



2018 Conservation Accomplishments

The Partnership is comprised of eight Indiana agencies and organizations who share a common goal of promoting conservation. To that end, the mission of the Indiana Conservation Partnership is to provide technical, financial and educational assistance needed to implement economically and environmentally compatible land and water stewardship decisions, practices and technologies.

This report serves as a compliment to Indiana's Nutrient Reduction Strategy. Both publications can be found online at <http://www.in.gov/isda>.

**For more information, contact the Indiana State Department of Agriculture.
ISDANutrientReduction@isda.in.gov
317.232.8770**

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Supporting Tabular Data: View tabular data for all maps included in this report, as well as program funding descriptions at <http://www.in.gov/isda/2991.htm>.

Methodology - USEPA Region 5 Load Reduction Modeling of Completed Conservation Practices in Indiana: View methodology used to compile this report at <http://www.in.gov/isda/2991.htm>.

This document along with information about Indiana’s Nutrient Reduction Strategy can be found online: <http://www.in.gov/isda/2991.htm>.



- [Indiana Conservation Partnership](#)
- [Indiana Association of Soil and Water Conservation Districts](#)
- [Indiana Department of Environmental Management](#)
- [Indiana Department of Natural Resources](#)
- [ISDA Division of Soil Conservation](#)
- [Purdue Cooperative Extension Service](#)
- [State Soil Conservation Board](#)
- [USDA Farm Service Agency](#)
- [USDA Natural Resources Conservation Service](#)

Sharing Conservation Data, Targeting Resources, and Striving for Water Quality Outcomes

The practices highlighted in this report were completed via voluntary conservation efforts from private landowners in Indiana with support from the Indiana Conservation Partnership. This report does not capture the many unassisted in field and edge of field practices landowners install and pay for themselves.

2018 Key Highlights

- Indiana landowners supported by the Indiana Conservation Partnership (ICP) installed over 22,000 new conservation practices in 2018. 14,104 of these practices had associated sediment and nutrient load reductions to Indiana waterways reducing:
 - 892,487 tons of sediment, which is equivalent to a football field covered to a depth of 387 feet, which is 82 feet taller than the Statue of Liberty.
 - 1,899,185 lbs. of Nitrogen, enough to fill 9.5 fifty-foot freight cars
 - 940,271 lbs. of Phosphorus, enough to fill 4.7 fifty-foot freight cars
- Indiana landowners increased cover crop acres on corn and soybean fields by 434% since 2011¹
- Indiana is a national leader in acres planted to cover crops², ranking 3rd behind Texas and Iowa³

Completed Conservation Projects

ICP entities that work with private landowners to provide direct technical and/or financial assistance for conservation projects share data (page 5) with necessary formal agreements in place (1619 compliance, MOU's, etc.) to exchange information while always protecting personally identifiable information. The map on page 8 highlights calendar year 2018 completed conservation projects by county.

Note: This report highlights only assisted, completed practices, while noting some practices underway near completion. It does not detail the many new contracts initiated or practices approved to begin construction.

Financial Investments

The ICP shares financial data for all conservation practices at the county level, on an annual basis, per conservation program published online. Find out how much local, state, and federal conservation dollars came into your county on the [ICP Accomplishments Report](#) web application (screenshot below).

The screenshot shows the 'Indiana Conservation Partnership Reports' web application. At the top, there is a green header with 'IN.gov' on the left and 'Indiana State Department of Agriculture INDIANA' on the right. Below the header is a brown navigation bar with the text 'Indiana Conservation Partnership Reports'. The main content area has a 'Welcome!' heading followed by a paragraph of introductory text. To the right of this text is a 'New Search' section with a dropdown menu set to '2016' and a 'Begin Search' button. At the bottom of the page, there is a footer with links for 'IN.gov Home', 'ISDA Home', and 'IN Conservation Partnership Home'.

¹ Indiana Tillage and Cover Crop Transect 1990-2018: <https://www.in.gov/isda/2383.htm>

² Environmental Working Group: https://static.ewg.org/reports/2017/mapping_cover_crops/EWG_CoverCropReport_C07.pdf

³ 2017 USDA NASS Census of Agriculture: https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/1/table/47/state/IN

Public and Private Conservation Investment

The Indiana Conservation Partnership tracks investment in assisted conservation practices by calendar year. Recently, the methodology for tracking these investments has changed. Due to said changes this section is unavailable at this time. This document will be updated to include conservation investment at a later date.

Water Quality Outcomes

Members of the Indiana Conservation Partnership (ICP) use the United States Environmental Protection Agency's (USEPA) [Region 5 Nutrient Load Reduction Model](#)⁴ to determine the impact of completed conservation practices implemented by the ICP on Indiana's water quality. The ICP adopted the Region 5 Nutrient Load Reduction Model to analyze conservation practices funded by local, state, and federal programs. This process is outlined on page 5. View [further methodology](#).

Multiyear benefits:

Load reductions continue for the life of the practices modeled (e.g., grassed waterways are designed to be 10-year practices, while cover crops are 1-year practices, established annually). These cumulative reductions for calendar years '13-'18 are highlighted by watershed on pages 11-13. Some ICP practices were not modeled because they were not associated with sediment loss, and therefore not covered by the EPA Region 5 Model. The calendar year 2018 load reductions are highlighted by watershed on pages 8-10. This effort represents ICP-assisted conservation in Indiana. **Data does not include the many unassisted practices designed and installed solely by a private landowner without ICP assistance. Reductions in dissolved nutrients, such as dissolved reactive phosphorus (DRP) and nitrate (NO₃), are not accounted for by the Region 5 Model.**

As part of [Indiana's Nutrient Reduction Strategy](#), this modeling effort illustrates the continued success and challenges of conservation and serves as a tool to help set watershed priority and reduction targets, manage conservation resources, and to further stakeholder involvement across Indiana.

Positive Impacts to Drinking Water Sources and Targeting Conservation Efforts

The ICP focuses on reporting the positive impacts of conservation practices to key drinking water sources throughout the state that have significant percentages of agricultural land use within their watershed. To identify what watershed you live in, find out the positive impacts farmers are having on water sources, and to learn about the most popular conservation practices visit [Indiana's Nutrient Reduction Strategy](#) website.

Identifying Trends to Customize Conservation Delivery

The ICP utilizes multiple trend analysis techniques to identify rates of conservation practice implementation on the watershed, county, and state levels to identify adoption rates, most popular practices, newly emerging practices, practices dwindling in use, policy, weather, and economic effects on practice adoption, conservation culture, etc. These trends will allow the ICP to target resources and adapt conservation delivery geographically based on landowner needs and attitudes while preparing for spikes or dips in conservation demand due to weather and economic drivers. Visit the [Cover Crop and Conservation Tillage Transect Data](#) web page to view trends in the use of No-till, Conservation Tillage and Cover Crops in your county.

Incorporating Other Data Sources (tillage and cover crop transects, social indicators, edge of field monitoring, in stream water quality monitoring, 303(d) list of impaired water bodies, privately funded and installed conservation practices, LIDAR, etc.)

The ICP leads many other efforts that measure practice adoption, social trends, edge of field and in stream water quality in addition to working with partners in the private agricultural industry on various projects. These data sources are being evaluated for integration into this report to further demonstrate and visualize the cause

⁴ Region 5 Model Training Webinar: <https://engineering.purdue.edu/watersheds/webinars/Region5/>

and effect relationship of conservation practices (or lack thereof) and water quality improvements; in addition to societal attitudes towards conservation and in-stream water quality.

Collaboration with Other States

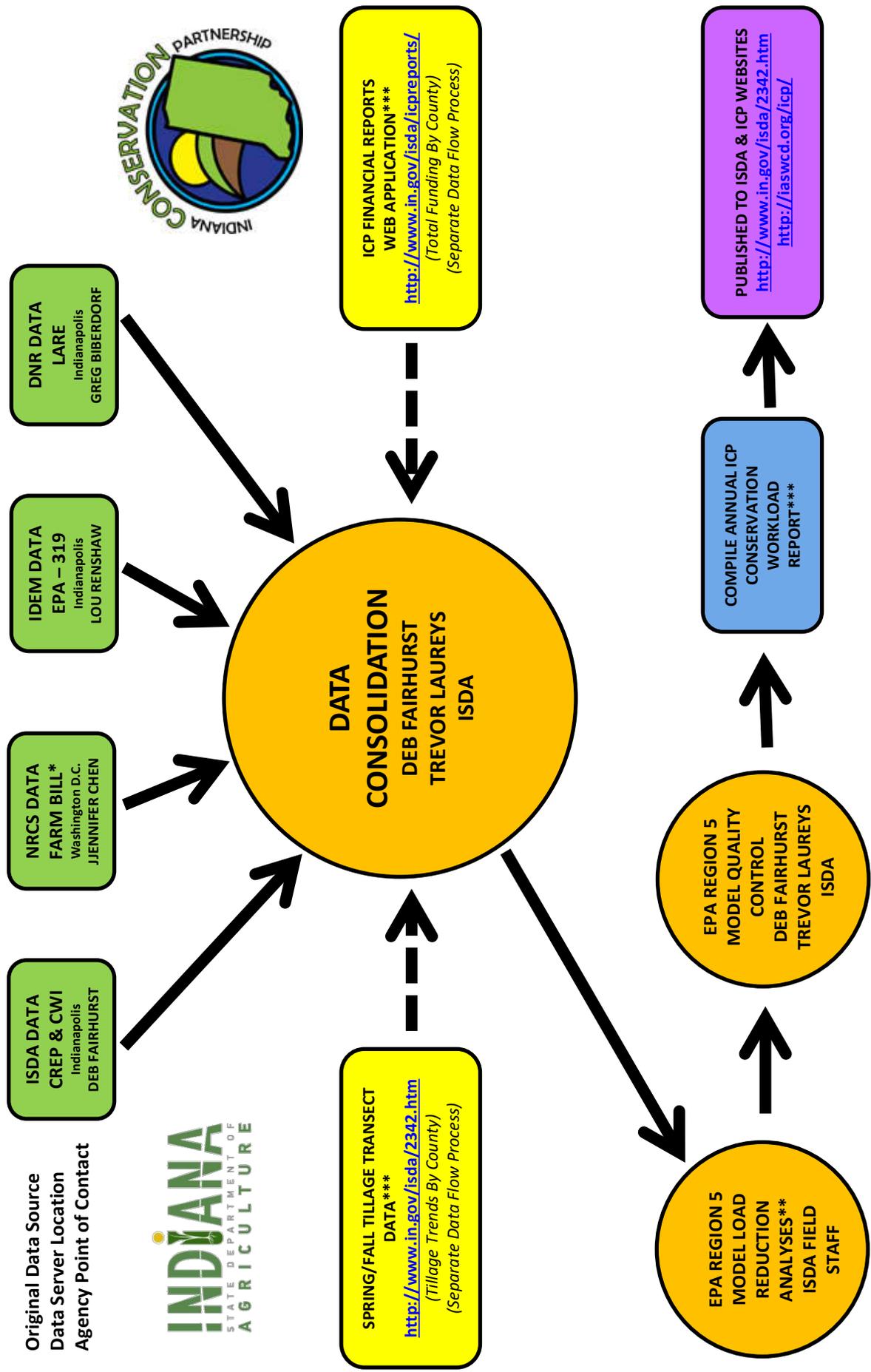
As a member of the [Gulf of Mexico Hypoxia Task Force](#) and participant in [Indiana's Great Lakes Water Quality Agreement \(GLWQA\) Domestic Action Plan \(DAP\)](#) and Great Lakes conservation ([Tri-State Watershed Alliance](#)), Indiana is proud to collaboratively work with other states in the Midwest and across the country to improve water quality and grow adoption of science based, nutrient runoff reducing, Best Management Practices which build soil health. The ICP is hungry to learn what is working in other states and willing to share their own experiences.

Conclusion

The primary value in ICP adoption of a collective reporting mechanism lies in benchmarking conservation impact and management of conservation resources across the state. As an additional result, the Indiana State Department of Agriculture has tied Key Performance Indicators and Performance Measures to the [Indiana State Office of Management and Budget](#). On a larger scale, The ICP utilizes this model to set program/project goals, quantify impacts and estimate load reductions before a project ever begins.

The ICP will assemble similar reports in March of each year while building further upon this process so the many benefits and trends of voluntary conservation projects can be shared in a timely and transparent manner.

Indiana Conservation Partnership Annual (CY) Workload Accountability Data Flow



*Data Sharing Privacy Agreements are in place
 ** <http://it.tetrattech-ffx.com/step/web/models/docs.htm>
 *** Incorporated into the Indiana Nutrient Reduction Strategy
 Last updated 2/7/2018

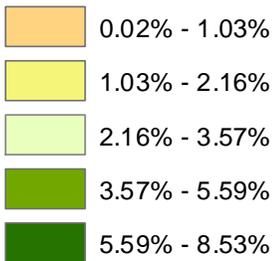
2018 Conservation Acreage by County

Percentage of Ag acres with newly completed and applied conservation practices in 2018**



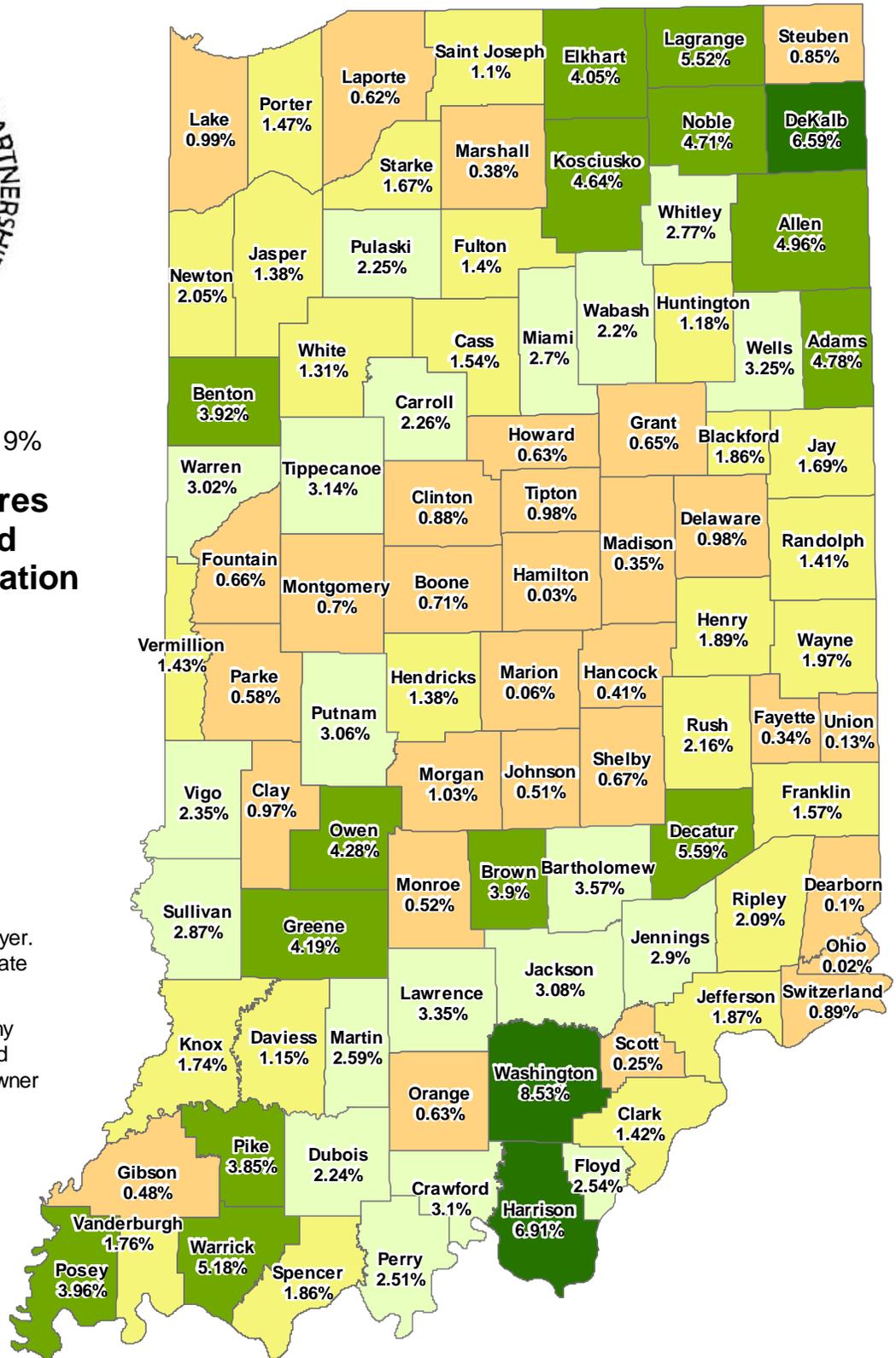
Statewide Percentage: 2.19%

Percentage of Ag Acres with newly completed and applied conservation practices in 2018



*Agriculture land use is calculated from 2018 NASS cropland data layer. 2018 Indiana data is 87.8% accurate according NASS metadata.

**Practices do not include the many unassisted practices designed and installed solely by a private landowner without ICP assistance.

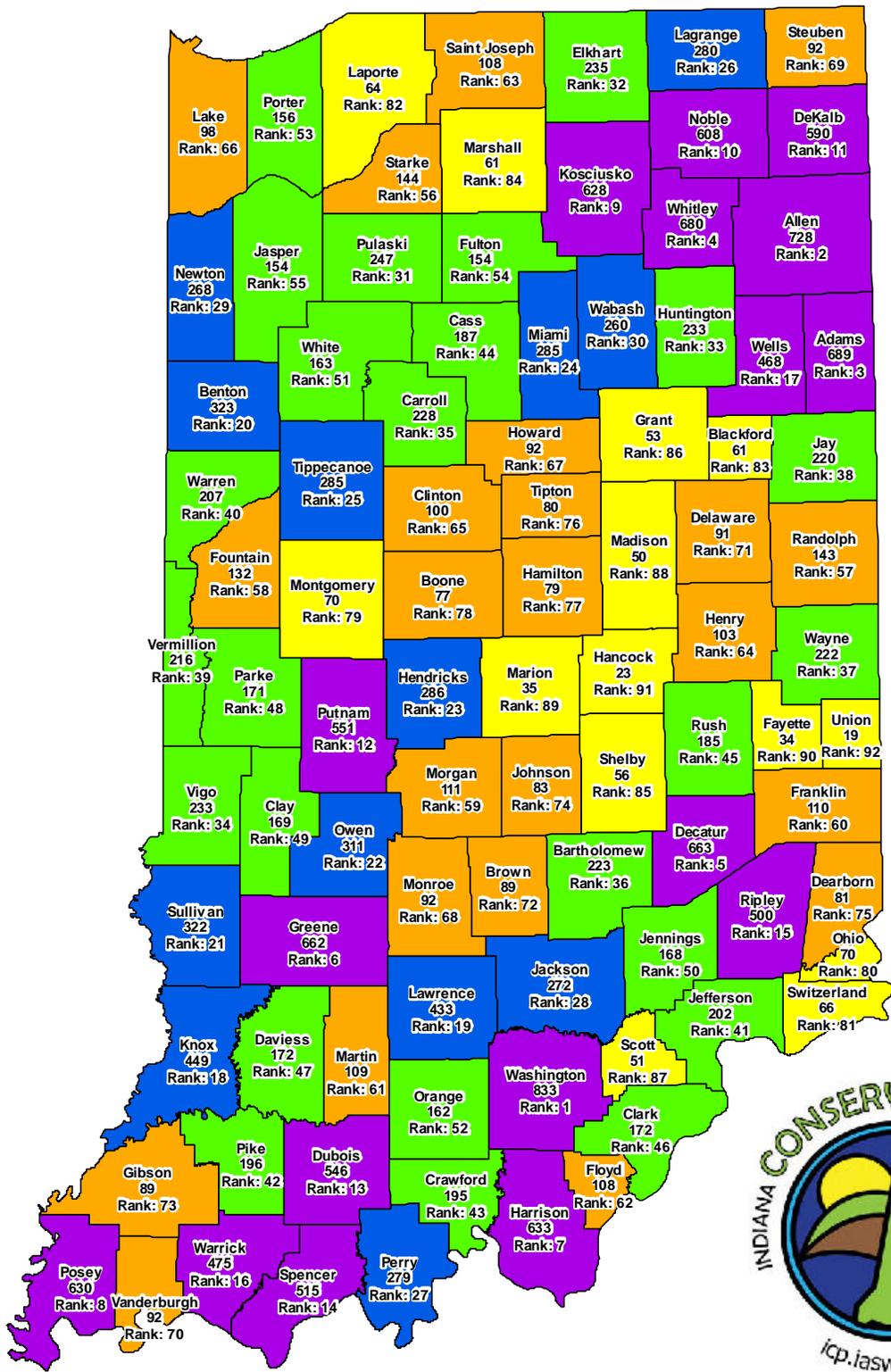


*Acres in Agriculture are calculated using the 2018 NASS Cropland Data Layer: <https://nassgeodata.gmu.edu/CropScape/>
 *Practices not measured in acres were converted using NRCS FOTG (<https://efotg.sc.egov.usda.gov/>) minimum standards, or from suggestions and professional input by ISDA-DSC Field Staff.

For more information see tabular dataset: <https://www.in.gov/isda/2991.htm>.

2018 Indiana Conservation Accomplishments

Implemented by Indiana Conservation Partnership

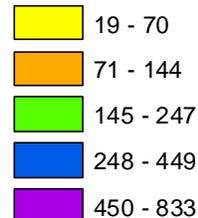


January 1 thru December 31, 2018
 Conservation Practices Completed - 22,338
 Conservation Practices Underway - 2,810

Data: Provided by Indiana State Department of Agriculture, Indiana Department of Environmental Management, Indiana Department of Natural Resources, Indiana's Soil and Water Conservations Districts and USDA Natural Resources Conservation Service.

2018 Conservation Accomplishments

Total Practices



March 14, 2019
 Deb Fairhurst, ISDA Program Manager
 Trevor Laureys, ISDA Program Manager

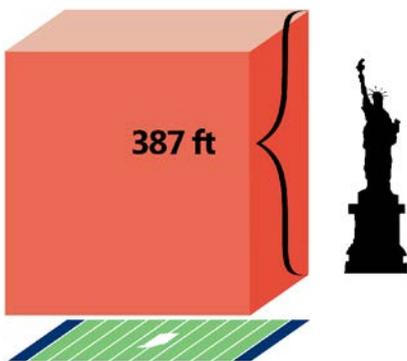
See breakdown of practice by county based on program funding along with program descriptions in Supporting Tabular Data for 2018 ICP Accomplishments at <http://www.in.gov/isda/2991.htm>.

2018 Sediment Load Reductions

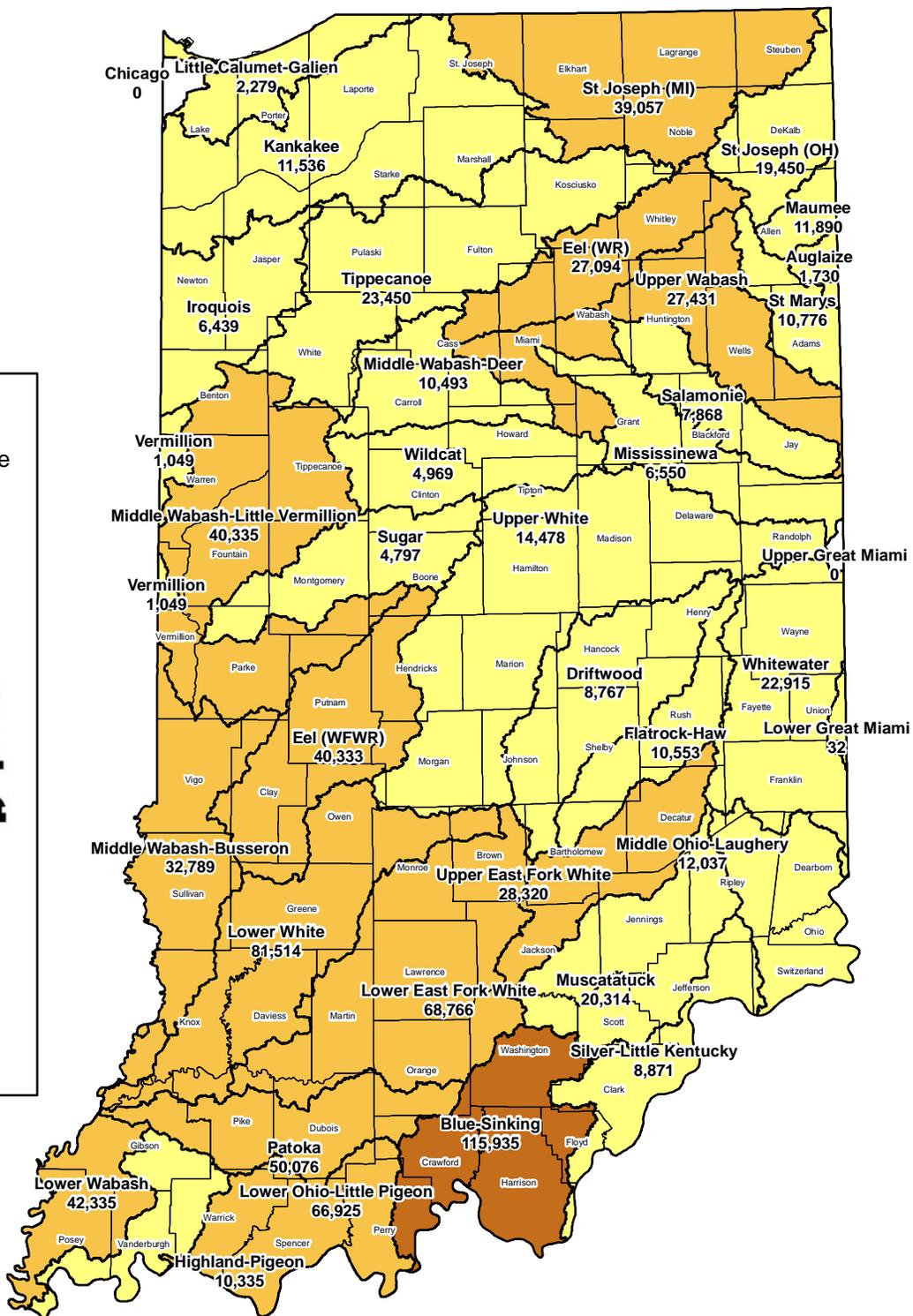
892,487 Tons



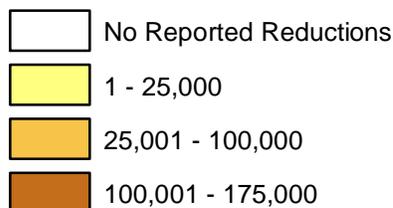
In 2018, voluntary conservation efforts from Indiana's private landowners, with support from the ICP, have reduced sediment and nutrients from entering Indiana's waterways.



892,487 tons of sediment.
A football field covered to a depth of 387 feet, which is 82 feet taller than the Statue of Liberty.



Sediment Reduction (tons/year)



Based on EPA Region 5 Model analyses conducted on 14,094 conservation practices installed by the Indiana Conservation Partnership January 2018 thru December 2018. This effort does not include the many unassisted practices designed and installed solely by a private landowner without ICP assistance.

March 7, 2019

Trevor Laureys, ISDA Program Manager

Deb Fairhurst, ISDA Program Manager

To learn more about Indiana's Nutrient Reduction Strategy visit: <http://www.in.gov/isda/2991.htm>

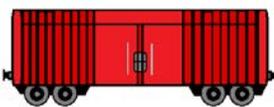
For questions and comments email ISDANutrientReduction@isda.in.gov

2018 Phosphorus Load Reductions

940,271 Pounds

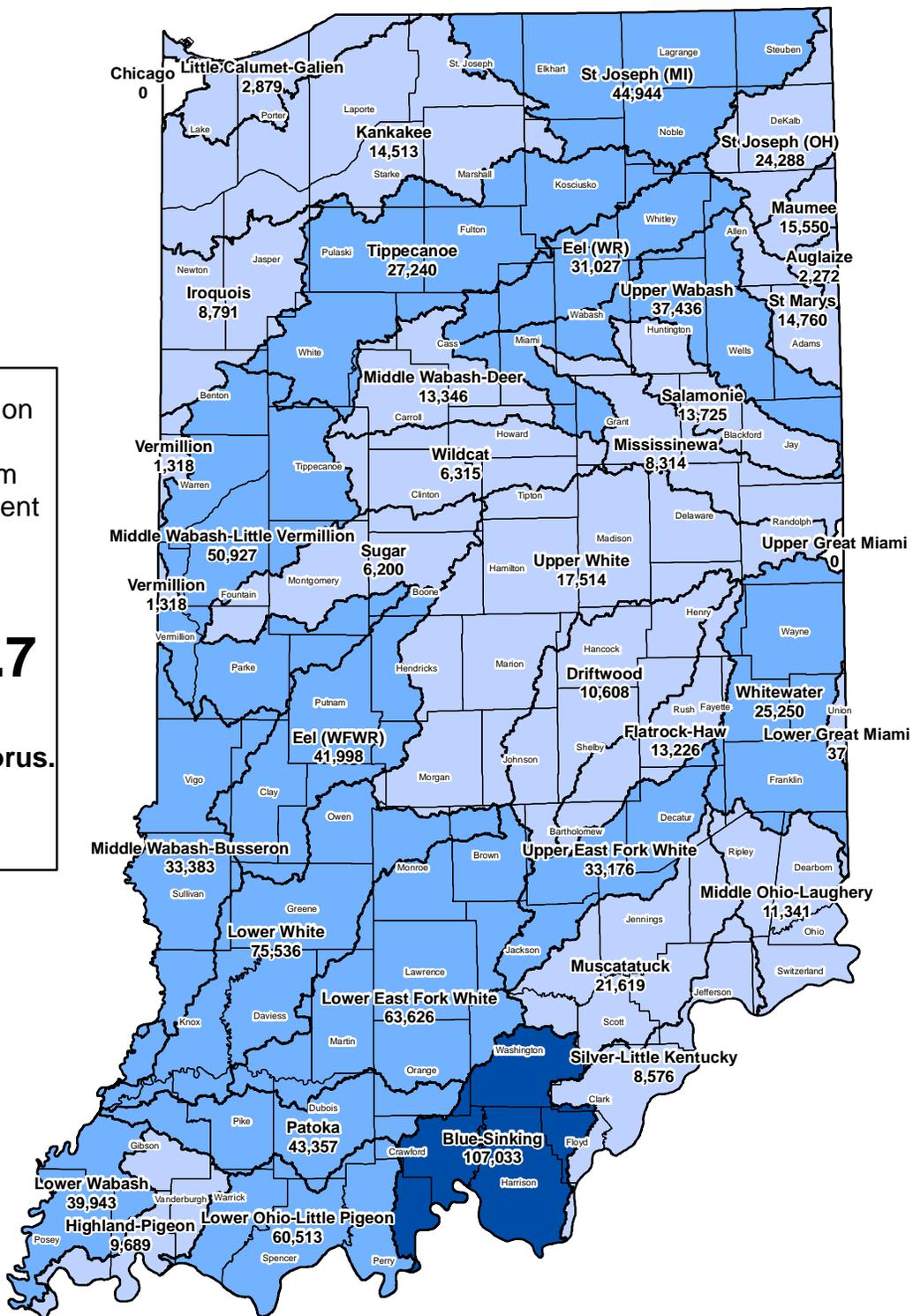


In 2018, voluntary conservation efforts from Indiana's private landowners, with support from the ICP, have reduced sediment and nutrients from entering Indiana's waterways.



X 4.7

940,271 pounds of phosphorus.
That's enough to fill
4.7 freight cars.



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Reductions in dissolved nutrients, such as dissolved reactive phosphorus (DRP) and nitrate (NO₃), are not accounted for by the Region 5 Model.

March 7, 2019

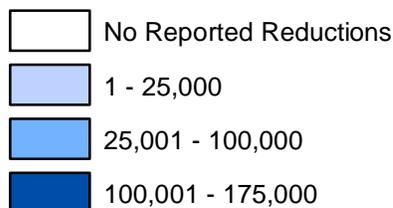
Trevor Laureys, ISDA Program Manager

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Phosphorus Reduction (lbs./year)

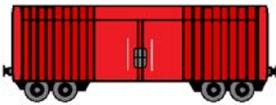


2018 Nitrogen Load Reductions

1,899,185 Pounds

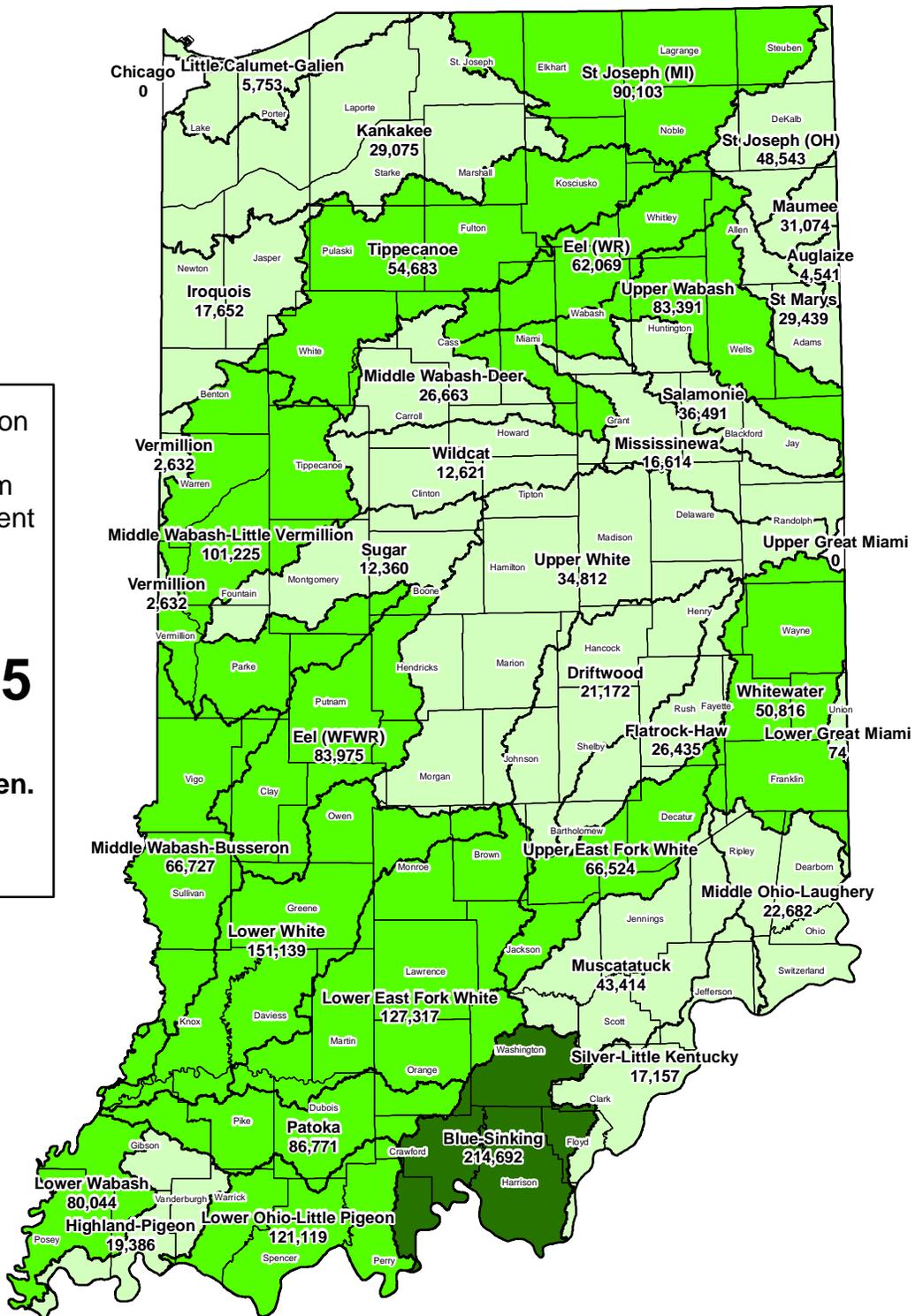


In 2018, voluntary conservation efforts from Indiana's private landowners, with support from the ICP, have reduced sediment and nutrients from entering Indiana's waterways.



X 9.5

1,899,185 pounds of nitrogen.
That's enough to fill
9.5 freight cars.



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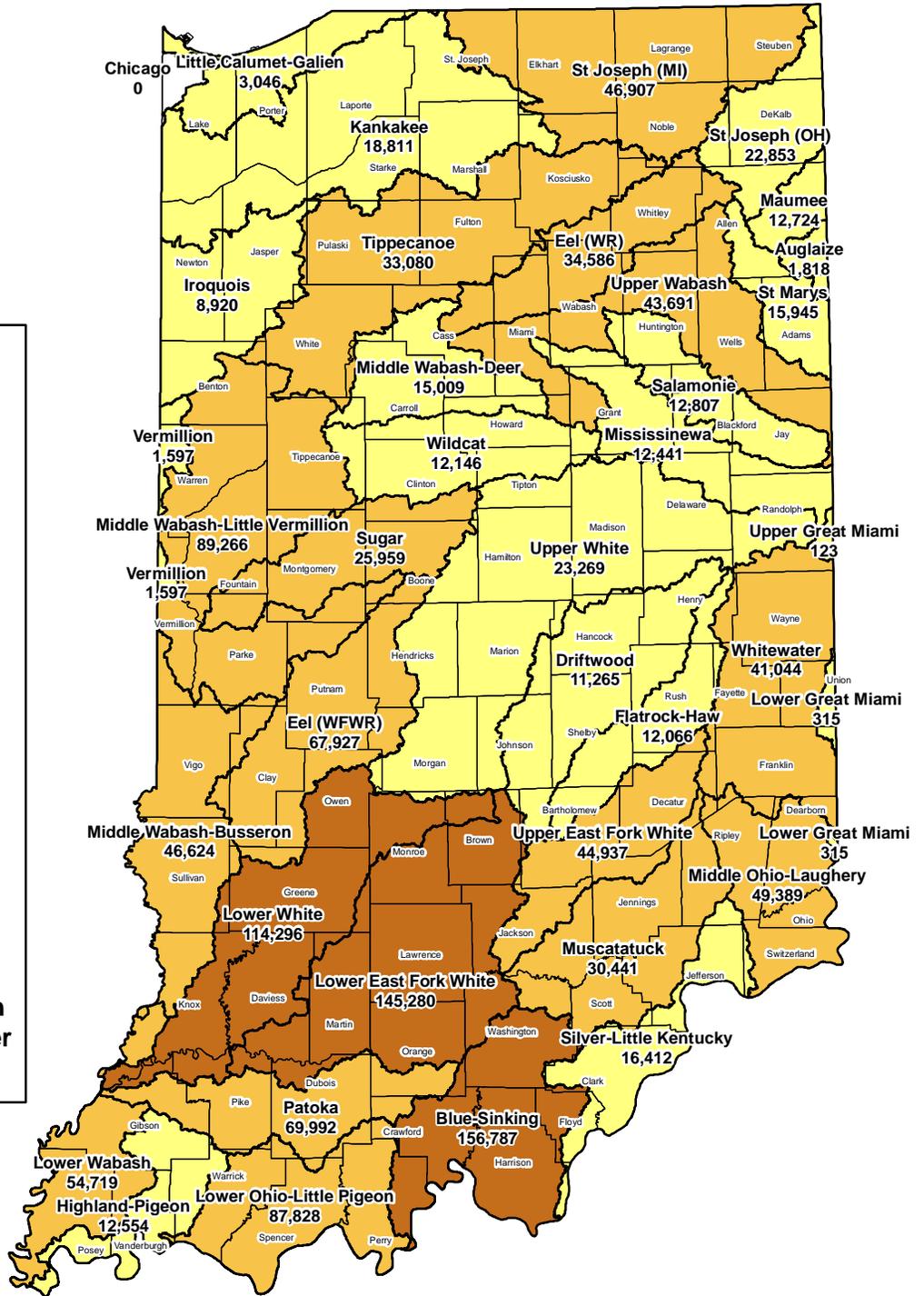
For questions and comments email ISDANutrientReduction@isda.in.gov

Nitrogen Reductions (lbs./year)

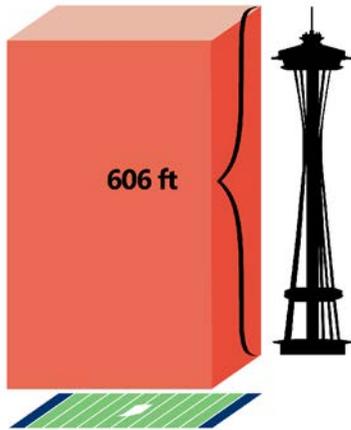


2013-18 Cumulative Sediment Load Reductions

1,396,874 Tons



Since 2013, voluntary conservation efforts from Indiana's private landowners, with support from the ICP, have reduced sediment and nutrients from entering Indiana's waterways.



1,396,874 tons of sediment.
A football field covered to a depth of 606 feet, which is one foot taller than the Space Needle.

Based on EPA Region 5 Model analyses conducted on 25,925 conservation practices installed by the Indiana Conservation Partnership January 2013 thru December 2018. This effort does not include the many unassisted practices designed and installed solely by a private landowner without ICP assistance.

The cumulative analysis encompassed a breakdown of 2013 thru 2018 conservation practices by lifespan including 1, 5, 10, 15, 20 and 40 years. The map reflects all of the practices minus the 2013 thru 2017 practices with a lifespan of one year and 2013 practices with a lifespan of five years.

Reductions in dissolved nutrients, such as dissolved reactive phosphorus (DRP) and nitrate (NO₃), are not accounted for by the Region 5 Model.

To learn more about Indiana's Nutrient Reduction Strategy visit: <http://www.in.gov/isda/2991.htm>
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Sediment (tons)



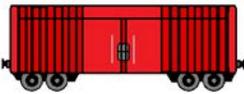
March 7, 2019
Trevor Laureys, ISDA Program Manager
Deb Fairhurst, ISDA Program Manager

2013-18 Cumulative Phosphorus Load Reductions

1,445,083 Pounds

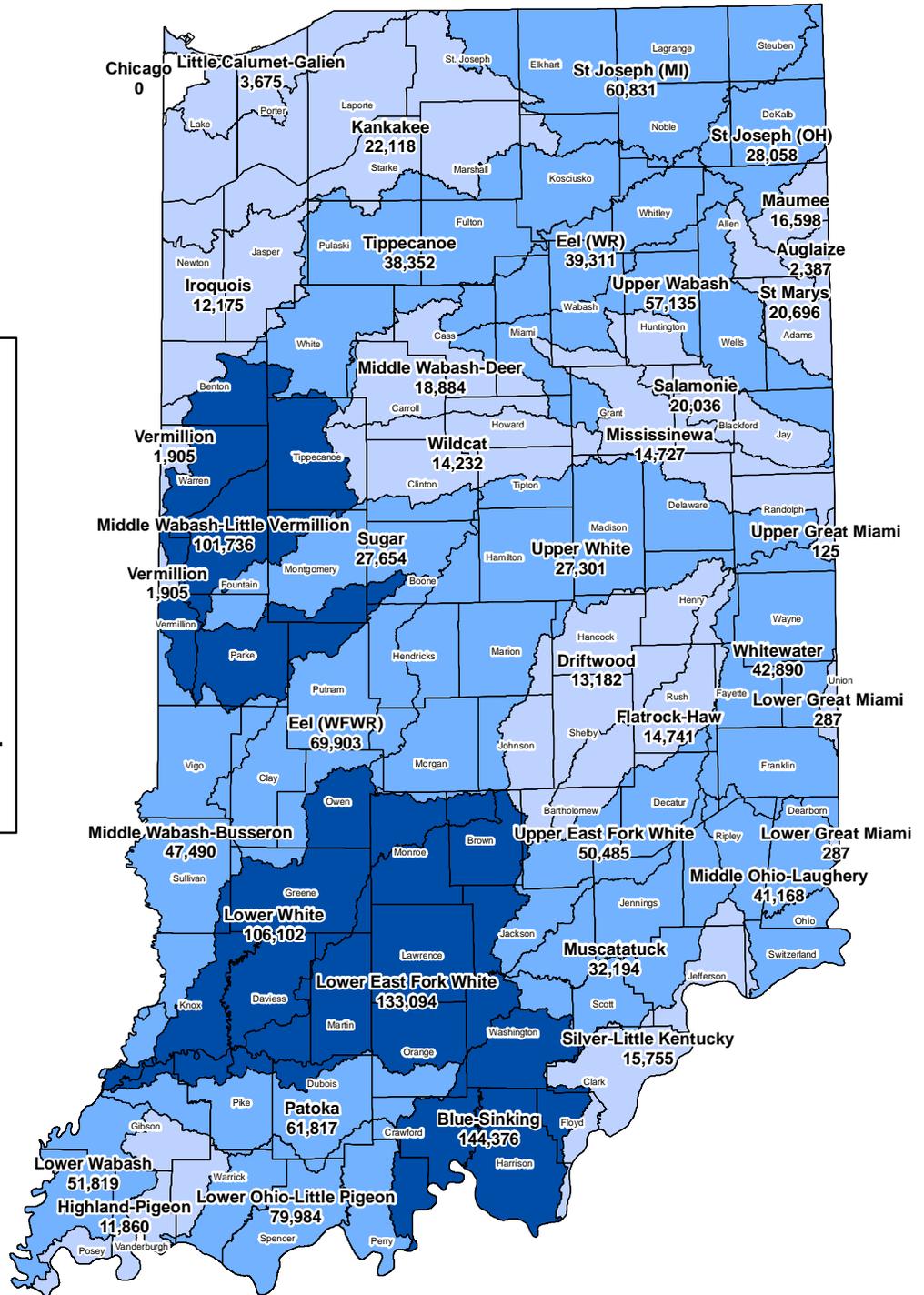


Since 2013, voluntary conservation efforts from Indiana's private landowners, with support from the ICP, have reduced sediment and nutrients from entering Indiana's waterways.



X 7.2

1,445,083 pounds of phosphorus.
That's enough to fill
7.2 freight cars.



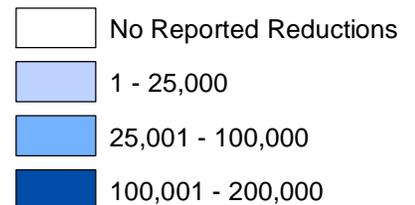
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Phosphorus (pounds)



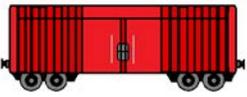
March 7, 2019
Trevor Laureys, ISDA Program Manager
Deb Fairhurst, ISDA Program Manager

2013-18 Cumulative Nitrogen Load Reductions

2,934,933 Pounds

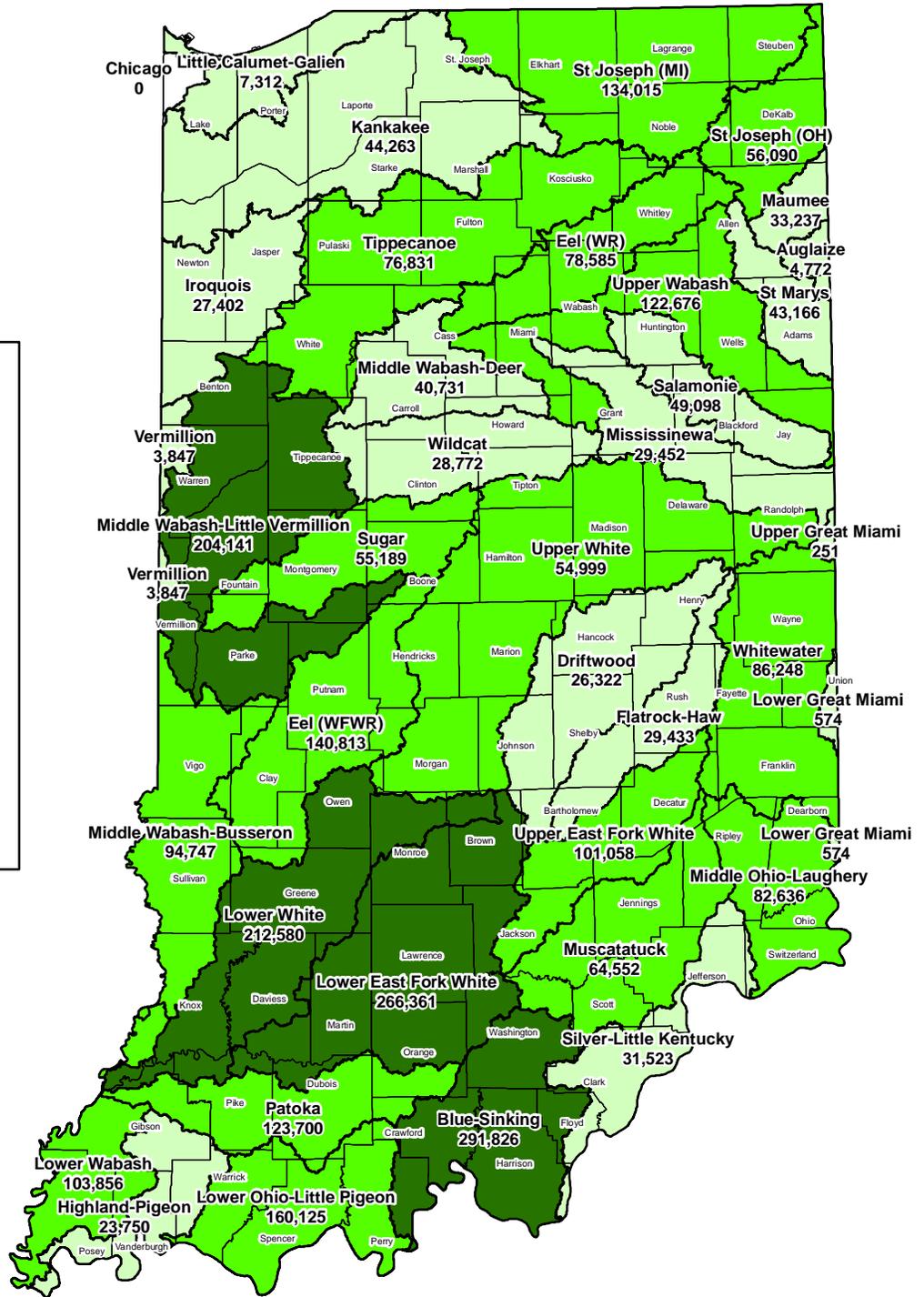


Since 2013, voluntary conservation efforts from Indiana's private landowners, with support from the ICP, have reduced sediment and nutrients from entering Indiana's waterways.



X 14.7

2,934,933 pounds of nitrogen.
That's enough to fill
14.7 freight cars.



Based on EPA Region 5 Model analyses conducted on 25,925 conservation practices installed by the Indiana Conservation Partnership January 2013 thru December 2018. This effort does not include the many unassisted practices designed and installed solely by a private landowner without ICP assistance.

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Nitrogen (pounds)



March 7, 2019
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Deb Fairhurst, ISDA Program Manager

Indiana Nutrient and Sediment Load Reductions

Voluntary conservation efforts from private landowners in Indiana with support from the Indiana Conservation Partnership have reduced nutrients and sediment from entering Indiana's waterways. The figures below represent these efforts in 2018 from conservation practices installed since 2013.*

Load Reductions

Sediment

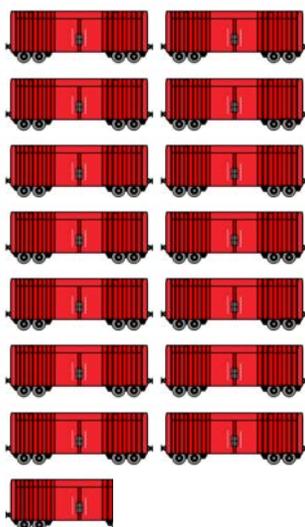
A football field covered to a depth of 606 feet, which is almost as tall as the Space Needle!



Reduction:
1,396,874 Tons

Nitrogen

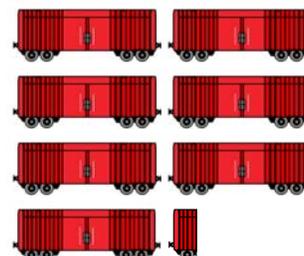
14.7 freight cars



Reduction:
2,934,933 Pounds

Phosphorus

7.2 freight cars



Reduction:
1,445,083 Pounds

Top Conservation Practices

Top practices are represented by frequency rather than acreage. For more information visit: nracs.usda.gov

- Cover Crops
- No Till
- Habitat Development
- Conservation Cover
- Grassed Waterway
- Forage and Biomass Planting
- Heavy Use Area Protection
- Water and Sediment Control Basin

Indiana Conservation Partnership

Data is collected by Indiana Conservation Partnership Agencies and aggregated using the USEPA's Region 5 Model to show total nutrient and sediment reductions.



*This effort does not include the many unassisted practices designed and installed solely by a private landowner without Indiana Conservation Partnership assistance.