



**Indiana Conservation Reserve Enhancement Program
2009 Annual Report**

Submitted by the
Indiana State Department of Agriculture
Division of Soil Conservation

I. Executive Summary

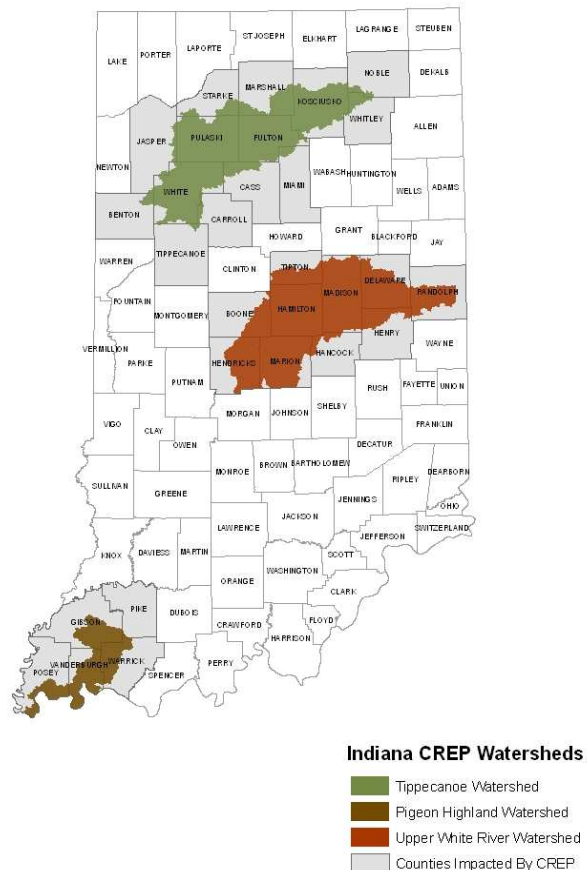
In July of 2005, the State of Indiana contracted with the United States Department of Agriculture (USDA) to begin the Indiana Conservation Reserve Enhancement Program (CREP). The purpose of Indiana's CREP is to address water quality and wildlife issues by the reduction of sediment and nutrients in watersheds and the enhancement of wildlife habitats for State and Federally listed species and other wildlife. CREP is designed to help alleviate some the concerns of high nonpoint source sediment, nutrient, pesticide and herbicide losses from agricultural lands by restoring buffers and wetlands to improve water quality. The three watersheds currently eligible for CREP are the Tippecanoe, Upper White and Pigeon/Highland River Watersheds (Map 1). As of October 2009, Indiana landowners have committed to install conservation buffers and wetlands on more than 5768.05 acres of Indiana's most environmentally sensitive lands.

II. Current CREP

The Indiana State Department of Agriculture (ISDA), through the Division of Soil Conservation (DSC) maintains four full-time CREP Coordinators in the field to assist landowners, create Conservation Plans and oversee daily CREP activities. In addition, a staff person in the Indianapolis Office manages the CREP program centrally. ISDA supplements this core staff with

Resource Specialists to accommodate seasonal workload and marketing opportunities. To complement the ISDA staff, there are many partners involved with the promotions, administration, technical assistance, and funding of the CREP. The USDA Farm Service Agency (FSA) office and field staff continue to promote this project to producers at the USDA Service Centers. The Natural Resource Conservation Service (NRCS) provides additional technical service. The Indiana Department of Environmental Management (IDEM) and the Indiana Department of Natural Resources (DNR), sister agencies to ISDA, as well as the involved Soil and Water Conservation Districts (SWCD) and the Nature Conservancy (TNC) promote the CREP program in their day to day

Map 1: CREP Watersheds



activities. Also, ISDA hosts a website that promotes and discusses the CREP program. <http://www.in.gov/isda/2561.htm>

In 2009, ISDA formed a new steering committee to help guide the direction of and help promote CREP in Indiana. Additionally, a technical committee was formed to assist in the implementation of the CREP program in order to obtain maximum environmental benefits. The stakeholder group includes individuals from the following organizations: FSA, TNC, NRCS, Indiana Association of Soil and Water Conservation Districts (IASWCD), DNR, IDEM, Purdue Extension, and Indiana Farm Bureau. The technical committee includes the previously mentioned organizations as well as the United States Geological Survey (USGS), Ducks Unlimited (DU), and scientific researchers from Indiana University and Purdue University.

Previously, Indiana reported on obligated CREP acres. This 2009 CREP report will also report on completed practices. Completed practices are those that have been installed and paid. Obligated acres includes those under contract but not yet paid, as well as those who have signed a Letter of Intent but are not yet under contract. Payments are distributed to participants once the practices are confirmed to be implemented as planned. State obligated acres and dollars are important to report as this gives us a clear picture of future expectations. Table 1 shows the number of contracts, acres, and funds that the state has paid as of September 30, 2009, as well as those acres that are obligated but not yet completed.

The current Indiana CREP Agreement is for the enrollment of 7,000 acres. The first CREP participants began signing up for the program in January of 2006. As of September 30, 2009, 3,605.34 acres have been completed (Table 1). Total completed (paid) and obligated acres is 5768.05.

Table 1: Indiana CREP Total Completed Acres and Dollars

	Contracts	Completed Acres	Paid State Funds	Obligated Acres (not completed)
Tippecanoe River	331	2290.40	\$335,609.00	1208.42
Upper White River	162	1085.20	\$452,070.00	728.40
Pigeon/Highland Rivers	77	229.74	\$44,518.00	225.96
TOTAL	570	3605.34	\$832,197.00	2162.78

In addition, the CREP agreement calls for the protection of 2,104 linear miles of watercourses through the installation of conservation buffer practices. Currently, 505.79 miles of watercourses have been protected.

Easements

The options for landowners to participate in conservation easements within the Tippecanoe River watershed and portions of the Upper White River watershed are included in the CREP agreement. The easement opportunities are made possible by

significant contributions of time and financial resources from The Nature Conservancy and the Indiana Department of Natural Resources. Currently there are four easements in the Tippecanoe watershed totaling 252.04 acres and \$126,020.

Eligible Practices

The Indiana CREP offers a menu of conservation practices to address non-point source pollution runoff issues. The following is a list of practices offered through this program.

For riparian areas, the following practices are available provided the land is adjacent to an eligible stream, river or water body, and:

- has a minimum average width of 50 feet and a maximum average width of 120 feet (up to 300 feet in alluvial soils) or,
- has a minimum average width of 35 feet and a maximum average width of 180 feet (up to an average width of 300 feet in alluvial soils)

Practices include CP2 – Establishment of Permanent Native Grass, CP3A – Hardwood Tree Planting, CP4D – Permanent Wildlife Habitat, Non-easement CP22 – Riparian Buffer

For buffer areas, the following practices are available provided the land is adjacent to an eligible stream, river or water body, and:

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

Practices include CP21 – Filter Strips

For wetland areas, the following practices are available:

- CP23 – Wetland Restoration is available within the 100-year floodplain
- CP23a – Wetland Restoration – Non-floodplain
- CP31 – Bottom Timber Establishment on Wetland

Completed Acres for Federal Fiscal Year 2009

In Federal Fiscal Year 2009, landowners signed up for a variety of conservation practices offered through CREP. Between the three watersheds, filter strips has been the most popular practice among landowners, comprising 58% of the completed acres from 2005-2009 (Table 3 & Chart 1). Tables 4, 5 and 6 below illustrate the total number of 2009 completed (paid) acres for each practice within each watershed and Table 3 displays the summary totals.

Table 2: Conservation Practices and Codes

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

Table 3: Indiana CREP Totals – Completed and Obligated Acres by Conservation Practice

Conservation Practice	2005-2009 Obligated		2005-2009 Completed		Total (Obligated + Completed)	
	Acres	%	Acres	%	Acres	%
CP2	0.00	0.00%	4.10	0.11%	4.10	0.07%
CP3A	38.10	1.76%	12.10	0.34%	50.20	0.87%
CP4D	0.00	0.00%	0.00	0.00%	0.00	0.00%
CP21	1100.39	50.88%	2244.51	62.26%	3344.90	57.99%
CP22	56.47	2.61%	78.93	2.19%	135.40	2.35%
CP23	4.40	0.20%	117.30	3.25%	121.70	2.11%
CP23A	634.40	29.33%	405.10	11.24%	1039.50	18.02%
CP31	328.95	15.21%	743.30	20.62%	1072.25	18.59%
	2162.71	100.00%	3605.34	100.00%	5768.05	100.00%

Chart 1: Total CREP Conservation Practices Percentages Completed and Obligated 2005-2009

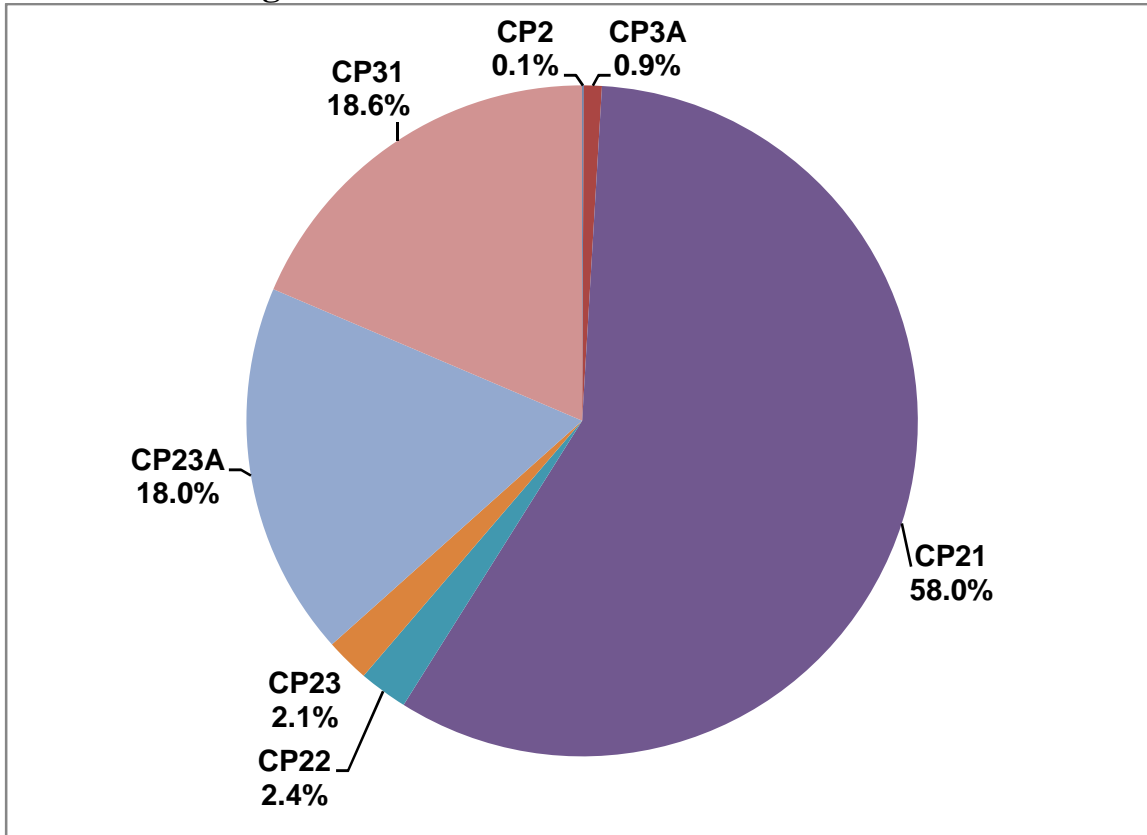
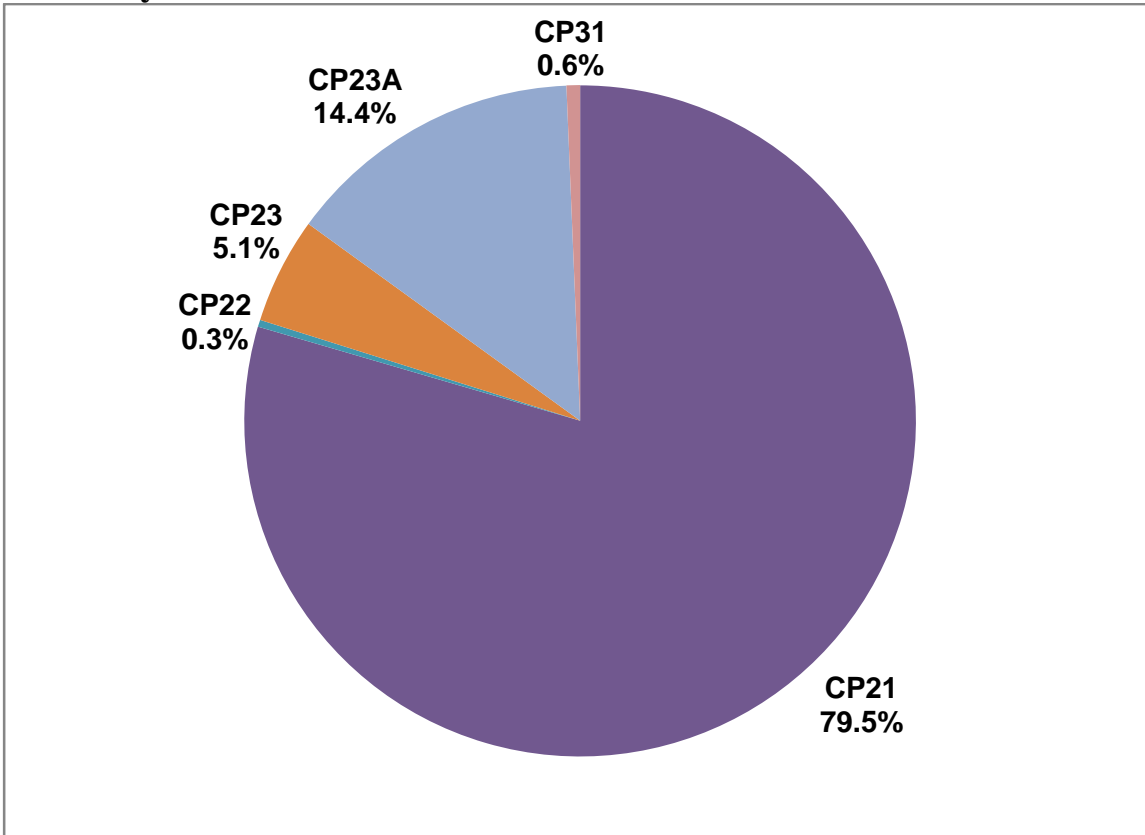


Table 4: Tippecanoe River Watershed –Percentage of Completed Acres by Conservation Practice

Conservation Practice	Total Completed 2005-2009
	Acres
CP2	0%
CP3A	0%
CP4D	0%
CP21	79.5%
CP22	0.3%
CP23	5.1%
CP23A	14.4%
CP31	0.6%

Chart 2: Tippecanoe River Watershed –Percentage of Completed Acres by Conservation Practice



Map 2: Tippecanoe CREP Practices

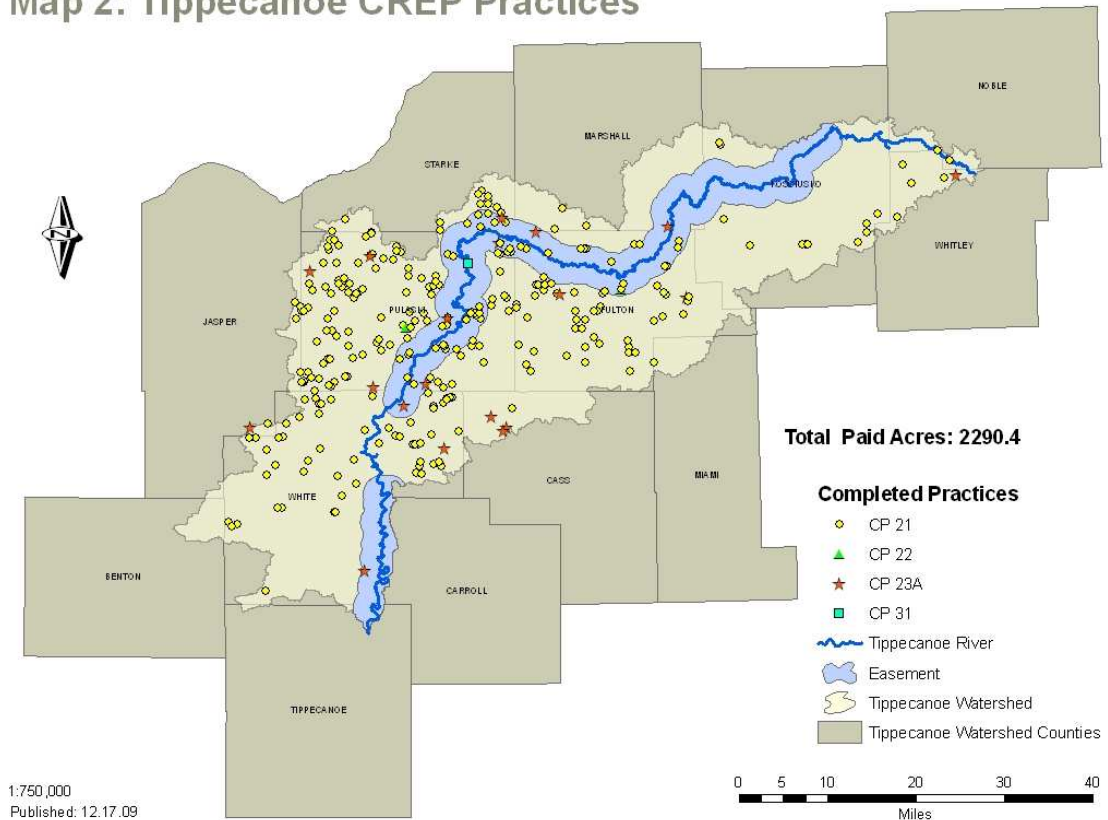
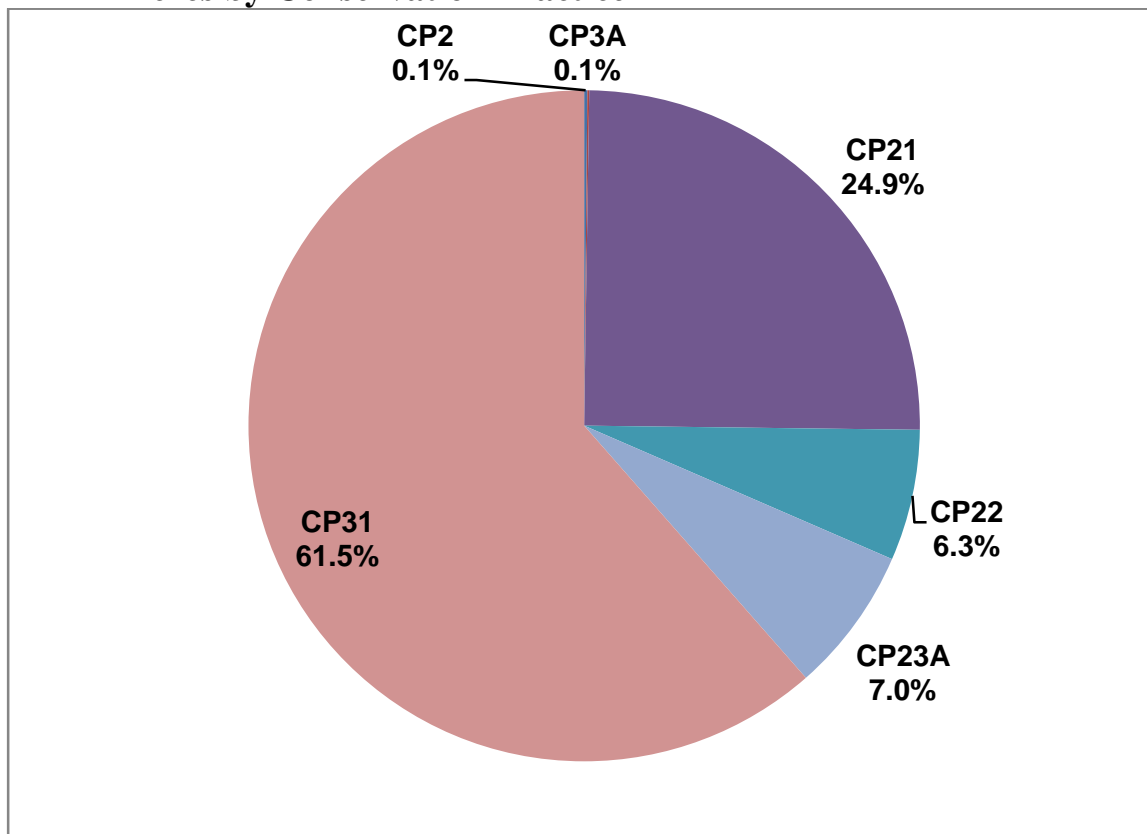


Table 5: Upper White River Watershed –Percentage of Completed Acres by Conservation Practice

Conservation Practice	Total Completed 2005-2009 Acres
CP2	0.1%
CP3A	0.1%
CP4D	0.0%
CP21	24.9%
CP22	6.3%
CP23	0.0%
CP23A	7.0%
CP31	61.5%

Chart 3: Upper White River Watershed –Percentage of Completed Acres by Conservation Practice



Map 3: Upper White River CREP Practices

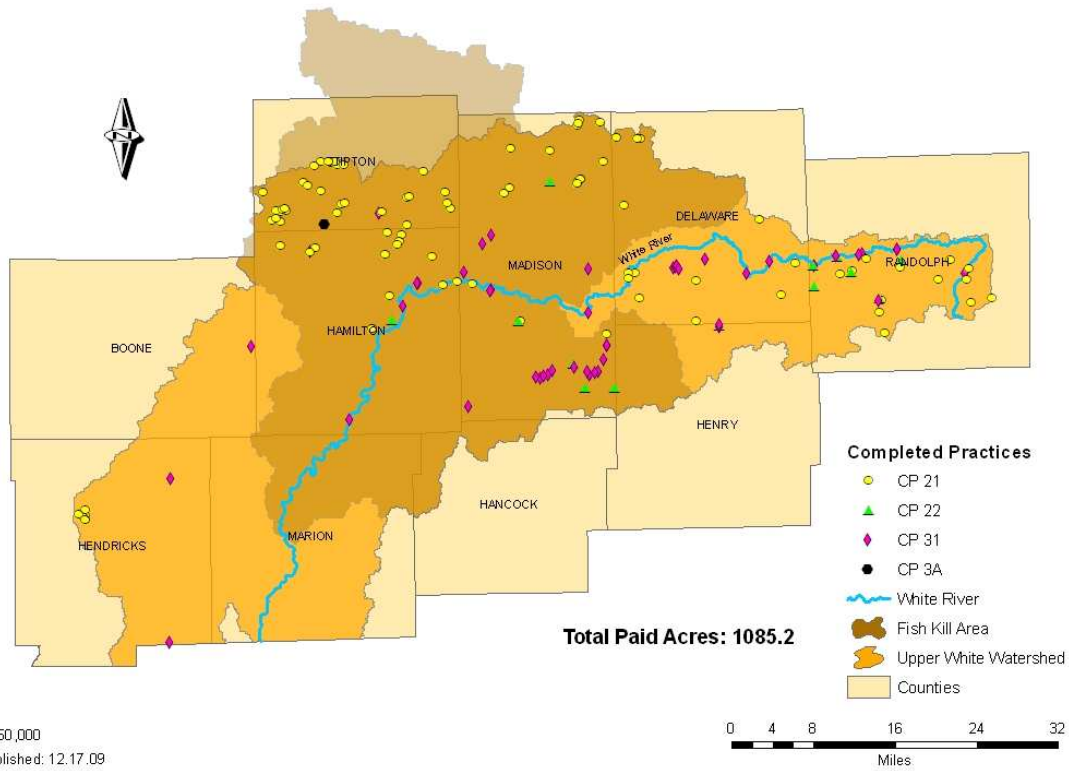
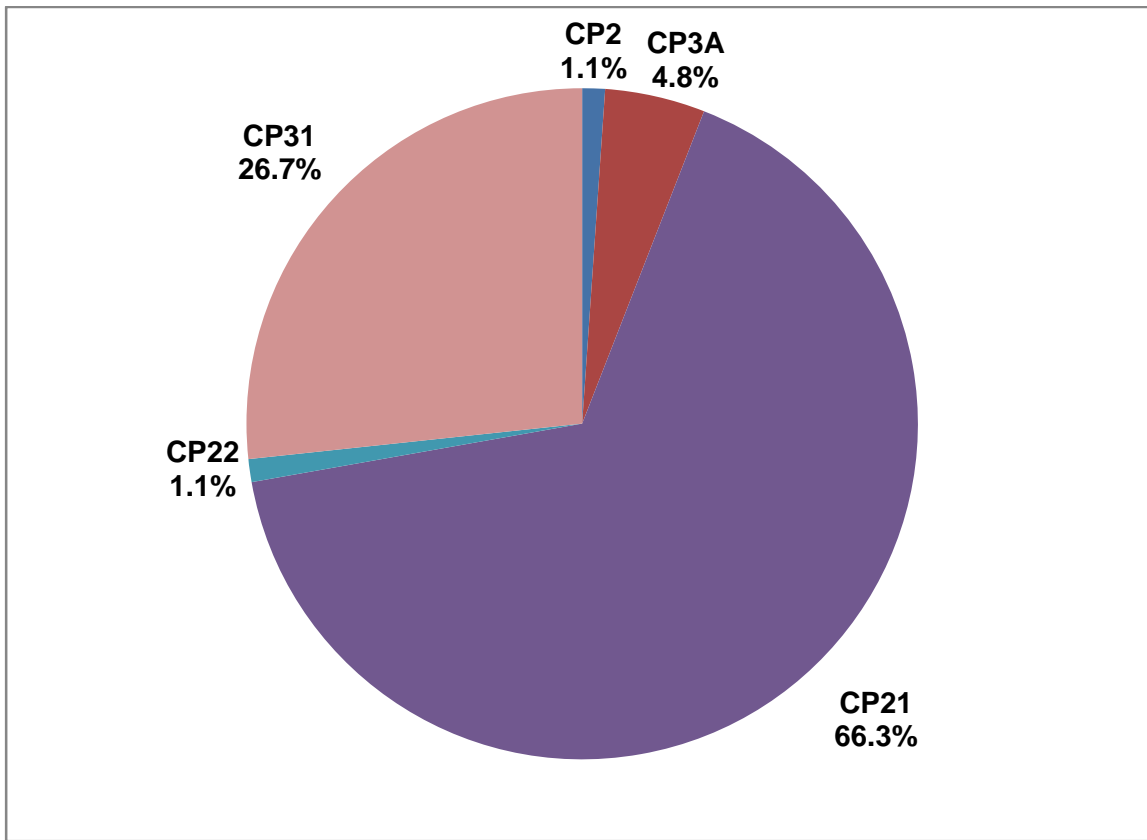


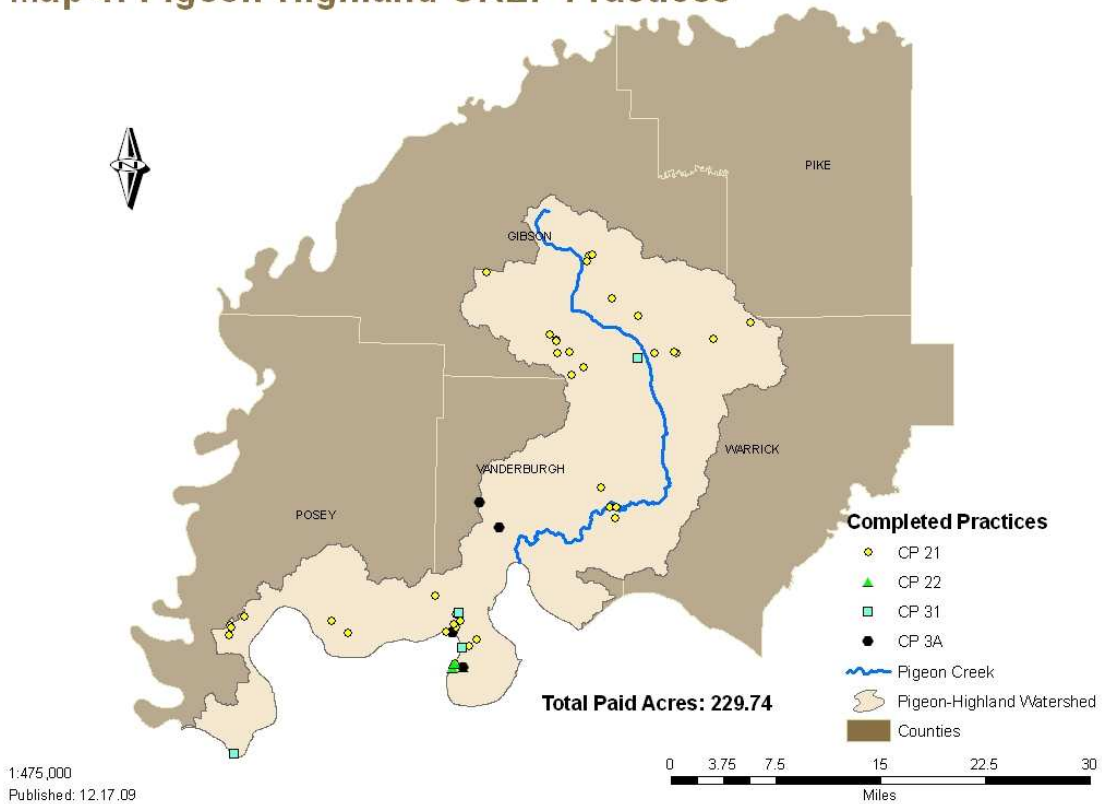
Table 6: Pigeon/Highland River Watershed –Percentage of Completed Acres by Conservation Practice

Conservation Practice	Total Completed 2005-2009 Acres
CP2	1.1%
CP3A	4.8%
CP4D	0.0%
CP21	66.3%
CP22	1.1%
CP23	0.0%
CP23A	0.0%
CP31	26.7%

Chart 4: Pigeon-Highland River Watershed –Percentage of Completed Acres by Conservation Practice



Map 4: Pigeon-Highland CREP Practices



III. Financial Contributions

The Indiana Conservation Reserve Enhancement Program provides incentives to landowners through both state and federal contributions. Through the CREP, eligible Indiana participants who establish one of the prescribed conservation practices shall receive incentive, cost-share and rental payments as outlined below.

Federal Incentives

- **Signing Incentive Payment:** A one-time payment of \$100 per acre for land enrolled in CP21, CP22 or CP 31. This payment may be made after the contract has been signed and is approved for 14-15 year contracts.
- **Practice Incentive Payment:** A one-time payment equal to 40% of the eligible reimbursable cost to establish CP21, CP22 or CP31.
- **Wetland Restoration Practice Incentive Payment:** A one-time incentive payment that is equal to 25% of the eligible reimbursable hydrology restoration costs for CP23 and CP23A.
- **Cost-share Assistance:** Cost-share of up to 50% to install approved conservation practices.
- **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 CREP 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 CREP enrollments.

State Incentives

- **Pay to participants a one-time** Clean Water Incentive Payment (CWIP) to participants of \$400 per acre for land enrolled in CP3A, CP22, CP23, CP23A or CP31.
- **Pay to participants a one-time** CWIP to participants of \$100 per acre for land enrolled in CP2, CP4D or CP21.
- **Make direct, one-time payments** of \$500 for CP3A, CP22 and CP31 acres voluntarily enrolled in permanent easements in a priority area within the Upper White River Watershed.
- **Make direct, one-time payments** of \$500 per acre for CP3A, CP22 and CP31 acres voluntarily enrolled in state permanent easements in a priority area within the Tippecanoe Watershed; or \$250 per acre for CP3A, CP4D, CP22, CP23,

CP23a and CP31 acres voluntarily enrolled in 10-year contract extensions in a priority area within the Tippecanoe Watershed.

Match

The provisions within the Indiana CREP agreement states: “The State of Indiana will contribute at least 20% of the overall costs of implementing the CREP through a combination of annual in-kind services and direct program costs.” For the 2009 Fiscal Year, Indiana’s total contributions equaled 22.17 percent. For the length of the CREP program, Indiana’s contribution is 22.43 percent.

State Cash Match

For 2009, Indiana’s cash match contributed to 10.88 percent of the total cash. For the length of the CREP program, this match is currently 8.31 percent.

Table 7: Indiana’s Cash Match

Cash Match	Total CREP Program	Total 2009
Federal Total	\$14,464,877	\$4,295,166
State Cash	\$832,197	\$270,417
CREP Coordinator (4 yrs)	\$300,000	\$75,000
PEA	\$53,102	\$53,102
TNC Easements	\$126,020	\$126,020
State Total	\$1,311,319	\$524,539
All Total	\$15,776,196	\$4,819,705
State Cash Match	8.31%	10.88%

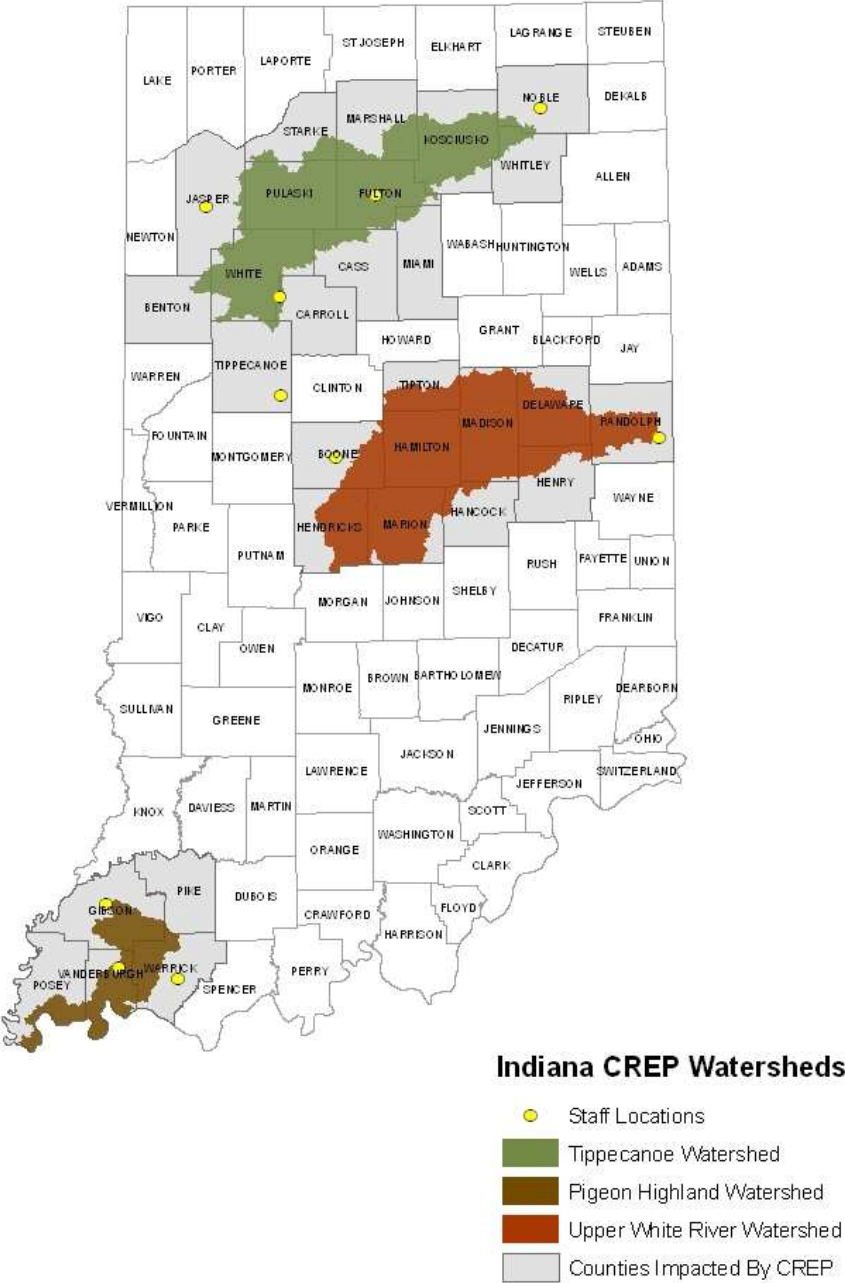
State In-kind Services

The ISDA-DSC implements the state’s portion of the CREP administration. The CREP responsibilities include working directly with interested landowners to develop conservation plans, as well as sign-up, tracking and marketing. Map 5 shows the location of ISDA employees whose major focus is the CREP program, as well as the location of employees who assist with CREP implementation. State partners also contribute to the in-kind responsibilities. In 2009, the in-kind contribution was 11.29 percent. So far, the overall in-kind contribution to CREP is 14.12 percent.

Table 8: Indiana's In-kind Match

In-Kind Match	2009 Total	4 years
5 technical staff	\$375,000	\$1,875,000
1/2 person (admin)	\$37,500	\$150,000
SSCB	\$1,050	\$4,200
Directors	\$22,500	\$90,000
Steering Comm (does not include Federal Partners)	\$5,460	\$5,460
Purdue University Wetland Study	\$25,000	\$25,000
Indiana University Wetland Study	\$38,000	\$38,000
Schneider Wetland Study	\$39,500	\$39,500
Total	\$544,010	\$2,227,160
	11.31%	14.12%

Map 5: CREP Staff Locations



IV. Monitoring and Evaluation

Baseline data was acquired in 2009 to determine nutrient loading rates. ISDA used Indiana Department of Environmental Management (IDEM) fixed station data along with the closest United State Geological Survey (USGS) stream flow gage data. There was no gage in Pigeon-Highland, so ISDA used Hoosier Riverwatch flow data.

Indiana CREP Baseline Data	Phosphorus (P) (tons/yr)	Nitrate + Nitrite (tons/yr)
Tippecanoe	164	5867
Pigeon-Highland	10	48
Upper White	1436	12168

Additionally, The Indiana Water Monitoring Inventory through Purdue University serves as a portal for locating water monitoring information in the state of Indiana. This will be accessed to gain information on any additional monitoring that has occurred within the CREP watersheds. ISDA will continue to monitor this data. Ideally, water quality improvements will be evident after conservation practices are installed; however, many times these improvements do not appear in the water quality records for several years after installation.

IV. The Future of CREP in Indiana

In 2008 the USGS Gulf of Mexico/Hypoxia reports were published. These reports used SPARROW modeling to show where the highest N and P loss were occurring in the Mississippi River Basin. Because Indiana is one of nine states that contribute the majority of nutrients to the Gulf of Mexico, ISDA expedited its investigation of methods to reduce nutrient loading. Indiana examined Iowa's CREP program and the wetlands they are using to reduce nitrates into the waterways. ISDA commissioned a study to determine the best location for wetland placement on the landscape to achieve the most nitrogen removal. Secondary to nitrate removal was flood storage. ISDA will continue to work with its partners to utilize these tools for wetland and other conservation practice development.

ISDA is currently investigating ways to better understand the impact that conservation measures have on the environment. In addition to gathering water quality data, ISDA is exploring various models to estimate nutrient load reductions. Ideally, these reductions will be used to help the public understand the importance of conservation in Indiana; that individuals can have a true impact on improving water quality. It is the hope of ISDA that by this time next year, a model will be in place and results will be included in this report.

Working with FSA, ISDA is expecting CREP in Indiana to be expanded in the fiscal year 2010. In July of 2009, a Programmatic Environmental Assessment (PEA) was completed. The PEA went on a 30 day public notice shortly after. With no public concerns, it is expected that the CREP expansion will be approved. This will increase the number of watersheds eligible for CREP from three to a total of eleven (an addition of eight watersheds) and eligible counties will increase from 29 to a total of 65. Other changes include:

- Protect a minimum of 3,000 linear miles of watercourses
- Reduce the amount of sediment, nutrients, and agricultural chemicals entering watercourse with the targeted watersheds by eight percent
- Enrollment of 26,250 acres of eligible cropland including frequently flooded agricultural lands and restorable wetlands
- Increase the state incentive to \$950 per acre for CP 23 and CP 23A

With the CREP expansion, water quality monitoring and modeling, ISDA hopes to show valid and significant environmental impacts in future reports.