Indiana Conservation Reserve Enhancement Program

2017 Annual Report

Submitted by the
Indiana State Department of Agriculture
Division of Soil Conservation
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1. Introduction

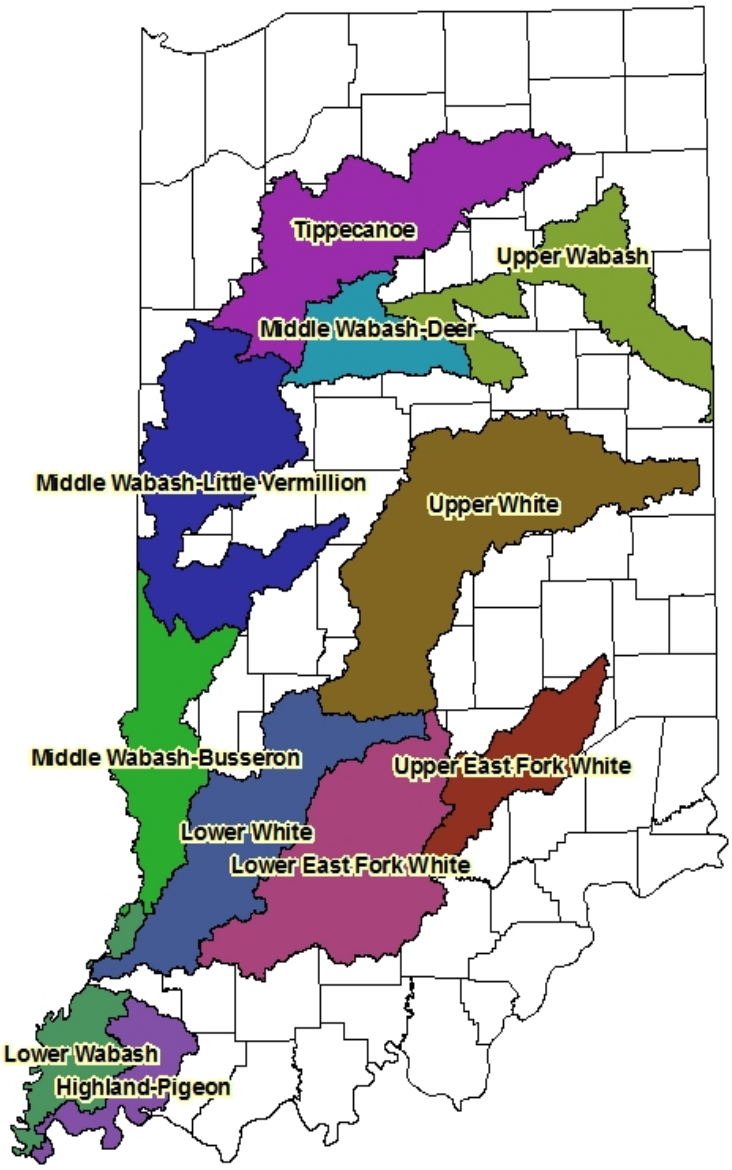
2017 marks the twelfth anniversary of the Conservation Reserve Enhancement Program (CREP) in Indiana. The program was first announced in 2005, covering three watersheds in Indiana and had an enrollment goal of 7,000 acres. The program expanded in 2010, to include eleven priority watersheds touching 65 counties (Figure 1) with an acreage enrollment goal of 26,250 acres.

CREP 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 River System. This program is designed to help alleviate some of the concerns of high non-point source sediment, nutrient, pesticide, and herbicide losses from agricultural lands by restoring grass and riparian buffers and wetlands to improve water quality, as well as to protect land from frequent flooding and excessive erosion by planting hardwood trees in floodplain areas along rivers and streams. CREP continues to address a major milestone of the Indiana State Department of Agriculture (ISDA) and the USDA Farm Service Agency (FSA), showcasing Indiana's progressive and meaningful implementation of conservation practices to protect Indiana's soil, water and related natural resources, and to help alleviate hypoxia in the Gulf of Mexico[1].

Through CREP, program participants receive financial incentives from FSA and ISDA to voluntarily enroll in the program and implement conservation practices on environmentally sensitive land. The program operates under an Agreement between FSA and ISDA, Division of Soil Conservation (DSC), dated July 8th 2005 and amended thereafter in August of 2010 and May of 2016. ISDA administers the CREP program on behalf of the State and must submit to FSA information summarizing the status of enrollments, progress and accomplishments of the CREP by January 1st of each year. This report fulfills this obligation.

[1] Drainage from Indiana eventually finds its way to the Gulf via the Ohio and Mississippi Rivers. A fraction of nitrogen and phosphorus originating from Indiana end ups in the Gulf and contributes to a low dissolved oxygen area (hypoxic zone), threatening aquatic habitats in the Gulf.

FIGURE 1: 11 CREP ELIGIBLE WATERSHEDS



Watersheds include: Highland-Pigeon, Lower Wabash, Lower East Fork White, Lower White, Middle Wabash-Busseron, Middle Wabash-Deer, Middle Wabash-Little Vermillion, Tippecanoe, Upper East Fork White, Upper Wabash and Upper White.

2. Eligible Practices and Incentives

A. Eligible Practices

The Indiana CREP offers a menu of conservation practices to address nonpoint source pollution runoff issues. Table 1 identifies the various conservation practices offered through CREP and are further discussed below. All these practices must be installed on former cropland, in other words the land must have a farming history as defined by FSA requirements. Only land physically located within the Highland-Pigeon, Lower Wabash, Lower East Fork White, Lower White, Middle Wabash-Busseron, Middle Wabash-Deer, Middle Wabash-Little Vermillion, Tippecanoe, Upper East Fork White, Upper Wabash, and Upper White watersheds may be enrolled in this CREP.

Table 1: Conservation Practices and Codes Eligible Within CREP

Conservation Practice	Practice Code
Permanent Native Grass	**CP2**
Hardwood Tree Planting	**CP3A**
Permanent Wildlife Habitat, Non-easement	**CP4D**
Riparian Buffer	**CP22**
Filter Strips	**CP21**
Wetland Restoration	**CP23**
Wetland Restoration, Non-floodplain	**CP23A**
Bottomland Timber Establishment	**CP31**

Practices **CP2**, **CP3A**, **CP4D**, **CP22** and **CP21** must be installed on former cropland adjacent to an eligible stream, river or water body and meet additional buffer requirements.

Buffer Requirements:

CP2 – minimum average width of 50 feet and a maximum width of 120 feet (up to 300 feet in alluvial soils)

CP3A, **C4D** and **CP22** – minimum average width of 35 feet and a maximum width of 180 feet (up to 300 feet in alluvial soils)

CP21 – minimum average width of 35 feet and a maximum width of 120 feet (up to 300 feet in alluvial soils)

CP23, **CP23A** and **CP31** are not required to be adjacent to a stream, river or waterbody; however, **CP 23** and **CP31** are required to be located in the 100-yr floodplain.

B. Financial Incentives

CREP provides financial incentives to landowners through both state and federal contributions. Through CREP, eligible Indiana participants who establish one of the prescribed conservation

practices receive cost-share and rental payments as outlined below. All Contracts within the CREP program cannot be less than 14 years and no more than 15 years.

FEDERAL INCENTIVES

- **Cost-share Assistance:** Cost-share for practice installation based on a flat rate determined by FSA, and for wetland restorations, 50% of engineering design estimate.
- **Annual Rental Payment:** An annual payment for the life of the contract. The payment consists of the sum of three components:

  ***Base Soil Rental Rate*:** Determined by calculating the normal CRP weighted average soil rental rate for the three predominant soil types using the current posted applicable local soil rental rates for cropland.

  Incentive Payment of 40% of the base rental rate without regard to other incentive payments for all practices offered and eligible for CREP.

  Annual Maintenance Payment according to regular continuous CRP enrollments.
- **Signing Incentive Payment (SIP):** A one-time payment of $100 per acre for new land enrolled in **CP21**, **CP22**, **CP23**, **CP23A** and **CP 31**. This payment may be made after the contract has been signed and is approved.
- **Practice Incentive Payment (PIP):** A one-time payment equal to 40% of the eligible reimbursable cost to establish **CP21**, **CP22**, **CP23**, **CP23A** and **CP31**.

STATE INCENTIVES

After practice installation, participants receive a one-time payment from the state equal to:

- $100 per acre for land enrolled or re-enrolled in Native Grasses (**CP2**), Wildlife Habitat (**CP4D**) or Filter Strips (**CP21**).
- $400 per acre for land enrolled or re-enrolled in Hardwood Tree Planting (**CP3A**), Riparian Buffer (**CP22**), or Bottomland Timber Establishment (**CP31)**.
- $950 per acre for land newly enrolled in Wetland Restorations (**CP23** or **CP23A**).
- $400 per acre for land re-enrolled in Wetland Restorations (**CP23** or **CP23A**).

A chart showing the eligible practices and requirements, and the financial incentives is attached in Appendix A.

Bottomland Timber Establishment

Filter Strip

Wetland Restoration

3. CREP Goals and Accomplishments

There are many partners involved with the promotion, administration, technical assistance and funding of CREP in order to meet and work toward the goals and objectives of the program. Our CREP partners include FSA, USDA Natural Resource Conservation Service (NRCS), Indiana Department of Natural Resources (IDNR), Soil and Water Conservation Districts (SWCD), and the State Soil Conservation Board (SSCB), all of which are a part of the Indiana Conservation Partnership (ICP). CREP is one of the top priorities of this partnership. The SSCB provides policy and funding direction to the ISDA, DSC on the administration of the Clean Water Indiana (CWI) program, which funds the state incentives for the CREP program. These partners as well as the staff within the ISDA, Division of Soil Conservation help to carry out the CREP program in Indiana.

In the written Agreement between FSA and ISDA the goals and objectives of the program are stated as:

- Protect a minimum of 3,000 linear miles of watercourses through the installation of conservation buffer practices
- Reduce the amount of sediment, phosphorus, and nitrogen entering rivers and streams in the designated watersheds by 2,450 tons per year of sediment, 2,400 pounds per year of phosphorus, and 4,700 pounds per year of nitrogen.
- Increase the acres of wetlands in the watersheds for erosion control, sediment reduction, storm water retention, and nutrient uptake.
- Enroll 15% of the eligible watersheds' cropland subject to normal CRP acreage limits by county
- Seek enrollment of 26,250 acres of eligible cropland, including frequently flooded agricultural lands, and restorable wetlands.

LINEAR MILES OF PROTECTION ON WATERCOURSES

Through the installation of conservation buffers practices in CREP, approximately 658 linear miles of watercourses are currently protected. This is an increase of 305,830 feet and 58 miles from last year. Overall, this is 21.9% of the goal to protect 3,000 linear miles of watercourses in the targeted CREP watersheds. Table 2 lists the total length of buffers that have been installed since 2005 when CREP began in Indiana.

TABLE 2: CONSERVATION BUFFER LENGTHS

2005-2010	2010 - current	Total
2,627,367 feet	848,242 feet	**3,475,609 feet**
		658.26 linear miles

SEDIMENT AND NUTRIENT LOAD REDUCTIONS THROUGH CREP

The CREP program actively continues to work toward the goal of reducing the amount of sediments and nutrients, such as phosphorus and nitrogen, into the rivers and streams within the designated watersheds by applying buffers, planting trees and restoring wetlands. The DSC uses the Region 5 Sediment and Nutrient Load Reduction Model developed by the Environmental Protection Agency (EPA) to estimate the sediment, nitrogen and phosphorus load reductions from individual best management practices installed on the ground. To date, CREP leaders

apply this model to each conservation practice installed through the CREP to estimate the positive effects of the practice on water quality. This data continues to be gathered and provides cumulative information on the efficiency of CREP.

The annual goal to reduce sediment and nutrients from entering rivers and streams in the designated watersheds is 2,450 tons of sediment, 2,400 pounds of phosphorus, and 4,700 pounds of nitrogen. Table 3 below shows the sediment and nutrient load reductions for the CREP practices that were installed in 2017, which again in 2017 exceeded the reduction goals. The table also shows the overall benefits of the nutrient load reductions since the project's inception.

TABLE 3: ESTIMATED NUTRIENT LOAD REDUCTIONS IN CREP WATERSHEDS

Year	Sediment (Tons)	Phosphorus (lbs.)	Nitrogen (lbs.)
2017	8,313	10,070	20,011
Overall	32,475	35,254	69,209

*'Overall' refers to the total sediment and nutrient load reductions since the project's inception according to the Region 5 model calculations.

WETLANDS

One of the CREP objectives is to increase the acres of wetlands in the watersheds for erosion control, sediment reduction, storm water retention, and nutrient uptake. The first 5 years of the CREP program in Indiana, from 2005-2010, when we had 3 designated watersheds, the amount of enrollment of wetlands acres was 1061.7 acres. Then, when the expansion of the program was done in 2010, new design guidelines for wetland restorations were adopted to include very large wetlands areas with specific drainage requirements, which were difficult to find in Indiana due to topography, etc. This caused the amount of wetlands enrolled to decrease to zero from 2010 to 2013. In order to facilitate more enrollment of this conservation practice, wetland design requirements were changed in 2013. This revision allowed for a greater number of smaller sites to become eligible for wetland restoration in CREP, many of which are in heavily tiled drainage areas, a key distinction of CREP wetland restorations. It also has allowed for already established wetlands to be enrolled in CREP, creating continued improvements in water quality.

Benefits of wetlands include erosion control, sediment reduction, storm water retention, nutrient uptake, and wildlife habitat creation.

Since the changes to the wetland design requirements in 2013, the program has seen a significant increase in the number of wetlands acres installed, including 1,324.8 acres of wetland restorations completed and an enrollment of 2,416.33 acres. In 2017, 437.1 acres of wetland restorations were completed, with an enrollment of 618 more acres planned for future installation.

ACREAGE ENROLLMENT

A main goal of the CREP program in Indiana is to enroll 26,250 acres of eligible cropland including frequently flooded agricultural lands, and restorable wetlands. To date, there are 15,359.93 acres that have been enrolled, which is 58.51% of the acreage enrollment goal and an 8% increase in acreage enrollment than at this time last year. 12,837.11 acres have been completed since the program's inception.

Table 4 below provides a detailed listing of the practices and acres that have been completed in each CREP watershed since the beginning of the program, as well as the total number of acres per practice that have been enrolled. Figure 2 illustrates the overall comparison in percentage of enrolled conservation practices.

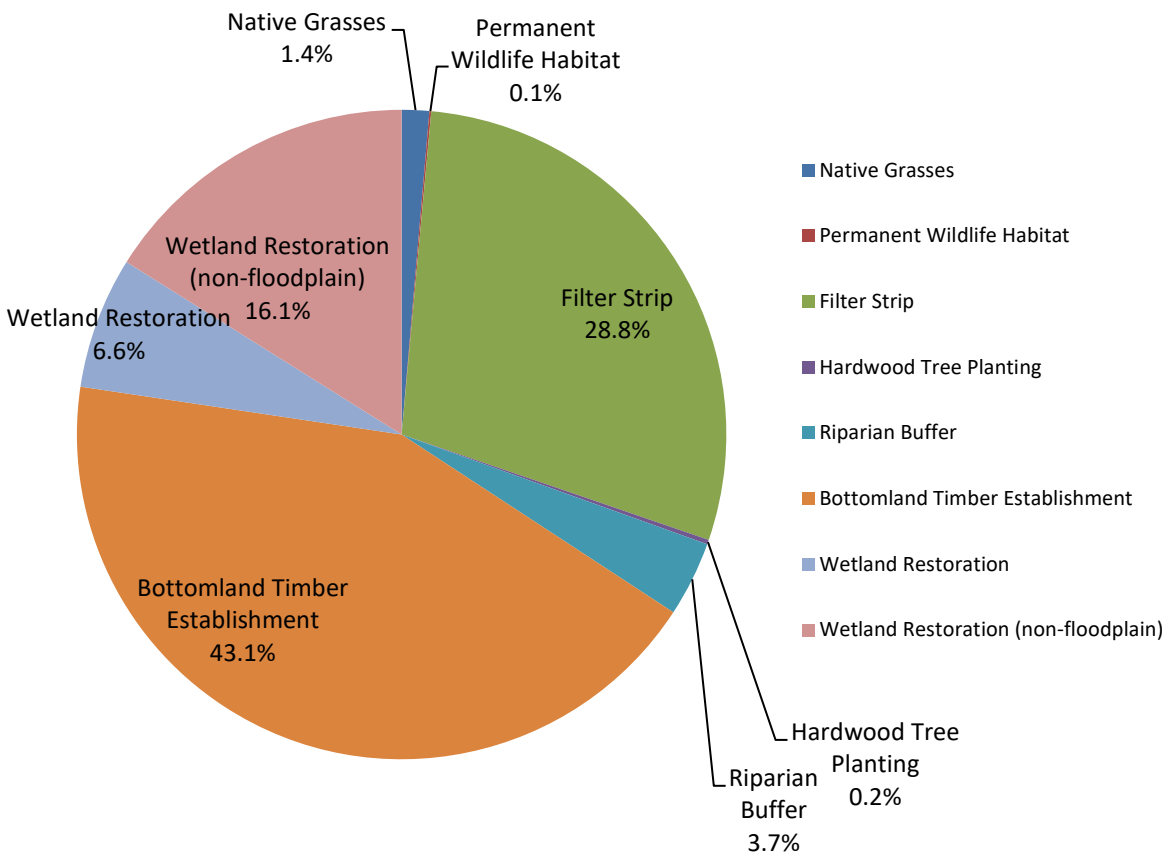
2017 was another good year for growth in enrollment in the Indiana CREP by interested landowners with 2,603.85 acres enrolled. Details of the practices and acres completed in 2017 are included in the next section.

TABLE 4: TOTAL ACREAGE OF COMPLETION AND ENROLLMENT TO DATE

CREP Watershed	Native Grasses	Permanent Wildlife Habitat	Filter Strip	Hardwood Tree Planting	Riparian Buffer	Bottomland Timber Establishment	Wetland Restoration	Wetland Restoration (non-floodplain)	Total
	CP2	CP4D	CP21	CP3A	CP22	CP31	CP23	CP23A	
	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres
Highland-Pigeon	2.5	0.0	215.0	10.8	19.5	212.70	0.0	0.0	**460.50**
Lower Wabash	0.0	0.0	0.0	0.0	0.0	515.34	0.0	0.0	**515.34**
Lower East Fork White	33.5	7.0	38.37	5.4	41.1	637.40	0.0	0.0	**762.77**
Lower White	10.7	0.0	0.0	0.0	58.86	1177.99	16.0	0.0	**1263.55**
Middle Wabash-Busseron	0.0	0.0	0.0	0.0	3.29	1195.21	109.95	0.0	**1308.45**
Middle Wabash-Deer	6.6	0.0	24.6	0.0	0.0	57.99	0.0	0.0	**89.19**
Middle Wabash-Vermillion	4.5	0.0	0.0	6.97	13.2	161.44	220.96	36.80	**443.87**
Tippecanoe	93.84	0.0	3,094.4	0.0	11.21	41.8	195.00	1,602.11	**5,038.33**
Upper East Fork White	0.0	0.0	100.08	0.0	24.7	74.16	0.0	0.0	**198.94**
Upper Wabash	12.53	7.0	342.52	1.07	12.23	208.67	61.54	66.85	**712.41**
Upper White	22.40	0.0	476.45	1.0	386.02	1,080.61	0.0	77.28	**2,043.76**
Total CREP Completion	**186.57**	**14.0**	**4,291.4**	**25.24**	**570.11**	**5,363.31**	**603.45**	**1,783.04**	**12,837.11**
Total CREP Enrollment	**209.92**	**14.0**	**4,424.2**	**34.53**	**573.86**	**6,625.38**	**1007.47**	**2,470.56**	**15,359.93**

* CREP Completion refers to those projects where conservation practices have been installed.

FIGURE 2: PERCENTAGE OF CONSERVATION PRACTICES ENROLLED IN CREP



ADDITIONAL BENEFITS

When conservation practices are applied, there are several benefits that come from these practices beyond the benefits listed above in the nutrient load reduction and wetlands sections. These additional benefits include creating wildlife habitat and protecting floodplains through planting of trees, which also can improve air quality. All of the acres applied through the CRP program are considered to be wildlife habitat acres, therefore 12,837 acres of wildlife habitat have been created since the inception of the CREP program in Indiana in 2005.

Through the CP31 Bottomland Timber Establishment practice, trees are planted in floodplain areas to protect waterbodies. Since the expansion in 2010, 3,703 acres of trees have been planted, resulting in the planting of approximately 2,014,867 trees. In 2017, 1,366 acres of new trees have been planted through CP31, resulting in approximately 743,201 trees being established.

4. 2017 Completed Practices and Acres

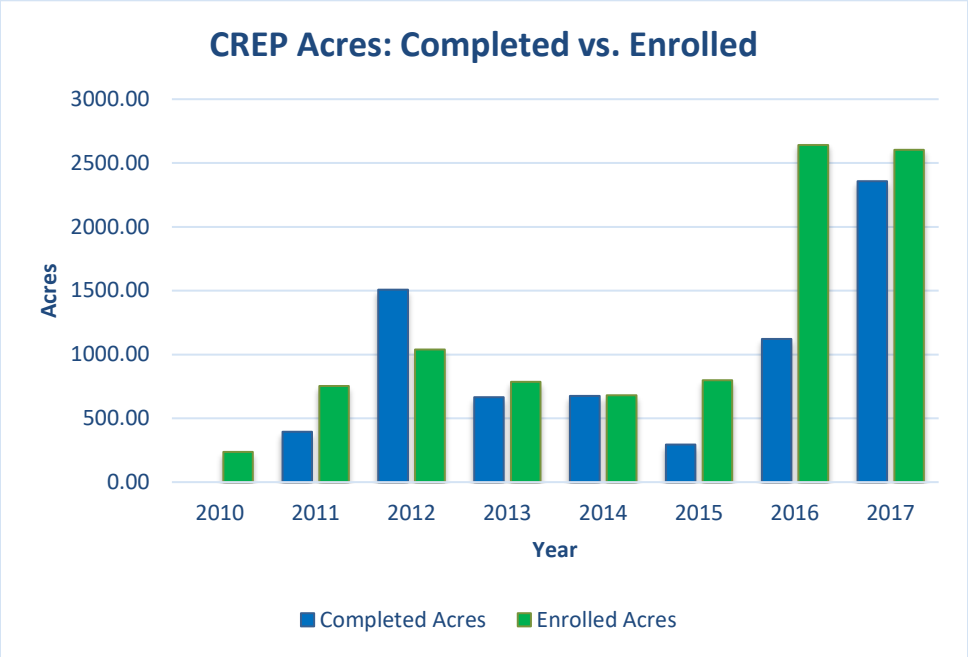
In 2017, landowners installed or re-enrolled a variety of conservation practices offered through CREP. Table 5 provides a look at the practice acreage that was completed in 2017. These acres contribute to the total completed acres to date that are listed in Table 4. Figure 3 shows a comparison of Completed vs. Enrolled acres since the expansion in 2010.

TABLE 5: 2017 COMPLETED PRACTICES*

Completed Practices* (in acres)								
	CP2	CP21	CP3A	CP22	CP31	CP23	CP23A	Total
2017	4.34	441.12	6.97	34.02	1,433.49	208.75	228.35	**2,357.04**

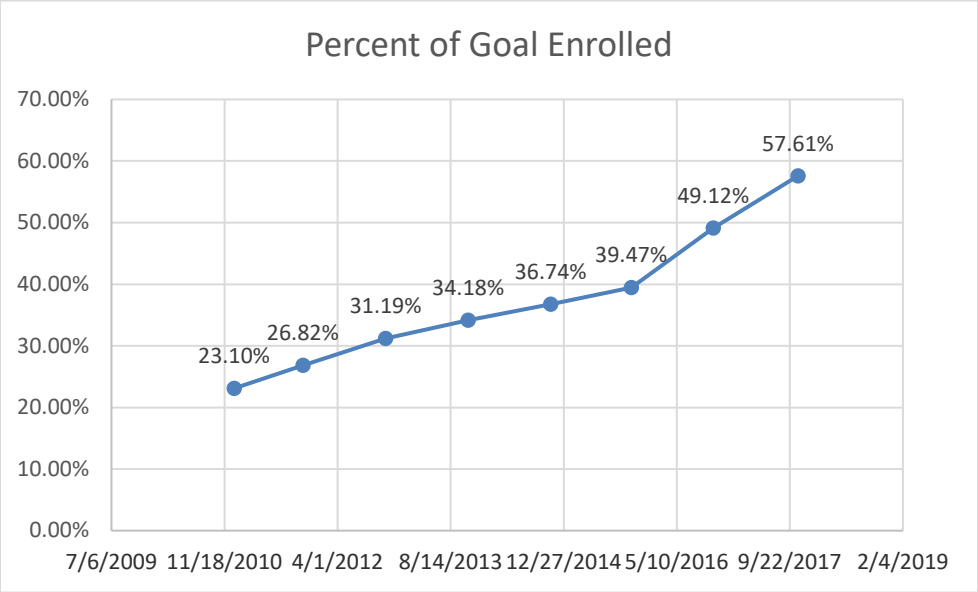
* Completed practices are those projects where conservation practices have been installed.
** There were no CP4D practices installed in 2017.

FIGURE 3: COMPLETED ACRES VS. ENROLLED ACRES FROM 2010-2017



On the next page is a graph showing the percent of growth in CREP each year since the expansion in August of 2010 (Figure 4). For the first 5 years, there was a 16% increase in acreage enrollment. For the last 2 years, there was an 18% increase in acreage enrollment, which shows a tremendous growth in the last two years.

FIGURE 4: PERCENT OF GROWTH IN CREP



5. Financial Contributions and State Match

The CREP Agreement states that Indiana shall contribute at least 20% of the overall annual in-kind services and direct program costs. This section will provide information on how Indiana is meeting this obligation.

INDIANA'S DIRECT PROGRAM COSTS FOR CREP

The ISDA, Division of Soil Conservation (DSC) maintains 10 CREP Leaders, who are located throughout the state, as shown in Figure 5 below, to provide technical assistance to landowners, create conservation plans and oversee daily CREP activities. These CREP Leaders work with landowners/participants to enroll them in the program which provides state financial incentives to establish one of the eligible and prescribed conservation practices. In 2017, the state paid out $1,044,495.50 in direct payments to participants for installation of practices (Table 6).

In an effort to streamline the payment process, the CREP Program Manager works closely with 10 Soil and Water Conservation Districts (SWCDs) to help administer funds to participants. Figure 5 outlines the 10 counties that are the Administrating SWCDs. The State paid $104,449.55 in administrative fees to partnering SWCDs in 2017, which is considered to be a part of the overall 20% contribution (Table 6).

FIGURE 5: ISDA CREP LEADERS AND SWCD ADMINISTRATORS

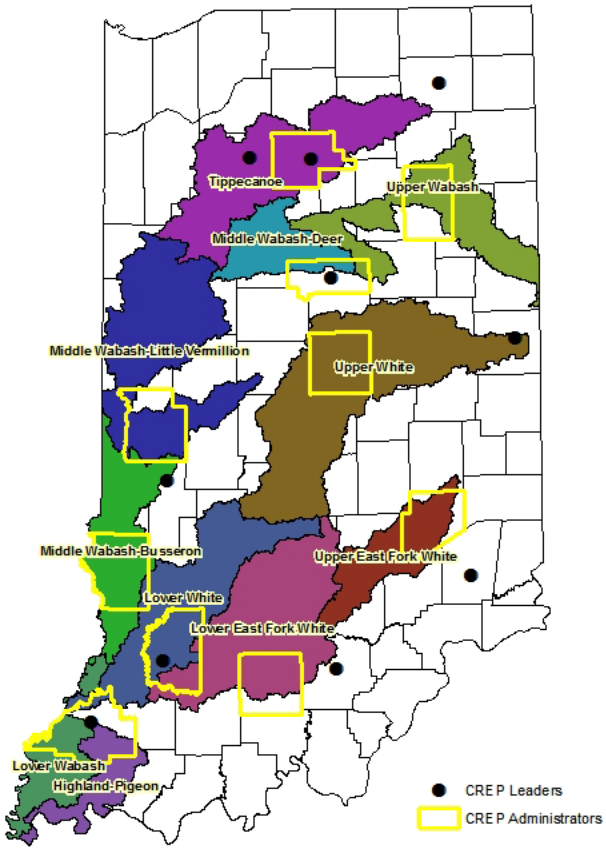


TABLE 6: SUMMARY OF STATE FUNDS FOR COMPLETED PRACTICES IN 2017

State Dollars for Practices Completed in 2017								
	CP2	CP21	CP3A	CP22	CP31	CP23	CP23A	Practices Total
2017	$ 434.00	$ 44,112.00	$ 2,788.00	$ 13,608.00	$ 573,396.00	$ 198,312.50	$ 211,845.00	$ 1,044,495.50
							Admin fees	$ 104,449.55
							Total	$ 1,148,945.05

INDIANA'S IN-KIND SERVICES TO CREP

As mentioned above DSC maintains 10 CREP Leaders to provide technical assistance to landowners, create conservation plans and oversee daily CREP activities in their specified watersheds. Also, the CREP & Water Quality Initiatives Program Manager handles all aspects of the program and provides technical expertise and critical decision-making, and the DSC Director provides overall supervision and assistance in decision-making. Additionally, the Program Manager of Accountability and Technology provides CREP related duties as needed. DSC Resource Specialists, located throughout the state, also accommodate seasonal workload and marketing opportunities within CREP. The DSC's staff time contributes to the overall in-kind services.

State partners, such as the SSCB, IDNR and TNC also contribute to the state's overall 20% contribution through administration, program costs on easements, and staff time.

Table 7 shows a detailed summary of the direct program costs and the in-kind services provided by the state and its partners. According to the federal total given by the Indiana FSA, the state's contribution for 2017 figures out to be 32.8%.

TABLE 7: INDIANA'S OVERALL ANNUAL DIRECT PROGRAM COSTS AND IN-KIND MATCH

Direct Program Costs from CWI	2017 Total
State Funds for Practice Costs to Participants	$1,044,495.50
SWCD Administrative Fees	$104,449.55
State In-Kind Match	
CREP Program Manager and 2 State office staff	$64,957.20
10 CREP Leaders	$80,701.20
Resource Specialist Time	$1,218.00
SSCB	$1,050
SWCD County Administrators Time	$9,915
Steering Committee	$730
DNR (plan development and easement processing time, and CREP promotion through HRI)	$1500
TNC	$500
Total	**$1,309,516.45**
Federal Total	**$3,991,122.00**
State In-Kind Match (%)	**32.8%**

6. The Future of CREP in Indiana

ISDA and DNR continue to promote the mutually beneficial, Interagency Agreement to promote DNR's Healthy Rivers Initiative (HRI) and CREP. This collaboration includes the hiring of a Conservation Program Specialist who focuses on promoting HRI and CREP and increasing acres enrolled in either program, in the Sugar Creek and Muscatatuck watersheds in the Middle Wabash and East Fork River watersheds.

This is an exciting time to be involved in conservation in Indiana. ISDA is proud to be playing a key role in expanding CREP, and expanding opportunities for landowners while improving the environment.

ISDA would like to thank the efforts of our many partners in conservation who supported CREP in Indiana during its inception and continue to support this program. We realize that without the support of the SSCB, CWI, FSA, TNC and all of our conservation partners, the success of this program would not be possible.