



# North Central Indiana Air Quality and Indiana Volkswagen Mitigation Trust Program Update



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Indiana Department of

Environmental Management

April 24, 2019



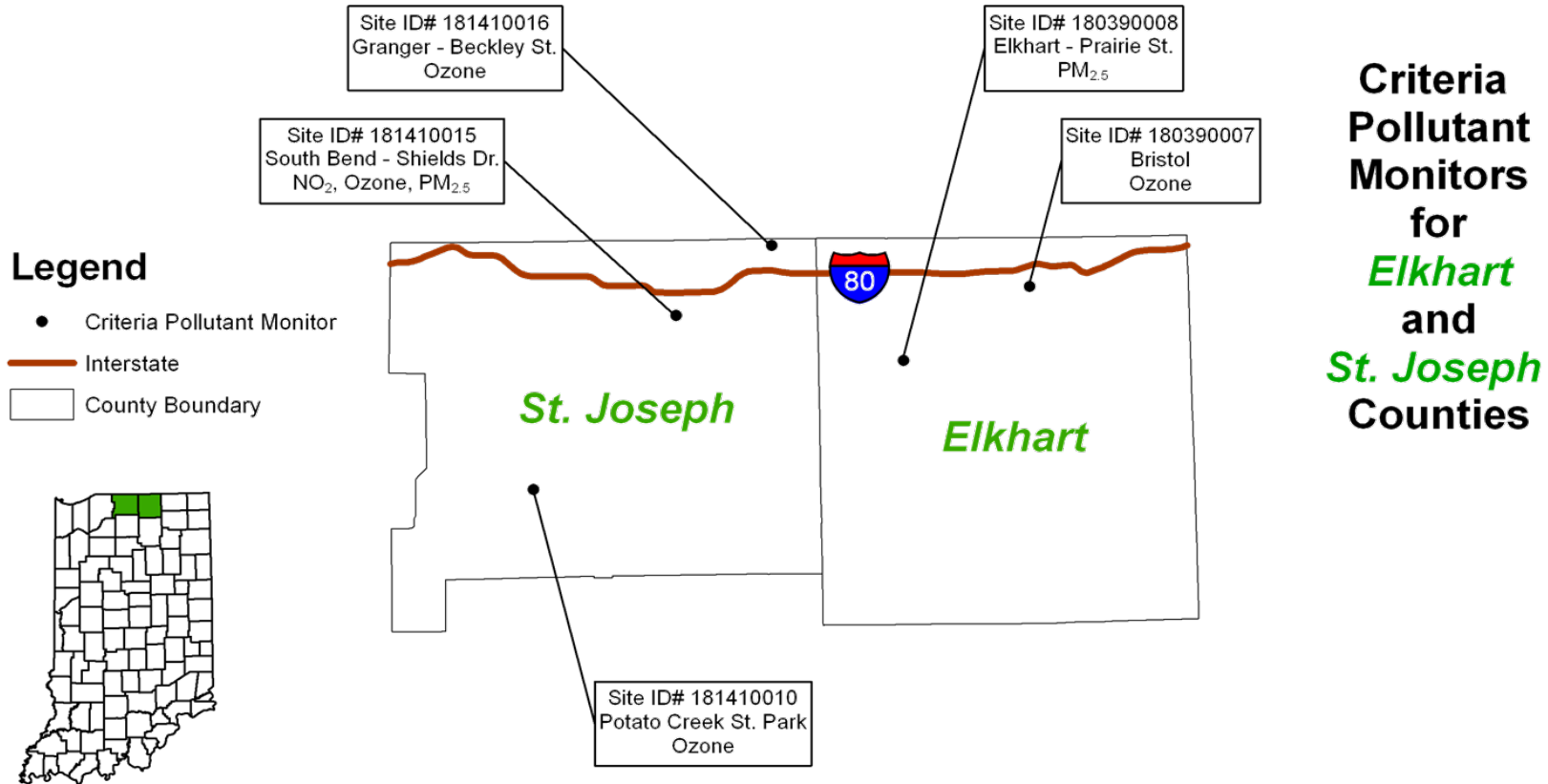
# Presentation Summary

- Geographic area
- Long-term air quality trends
- Long-term emission trends
- Current schedule for ongoing National Ambient Air Quality Standards (NAAQS) review
- 8-hour ozone area designations
- Indiana Volkswagen Mitigation Trust Program

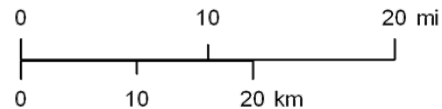


# Geographic Area

# Geographic Area



Date: 4/8/2014  
Mapped By: C. Mitchell, OAQ  
Sources: Office of Air Quality  
Map Projection: UTM Zone 16 N  
Map Datum: NAD83





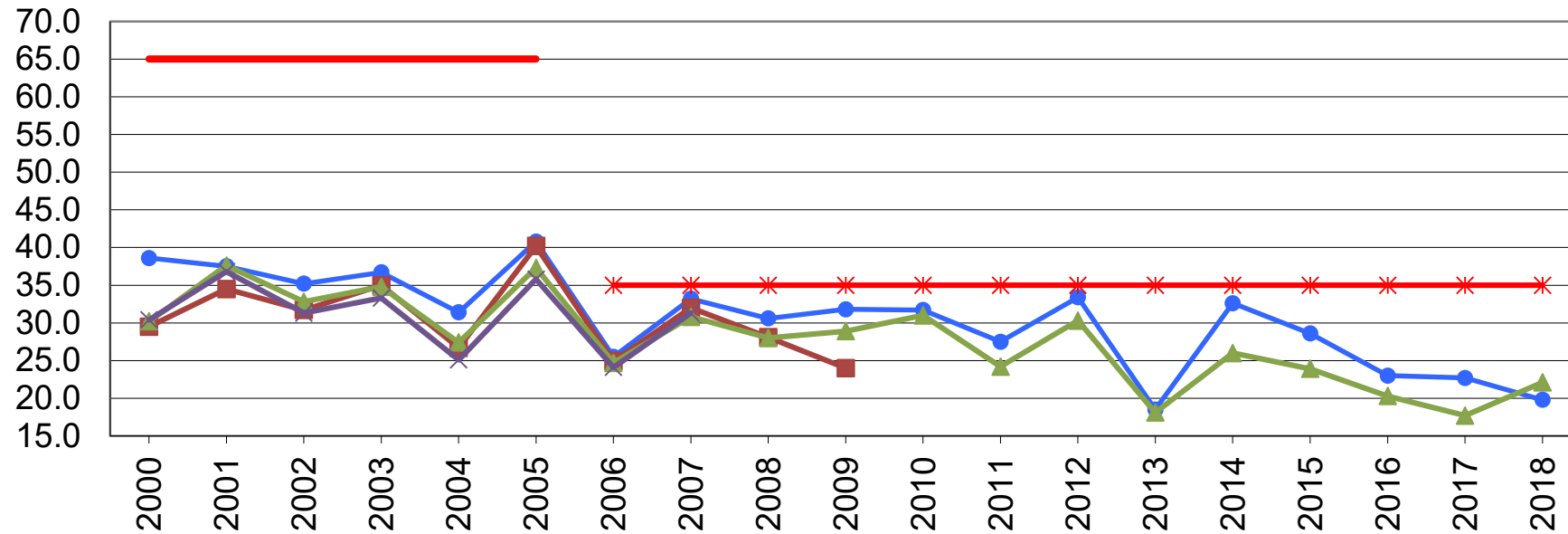
# Long-Term Air Quality Trends



# PM<sub>2.5</sub>

## PM<sub>2.5</sub> 98th Percentile of 24-Hour Concentration Values Trend Chart North Central Indiana

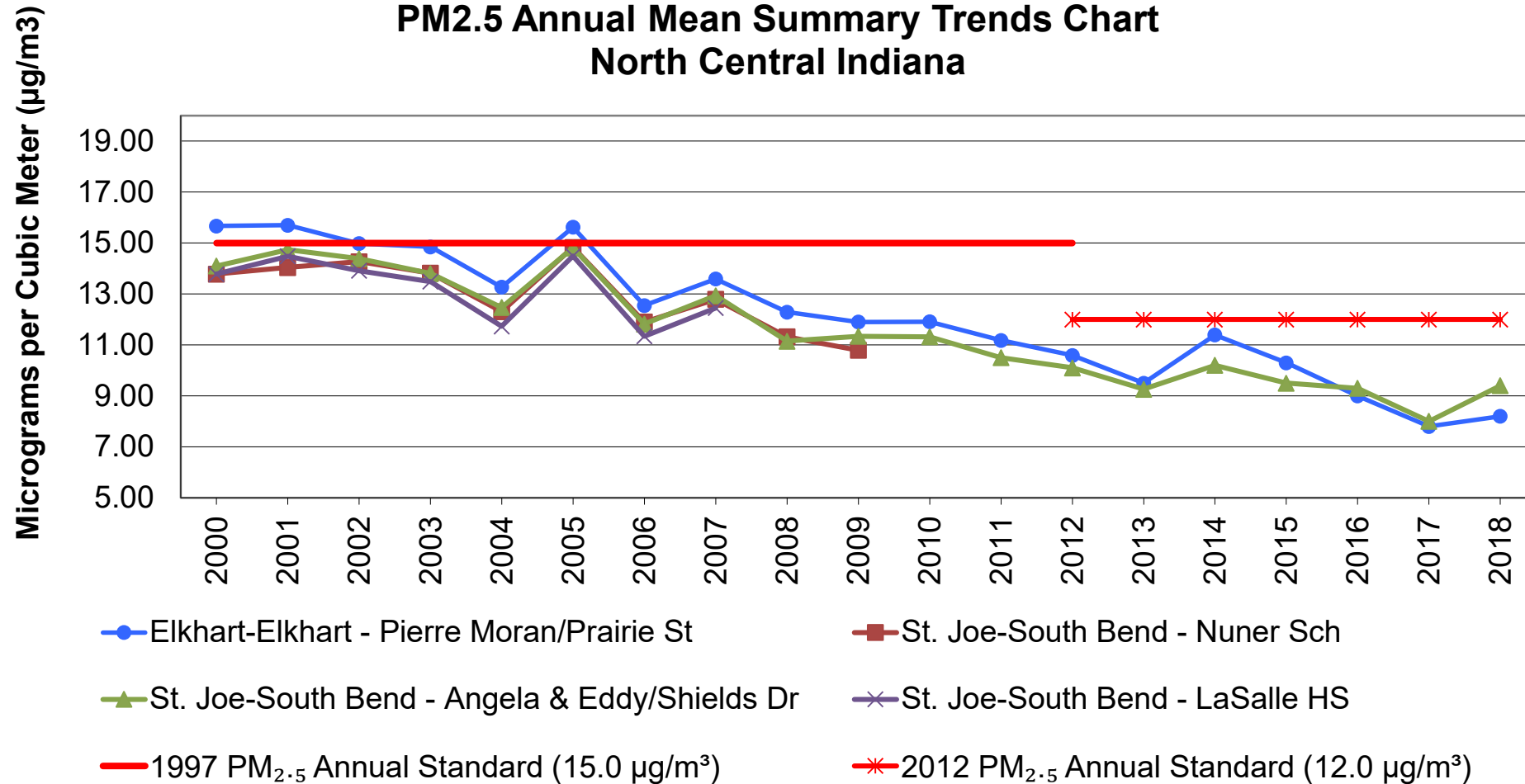
Micrograms per Cubic Meter (µg/m<sup>3</sup>)



- Elkhart-Elkhart - Pierre Moran/Prairie St
- St. Joe-South Bend - Nuner Sch
- ▲ St. Joe-South Bend - Angela & Eddy/Shields Dr
- ✕ St. Joe-South Bend - LaSalle HS
- 1997 PM<sub>2.5</sub> 24-hour Standard (65.0 µg/m<sup>3</sup>)
- \* 2006 PM<sub>2.5</sub> 24-hour Standard (35.0 µg/m<sup>3</sup>)

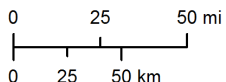
# PM<sub>2.5</sub>

## PM<sub>2.5</sub> Annual Mean Summary Trends Chart North Central Indiana



### Legend

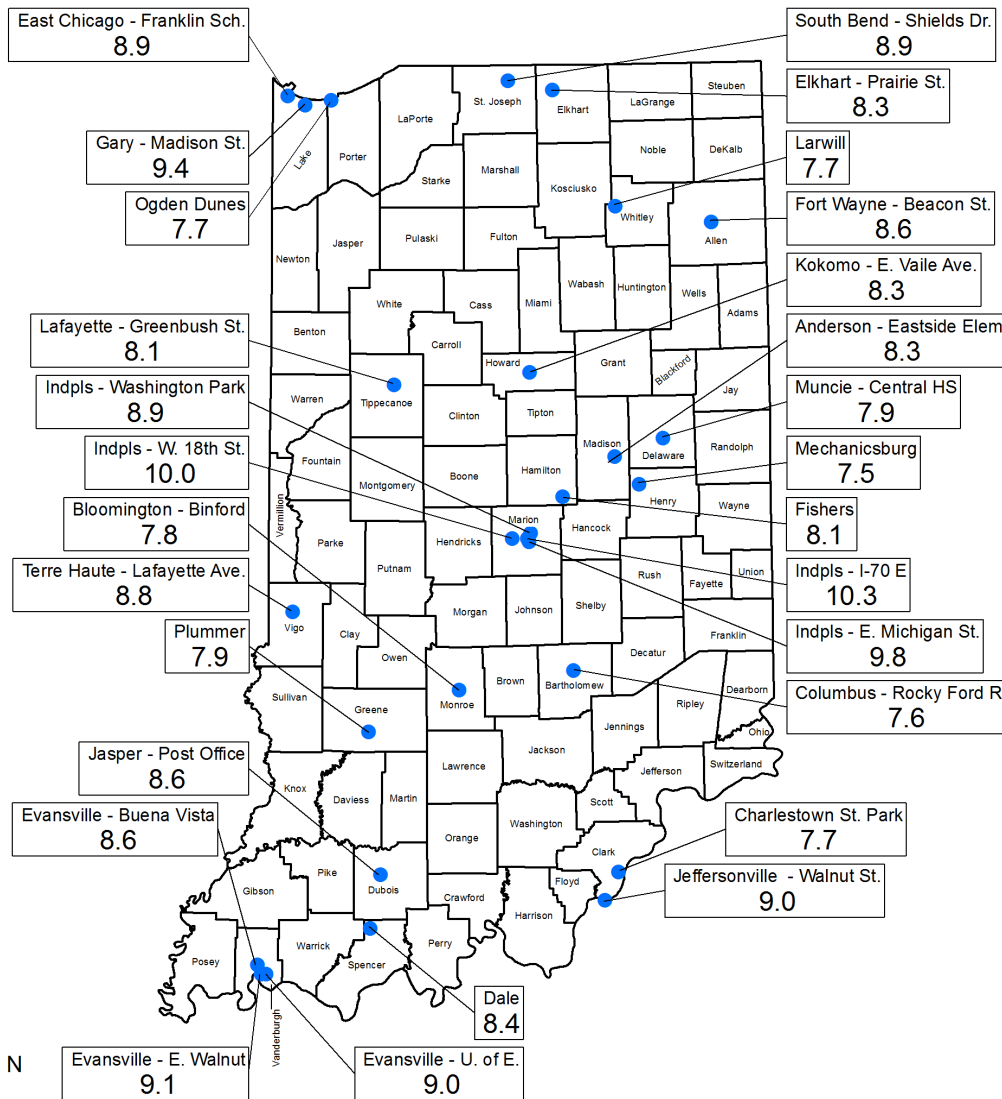
● PM<sub>2.5</sub> monitor with design value less than or equal to the standard.



### Notes:

- Map excludes monitors with incomplete data and/or less than three full years of monitoring data.
- Posted data are in units of micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )

**Mapped By:** C. Mitchell, OAQ  
**Date:** 04/04/2019  
**Source:** IDEM, Air Monitoring  
**Map Projection:** UTM Zone 16 N  
**Map Datum:** NAD83



## PM<sub>2.5</sub> Annual Design Values 2016 - 2018

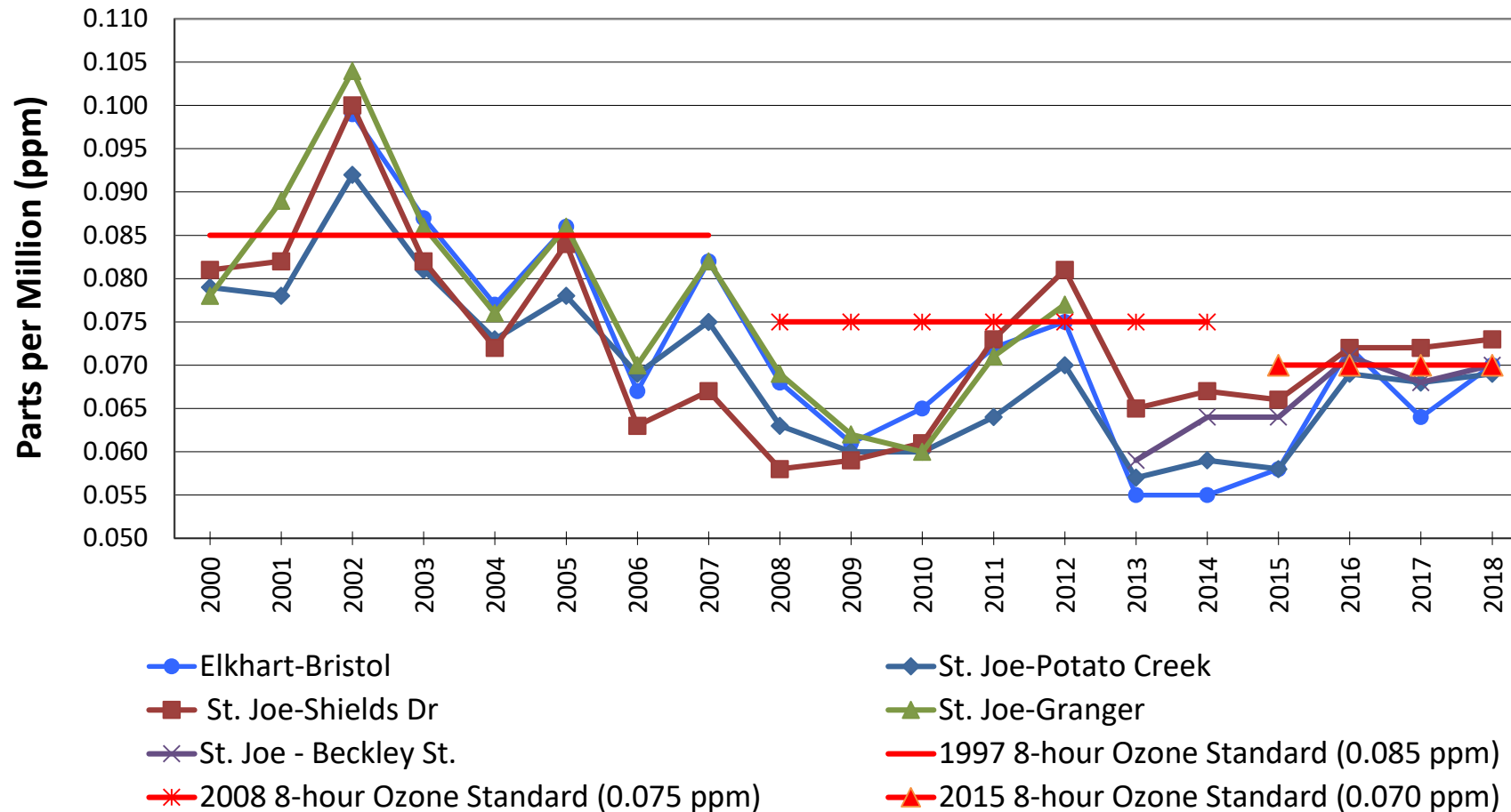
Standard set at 12.0  $\mu\text{g}/\text{m}^3$





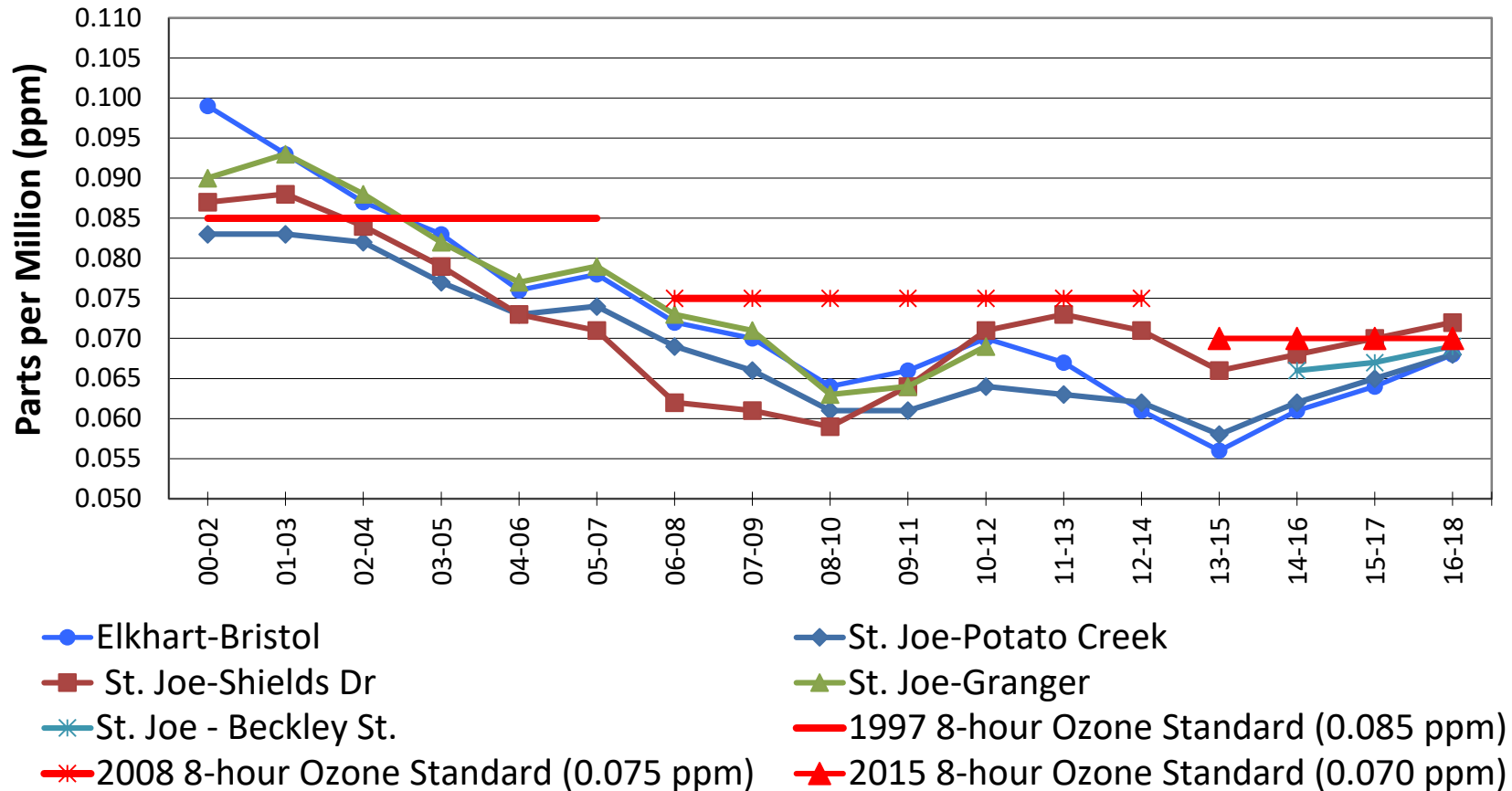
# Ozone

## Ozone 4<sup>th</sup> - High Daily Maximum 8-Hour Values Trend Chart North Central Indiana



# Ozone

## Ozone Design Values Trend Chart North Central Indiana

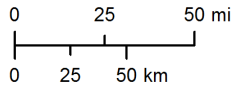


## Ozone 8-Hour Design Values 2016 - 2018

Standard set at 0.070 ppm

### Legend

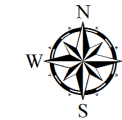
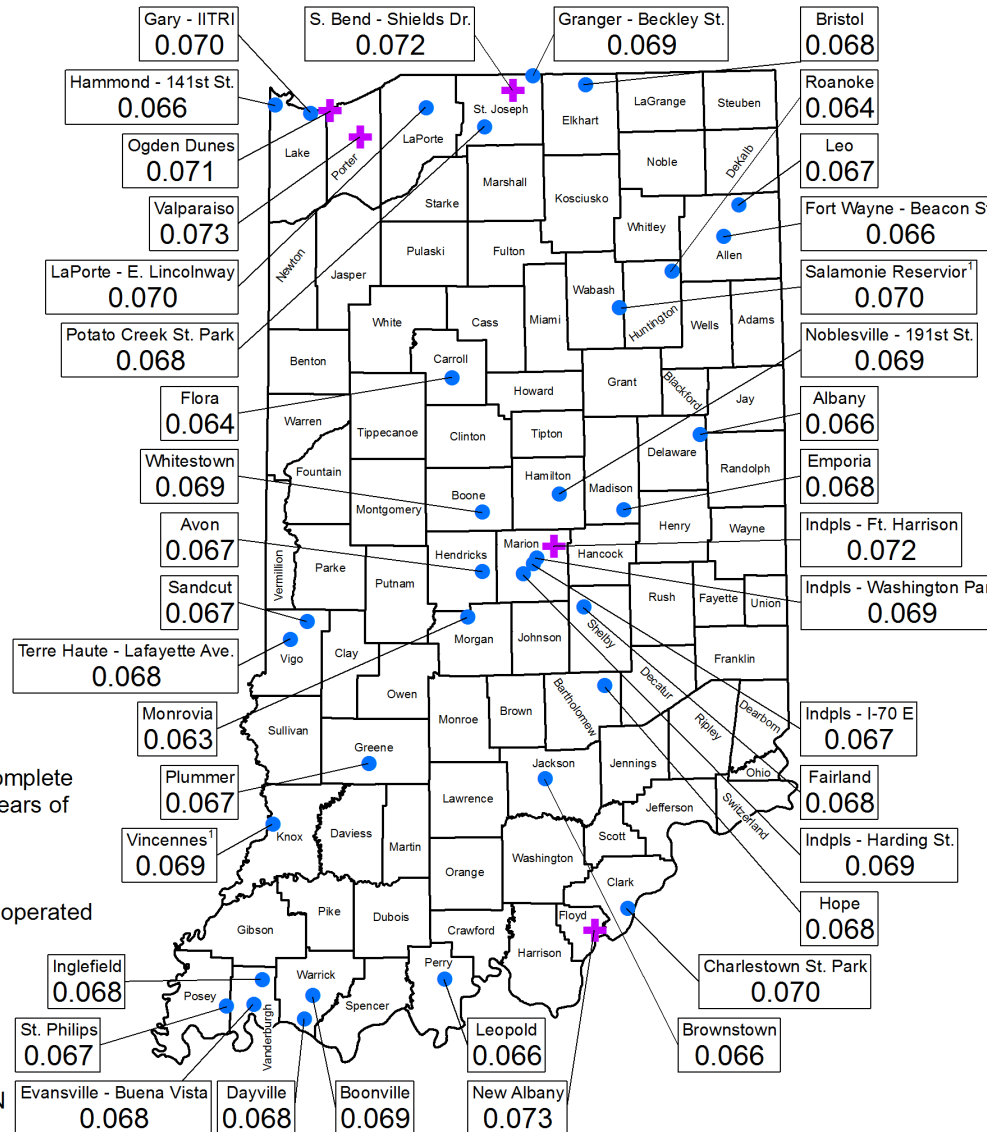
- Ozone monitor with design value less than or equal to the standard.
- + Ozone monitor with design value over the standard.



### Notes:

- Map excludes monitors with incomplete data and/or less than three full years of monitoring data.
- Posted data are in units of parts per million (ppm).
- 1 indicates monitors owned and operated by the U.S. Environmental Protection Agency (U.S. EPA).

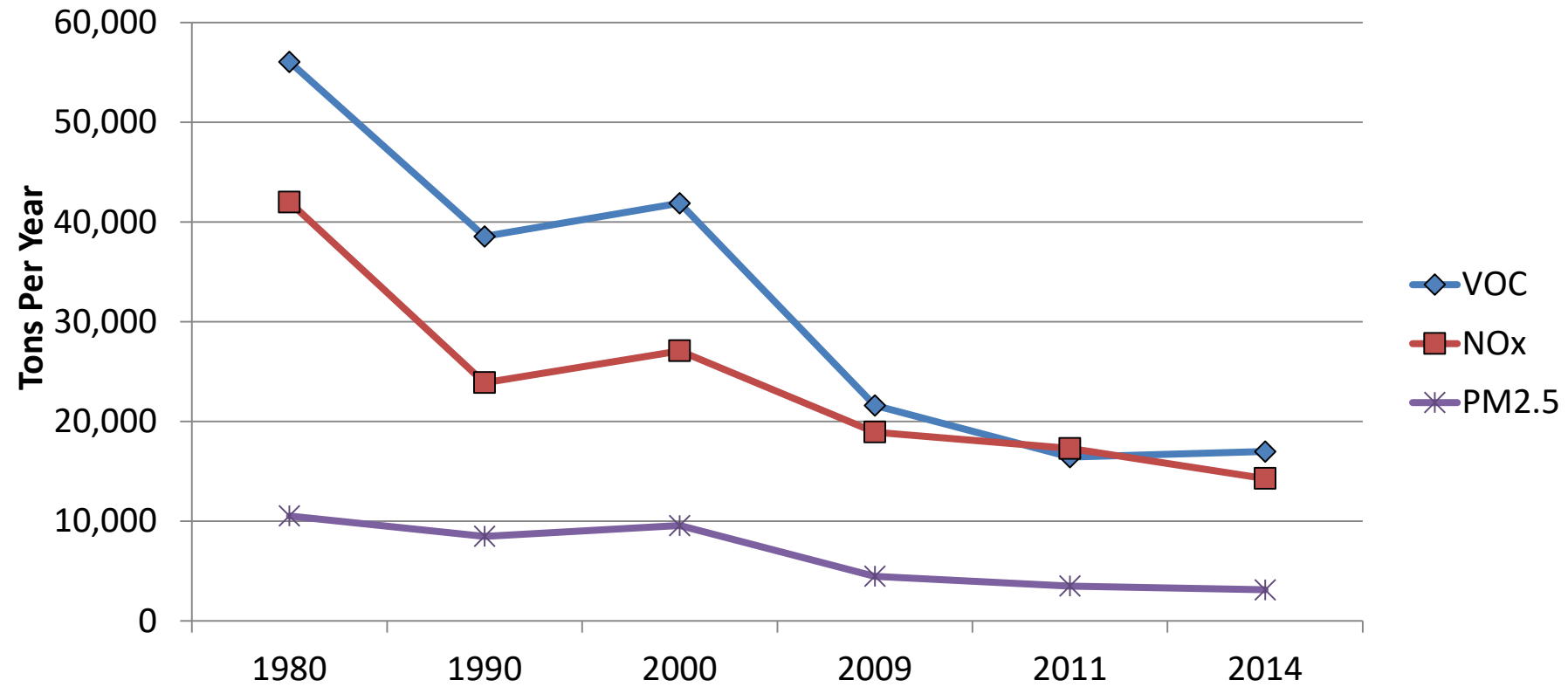
**Mapped By:** C. Mitchell, OAQ  
**Date:** 04/04/2019  
**Source:** IDEM, Air Monitoring  
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# Long-Term Emission Trends

# Emission Trends – Elkhart and St. Joseph Counties



Emissions based on U.S. EPA's Air Pollutant Emissions Trends Data.



# **Current Schedule for Ongoing National Ambient Air Quality Standards (NAAQS) Review**



# NAAQS Reviews/Updates

	Ozone	Lead	Primary NO <sub>2</sub>	Primary SO <sub>2</sub>	Secondary NO <sub>2</sub> , SO <sub>2</sub> , PM <sup>1</sup>	PM <sup>2</sup>	CO
Last Review Completed Final Rule Signed	Oct 2015	Sept 2016	April 2018	Feb 2019	Mar 2012	Dec 2012	Aug 2011
Recent or Upcoming Major Milestone(s)	<u>Summer 2019</u> Draft ISA <sup>3</sup>  <u>Early 2020</u> Proposal  Late 2020 Final	TBD <sup>4</sup>	TBD <sup>4</sup>	TBD <sup>4</sup>	<u>Timing depends on PM/O3 schedules</u> Final ISA; draft REA/PA <sup>4</sup>	<u>March 28, 2019</u> CASAC teleconference on draft ISA <sup>3</sup>  <u>Early 2020</u> Proposal  <u>Late 2020</u> Final	TBD <sup>4</sup>

<sup>1</sup> Combined secondary (ecological effects only) review of NO<sub>2</sub>, SO<sub>2</sub>, and PM.

<sup>2</sup> Combined primary and secondary (non-ecological effects) review of PM.

<sup>3</sup> IRP – Integrated Review Plan; ISA – Integrated Science Assessment;

REA – Risk and Exposure Assessment; PA – Policy Assessment.

<sup>4</sup> TBD = To Be Determined.



## Historical and Anticipated NAAQS Implementation Milestones

Pollutant	Final NAAQS Date	Designations Effective	Infrastructure SIP Due	Attainment Plans Due	Attainment Date
Ozone (2008)	Mar 2008	Jul 2012	Mar 2011	Mid 2015-2016	Mid 2015-2032
Ozone (2015)	Oct 2015	Aug 2018	Oct 2018	Aug 2021-2022	Aug 2021-2038
Lead (2008)	Oct 2008	Dec 2010-2011	Oct 2011	Jun 2012-2013	Dec 2015-2019
Primary NO <sub>2</sub> (2010)	Jan 2010	Feb 2012	Jan 2013	N/A	N/A
Primary SO <sub>2</sub> (2010)	Jun 2010	Oct 2013, Sep 2016, Dec 2017 (+1 round)	Jun 2013	Apr 2015, Mar 2018, Oct 2019 (+2022)	Oct 2018, Sep 2021, Apr 2023 (+2026)
PM <sub>2.5</sub> (2006)	Oct 2006	Dec 2009	Oct 2009	Dec 2014	Dec 2015 (Mod) Dec 2019 (Ser)
PM <sub>2.5</sub> (2012)	Dec 2012	Apr 2015	Dec 2015	Oct 2016 (Mod)	Dec 2021 (Mod) Dec 2025 (Ser)





# 8-hour Ozone Area Designations

# 8-Hour Ozone Area Designations

- On October 1, 2015, U.S. EPA promulgated a rule to revise and strengthen the 8-hour ozone standard to 0.070 parts per million (ppm).
- U.S. EPA intended to promulgate final designations for all areas of the country under the 2015 8-hour standard by no later than October 1, 2017. Federal actions delayed the federal review process, resulting in two rounds of designations.
- On November 6, 2017, U.S. EPA designated 74 of Indiana's 92 counties as "attainment/unclassifiable" in the first round of air quality designation under the NAAQS.

# 8-Hour Ozone Area Designations

- On April 30, 2018, U.S. EPA designated Indiana's remaining counties. Clark and Floyd counties were designated as part of the Louisville, KY-IN marginal nonattainment area and Calumet, Hobart, North, Ross, and St. John townships in Lake County were designated as part of the Chicago, IL-IN-WI marginal nonattainment area. Remaining areas of the state were designated as "attainment/unclassifiable".
- Designations became effective on August 3, 2018, establishing an attainment date of August 3, 2021.



# Indiana Volkswagen Mitigation Trust Program

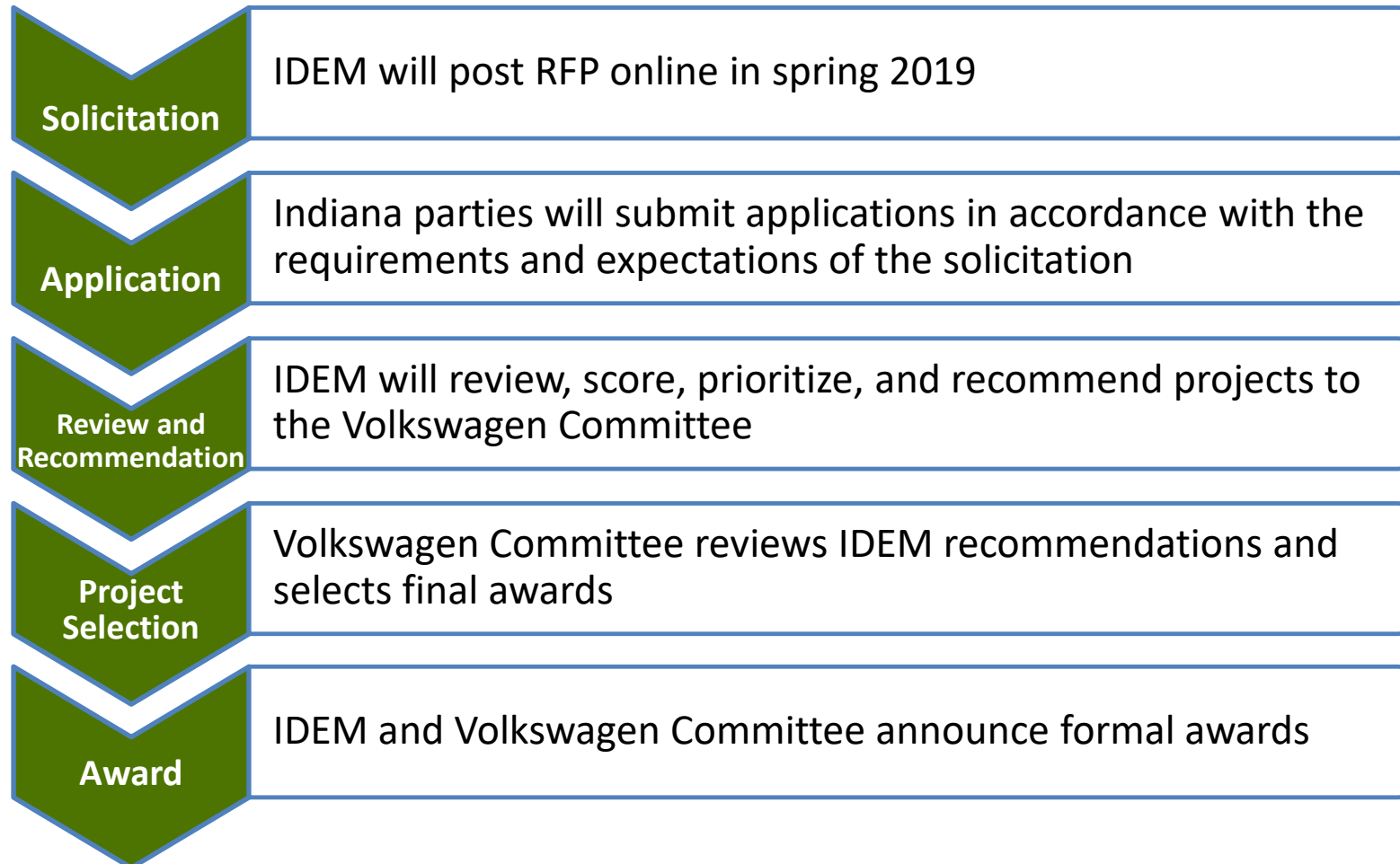


# 2019 Indiana Volkswagen Program

## Round 1 - Onroad and Nonroad Funding

- \$9.83 million is available for clean diesel projects from IVMTP!
  - \$4.26 million for Class 4-8 Onroad Vehicles (excluding school buses)
  - \$1.99 million for non-electric-powered school buses
  - \$850 thousand for electric-powered school buses
  - \$2.73 million for nonroad equipment and vehicles
  - Minimum single grant award: \$50,000
  - Maximum single grant award: \$2,000,000
  - Applications due Monday, June 17, 2019
  - Most projects expected to be completed by December 31, 2020

# Project Application, Prioritization and Selection Process





# Estimated Timeline

Milestone	Estimated Date	Accumulated Time from Posting
Solicitation Posted to Website	March 25, 2019	
Proposal Receipt Deadline	June 17, 2019	12 Weeks
Proposal Review, Prioritization, and Selection	July 15, 2019	16 Weeks
Selected Proposal Notification	July 29, 2019	18 Weeks
Grant Agreements Fully Executed	August 26, 2019	22 Weeks
Projects Complete and Fully Implemented	December 31, 2020	93 Weeks
Light-Duty Electric Vehicle Infrastructure Program	Summer 2019	
DERA Option of Volkswagen Program	Fall 2019	

## For More Information

**IDEM's Office of Air Quality:**

[www.idem.IN.gov/airquality](http://www.idem.IN.gov/airquality)

**Indiana Volkswagen Mitigation Trust Program:**

[www.idem.IN.gov/vwtrust](http://www.idem.IN.gov/vwtrust)

**Submit Volkswagen grant applications to:**

[VWTrust@idem.IN.gov](mailto:VWTrust@idem.IN.gov)

**For program assistance:**

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