Indiana Conservation Partnership Region 5 Model Load Reductions

Introduction

The Indiana Conservation 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.

In 2013, members of the Indiana Conservation Partnership (ICP) began using the Environmental Protection Agency's (EPA) Region 5 Nutrient Load Reduction Model to determine the impact of installed conservation practices implemented by the ICP Conservation Delivery Teams on Indiana's water quality.

The ICP adopted the Region 5 Nutrient Load Reduction Model to analyze conservation practices funded by state programs such as the Indiana State Department of Agriculture's Clean Water Indiana Program and the Indiana Department of Natural Resources' Lake and River Enhancement Program, as well as federally funded programs including EPA's Section-319 Program and USDA's Farm Bill Program.

The Region 5 Nutrient Load Reduction Model, estimates annual reductions of sediment, as well as nitrogen and phosphorus tied to sediment erosion (brown, green and blue maps, respectively). These 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). Reductions in dissolved nutrients, such as dissolved reactive phosphorus (DRP) and nitrate (NO3), are not accounted for by the Region 5 Nutrient Load Reduction Model. In addition, ICP conservation practices not associated with sediment loss, or not covered by the Region 5 Nutrient Load Reduction Model, are not analyzed.

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

Indiana is the only state in the country to adopt a model among so many partners to estimate conservation impact on a statewide scale. 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 at all levels of government within and across Indiana.

For more information about Indiana's Nutrient Reduction Strategy, visit the Indiana State Department of Agriculture's website at http://www.in.gov/isda/2991.htm.

Data Provided By:

INDIANA STATE DEPARTMENT OF AGRICULTURE

IDEM

DNR INDIANA DEPARTMENT OF NATURAL RESOURCES

Indiana's Soil and Water Conservation Districts

USDA United States Department of Agriculture

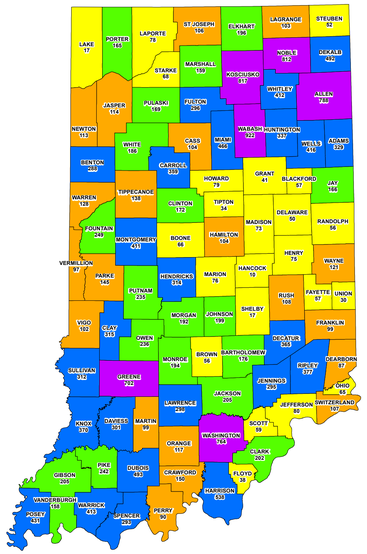
ICP Website: http://icp.iaswcd.org
ISDA Website: http://www.in.gov/isda
IDEM Website: http://www.in.gov/idem
NRCS Website: http://www.nrcs.usda.gov/wps/portal/nrcs/site/in/home

Analysis Conducted By:

Deb Fairhurst, ISDA Program Manager
March 17, 2016

2015 Indiana Conservation Accomplishments

Implemented by Indiana Conservation Partnership



January 1 thru December 31, 2015
Conservation Practices Completed - 20,898
Conservation Practices Underway - 2,280

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.

February 11, 2016
Deb Fairhurst, ISDA Program Manager

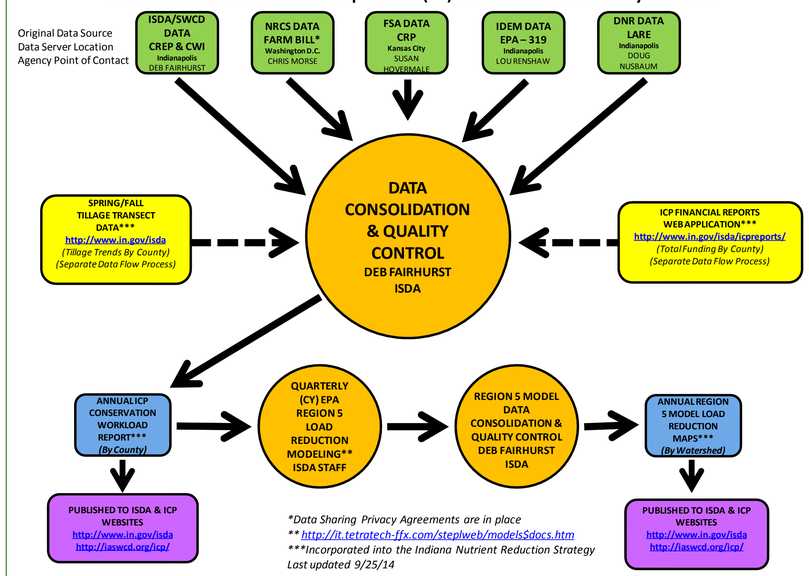
2015 Conservation Accomplishments

Total Practices

- 10 - 80
- 81 - 150
- 151 - 249
- 250 - 538
- 539 - 922

Methodology

Indiana Conservation Partnership Annual (CY) Workload Accountability Data Flow



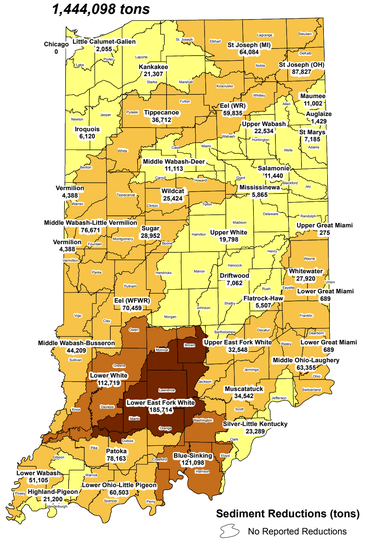
*Data Sharing Privacy Agreements are in place
** http://it.tetratech-ffx.com/steplweb/modelsSdocs.htm
***Incorporated into the Indiana Nutrient Reduction Strategy
Last updated 9/25/14

2013-15 Cumulative Sediment Load Reductions

1,444,098 tons

http://icp.iaswcd.org/

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



Sediment Reductions (tons)

- No Reported Reductions
- 1 - 25,000
- 25,001 - 100,000
- 100,001 - 175,000
- 175,001 - 250,000

Based on EPA Region 5 Model analyses conducted on 19,136 conservation practices installed by the Indiana Conservation Partnership January 2013 thru December 2015. 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 2015 conservation practices by lifespan including 1, 5, 10, 15, 20 and 40 years. The map reflects all of the practices minus the 2013 and 2014 practices with a lifespan of one year.

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

March 3, 2016
Deb Fairhurst, ISDA Program Manager

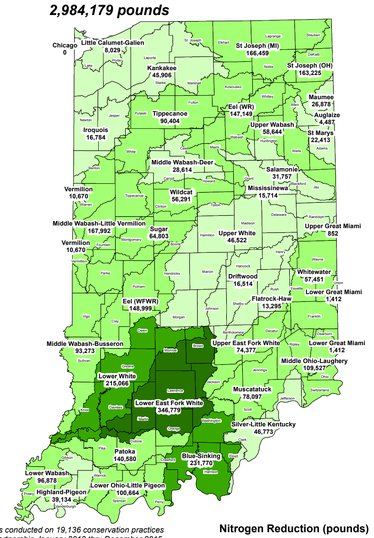
2013-15 Cumulative Nitrogen Load Reductions

2,984,179 pounds

http://icp.iaswcd.org/

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

2,984,179 pounds of Nitrogen.
That's enough to fill **14.75** 50' freight cars.



Nitrogen Reduction (pounds)

- No Reductions Reported
- 1 - 50,000
- 50,001 - 200,000
- 200,001 - 300,000
- 300,001 - 400,000

Based on EPA Region 5 Model analyses conducted on 19,136 conservation practices installed by the Indiana Conservation Partnership January 2013 thru December 2015. This effort does not include the many unassisted practices designed and installed solely by a private landowner without ICP assistance.

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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.

To learn more about Indiana's Nutrient Reduction Strategy visit:http://www.in.gov /isda/2991.htm .
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March 3, 2016
Deb Fairhurst, ISDA Program Manager

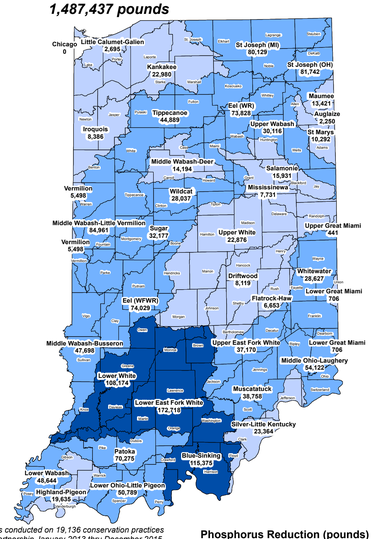
2013-15 Cumulative Phosphorus Load Reductions

1,487,437 pounds

http://icp.iaswcd.org/

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

1,487,431 pounds of Phosphorus.
That's enough to fill **7.25** 50' freight cars.



Phosphorus Reduction (pounds)

- No Reported Reductions
- 1 - 25,000
- 25,001 - 100,000
- 100,001 - 175,000

Based on EPA Region 5 Model analyses conducted on 19,136 conservation practices installed by the Indiana Conservation Partnership January 2013 thru December 2015. 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 2015 conservation practices by lifespan including 1, 5, 10, 15, 20 and 40 years. The map reflects all of the practices minus the 2013 and 2014 practices with a lifespan of one year.

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March 3, 2016
Deb Fairhurst, ISDA Program Manager