

Natural Resources Conservation Service
U.S. DEPARTMENT OF AGRICULTURE

NUTRIENT REDUCTION INITIATIVES & SOURCE WATER PROTECTION


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USDA-Natural Resources Conservation Service

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INDIANA LANDSCAPE INITIATIVES

How USDA is targeting watersheds.



TARGETING DOLLARS AND RESOURCES

- Accelerate the results achieved through voluntary conservation programs.
- Enhances the locally driven process to better address nationally and regionally important conservation goals.
- NRCS and its partners coordinate the delivery of assistance where it can have the most impact in these broad ranges.

WESTERN LAKE ERIE BASIN INITIATIVE

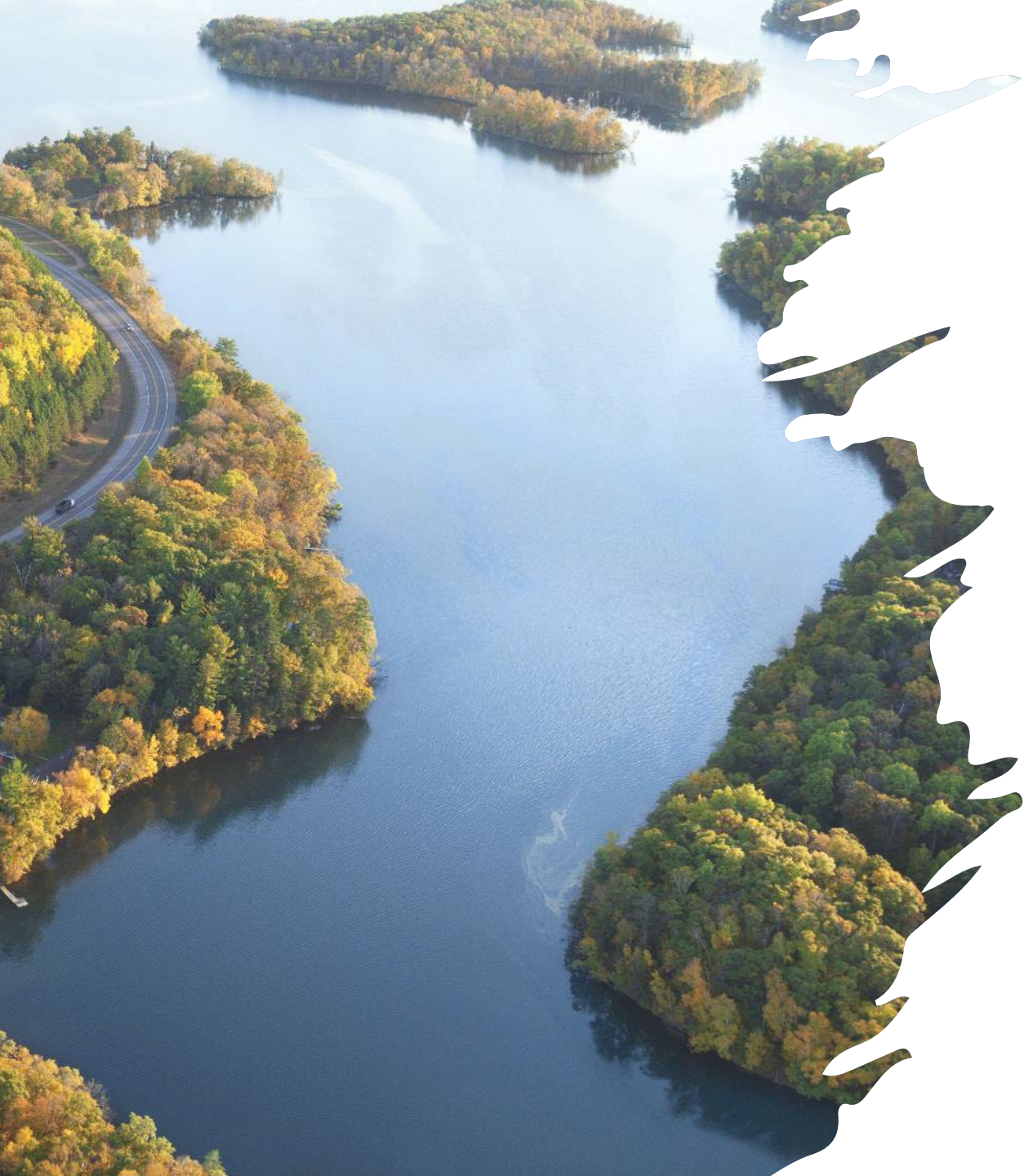
- Made a priority area because of an increase of algal blooms in the area.
- Increased levels of phosphorus in surface water contribute to algal blooms which diminish water quality and are harmful to fish and other aquatic wildlife.
- Agricultural land was determined to be one of the sources of increased phosphorus in surface water due to water and wind erosion.
- Allocated financial assistance through EQIP.





GREAT LAKES RESTORATION INITIATIVE

- Began in 2010 to accelerate efforts to protect and restore the largest system of fresh surface water in the world.
- Protects and restores the Great Lakes ecosystem.
- Financial and technical assistance are available for farmers in priority watersheds to address critical environmental issues.
- GLRI is part of a larger national strategy led by EPA and implemented by a broad partnership of federal, state, local and non-governmental organizations.



NATIONAL WATER QUALITY INITIATIVE

- As USDA's premier water quality initiative, NWQI provides a way to accelerate voluntary, on-farm conservation investments and focused water quality monitoring and assessment resources where they can deliver the greatest benefits for clean water.
- NRCS has invested more than \$2,200,000 on more than 18,640 acres in Indiana.
- In FY19, NRCS expanded the scope of NWQI to include source water protection, including both surface and ground water public water systems, and is now a special component of NWQI.

MISSISSIPPI RIVER BASIN HEALTHY WATERSHEDS INITIATIVE

- Launched in 2009, the 12-state MRBI uses EQIP funding to help landowners conserve the Mississippi River Basin.
- The overall goals of MRBI are to improve water quality, restore wetlands and enhance wildlife habitat while ensuring economic viability of agricultural lands.
- States within the Mississippi River Basin have developed nutrient reduction strategies to minimize the contributions of nitrogen and phosphorus to surface waters within the basin, and ultimately to the Gulf of Mexico.
- Since 2010, Indiana NRCS has invested nearly \$12.6 million on more than 75,000 acres.



REGIONAL CONSERVATION PARTNERSHIP PROGRAM

- Promotes the implementation of conservation activities through partnership agreements and contracts with farmers and landowners.
- Projects focus on water quality and quantity, erosion, wildlife habitat, drought and flood control or other regional priorities.
- Further the conservation efforts on a regional or watershed scale.

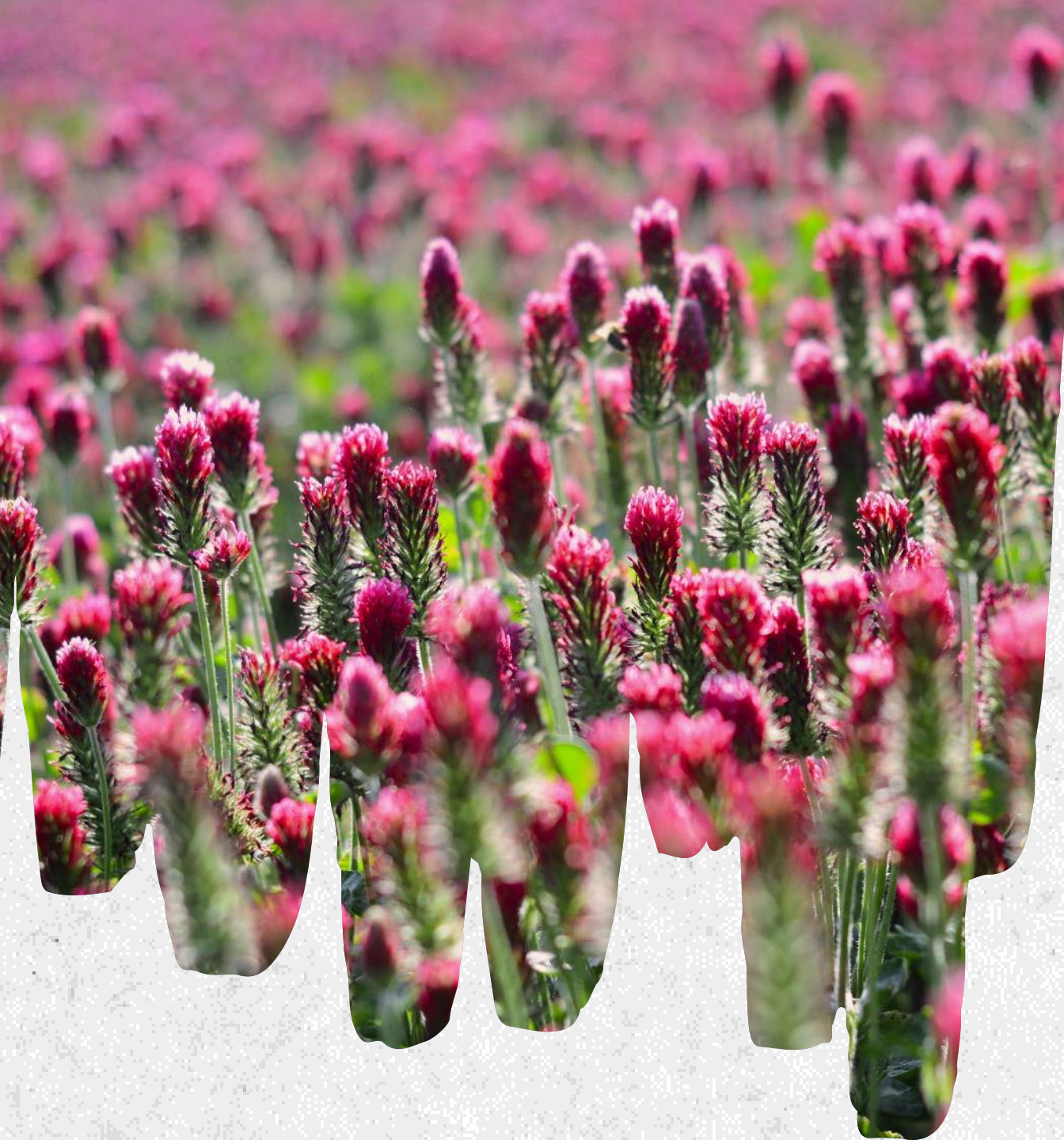


STATE NUTRIENT REDUCTION STRATEGY

The Indiana State Nutrient Reduction Strategy represents the state's commitment to reduce nutrient runoff from point sources and not-point sources alike, to ultimately improve our own lakes, streams and rivers, and downstream in the Mississippi River, Gulf of Mexico, and Great Lakes.

It is a **PARTNER** effort.





CONSERVATION PRACTICES

Our farmers actions are making a difference.

TOP TRADITIONAL CONSERVATION PRACTICES

Conservation systems include practices that promote soil health, reduce erosion and lessen nutrient runoff like:

- Cover crops
- No-till/Reduced Till
- Habitat Development
- Conservation Cover
- Grassed Waterways
- Forage and Biomass Planting
- Heavy Use Area Protection

These practices not only benefit natural resources but enhance agricultural productivity and profitability by improving soil health and optimizing the use of agricultural inputs.





INNOVATIVE CONSERVATION PRACTICES

Two Stage Ditch

- Transforms the steep sides of tradition ditches turning them into mini floodplains covered in vegetation.

Edge-of-Field Monitoring

- Collects and evaluates data to measure relative benefits of conservation activities at the field scale.

Denitrifying Bioreactor

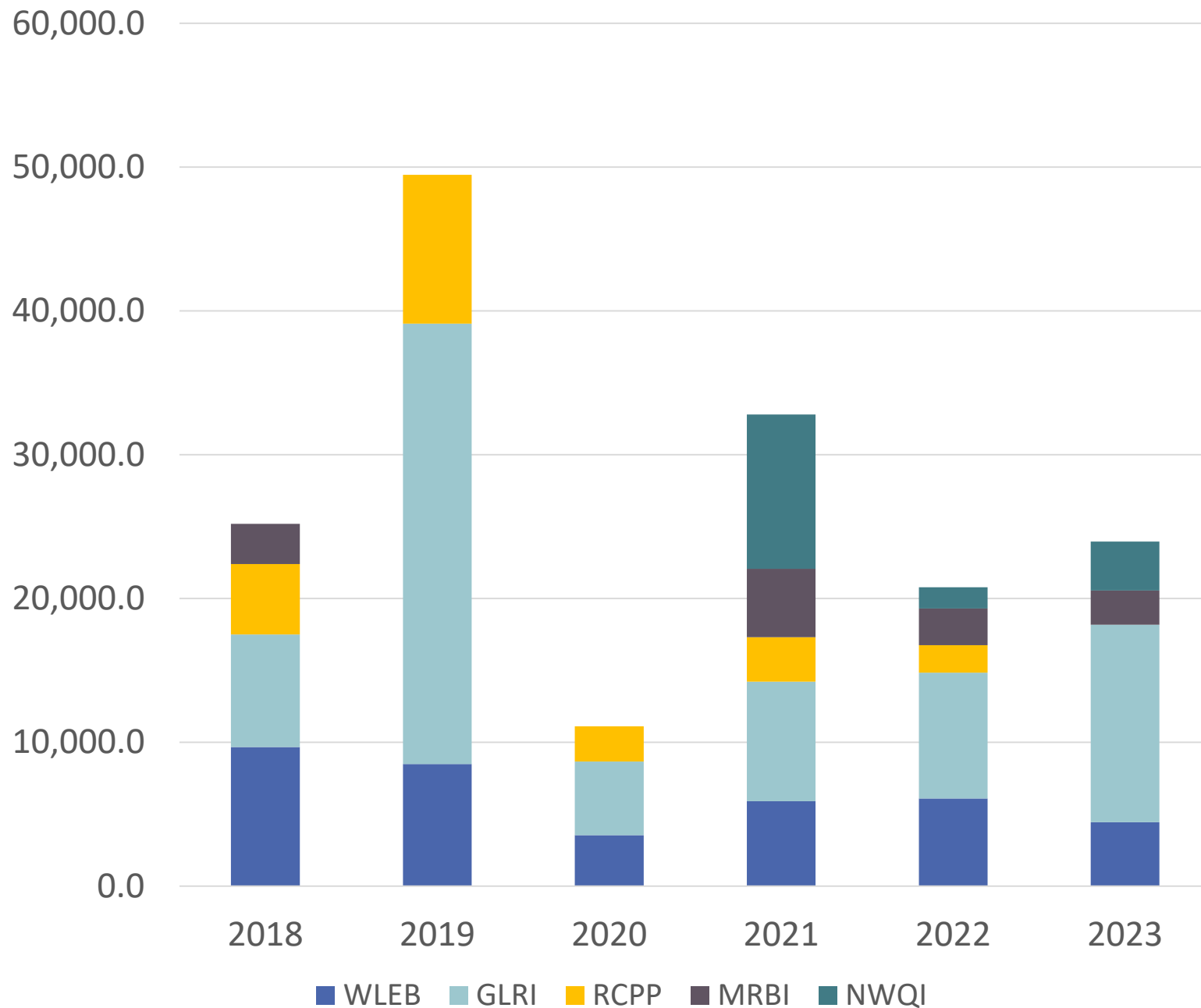
- A structure containing a carbon source, installed to reduce the concentration of nitrate nitrogen in subsurface agricultural drainage flow via enhanced denitrification.



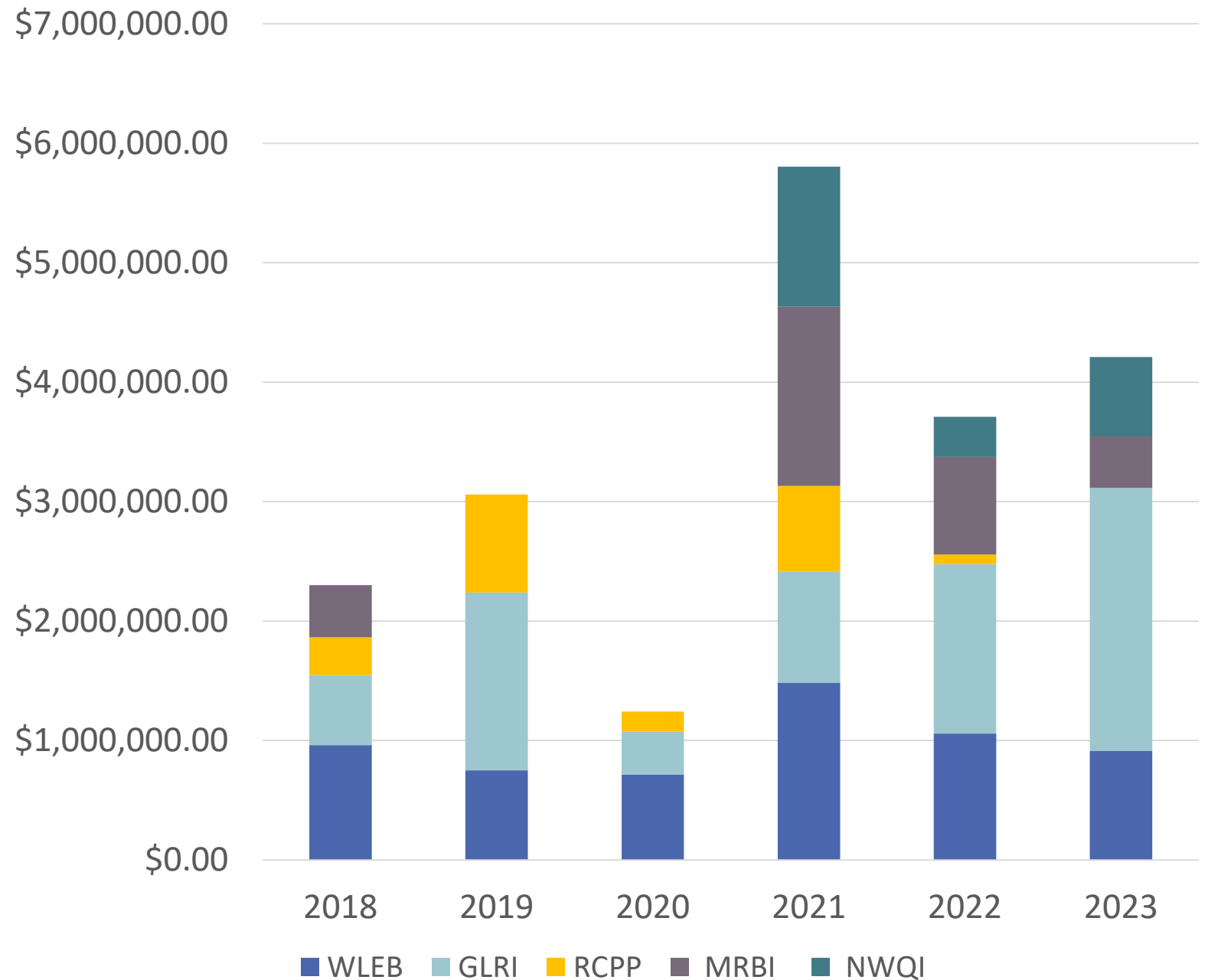
SUCCESSSES IN NUTRIENT REDUCTION

Your commitment is showing results.

ACRES SUPPORTED THROUGH TARGETED PROGRAMS IN PRIORITY WATERSHEDS



TARGETED INDIANA FUNDING IN IN PRIORITY WATERSHEDS



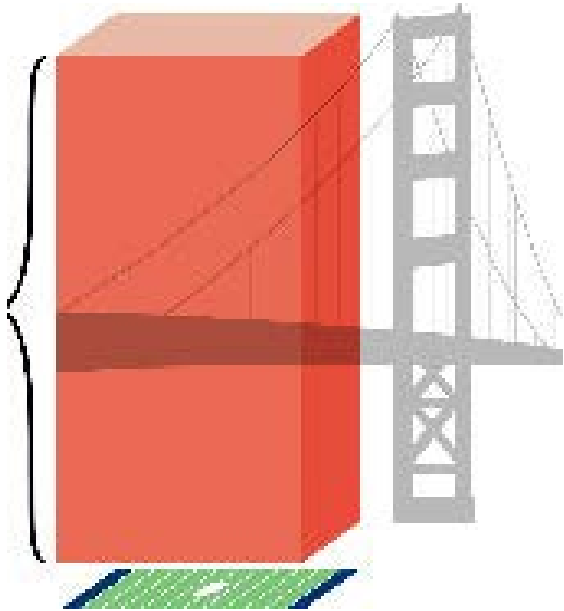
CONSERVATION PRACTICES IMPLEMENTED

- In 2023, the Indiana Conservation Partnership installed a record number of new conservation practices.
- Over 50,000 conservation and farm best management practices were implemented, outpacing the previous record in 2022 by over 18,000.
- 14,524 of these practices were modeled to quantify reductions of sediment and nutrients entering Indiana's waterways.
- 162,047 cover crop acres were also modeled to quantify carbon sequestration equivalents.



2023 REDUCTION IN NUTRIENT & SEDIMENT LOADING IN STATE

Sediment



1,687,329 tons

Phosphorus



X 9

1,807,396 lbs.

Nitrogen



X 18.4

3,683,796 lbs.

CARBON SEQUESTRATION FROM COVER CROPS IN STATE

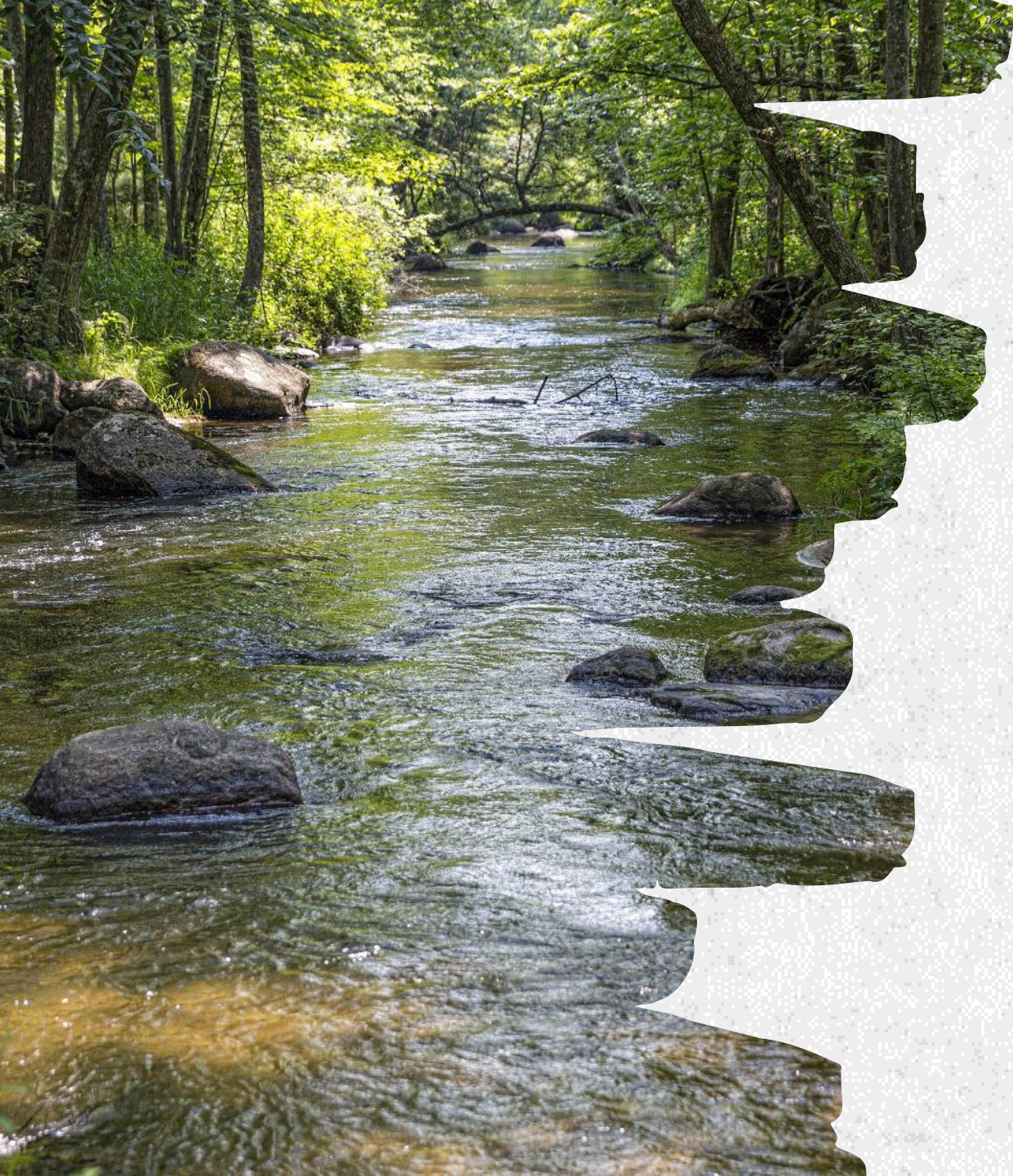
Cover crops and no till implemented with ICP assistance in 2023 sequestered 152,952 tons of carbon, which is equal to the emissions of 30,168 cars.

X 30,168





This isn't possible without a strong
PARTNERSHIP



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QUESTIONS?

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