Success Stories

Heather Parsons

Special Projects Coordinator

Office of Water Quality

Indiana Department of Environmental Management

Restoring Duff Lake Fen Project

Accomplishments

Three-year Restoration Project Highlights:

- 76 acres of fen wetland &
- 28 acres of prairie and oak savanna restored

Project Activities included:

- Removal of invasive species & land restoration
- Wetland hydrology restoration
- Instream restoration

Image courtesy of IDEM

Before: Project Site Conditions

Ditch to be filled, image courtesy of IDEM

Open field to be restored, image courtesy of IDEM

Before: Project Site Conditions

Ditch to be restored, image courtesy of IDEM

Invasive Plant Removal

Large areas of former wet pasture dominated by reed canary grass were broadcast-sprayed with herbicide using spray equipment mounted on ATV's.

Wooded upland slopes were cleared of exotic invasive brush and saplings with brush saws and herbicide wands. Oak trees were retained to create oak savanna structure.

Earthwork Operations

Ditch closure using a wide-tracked bulldozer to push muck soil. Felled ditch-side trees and brush served as a more stable foundation upon which the bulldozer could operate without sinking.

Stream meander creation using a tracked excavator. The steep-sided ditch banks were pulled back and the channel bottom was reconfigured with pools and riffles to create a natural stream course.

Planting

Wetland fen seeding operations using an ATV-mounted broadcast seed spreader. Blue Heron Ministries' crew was able to maneuver ATVs on the partially-frozen muck soil….most of the time.

Volunteers with Blue Heron Ministries and the LaGrange County Parks Department collected and then hand spread upland prairie seed at a December 2016 event at Duff Lake Fen.

Before & After

Before (6/2/2015). Photograph from permanent monitoring point T1P3 looking east. Note the dominance of reed canary grass in the foreground and shrub-dominated uplands in the mid- and background. A groundwater monitoring well is located in the foreground.

After (6/26/2018). Note diversity of wetland fen plant community of sedges, bulrushes and forbs in the foreground and oak savanna structure on the upland rise in the mid-and background.

Before & After

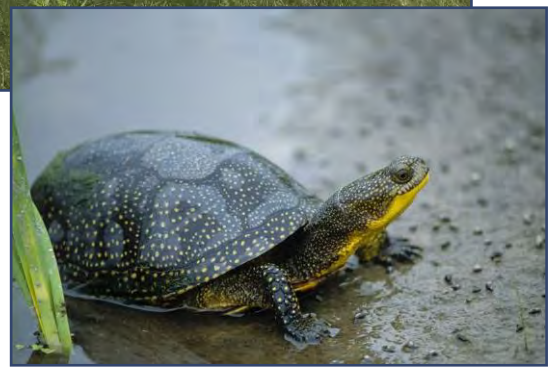
Before (6/2/2015). Photograph from permanent monitoring point T1P6 looking south. Note the ditch with reed canary grass dominated banks prior to closure. The ditch is approximately 4 feet deep.

After (6/26/2018). Note closed and filled ditch with diversity of wetland fen plant community in the foreground. The ditch bank tree was removed.

Duff Lake Fen

Purple Pitcher Plant (Sarracenia purpurea)

Eastern Massasagua (Sistrurus catenatus)



Blanding's Turtle (Emydoidea blandingii)

Grass-Pink Orchid (Calapogon tuberosa)

Thank you!

Success Stories

Julie Harrold

Program Manager – CREP &
Water Quality Initiatives

Indiana State Department of Agriculture

Conservation Reserve Enhancement Program (CREP)

INDIANA
STATE DEPARTMENT OF AGRICULTURE

CREP Overview

- The Conservation Reserve Enhancement Program is a voluntary federal and state natural resource conservation program that aims to improve water quality and address wildlife issues by reducing erosion, sedimentation and nutrients, and enhancing wildlife habitats within specified watersheds in the Wabash and White River watersheds.
- CREP is designed to help alleviate water quality concerns by:
  - Restoring grass and riparian buffers and wetlands
  - Protecting land from frequent flooding and excessive erosion by planting trees in floodplain areas along rivers and streams.

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FSA
FARM SERVICE AGENCY

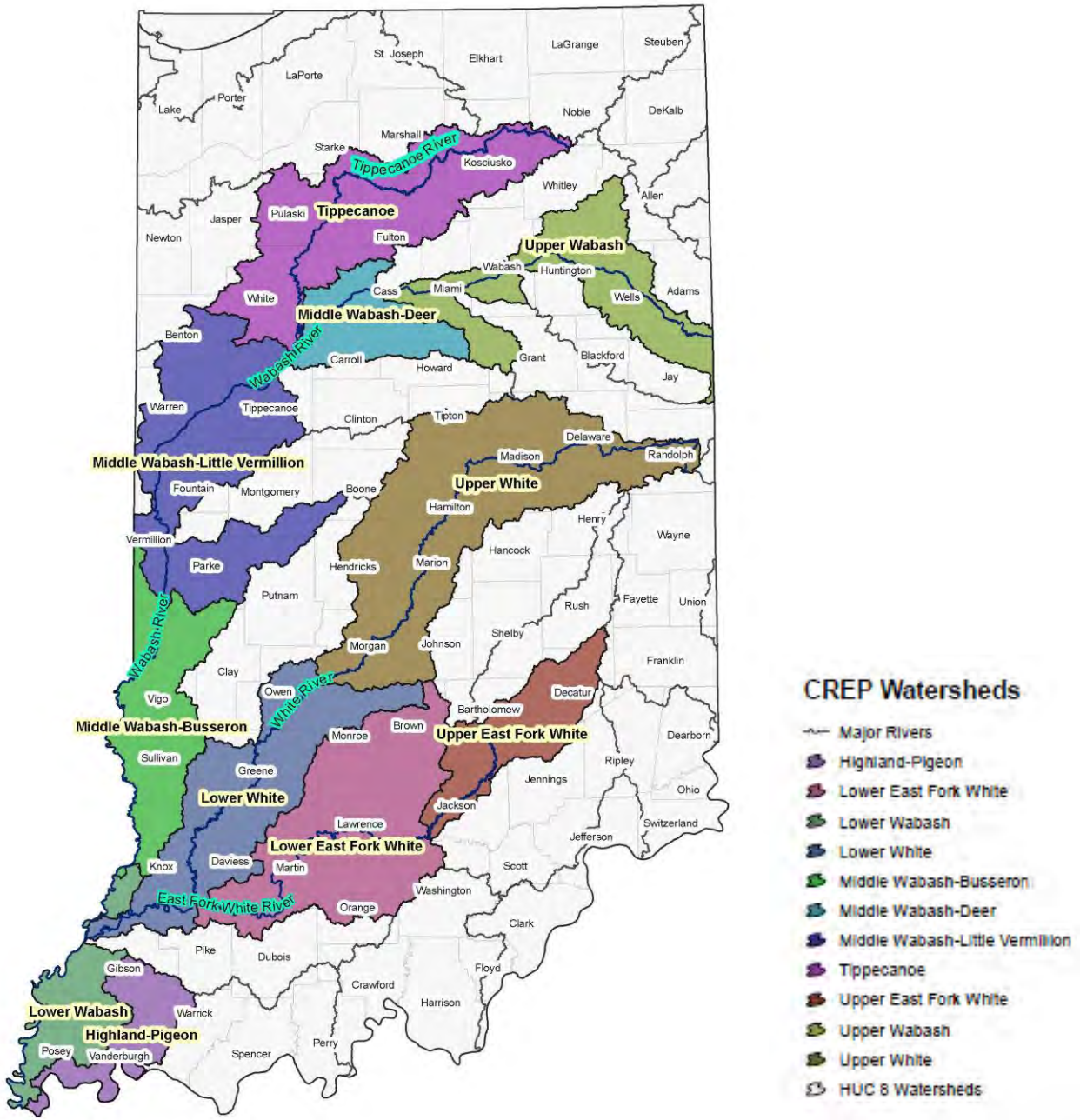
CREP Overview

CREP builds upon the federal Conservation Reserve Program (CRP). It offers an additional financial package above CRP to landowners in the designated watersheds.

Participants voluntarily choose to take sensitive farmland and frequently flooded farmland out of agricultural production.

CREP Watersheds

CREP in Indiana was first announced in 2005 across three HUC 8 watersheds in the state. The program expanded in 2010 to include eleven HUC 8 watersheds in Indiana, covering a total of 65 Indiana counties.



CREP Goals

1. To enroll 26,250 acres of conservation buffers, wetlands and tree plantings in the designated watersheds
2. Protect 3,000 linear miles of water bodies
3. Reduce the amount of sediment, nitrogen and phosphorus entering rivers and streams
4. Increase acres of wetlands in the watersheds

CREP Eligible Practices

Eligible Conservation Practices in CREP:

- Native Grasses (CP2)
- Filter Strips (CP21)
- Permanent Wildlife Habitat (CP4D)
- Hardwood Tree Planting (CP3A)
- Riparian Forest Buffer (CP22)
- Bottomland Timber Establishment (CP31)
- Wetland Restoration (CP23)
- Wetland Restoration, Non-Floodplain (CP23A)

CREP Incentives

CREP offers financial incentives to offset the cost to the farmer:

1. Farm Service Agency (FSA)
   - Annual Soil Rental Rate Incentive Payments (140%)
   - Cost-Share Assistance for practice installation (50%)
   - Practice/or Signup Incentive Payments for new enrollments on certain practices
2. ISDA, DSC
   - One-time incentive payments of:
     $100.00/acres for grass buffer practices
     $400.00/acre for tree buffer and bottomland timber establishment practices
     $950/acre for new wetland practices
     $400/acre for re-enrolled wetland practices

INDIANA STATE DEPARTMENT OF AGRICULTURE

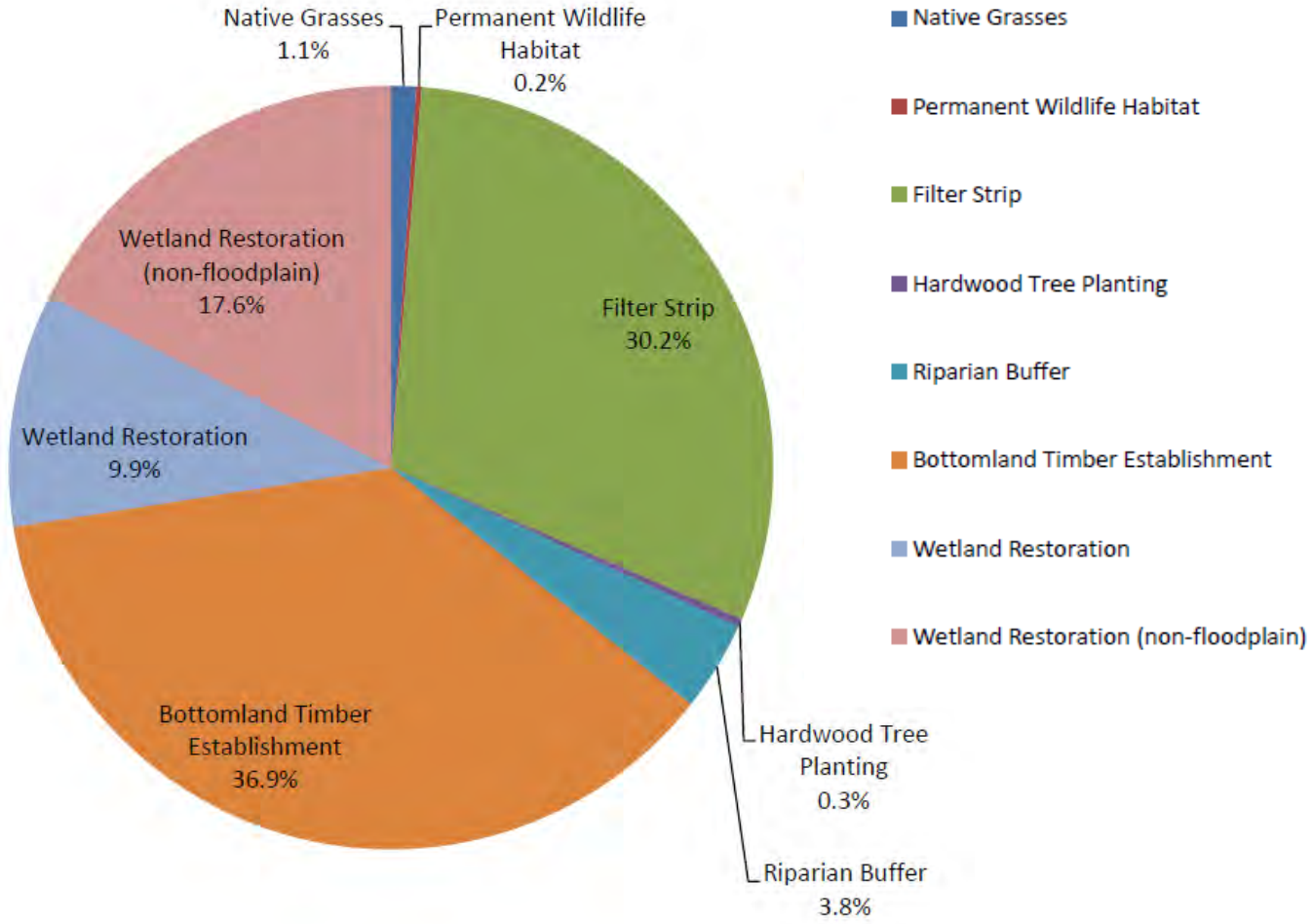
FSA FARM SERVICE AGENCY

CREP Accomplishments

Total Completed Acres* =
21,537 (82% of the Goal)

Total Enrolled Acres* =
22,647 (86% of the Goal)

*according to the ISDA tracking system



Conservation Reserve Enhancement Program

Indiana CREP Accomplishments

ENROLLED ACRES

As of December 2021*
THERE ARE 22,641 ACRES THAT HAVE BEEN ENROLLED, WHICH IS 86% OF THE ACREAGE ENROLLMENT GOAL.

TOTAL ACRES COMPLETED

As of December 2021*
THERE ARE 21,507 ACRES THAT HAVE BEEN COMPLETED SINCE THE PROGRAM'S INCEPTION IN 2005.

WETLAND RESTORATIONS

5,749 ACRES OF WETLAND RESTORATIONS HAVE BEEN RESTORED IN THE STATE SINCE 2005.

LINEAR MILES OF WATERBODIES PROTECTED

994 LINEAR MILES OF WATERBODIES HAVE BEEN PROTECTED WITHIN THE CREP WATERSHEDS.

FLOODPLAIN TREE PLANTING

7,158 ACRES OF TREES HAVE BEEN PLANTED IN FLOODPLAIN AREAS, RESULTING IN APPROX. 4,295,100 TREES PLANTED THROUGHOUT THE STATE.

SEDIMENT AND NUTRIENT LOAD REDUCTIONS SINCE 2010

CREP PRACTICES HAVE REDUCED:
- SEDIMENT BY 78,978 TONS
- NITROGEN BY 178,701 LBS
- PHOSPHORUS BY 90,851 LBS

FROM ENTERING WATERBODIES

BUFFER ACRES COMPLETED

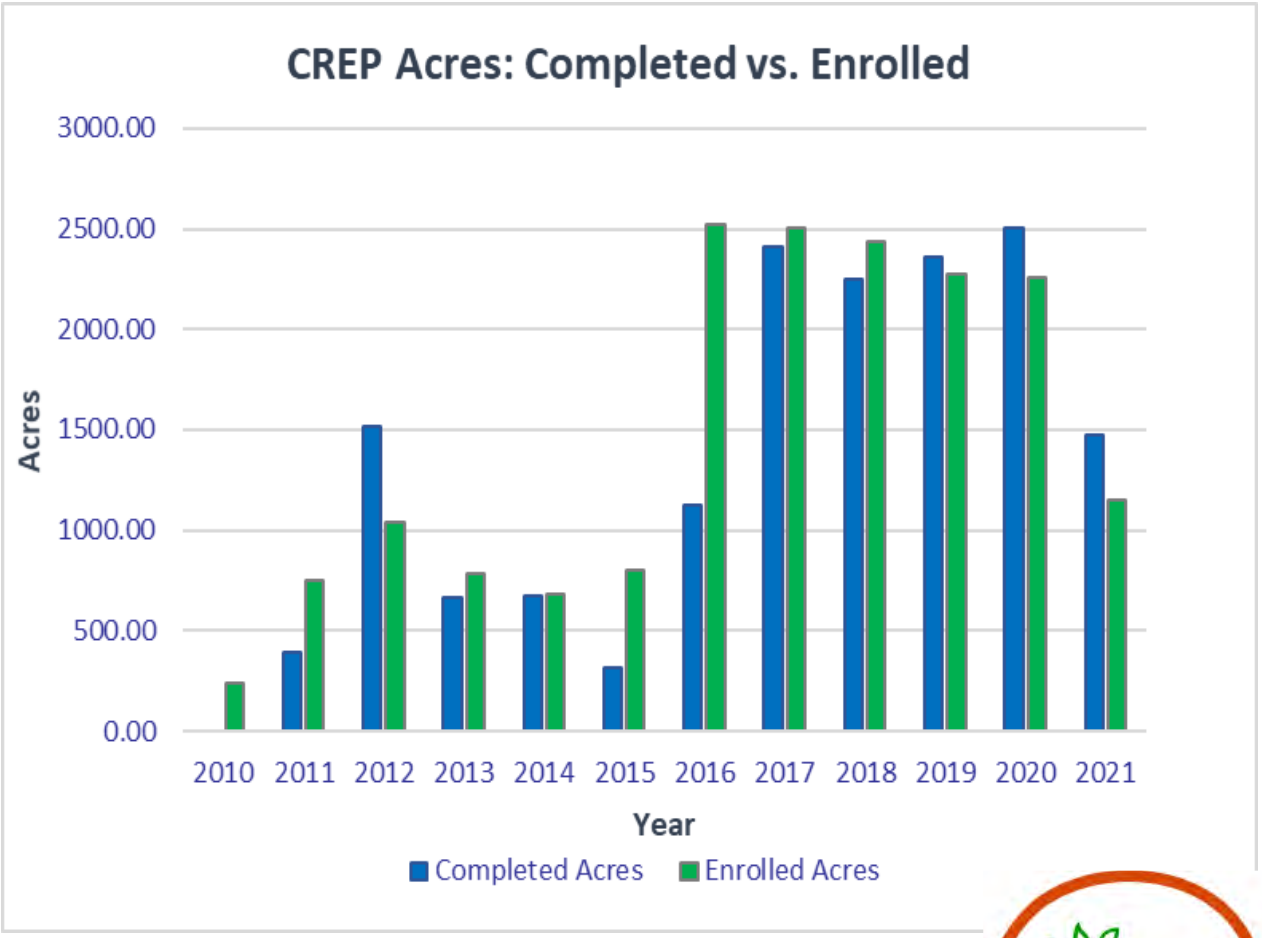
7,701 ACRES OF FILTER STRIPS AND RIPARIAN BUFFERS HAVE BEEN PLANTED IN THE CREP WATERSHEDS SINCE 2005.

*Numbers are according to the ISDA's tracking system

The CREP program aims to improve water quality by creating buffers and wetlands that reduce agricultural runoff within the targeted CREP watersheds. Installing buffer practices, restoring wetlands, and planting trees in floodplain areas enhances habitat for wildlife, including State and Federally-listed threatened and endangered species. The CREP also reduces non-point source nutrient loads.

For more information on the Conservation Reserve Enhancement Program, visit https://www.in.gov/isda/divisions/soil-conservation/conservation-reserve-enhancement-program

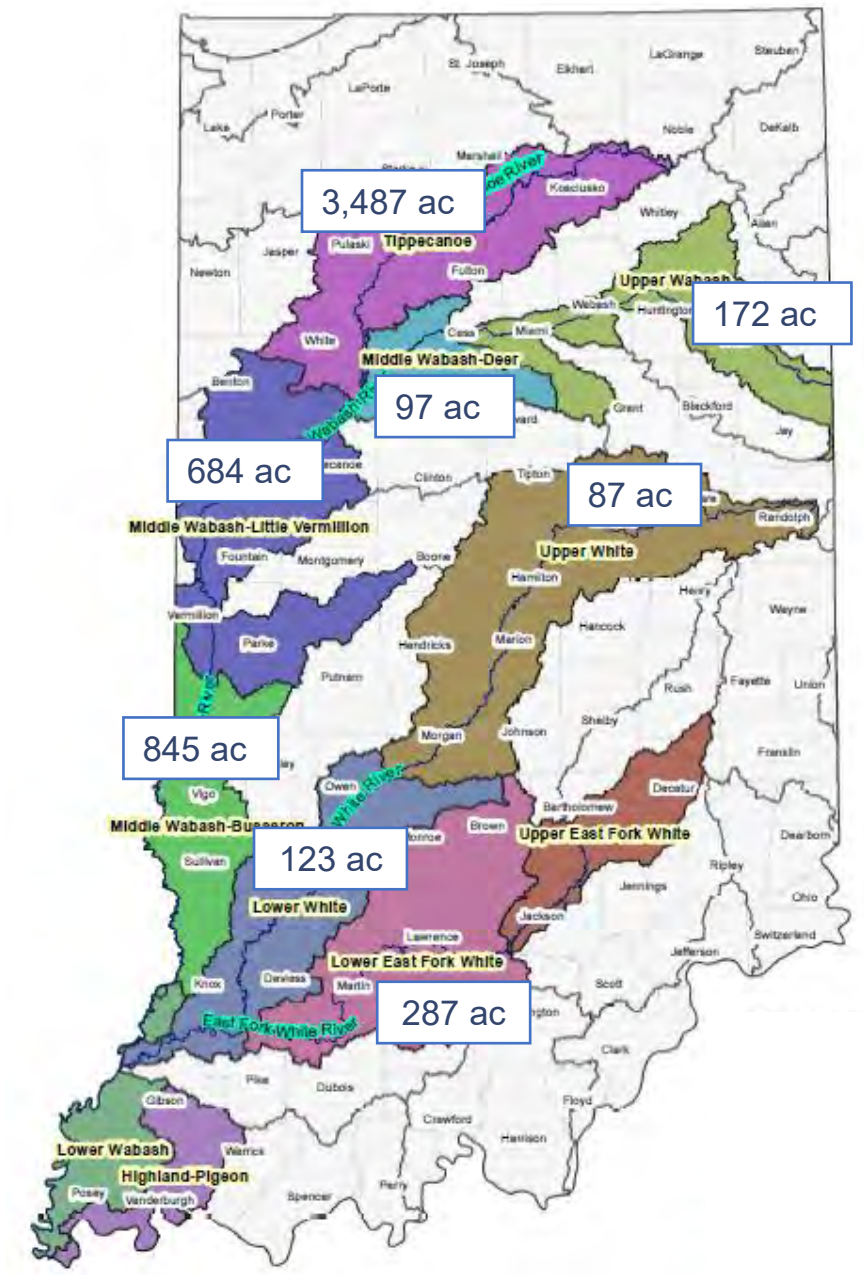
Updated December 2021



CREP Wetland Acres

Wetland acres in CREP:

- 5,781.5 acres of Wetland Restorations completed.
- 6,223.7 acres of Wetland Restorations enrolled.



CREP Bottomland Tree Planting Acres

Bottomland Timber Establishment acres in CREP:

Since the expansion in 2010,
8,056.6 acres of trees have been planted or re-enrolled in the Floodplain, resulting in the planting of approximately 4,833,960 trees.

Thank you!

Julie Harrold, Program Manager, CREP & WQ Initiatives
Indiana State Department of Agriculture (ISDA)
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For more information visit:
https://www.in.gov/isda/divisions/soil-conservation/conservation-reserve-enhancement-program/

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STATE DEPARTMENT OF
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Success Stories

Scott Wagner, P.E.

Agricultural Engineer

Indianapolis, IN

Natural Resources Conservation Service

Eagle Marsh:

Wetland Restoration and Aquatic Nuisance Species Control Berm Project

Image courtesy of USDA - NRCS

USDA United States Department of Agriculture

Natural Resources Conservation Service

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Eagle Marsh Wetland Restoration

Eagle Marsh in 1998

Eagle Marsh in 2016

Images courtesy of USDA - NRCS

USDA United States Department of Agriculture
Natural Resources Conservation Service

Aquatic Nuisance Species Control Berm Project

- Project planning began in 2010 after being identified in a Great Lakes and Mississippi River Interbasin Study as a potential pathway of the Asian Carp to the Great Lakes
- Berm construction identified as best solution
- Included rock fill, drainage management structure, and carp barrier fence
- NRCS provided engineering and construction oversite
- Over $2.2 million construction (funded through NRCS)
- Partners included the LRWP, USACE, US F&W, IDEM, IDNR, local government, and others

Image courtesy of USDA - NRCS

Eagle Marsh Nature Preserve

- Eagle Marsh, an **831-acre wetland nature preserve** located southwest of Fort Wayne
- Over **14-miles of hiking trails**
- With adjacent Fox Island County Park and other privately owned natural land, consists of almost **two square miles** of habitat for birds and other wildlife
- More than 250 species of birds and other wildlife - including 28 bird, two amphibian, and one reptile species endangered or of special concern in Indiana
- **Little River Wetlands Project** (LRWP) manages the nature preserve

Image courtesy of USDA - NRCS

USDA United States Department of Agriculture

Natural Resources Conservation Service

Pokagon Band:

Restoring Indiana's Wetlands

https://youtu.be/A4cxGBjFb2I

Video Length 11:10

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Kankakee Sands:

Bison Project

https://youtu.be/EnlkLj6YqRA

Video Length 5:42

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Goose Pond:

Restoring Indiana's Wetlands

https://youtu.be/_PqY1Qy8ttQ

Video Length 19:05

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Wetland Reserve Easement Program

Can You Answer "Yes" to the Following?

- ✓ I own property with wetlands on it that have been altered for the purposes of agricultural production and am interested in removing that land from agricultural production and restoring and protecting that land for at least 30 years or possibly forever.
- ✓ I want to expand my existing conservation efforts to achieve a higher level of environmental stewardship.
- ✓ I want to receive compensation for enrolling my land in voluntary conservation programs.

Image courtesy of USDA - NRCS

Wetland Reserve Easement Program

- Voluntary program on private lands to restore, protect and enhance wetland habitat on marginal cropland and associated lands.
- Program emphasis on habitat for migratory birds and threatened and endangered species.
- A permanent or 30-year easement is purchased along with financial and technical assistance for the restoration work.

Image courtesy of USDA - NRCS

Wetland Reserve Easement Program

Eligibility Criteria

- 50% of the acreage must be “hydric” soils
- Must have been farmed at some time
- Minimum of 15 acres to be considered
- Need access and easy boundary to maintain
- Must meet landowner eligibility:
  - Make less than $900K a year
  - No farming violations (HEL, wetland compliance)
  - Clear title to property (no surface mineral rights, litigation, rights of others that prevent restoration)

Image courtesy of USDA - NRCS

Wetland Reserve Easement Program

After Easement Closing

- No grazing, mowing or other modification of property (limited allowances in writing from NRCS)
- Public does NOT have access
- Landowner has input to restoration plan, and hires contractor at NRCS expense to complete work
- NRCS must be allowed access for annual monitoring
- Landowner can enjoy the property to hunt, view wildlife, take pictures, hike, fish, canoe, or even charge others to hunt.

Image courtesy of USDA - NRCS

Wetland Reserve Easement Program

Enrollment

- NRCS accepts program applications year-round
- Contact NRCS office at your local USDA Service Center
  - https://www.farmers.gov/working-with-us/service-center-locator

Image courtesy of USDA - NRCS