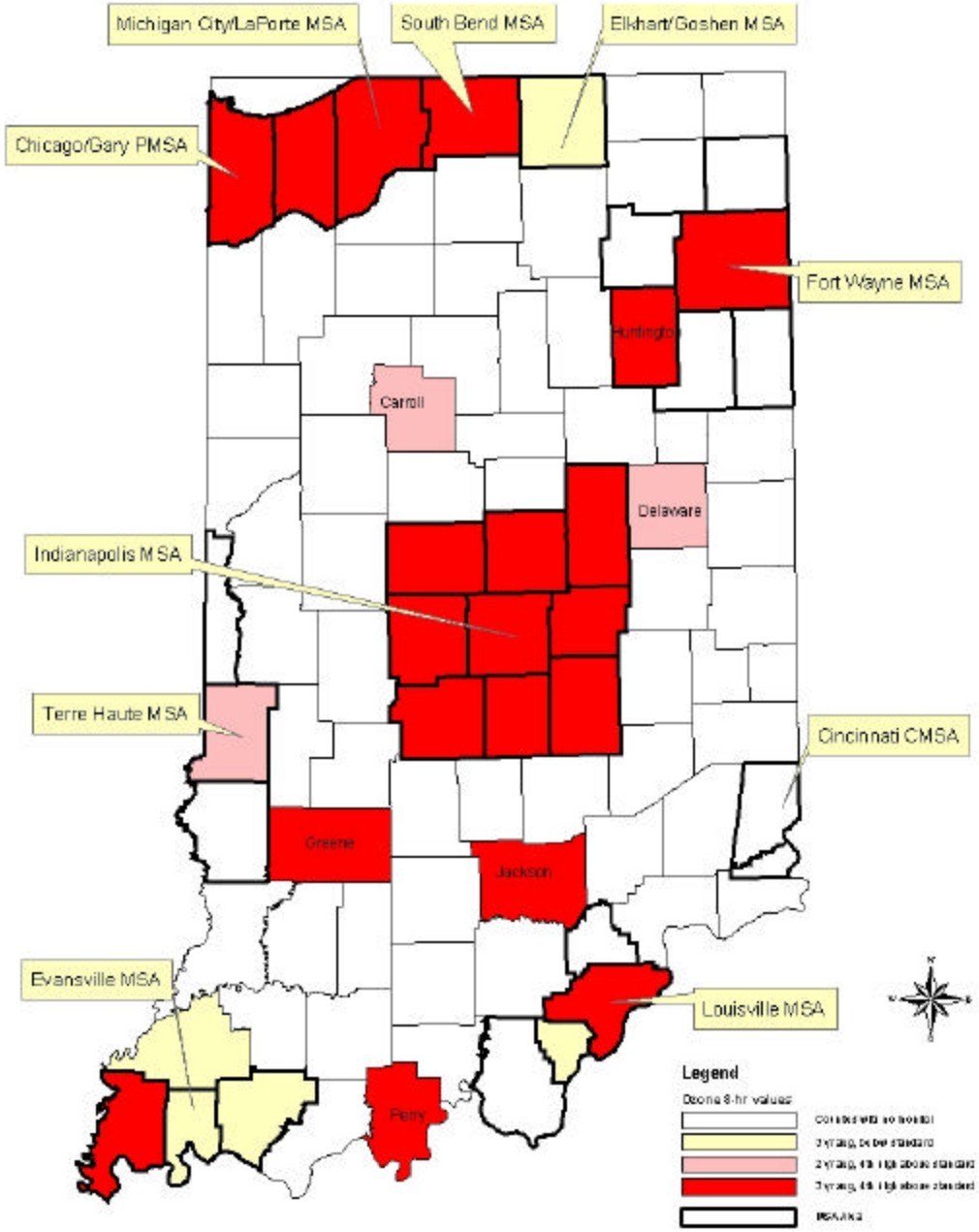
There Are a Total of 291 Counties Violating the 8-hour Ozone Standard Using 1999-2001 Data

155 of Those Counties Are Designated Attainment for the 1-hour Standard

136 of Those Counties Are Designated Nonattainment for the 1-hour Standard

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Indiana MSA Boundaries and Counties with O3 Monitors



Indiana Designation Recommendations

Outreach

- Information available through our website, and questions and comments can be shared via an on-line forum. (http://www.in.gov/idem/air/8hourstandard/index.html)
- Mailing to interested and affected parties in each of the affected areas.
- Presentations/solicitation of comment through public meetings.

Information to be Used in Assessment Process
(Per U.S. EPA Guidance)

Primary

- Monitoring data
- MSA Boundaries

Secondary

- Emissions trends
- Traffic and employment patterns
- Population growth
- Commercial, residential, and industrial growth
- Meteorology

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Regional Monitoring Data

County	Location	3yr Avg. 4th High
Cass (MI)	Cassopolis	0.09
Elkhart (Bristol)	(New location 2002)	0.073*
St. Joseph	Granger	0.09
St. Joseph	South Bend	0.087
St. Joseph	Potato Creek	0.083

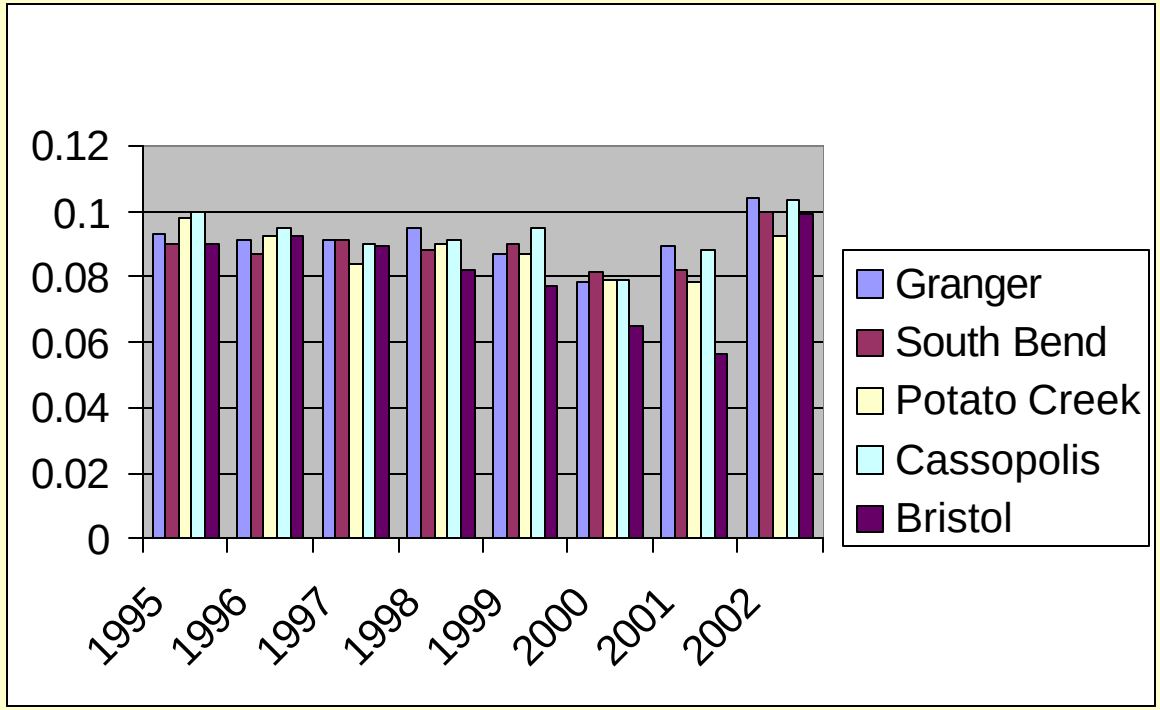
Elkhart Monitor Site

Year	3yr Avg. 4th High
1999	.077
2000	.065
2001	.056
2002	.099

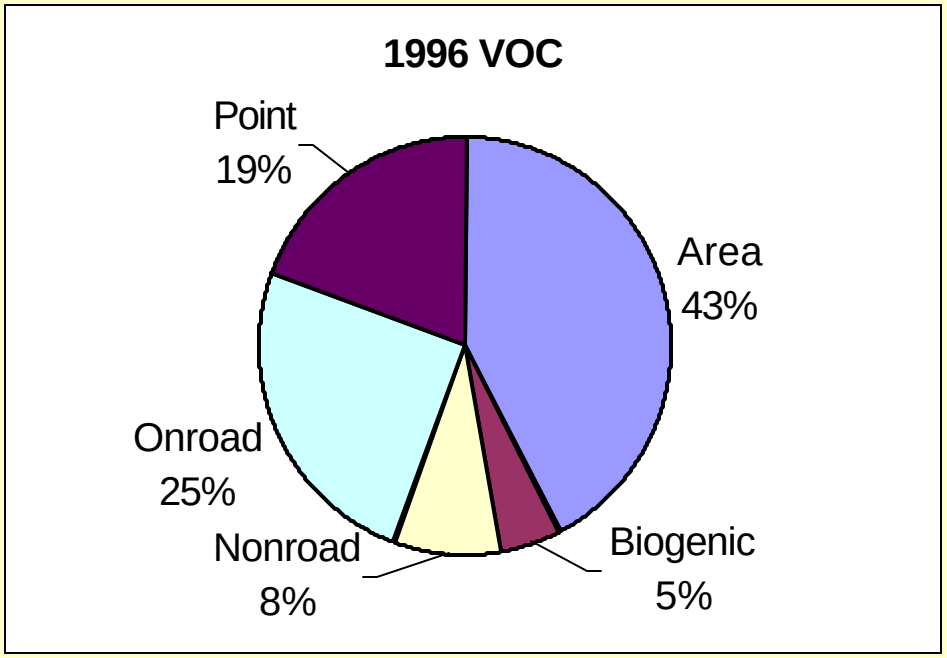
Regional Monitoring Network Site Locations

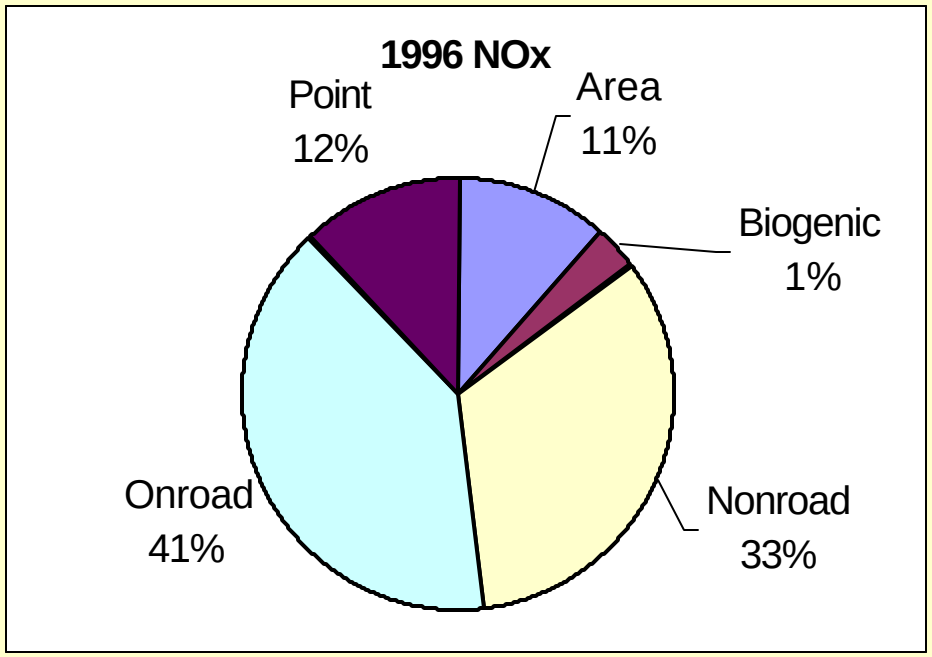
Annual 4th High Average Values By Monitoring Site

	Granger	South Bend	Potato Creek	Cassopolis	Bristol
1995	0.093	0.09	0.098	0.1	0.09
1996	0.091	0.087	0.092	0.095	0.092
1997	0.091	0.091	0.084	0.09	0.089
1998	0.095	0.088	0.09	0.091	0.082
1999	0.087	0.09	0.087	0.095	0.077
2000	0.078	0.081	0.079	0.079	0.065
2001	0.089	0.082	0.078	0.088	0.056
2002	0.104	0.1	0.092	0.103	0.099

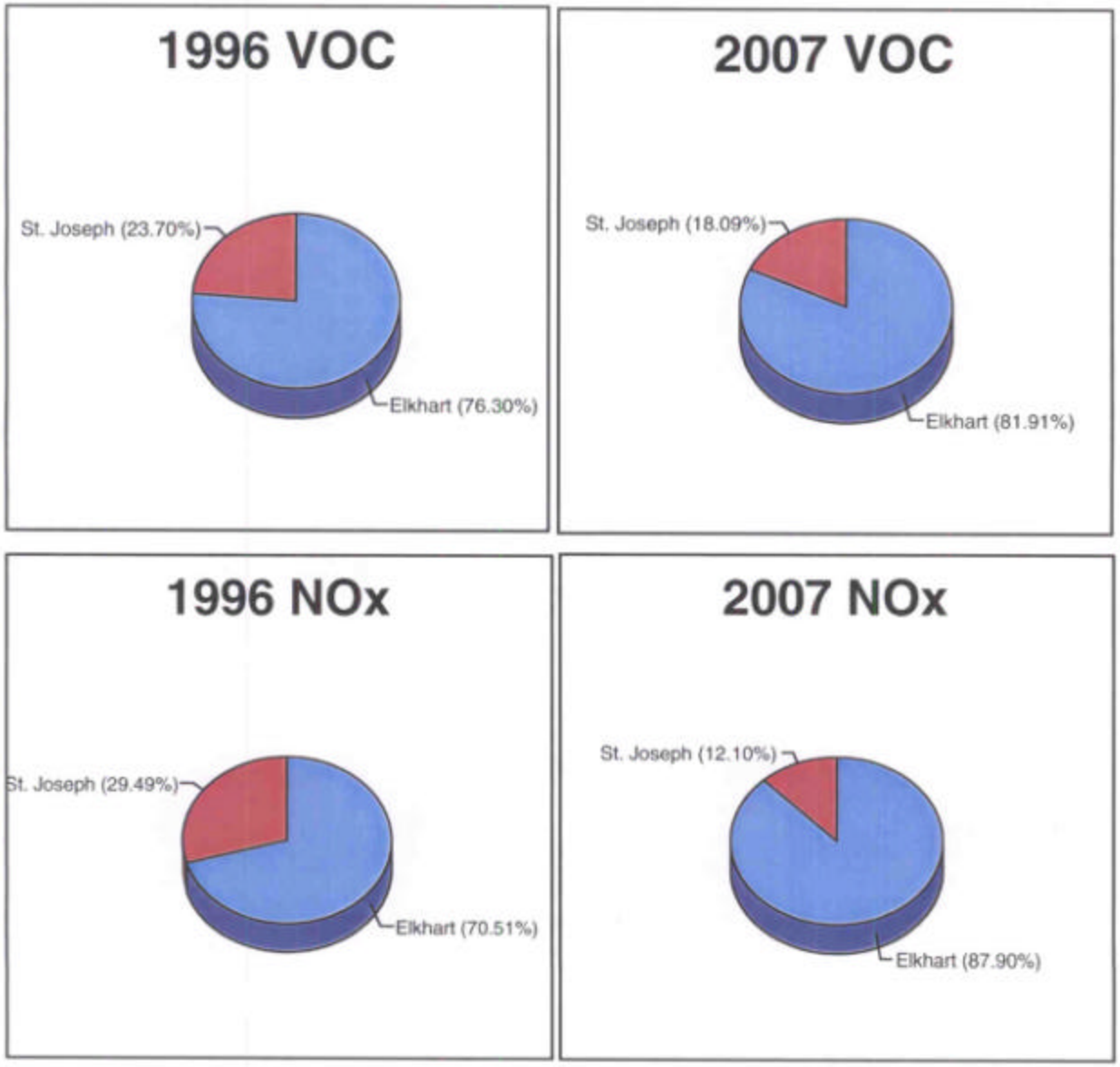


Emissions by Source Category





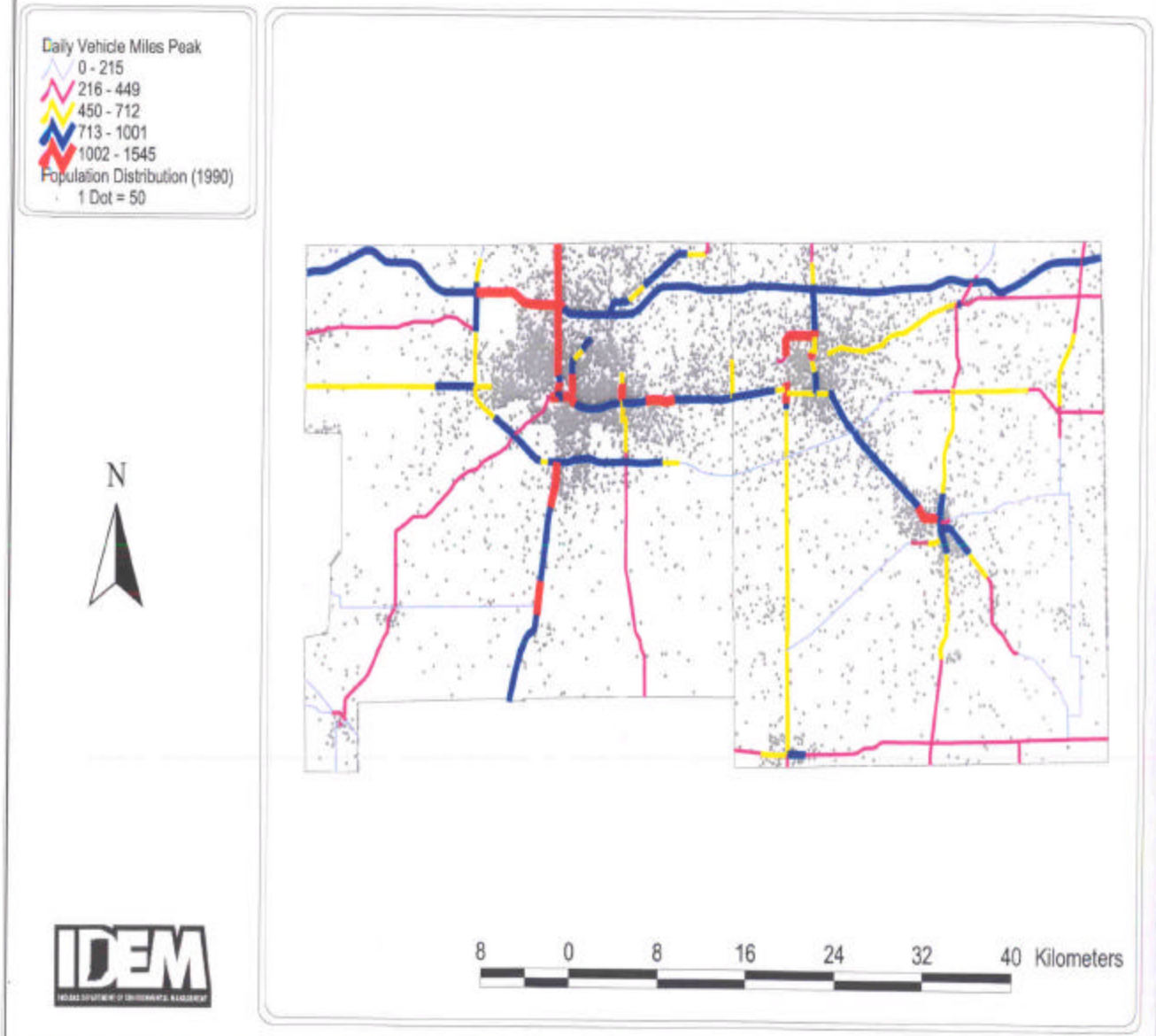
Total Emissions by County



Population Growth

	1990	1997	# Change	% Change	2000	# Change	% Change	2020	# Change	% Change
Elkhart	156,198	170,725	14,527	9.30%	178,299	7,574	4.44%	196,644	25,919	15.18%
St. Joseph	247,052	258,056	11,004	4.45%	263,911	5,855	2.27%	278,093	20,037	7.76%

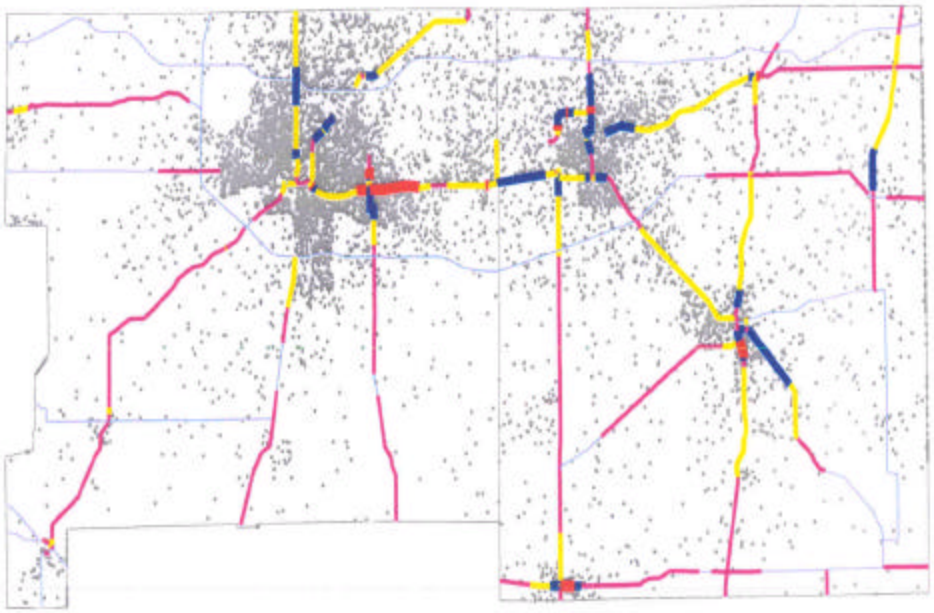
Elkhart and St. Joseph Counties Road Data



Elkhart and St. Joseph Counties Road Data

Volume to Capacity
- 0 - 0.225
- 0.225 - 0.421
- 0.421 - 0.661
- 0.661 - 1.023
- 1.023 - 1.824

Population Distribution (1990)
- 1 Dot = 50



N

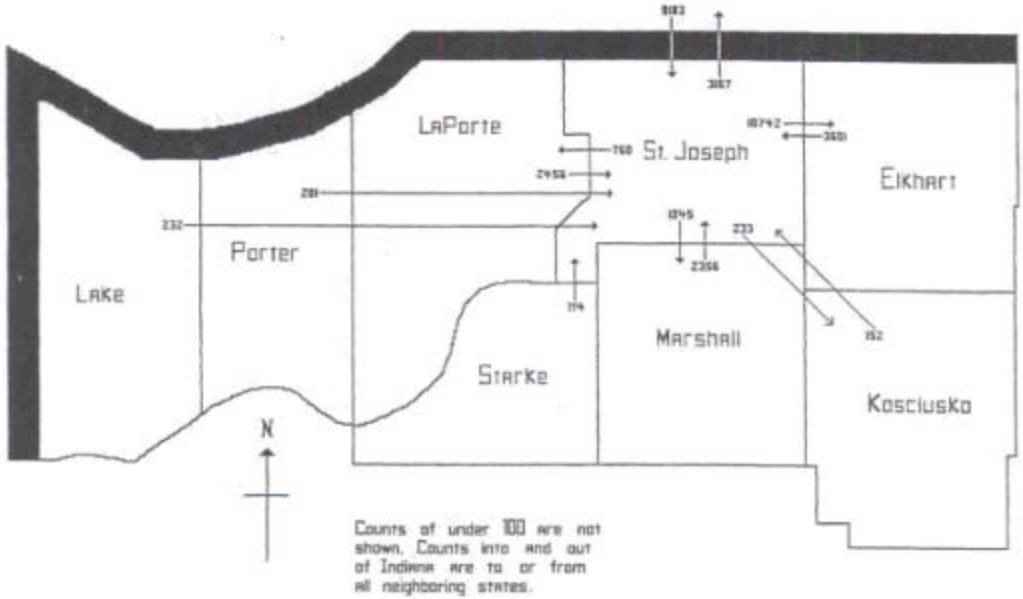
8 0 8 16 24 32 40 Kilometers

IDEM

St. Joseph Commuting Patterns

(Based on 1990 U.S. Census)

Total workers 16+	115,613	100.0%
Worked in County of residence	98,792	85.5%
Worked out of County of residence	16,821	14.5%
Worked in Indiana-out of County of residence	13,654	11.8%
Worked out of Indiana	3,167	2.7%



Last Updated: January 10, 1997

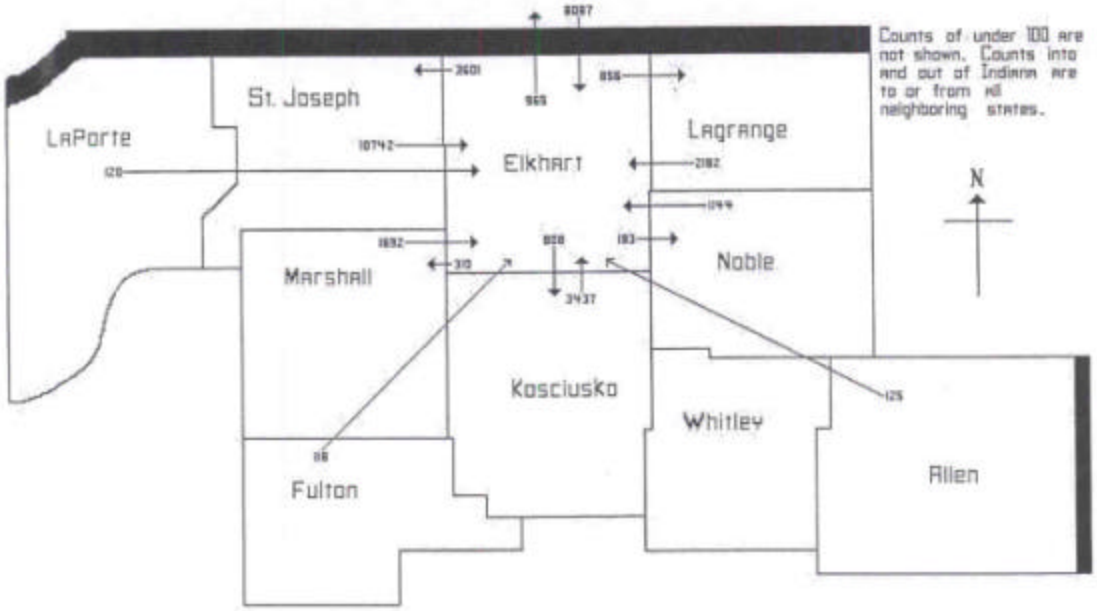
Analyst/Contact: Kathy Zeiger (219) 239-2380

Source: Indiana Dept. of Workforce Development, Labor Market Information

Elkhart County Commuting Patterns

(Based on 1990 U.S. Census)

Total workers 16+	79,496	100.0%
Worked in County of residence	72,405	91.1%
Worked out of County of residence	7,091	8.9%
Worked in Indiana-out of County of residence	6,126	7.7%
Worked out of Indiana	965	1.2%

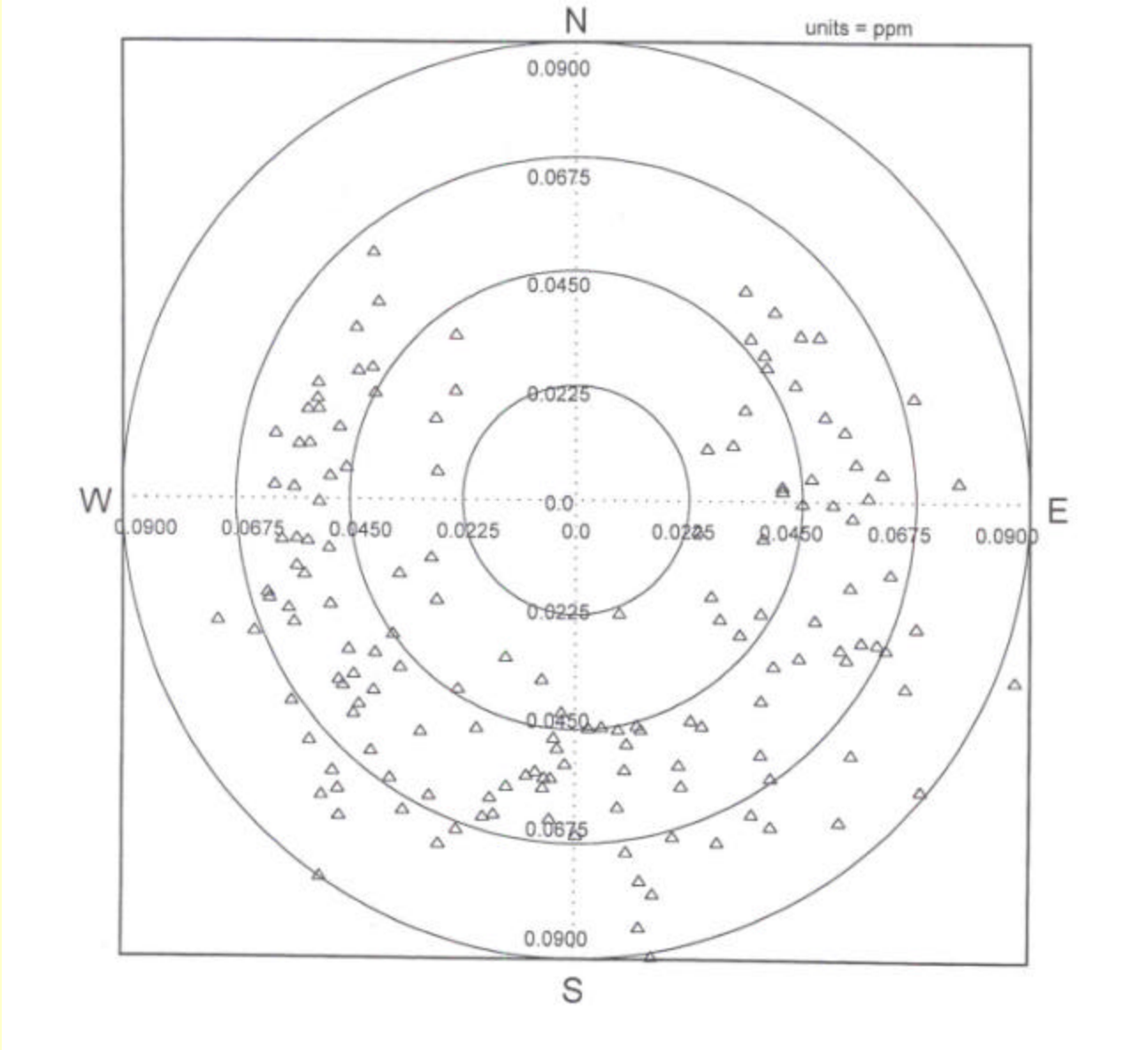


Last Updated: January 10, 1997

Analyst/Contact: Kathy Zeiger (219) 239-2380

Source: Indiana Dept. of Workforce Development, Labor Market Information

Meteorology
(Surface Wind at South Bend Monitor 1998)



Observations, Key Questions, and Next Steps

Observations

•Granger and South Bend sites currently maintain design values above the standard.

•Three years of monitoring data unavailable for new permanent site in Elkhart County.

  •First year average fourth high value of .099 at new site.

•Downwind receptor site (Cassopolis) maintains a value (.095) above the standard.

Key Questions

•How will the implementation rule affect the region?

•Should the nonattainment boundaries be smaller or larger than the current boundaries, or remain the same?

Next Steps

•IDEM accepting comment through May 2003

•Recommendations to be sent to Regional Administrator by July 15, 2003

•Designations final by April 2004

IDEM
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Contact Information

Website:

http://www.in.gov/idem/air/8hourstandard/index.html

Janet McCabe
Assistant Commissioner
IDEM-Office of Air Quality
(317) 232-8222
Jmccabe@dem.state.in.us