Appendix 5. Draft Text Produced for 2020 Report to Congress

USDA Farm Service Agency

Conservation Reserve Enhancement Program

Fiscal Year 2020

Report to the United States Congress

EXECUTIVE SUMMARY

The Conservation Reserve Enhancement Program (CREP) is a part of the Conservation Reserve Program under which the U.S. Department of Agriculture (USDA), through the Farm Service Agency (FSA), enters into an agreement with an eligible non-Federal partner (partner) to cost-effectively address specific resource concerns by combining and targeting the resources of USDA and the partner. Through such agreements, financial, educational, and technical assistance are provided to producers to voluntarily implement certain conservation measures on land in lieu of continued agricultural production. The agreement identifies the specific geographic area and conservation concerns to be addressed, and the commitments of both USDA and the partner. The partner for each agreement is required to submit an annual report regarding the status of the project.

This report to Congress is provided in accordance with Section 1231A of the Food Security Act of 1985, as amended, which requires the Secretary of Agriculture to submit a report to Congress annually that describes, with respect to each agreement the: 1) status of the agreement; 2) purpose and objectives of the agreement; 3) Federal and partner commitments made under the agreement; and 4) the progress made in fulfilling those commitments.

In Fiscal Year (FY) 2020, there were 32 separate agreements with 25 State governments through which nearly 728,000 acres were enrolled. Ohio and Pennsylvania had the highest total enrollment of any states; combined, these two states accounted for over 30 percent of U.S. CREP enrollment. Enrollment of new acreage in FY 2020 was largest in Nebraska, Minnesota, and Oregon. Federal contributions in FY 2020 total to over $197 million and partner contributions were nearly $68 million.

FY 2020 STATUS OF AGREEMENTS

In FY 2020, there were 32 separate agreements with 25 State government partners through which eligible acreage was enrolled. There were two agreements under which no acres were enrolled in FY 2020 at the request of the partner (State of Illinois and State of Michigan) due to a lack of State funds to meet the commitments of the agreement. There was one agreement (State of Montana) under which no acres were enrolled while the operating procedure for FSA county offices to implement the agreement was being developed by all parties of the agreement.

State	Agreement Name	New Acres Enrolled In FY2020	Acres Reenrolled In FY2020	Acres Currently Enrolled
Colorado	Colorado I-Republican River	1,643	0	25,612
Colorado	Colorado III-Rio Grande	482	0	9,079
Delaware	Delaware	0	175	3,177
Idaho	Idaho-Eastern Snake River Plain	0	0	18,412
Indiana	Indiana	994	406	19,807
Iowa	Iowa	30	0	3,662
Kansas	Kansas-Upper Arkansas River	0	0	23,146
Louisiana	Louisiana I-Lower Ouachita River	0	0	47,802
Maryland	Maryland	285	1,715	45,195
Minnesota	Minnesota Water Quality	3,692	0	20,597
Mississippi	Mississippi Delta	830	0	4,024
Montana	Missouri/Madison River	8	622	11,925
Nebraska	Nebraska II-Platte Repub. Res. Area	4,797	18,677	44,949
New Jersey	New Jersey	12	90	748
New York	New York I-New York City	0	18	1,672
New York	New York II-Syracuse	0	0	55
New York	New York III-Statewide	98	298	9,740
North Carolina	North Carolina	157	0	6,272
North Dakota	North Dakota	0	0	128
Ohio	Ohio I-Lake Erie	656	1,224	51,945
Ohio	Ohio III-Scioto River Basin	43	20,439	67,683
Oregon	Oregon	3,540	2,428	47,583
Pennsylvania	Pennsylvania I-Chesapeake Bay	1,049	3,724	92,016
Pennsylvania	Pennsylvania II-Ohio River Basin	138	1,010	17,472
Pennsylvania	Pennsylvania III - Delaware River	3	0	73
South Dakota	South Dakota-James River	170	15,215	79,361
Vermont	Vermont	50	18	2,240
Virginia	Virginia I-Southern Rivers	94	234	7,457
Virginia	Virginia II-Chesapeake Bay	41	205	11,016

Washington	Washington	152	478	13,630
West Virginia	West Virginia	46	204	5,555
Wisconsin	Wisconsin	1,758	1,027	35,941
TOTAL		20,768	68,206	727,973

FY 2020 FEDERAL AND ELIGIBLE PARTNER COMMITMENTS

The USDA issued a total of $197,324,017 in FY 2020 for all active agreements. Partner contributions totaled $66,285,168. Federal and partner contributions by agreement are provided below.

State	Agreement Name	FY2020 Cash and In-Kind Commitments			
		Federal Cash	Partner Cash	Partner In-Kind[a]	Total Partner
Colorado	Colorado I-Republican River	$6,362,226	$194,126	$146,000	$340,126
Colorado	Colorado III-Rio Grande	$1,733,887	$1,959,172	$1,142,998	$3,102,170
Delaware	Delaware	$492,142	$146,689	$76,519	$223,208
Idaho	Idaho-Eastern Snake River Plain	$2,114,690	$0	$8,876,822	$8,876,822
Indiana	Indiana	$5,577,525	$1,417,736	$212,661	$1,630,398
Iowa	Iowa	$1,426,709	$885,237	$0	$885,237
Kansas	Kansas-Upper Arkansas River	$3,036,922	$501,109	$335,631	$836,740
Louisiana	Louisiana I-Lower Ouachita River	$55,899,951	$0	$0	$0
Maryland	Maryland	$10,539,497	$2,030,576	$398,960	$2,429,536
Minnesota	Minnesota Water Quality	$8,418,796	$22,741,527	$5,112,976	$27,854,503
Mississippi	Mississippi Delta	$567,308	$82,706	$26,327	$109,033
Montana	Missouri/Madison River	$767,016	$0	$1,060,000	$1,060,000
Nebraska	Nebraska II-Platte Republican Res. Area	$6,238,631	$3,493,928	$1,349,582	$4,843,509
New Jersey	New Jersey	$461,031	$114,963	$75,946	$190,909
New York	New York I-New York City	$407,075	$206,645	$351,914	$558,559

New York	New York II-Syracuse	$6,636	$420	$420	$840
New York	New York III-Statewide	$1,341,376	$1,965,737	$0	$1,965,737
North Carolina	North Carolina	$614,402	$110,625	$814,901	$925,526
North Dakota	North Dakota	$88,846	$136,132	$14,324	$150,456
Ohio	Ohio I-Lake Erie	$13,182,121	$42,948	$76,530	$119,478
Ohio	Ohio III-Scioto River Basin	$13,575,288	$0	$1,356,740	$1,356,740
Oregon	Oregon	$5,092,237	$607,076	$511,991	$1,119,067
Pennsylvania	Pennsylvania I-Chesapeake Bay	$12,334,208	$189,674	$184,779	$374,453
Pennsylvania	Pennsylvania II-Ohio River Basin	$1,756,466	$0	$1,580	$1,580
Pennsylvania	Pennsylvania III - Delaware River	$12,086	$0	$0	$0
South Dakota	South Dakota-James River	$8,386,666	$2,920,043	$16,425	$2,936,467
Vermont	Vermont	$290,002	$0	$140,373	$140,373
Virginia	Virginia I-Southern Rivers	$1,008,672	$222,297	$18,012	$240,309
Virginia	Virginia II-Chesapeake Bay	$1,111,132	$56,657	$0	$56,657
Washington	Washington	$3,640,874	$2,274,771	$0	$2,274,771
West Virginia	West Virginia	$601,976	$19,418	$64,982	$84,401
Wisconsin	Wisconsin	$30,237,623	$1,135,606	$461,957	$1,597,563
TOTAL		$197,324,017	$43,455,818	$22,829,350	$66,285,168

* Partner in-kind activities may include outreach and promotion, monitoring, program administration, and related activities.

AGREEMENT PURPOSE

Agreement Name	Agreement Purpose (Actual Agreement Text)	Agreement Purpose (Provided by Partner)
Colorado I-Republican River	Reduce the amount of irrigation water consumptive use, conserve energy, and reduce agricultural chemicals and sediment from entering waters of the State from agricultural lands. Enhance aquatic and terrestrial wildlife habitat through establishment of permanent vegetative cover.	The Colorado Republican River Conservation Reserve Enhancement Program (CREP) is a federal-state program that was created by a Memorandum of Agreement (MOA) between the United States Department of Agriculture (USDA), the Commodity Credit Corporation (CCC), and the State of Colorado, Department of Natural Resources, Division of Water Resources (CDWR) on April 21, 2006. The primary objective is to reduce water consumption through retiring cropland acres and the irrigation water associated with the retired acres. Additional goals for this CREP are to create wildlife habitat on retired acres, reduce soil erosion, reduce on farm related pesticide use, and reduce energy consumption.
Colorado III-Rio Grande	Improve water quantity and quality, enhance habitat for wildlife populations, reduce irrigation water consumptive use, and reduce agricultural chemical and sediment runoff within the Rio Grande Basin in Colorado.	The Colorado Rio Grande River CREP was created by an MOA between USDA, CCC, and the State of Colorado on December 6, 2012. Subdistrict #1 of the Rio Grande Water Conservation District partnered with the state of Colorado to provide non-federal cash and in-kind contributions toward the implementation of this CREP. The primary resource concern for this CREP is water quantity.
Delaware	Enhance water quality through reduction of agricultural nutrients to further the goal of restoring designated uses of the State's waterbodies and to enhance wildlife habitats.	The Governor of Delaware and the USDA signed the initial Delaware CREP agreement on June 2, 1999. The primary goals of the program were to improve water quality and enhance wildlife habitat. This program targeted Delaware's coastal plain geographic areas that drain into the Chesapeake Bay, Delaware Bay, or the Inland Bays

		watersheds. Designed as a results-oriented program, CREP addresses water quality and loss of critical habitat for wildlife species of concern. The Delaware CREP had an initial goal of removing environmentally sensitive or marginal agricultural land from production and enrolling the acreage (up to 6,000 acres) in eligible conservation-oriented practices. Eligible practices in Delaware included the following: CP3A – Hardwood Tree Planting; CP4D – Permanent Wildlife Habitat; CP21 – Grass Filter Strips; CP – 22 Riparian Buffers; CP23 – Wetlands restoration Flood plain. In 2006, Delaware's CREP program was expanded and enhanced to increase enrollment from 6,000 to 10,000 acres and expanded the list of eligible practices to include CP9 – Shallow Water Areas for Wildlife and CP23A – Wetlands Restoration, Non-Floodplain. Additional revisions to the agreement occurred in 2007 and 2016. The 2016 revision offered additional incentives for landowners implementing the riparian forest buffer practice (CP22) within the Chesapeake Bay watershed.
Idaho-Eastern Snake River Plain	Improvement of water quantity and quality, enhancement of wildlife habitat through establishment of vegetative cover, reduce irrigation water consumptive use, and reduce agricultural chemical and sediment runoff to the waters of the State.	The Idaho CREP agreement between the State of Idaho, USDA, and CCC was signed in May 2006 for the improvement of groundwater quantity and quality in Idaho. The primary conservation issue addressed in the agreement is the reduction of irrigation groundwater consumptive use. Additional conservation benefits include reductions of potential agricultural chemicals, nutrients, and sediments to the waters of the State with concurrent enhancement of wildlife habitat through establishment of vegetative cover. The main objective is to retire irrigated cropland, thereby reducing ground water consumptive use. This program complements other water saving efforts to stabilize and replenish ground water levels in the Eastern Snake Plain Aquifer (ESPA).

Indiana	Improve water quality and address wildlife issues by reducing erosion, sedimentation and nutrients, and enhancing wildlife habitats.	This CREP was first announced in 2005, covering three watersheds in Indiana and had an enrollment goal of 7,000 acres. The program was expanded in 2010 to include eleven priority watersheds touching 65 counties with an acreage enrollment goal of 26,250 acres. The Indiana 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.
Iowa	Improve water quality by reducing nitrate loads to surface waters, enhance wildlife habitat, and increase recreational opportunities.	Improve water quality by reducing nitrate loads to surface waters, enhance wildlife habitat, and increase recreational opportunities.
Kansas-Upper Arkansas River (UAR)	To reduce agricultural chemicals and sediment form entering waters of the State from agricultural lands that contribute to poor water quality in rivers and alluvial and high plains aquifers	The UAR CREP agreement was initially approved on December 4, 2007. Its general purpose is to reduce long-term groundwater use through voluntary, incentive-based water conservation opportunities in the affected watershed. The UAR CREP allows producers to enroll eligible irrigated acres in targeted areas for 14– to 15-year contracts with FSA, permanently retire the associated state water rights on the enrolled acres, and establish an approved land cover (typically a native grass) on the same acreage. The producer receives an annual rental payment and additional cost share opportunities for specific conservation practices from FSA, plus an upfront incentive payment from the State of Kansas.

Louisiana I-Lower Ouachita River	Help reduce the delivery of agricultural nonpoint source pollution by installing buffers and bottomland hardwoods, and restoring wetlands to improve water quality and improve both subsurface and surface water quality.	The Louisiana Lower Ouachita River Basin "Macon Ridge" CREP agreement was signed by FSA and the State of Louisiana on April 22, 2005. Two Louisiana Parishes are located within the LA CREP I project area, Richland and West Carroll, with portions of acreage in seven additional Louisiana Parishes, also located within the project area. These Parishes are Caldwell, Catahoula, East Carroll, Franklin, Madison, Morehouse, and Ouachita. Two watersheds make up the LA CREP I, located in the Northeastern portion of the State of Louisiana. These are the Bouef River and Bayou Macon Watersheds, both located within the Lower Ouachita River Basin. The area includes 1,663,881 acres.
Maryland	Help reduce the occurrence of runoff, sediment, and nutrient accumulation in the Chesapeake Bay and promote enhanced wildlife habitats.	The original agreement between USDA, CCC, and the State of Maryland that authorized the Maryland CREP was approved in October 1997. The goal is to conserve 100,000 acres of buffers, wetlands, and highly erodible lands. Since its inception, CREP has been the primary financial engine for establishing these conservation practices that are critical to the restoration of the Chesapeake Bay as highlighted in the Chesapeake Bay 2014 Agreement (the instrument whereby the governors of all of the Chesapeake Bay watershed states and the Mayor of the District of Columbia agreed to concrete steps and benchmarks for the reversal in the decline of North America's largest estuary). These practices also play an important role in achieving nutrient reduction goals established in the state's Watershed Implementation Plan (WIP) to address the U.S. Environmental Protection Agency's (EPA) Total Maximum Daily Loads (TMDL) for the Chesapeake Bay. In accordance with the acceleration of Bay improvement goals, a performance evaluation system based on maximizing nutrient reduction and adhering to cost-effectiveness criteria, Maryland

		proposed a modification of its CREP at the end of FY 2007. The amended program was approved April 24, 2009 and became effective May 14, 2009. The program streamlines incentives and makes them easier to understand by keeping them uniform for the entire buffer width.
Minnesota Water Quality	Help improve water quality in the project area by establishing and maintaining buffers of permanent vegetation between eligible waterbodies and adjacent agricultural cropland, restoring and maintaining wetlands, establishing permanent vegetative cover in wellhead protection areas, and to establish beneficial habitat for terrestrial and aquatic wildlife habitat.	The Minnesota CREP was initially approved on January 18, 2017. Its purpose is to address water quality issues by the reduction of sediment, nutrients and other pollutants entering rivers and streams, and to promote the enhancement of terrestrial and aquatic wildlife habitat in the project area.
Mississippi Delta	Assist in the maintenance and/or improvement of current water quality conditions through the reduction of agricultural sources of sediment, nutrients, and waterborne pathogens in the targeted watershed.	The Mississippi CREP is a voluntary land retirement program helping agricultural producers protect environmentally sensitive land, decrease erosion, restore wildlife habitat and safeguard ground and surface water. The Nature Conservancy, in partnership with USDA, the U.S. Fish and Wildlife Service (USFWS), the Mississippi Soil and Water Conservation Commission (MSSWCC), and Delta Wildlife established the CREP to restore forested wetlands in the Mississippi Delta. CREP is an innovative program utilizing private support to leverage Federal funding for reforestation of bottomland hardwood trees in the Mississippi Delta. The CREP program offers 3 conservation practices: CP-22, establishment of riparian buffers; CP-23, restoration of wetlands; and CP-31, establishment of bottomland hardwood timber on wetlands. Farmers who implement these conservation practices receive incentive in the form of an additional

		financial supplement that offsets the cost of removing land from agricultural production. The CREP program encompasses 11 eligible counties within the Mississippi Delta: Washington, Sharkey, Issaquena, Bolivar, Humphreys, Holmes, Yazoo, Coahoma, Sunflower, Leflore, and Tallahatchie.
Montana-Missouri/Madison River	Improve water quality and enhance fish and wildlife habitat along the Missouri and Madison Rivers.	The Montana-Missouri/Madison CREP was authorized by the Secretary of Agriculture on September 10, 2002, for continuous enrollment of up to 26,000 acres in CRP which includes up to 11,000 acres of riparian buffers, 14,000 acres of permanent, native wildlife habitat, and 1,000 acres of wetland restoration. The purpose of the CREP Agreement is to improve water quality and enhance fish and wildlife habitat along the Missouri and Madison Rivers.
Nebraska II-Platte Republican Resource Area	Improvement of water quantity and quality, and the enhancement of wildlife habitat, through establishment of vegetative cover to reduce irrigation water consumptive use and agricultural chemical and sediment runoff into waters of Nebraska.	The original agreement between USDA, CCC, and the State of Nebraska initiated the Nebraska Platte-Republican Resources Area CREP for the improvement of water quantity and quality, and the enhancement of wildlife habitat in designated areas of the Platte and Republican River basins. The MOA was signed by USDA and the State of Nebraska on March 19, 2005. Several amendments were made to that MOA in June of 2016, which allow for reenrollment of existing contracts. The CREP's overall goals are to significantly reduce the amount of irrigation water consumptive use and agricultural chemicals and sediment entering waters of the State from agricultural lands and transportation corridors. The reduction of ground and surface water use for irrigation and reduction of non-point source contaminants, through establishment of permanent vegetative cover, will also enhance associated wildlife habitat, both terrestrial and aquatic. These goals are to be accomplished by terminating all irrigation practices on a maximum of 100,000 acres of land located in the

		State Conservation Priority Area for Water Quality. This Priority Area includes land adjacent to the Republican River, the Platte River, and their tributaries. From April 4, 2005, until September 30, 2020, there were 829 applications for new participation filed, with a high percentage of original offers received in 2005. From October 1, 2019, until September 30, 2020, there were 39 new applications and 197 reenrollment applications filed. The 197 reenrollments were out of a possible 270 which were set to expire after midnight on September 30, 2020. This is the highest percentage of reenrollments since reenrollments were authorized in 2016.
New Jersey	Improve water quality, reduce impairment from agricultural non-point sources and restore ecological functions of New Jersey streams.	The New Jersey CREP agreement was initially approved on February 3, 2004. The general purpose is to improve water quality, reduce impairment from agricultural non-point sources and restore ecological functions of New Jersey streams.
New York I-New York City	Enhancement of water quality by reduction of agricultural sources of sediment, nutrients, and waterborne pathogens and the enhancement of wildlife habitats.	The Agreement between USDA, CCC, the City of New York, and the State of New York was initially approved in August 1998. Its general purpose is to enhance water quality by the reduction of agricultural sources of sediments, nutrients, and waterborne pathogens, and to enhance wildlife habitats in the Catskill and Delaware watersheds of the New York City drinking water supply system (New York City Watershed).
New York II-Syracuse	Assist in the maintenance of current water quality conditions through the reduction of agricultural sources of sediment, nutrients, and waterborne pathogens.	The purpose of this agreement is to allow, where deemed desirable by USDA, CCC, the City, and the State, certain acreage in the Skaneateles Lake watershed to be enrolled under the CREP.

New York III-Statewide	Maintenance or improvement of current water quality conditions through the reduction of agricultural sources of sediment, nutrients, and waterborne pathogens.	The objective of this CREP, originally entered into in 2003, is to assist in the maintenance or improvement of current water quality conditions through the reduction of agricultural sources of sediment, nutrients, and waterborne pathogens in parts of the following twelve major watershed areas: Allegany River, Black River/St. Lawrence, Chesapeake Bay/Susquehanna River, Delaware River, Genesee - Oswego - Seneca - Oneida River, Lake Champlain Watershed, Lake Erie - Niagara River, Lake Ontario Direct Drainage, Long Island Sound - Peconic Bay, Lower Hudson River Basin, Mohawk River, and the Upper Hudson River Watersheds.
North Carolina	Enhancement of water quality by the reduction of sediment and nutrients, and the enhancement of fisheries and wildlife habitats for State and federally listed threatened and endangered species.	On March 1, 1999 the initial MOA established the North Carolina CREP. The goal of the program was to enroll 100,000 acres of environmentally sensitive land within the Chowan, Neuse, and Tar-Pamlico river basins, as well as the Jordan Lake watershed area. Through local interest and demonstration of environmental need, North Carolina requested expansion of the program to cover 75 percent of the state. On May 1, 2008, the Lumber, White Oak, Yadkin-PeeDee, Roanoke, Cape Fear, and Pasquotank river basins became eligible to participate in CREP. CREP enrollment is available in 76 of the 100 counties within North Carolina.
North Dakota	Address water quality issues by the reduction of sediment, nutrients and other pollutants entering rivers and streams within the project area, and the enhancement of habitat and forage for honeybees and other wildlife.	This CREP began in 2017 and is designed to help improve water quality by establishing and maintaining buffers of permanent vegetation between the waterbody and adjacent agricultural cropland, and to provide benefits to pollinators, including honey bees and other wildlife by establishing beneficial habitat and forage.

Ohio I-Lake Erie	Significantly reduce the amount of sediment and nutrients entering the targeted watersheds from agricultural sources	USDA approved the Ohio Lake Erie CREP for producer sign-up on May 1, 2000. The efforts of the State of Ohio through the Ohio Department of Agriculture and local partners help make CREP a success by working together with USDA at the state and local level. The goal of this CREP is to improve water quality in Lake Erie and its tributaries.
Ohio III-Scioto River Basin	Improve water quality, reduce agricultural nonpoint source pollution to surface waters, and reduce soil erosion.	USDA approved the Ohio Scioto River Watershed CREP for producer sign-up on October 18, 2004. Its purpose is to improve water quality by reducing soil erosion and other pollutants and improve biodiversity and wildlife habitat along tributaries within the Scioto River Watershed.
Oregon	Assist in the recovery of fish species which have been listed as threatened or endangered species under the Federal Endangered Species Act.	Oregon's Riparian Enhancement Initiative was approved on December 9, 2004. This CREP restores, enhances, and maintains streamside acres along agricultural lands to benefit fish, wildlife, and water quality. Landowners receive annual rental payments and financial incentives to implement approved conservation measures, such as planting trees and shrubs in riparian areas, installing fencing, and developing livestock watering facilities.
Pennsylvania I-Chesapeake Bay Watershed	Reducing nutrient and sediment loading of the Upper and Lower Susquehanna and Potomac River Basins, improving water quality, enhancing wildlife, and producing nutrient reductions.	Pennsylvania's Chesapeake Bay CREP was approved in 2000 and included the Susquehanna and Potomac River basins. It was amended in 2004 to include the Upper Susquehanna River basin and also revised in 2012 and amended in 2016. Its general purpose is to reduce nutrient and sediment loading in sections of the Susquehanna and Potomac River basins, improve water quality, enhance wildlife habitat, and produce nutrient reductions established under the Chesapeake Bay Agreement.

Pennsylvania II-Ohio River Basin	Reducing nutrient and sediment loading of the Ohio, Monongahela, and Allegany Rivers and the smaller streams and tributaries in the same watersheds.	The Pennsylvania Ohio River Basin CREP was approved in 2004, revised in 2012, and amended in 2016. Its general purpose is to reduce nutrient and sediment loading of the Ohio, Monongahela, and Allegheny Rivers and the smaller streams and tributaries in these same watersheds. It will also improve western Pennsylvania's surface-water quality, groundwater quality, and wildlife habitat, as well as make significant steps toward reducing nutrient loading of the Gulf of Mexico to decrease the Gulf's seasonal hypoxia zone.
Pennsylvania III- Delaware River Basin	Reducing nutrient and sediment loading of the Delaware River and the smaller streams and tributaries in the same watersheds.	The Pennsylvania Delaware River Basin CREP was initially approved in 2016. Its general purpose is to reduce nutrient and sediment loading of the Delaware River and the smaller streams and tributaries in these same watersheds. It will also improve eastern Pennsylvania surface water quality, groundwater quality, and wildlife habitat, and make significant steps toward reducing nutrient loading of the Delaware Bay.
South Dakota-James River	Improvement of water quality, reduction in soil erosion, flood control, enhancement of water wildlife habitat, and creation of public hunting and fishing access.	The South Dakota James River Watershed CREP was initially approved on October 23, 2009. Its general purpose is to improve water quality, reduce soil erosion and flooding, enhance wildlife habitat, and create public hunting and fishing access in the James River watershed.
Vermont	Achieve non-point source pollutant reduction, enhance fish and wildlife habitat and to attain conservation goals established by the State.	The Vermont CREP seeks to achieve non-point source pollution reduction, enhance fish and wildlife habitat and attain conservation goals established by the State within the Lake Champlain Basin, the Lake Memphremagog Basin, the Connecticut River Basin and the Hudson River Basin.

Virginia I-Southern Rivers	Enhancement of water quality by reduction of sediment and nutrients within the Southern Rivers Basin and the enhancement of fish and wildlife habitats for State and federally listed threatened and endangered species.	In 1998 and 1999, Virginia negotiated with USDA to establish a CREP focused on restoring riparian buffers and wetlands in Virginia's Southern Rivers basin. The agreement was signed in April of 2000 and program enrollment began on June 5, 2000. In December of 2004, with the 10,000-acre Southern River enrollment goal in sight, the seventh addendum to the Southern Rivers CREP was signed authorizing an additional 5,000 acres of CREP enrollment. Over time, the geographic area of eligibility has increased to include almost all lands in Virginia that are outside the Chesapeake Bay watershed (which has its own CREP agreement).
Virginia II-Chesapeake Bay	Significantly reduce the amount of nutrients entering estuaries from agricultural sources to assist Virginia in achieving its nutrient reduction goals for agriculture in the area, the significantly reduce the amount of sediment entering water courses, and the enhance habitat for the preservation of natural diversity of biological resources.	In 1998 and 1999, Virginia negotiated with USDA to establish a CREP focused on restoring riparian buffers and wetlands in Virginia's Chesapeake Bay basin. An agreement was signed in April of 2000 and program enrollment began June 5, 2000. Enrollment goals include 22,000 buffer acres, 3,000 wetland acres and 6,000 easement acres in order to achieve 33,188 T/yr of sediment reductions, 516,873 lbs/yr of nitrogen, and 66,953 lbs/yr of phosphorus.
Washington	Assist in the recovery of salmon species that have been listed as threatened or endangered species under the federal Endangered Species Act.	A number of salmonid species native to Washington have been either listed or proposed for listing as threatened or endangered species under the Endangered Species Act. Agricultural activities in riparian corridors, along with agriculture-related impacts on water quality, have contributed to habitat loss of these cold-water fish species in Washington. This Agreement for this Washington CREP is designed to help alleviate some of these problems.
West Virginia	Certain purposes within the Kanawha River, Little Kanawha River,	West Virginia entered into an agreement with USDA and CCC on April 19, 2002, to execute this CREP. It includes areas of the

	Monongahela River, Cheat River, Potomac River, and Ohio River watersheds of West Virginia.	Greenbrier and New River, Potomac River, and the Little Kanawha River, as well as all the drainage areas of West Virginia except for the Chesapeake Bay area (James river drainage) of Monroe County. The goals are to reduce runoff, sediment, and nutrients from agricultural enterprises, and to promote improved water quality and enhanced wildlife habitats.
Wisconsin	Improve the water quality of several waterbodies that drain agricultural lands throughout the State of Wisconsin, through a reduction of sediment and the nutrient loading to these waterbodies.	Wisconsin's CREP agreement was signed by USDA on October 26, 2001 and continues to allow new enrollments and reenrollments. The agreement has been amended four times since inception with the most recent amendment approved on September 2, 2016. CREP was available in FY 2020 in all, or part of, 53 Wisconsin counties. Wisconsin's CREP is a cooperative effort with USDA's FSA and NRCS; the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP); Wisconsin counties through county land conservation committees (LCCs); and private landowners. The purpose of the program is to improve the water quality of streams, rivers, lakes and wetlands throughout Wisconsin, through a reduction of sediment and nutrient loading from agricultural lands to these water bodies. Reducing agricultural runoff through the installation of CREP conservation practices assists in improving the water quality of the state's impaired waters (303d list). This is achieved through establishment of filter strips, riparian buffers, grassed waterways, wetland restorations and grassland habitat on existing agricultural land adjacent to eligible water sources.

AGREEMENT OBJECTIVES AND PROGRESS

(As Reported by Partner)

Agreement Name	Objective Type	Objective	Progress and Methods Used
Colorado I-Republican River	Water Quantity	Reduce irrigation water use for agricultural purposes from the Ogallala Aquifer by 6.5 percent.	Average irrigation consumption in the Republican River CREP is approximately 1.5 acre-feet of irrigation water per acre of land irrigated. Water reduction is calculated by multiplying the irrigated acres retired through CREP times 1.5 resulting in an estimated acre foot of reduction per year. Irrigation use has been reduced by 5.4 percent to date.
	Water Quantity	Reduce irrigation water use by 49,800 to 69,200 acre-feet a year though purchases of landowner's permanent water rights and/or cancellation of the well permit.	Measuring devices have been required on all wells within the District since 2009. Actual well performance is measured annually, and that data is used to measure progress. Irrigation water use has been reduced by 35,333 acre-feet or 70 percent of the goal.
	Soil Erosion	Reduce soil erosion from 751,633 tons to 259,395 tons per year, a total reduction of 492,238 tons per year.	NRCS data provides average soil erosion for soil types within the CREP area for irrigated cropland and native vegetation. Erosion reduction is calculated by multiplying the difference by the total number of irrigated acres enrolled by the difference in soil erosion for irrigated cropland vs native vegetation. The goal is approximately 45 percent achieved.
	Water Quality	Reduce annual fertilizer and pesticide application by a minimum of 3,865 tons per year from 2004 levels	NRCS and Colorado State University provided an annual application rate for fertilizers and pesticides for acres under irrigation within the CREP area. The calculation reduces that number to zero for each acre enrolled in CREP. The goal is approximately 45 percent achieved.
	Habitat	Restore and enhance a minimum of 30 miles of riparian habitat	This goal was included in anticipation of riparian buffers and wetland practice enrollment. However, none of these

		and 500 acres of degraded wetlands.	practices have been enrolled to date and no progress has been made toward this specific goal.
	Habitat	Help ensure adequate streamflow to accommodate the life requirements of targeted fish species, including stonecat, suckermouth minnow, brassy minnow, and plains minnow.	No riparian or wetland practices have been installed through this CREP; therefore, no progress toward this goal can be attributed to the Republican River CREP.
	Water Quality	Reduce the number of ground water wells in the project area containing nitrogen levels above EPA standards by approximately ten percent from 2004 levels.	This data was to be collected from the Water Quality Division; however, specific well information is no longer available and cannot be quantified. This goal is currently not measurable.
	Reduced Energy Use	Reduce the total annual use of electricity by 2.76 million kilowatt hours(KW-hrs) through reductions in groundwater pumping.	Each center pivot is operated by electricity and monitored by several power companies within the region. The electricity is quantified by acre and the total number of kW-hrs is calculated by multiplying the number of acres retired through CREP by the electricity it takes to irrigate the enrolled acres. The goal is approximately 40 percent achieved.
Colorado III-Rio Grande	Soil Health	Reduce soil erosion from 681,252 tons to approximately 149,487 tons per year on all acres enrolled in CREP, a total reduction of approximately 531,765 tons.	Soil erosion is determined by soil type and is quantified by NRCS for irrigated agriculture and permanent cover. Progress is measured by calculating the difference and multiplying it by the number of acres enrolled. Approximately 20 percent of this goal has been achieved to date or 106,000 tons reduced.
	Habitat	Establish up to 40,000 acres of habitat for numerous wildlife	Less than 25 percent of the 40,000 acres have been enrolled to date and due to the arid environment and complex

		species, including several aquatic and wetland dependent species that are declining due to habitat loss and degradation.	aquifers, habitat goals will not be realized for many years. Specific measurements immediately following enrollment will not demonstrate long-term benefits.
	Water Quality	Reduce annual fertilizer and pesticide application from enrolled acres by approximately 3,650 tons per year from 2007 levels.	Progress is measured by using a baseline of fertilizer and pesticide application per acre and multiplying by the total number of acres enrolled. Approximately 25 percent of this goal has been met to date for a reduction of approximately 900 tons per year.
	Habitat	Establish up to 40,000 acres of native vegetation throughout the project area.	Approximately 25 percent of the 40,000 total acres (9,322 acres) have been enrolled to date. All enrolled acres are being checked by NRCS and Subdistrict #1 staff to ensure native vegetation is being established on enrolled acres.
	Habitat	Restore and enhance up to 750 acres of degraded temporary and permanent wetlands.	Up to 3,000 acres are targeted for this goal. However, there have been no signups and no interest expressed in this practice.
	Water Quantity	Reduce irrigation water use for agricultural purposes of the confined and unconfined aquifer within the targeted watershed by approximately 60,060 acre-feet of groundwater per year, equal to almost 12 percent water savings within the project area and 5 percent water savings throughout the entire Rio Grande basin in Colorado.	A minimum of 1.5 acre-feet of water is applied to each acre of irrigated cropland in this region. Approximately 25 percent or 9,322 acres have been enrolled in this CREP to date. Annual irrigation water reduced through this CREP to date is approximately 13,983 acre-feet.

	Water Quantity	Increase stream flows in streams associated with the watershed within the project area.	Streamflows are monitored regularly by CDWR and Subdistrict #1. Factors such as the extreme flashiness of the hydrograph, snowpack in surrounding mountains, and annual precipitation during the growing season make it difficult to attribute any specific changes to CREP enrollment. However, reduction in consumption on 9,322 acres increases available water for stream flows as that water is either not diverted or remains in the groundwater system where it can migrate to the streams.
	Energy Reduction	Reduce energy consumption from an average-sized (125 acre) pivot from approximately 47,000 kilo-watt hour (kW-hrs) per year to less than 14,000 kW-hrs per year for the first three years during cover establishment on all pivots enrolled in the CREP. Subsequent years' energy consumption will be reduced to zero for all pivots enrolled in the CREP.	Each 125-acre pivot enrolled uses the data in the goal to estimate the total energy savings by year. With 77 pivots enrolled, the total reduction to date is approximately 51 million kW-hrs or 25 percent of the goal.
	Water Quality	Reduce the percentage of groundwater test wells containing nitrogen (NO3) levels above EPA standards.	It is assumed that if wells servicing CREP acres are no longer pumping, a portion of them contained nitrogen levels above EPA standards, resulting in a lower percentage of total wells above EPA standards.
Delaware	Water Quality	Facilitate nutrient and sediment reduction pursuant to the State's goal of restoring designated uses	While not designed to specifically assess the success of Delaware's CREP, the Delaware Department of Natural Resources and Environmental Control (DNREC) maintains two water quality monitoring networks, the General Assessment Monitoring Network (the GAMN), and the Total

		of the States uses of surface waters.	Maximum Daily Load (TMDL) related monitoring network. All stations in the networks are monitored throughout the year for a suite of physical and chemical parameters. Some stations in selected watersheds are monitored for up to five key metals for dissolved and total concentrations in the water column. GAMN stations are long-term stations whose data assesses long-term trends and supports compilations of Watershed Assessment Reports as mandated by the Clean Water Act under Section 305 (b). TMDL-related monitoring stations are generally in place for one to two years to support data needs for TMDL model development and calibration. Some stations monitor for sediment concentrations of selected constituents. TMDL related monitoring for watersheds of the Delaware Bay Drainage Basin began in FY2002. The purpose of the water quality-monitoring program is to collect data on the chemical, physical and biological characteristics of Delaware's surface water. The information collected under the program: describes general water quality conditions in the State; identifies long term trends in water quality; determines the suitability of Delaware waters for water supply, recreation, fish and aquatic life, and other uses; monitors achievement of water quality standards; identifies and prioritizes high quality and degraded waters; supports the TMDL program; and evaluates the overall success of Delaware's water quality management. Models can estimate cumulative CREP nutrient reductions by watershed for nitrogen (N), phosphorous (P) and sediment. Much of Delaware's water quality successes is attributable to implementation of the CREP. By having the following CREP practices in place in 2020, the amount of each nutrient pollutant load that will not reach surface and/or

			ground waters on a yearly basis include: CP 3A – 2,901.1 acres, 156,107.69 lbs. of N and 165.99 lbs. of P reduction; CP4D – 619.48 acres, 31,297.00 lbs. of N and 228.65 lbs. of P reduction; CP9 – 183.2 acres, 10,171.76 lbs. of N and 122.25 lbs. of P reduction; CP21 – 974.7 acres, 41,512.08 lbs. of N and 313.30 lbs. of P reduction; CP22 – 29.6 acres, 1,592.77 lbs. of N and 16.94 lbs. of P Reduction; CP23A – 886.4 acres, 32,956.69 lbs. of N and 528.11 lbs. of P Reduction. The total acres under CREP Practices from 2001-2020 is 5,594.48 acres with a cumulative total of N and P reductions of 273,637.99 lbs. and 1,375.24 lbs., respectively. Load reductions are routinely incorporated into the TMDL development process both for both crediting purposes and for future reductions from additional best management practice implementation.
	Habitat	Increase wildlife habitat and create wildlife corridors in the Chesapeake Bay, Delaware Bay and Delaware Inland Bays.	Delaware set a goal of establishing 10,000 acres of selected practices to meet the goals of the CREP. Cumulative CREP activity from 2001-2020 is 5,594.48 acres which are currently under 10- to 15-year contract terms. This number accounts for contract loss and renewal. In 2020, there was a loss of 38.6 acres. This was the result of 6 producers not re-enrolling their contracts. Four producers had practices located in the Chesapeake Bay watershed and the other two producers had practices located in the Delaware Bay watershed. There was 1 new producer contract for 6.5 acres located in the Delaware Bay watershed. There were 14 re-enrolled contracts for 2020. The new and re-enrolled contracts by conservation practices for the 3 watersheds are: (10) Delaware Bay, (8) Chesapeake Bay, and (3) Delaware Inland Bay. This represents 181.07 acres of new and/or renewal for 2020. These acres are represented by the following conservation practices: 97.5 acres of CP3A; 18.4

			acres of CP4D, 12 acres of CP9, 46.75 acres of CP21; 1.12 acres of CP22 and 5.3 acres of CP23A. Each of these practices are acres that used to be in farmland or marginal pastureland. By installing and managing these conservation practices, it provides areas for wildlife to seek and establish habitat that will be protected from disturbances. As these types of conservation practices are implemented, progress has been made to restore wildlife populations and habitat areas. Delaware has currently achieved approximately 56 percent of the 10,000-acre conservation practice implementation goal.
	Water Quality	Restore natural conditions for water temperature and dissolved oxygen in areas protected by riparian forested buffers.	The DNREC Watershed Assessment and Management Section conducts routine water quality monitoring throughout Delaware at designated monitoring stations. Every 2 years, the state of Delaware combines watershed assessment reports, and the Watershed Assessment and Management Section publishes a report focusing on the results of the comprehensive water quality monitoring. The NRCS Guidelines for CREP practice establishment is; CP22 Riparian Forested Buffers must be adjoining a Category 1 or 2 stream, ditch, water body or non-farmed wetland, or adjoin drainage ditches contributing to Category 1 and 2 impaired segments. Adjoin means touching the ditch or stream. This practice is made up of predominantly trees which provide shade for the water bodies they are adjacent to which help to control the water temperature and dissolved oxygen levels. There are 29.6 acres of Riparian Buffers that are planted along Delaware's waterways that are currently enrolled in CREP.

			The DNREC Nonpoint Source (NPS) Program currently conducts stream assessments throughout the state to survey for freshwater mussels. The increased presence of freshwater mussels is a solid indicator of improved water quality.
	Water Quality	Provide conservation buffers on approximately 1200 miles of the State's waterways and drainage systems.	In 2020, cumulative practice acres totaled 5,411.28 acres, which include: CP3A-Hardwood Trees (2,901.1 acres), CP4D-Permanent Wildlife Habitat (619.48 acres), CP21-Filter Strips (974.7 acres), CP22- Riparian Forested Buffers (29.6 acres), and CP23/23A-Wetland Restoration (886.4 acres). These conservation practices all must have a side along a waterway or drainage area. The only practice not included in the list above is CP9 – Shallow Water Areas for Wildlife. This practice does not need to be installed along a stream or body of water.
Idaho-Eastern Snake River Plain	Water Quantity	Reduce up to 50,000 acres of groundwater consumptive use from irrigated cropland reducing demand on the resource saving 100,000 acre-feet of groundwater per year. Reduce groundwater usage and improve spring flows to the Thousand Springs reach of the Snake River.	Water savings is estimated as CREP acres enrolled times 2 acre-feet. Total water reductions including idled areas within field boundaries, not paid by CREP, are calculated by the Idaho Department of Water Resources (IDWR). IDWR monitors amount and direction of river flow each year. Idaho Soil and Water Conservation Commission staff perform onsite visits and field checks making sure no watering has taken place.
	Habitat	Conserve and improve wildlife habitat.	Improving water quantity helps with flow and temperature for aquatic species. Upland wildlife and bird habitat benefit from permanent vegetative cover and protection during nesting seasons.

			Columbian sharp-tailed grouse are one of six subspecies of sharp-tailed grouse. Currently, Columbian sharp-tailed grouse inhabit less than 10 percent of its former range. About 75 percent (20,000-50,000) of the remaining birds occur in Idaho (1998). Throughout their historical range, the decline of Columbian sharp-tailed grouse has been primarily attributed to the loss of native grassland and shrub-grassland vegetation types. CREP has generally had a major positive impact on sharptail/upland bird populations in Idaho. Between these programs, hundreds of thousands of acres were seeded to a mixture of perennial grasses and forbs. The extensive, undisturbed grassland that developed on these seeded areas has provided secure nesting and brood-rearing habitat, especially where alfalfa/forbs was included in the seeding mix. Currently in Idaho, approximately 70 percent of Columbian sharp-tailed grouse habitat occurs on private land with the remaining 30 percent on public land. In most areas, the birds are dependent on both private and public land to meet their seasonal habitat requirements.
Indiana	Water Quality	Protect a minimum of 3,000 linear miles of watercourses through the installation of conservation buffer practices.	The Indiana State Department of Agriculture (ISDA) tracks all practices that are enrolled and that have signed a state landowner participation agreement form. When a project is recorded as completed in the state's tracking system, the CREP Leader records the length in feet of the practice that is protecting a body of water. (The definition for a body of water is taken from the CRP Manual.) The feet are then converted to miles. Through the installation of conservation buffer practices in CREP, approximately 919.8 linear miles of watercourses are currently protected within the CREP

			watersheds. Overall, this is 30.7 percent of the goal to protect 3,000 linear miles of watercourses in the targeted CREP watersheds.
	Water Quality	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.	ISDA uses the Region 5 Sediment and Nutrient Load Reduction Model developed by the U.S. Environmental Protection Agency (EPA) to estimate the sediment, nitrogen and phosphorus load reductions from individual best management practices installed on the ground. CREP leaders apply this model to each conservation practice enrolled and installed through the CREP to estimate the positive effects of the practice on water quality. Practices installed in 2020 resulted in a reduction of 17,025 tons of sediment, 20,120 lbs. of phosphorus, and 39,999 lbs. of nitrogen. Overall, since the expansion of the program in 2010, reductions include 71,124 tons of sediment, 82,188 lbs. of phosphorus, and 162,219 lbs. of nitrogen.
	Water Quality	Increase the acres of wetlands in the watersheds for erosion control, sediment reduction, stormwater retention, and nutrient uptake.	Acres of wetland restorations are tracked through the state's reporting system and can be tallied. In 2020, according to the state's tracking system, approximately 1,001 acres of wetland restorations were completed or re-enrolled, and 648 new acres were enrolled. In total since the inception of the program in Indiana, CREP has restored or enhanced approximately 5,207 acres of wetlands.
	Water Quality	Seek enrollment of up to 26,250 acres of eligible cropland, including frequently flooded agricultural lands, and restorable wetlands.	According to the federal tracking system, there are 21,382.69 acres that have been enrolled, which is 81 percent of the acreage enrollment goal. In addition, according to ISDA's tracking system, there are approximately 20,019 acres that have been completed.

Iowa	Water Quality	Annually, add the capacity to remove 300 to 600 tons of nitrate-nitrogen from agricultural tile drainage. Over the next ten years, this would add wetland capacity to annually remove 3000 to 6000 tons of nitrate nitrogen from agricultural tile drainage. Over a 60-year life, each wetland acre would remove approximately 20 to 40 tons of nitrate-nitrogen.	Seven wetlands were constructed in 2020 which remove an estimated 87.2 tons of nitrate-nitrogen. These wetlands will remove 1,143 tons of nitrate-nitrogen over their 150-year lifespan. Cumulatively, all the CREP wetlands constructed to date remove 754 tons per year of nitrate-nitrogen at a weighted average cost of $0.24 per pound of nitrogen. Iowa State University monitors selected wetlands in Iowa as part of an ongoing monitoring effort associated with the Iowa CREP. The Iowa CREP is a targeted, performance-based strategy operated by the Iowa Department of Agriculture and Land Stewardship (IDALS) for nitrate reduction in tile-drained agricultural landscapes. The monitored wetlands are selected to span a wide range in wetland-to-watershed area ratio and inflow nitrate concentrations in order to ensure a broad range in hydraulic and nitrate loading rates. This allows the characterization of wetland performance across a wide range of conditions which provides information necessary to properly target new wetland locations and sizing wetlands to maximize nitrate loss. Fourteen wetlands were monitored in 2020, including 13 Iowa CREP wetlands and one mitigation wetland. Wetland monitoring included measurements of wetland inflows, outflows, pool elevations and water temperature, and collection of weekly to biweekly water quality grab samples and daily samples. Daily samples were collected using automated samplers programmed to collect samples at wetland inflows and outflows when above freezing conditions allowed the equipment to function properly. Due to occasional equipment failure, some daily values may be missing. Mass balance analysis and modeling has been used to examine the long-term variability in performance of

			CREP wetlands including the effects of spatial and temporal variability in temperature and loading patterns. The results of the mass balance calculations for the 2020 and prior monitoring years (2004 through 2019) demonstrate that hydraulic loading rate is clearly a major determinant of wetland nitrate removal performance.
	Water Quality	Reduce sediment entering surface waters in the Lake Panorama Watershed by 80,000 tons per year following filter strip and riparian buffer establishment. This has the potential of significantly reducing total sediment accumulation into Lake Panorama.	Progress toward meeting this goal has been limited. While some landowners have installed grade control structures or filter strips using state cost-share programs in recent years, no landowners have signed up for the available CREP incentives in the watershed.
	Water Quality	Reduce or maintain soil erosion on the agricultural land enrolled in the CREP to below the soil loss tolerance level for the soils present (2-5 tons per acre).	Wetland upland buffer seeding consisting of perennial native warm-season grasses and native forbs is required for CP-23. This perennial vegetation protects the soil and keeps soil erosion to a minimum. Soil erosion estimates made for these sites document that annual soil erosion rates are less than one ton per acre per year. Additionally, CREP sites are located in landscape positions dominated by low-gradient slopes. If the upland buffer area includes steeper slopes, these areas are generally small acreages and are also protected by perennial vegetation and plant residues.
	Water Quality	Demonstrate a variety of available wetlands technologies and their value for improving water quality.	Two types of wetland development technologies are currently being researched, evaluated, and demonstrated. The first technique is “Tile Zone Wetlands.” The second technique is wetland development on floodplain landscapes.

			"Tile Zone Wetlands" are being researched and implemented in field trials. This type of wetland is suited to pothole, low-gradient landscapes. To create a wetland using this design, existing tile lines are intercepted by a newly installed "interceptor" tile line which re-directs drainage water to surface outlet to a pothole lower in the landscape. After this drainage water is treated by flowing though the wetland, it is collected and re-deposited into the same tile line that it originated from further downslope in the landscape, or to another suitable outlet. This type of wetland design has several advantages. First, the amount of surface water entering the wetland is greatly reduced since primarily only tile drainage water is directed to the wetland. Secondly, since the wetland is a naturally formed pothole, the earthwork cost for a structure and berm are eliminated or minimal. Third, the easement area necessary for this type of wetland could be much smaller since the volume of water treated and size of the wetland would also be smaller. Researchers at Iowa State University are actively identifying sites which may work for this type of design. One tile zone wetland meeting CREP was completed in 2020. Additional sites are being designed and implemented through the Water Quality Initiative. More sites that meet CREP criteria are in the design stage and scheduled for implementation in 2021. The second wetland development technique is floodplain wetlands. In this technique, areas on existing floodplains are constructed with berms or excavation to create a depression or holding cell for tile to be directed into the wetland or have surface drainageways with tile-dominated baseflow re-directed into the wetland. This technique targets tile-drainage water like tile zone wetlands and may have the wetland inlet

			designed to allow the baseflow into the wetland while bypassing the high-volume surface runoff from storm events. A floodplain wetland meeting CREP criteria was constructed in 2020. Another floodplain site meeting CREP criteria is planned for construction in 2021.
Kansas-Upper Arkansas River (UAR)	Water Quantity	Enroll a maximum of 28,950 acres into CREP in the project priority area (25,950 irrigated acres, 3,000 from dryland pivot corners as part of whole field enrollment), with a goal of up to 18,600 acres put into native grass.	A total of 23,146 acres have been offered, accepted, and enrolled into the UAR CREP. Of the total number of acres currently offered, only 2.5 percent (594 acres) was farmed dryland. Offers which are predominately "Tier 2 soils" comprise 7.7 percent (1,804 acres) of the total approvals to date. To date, 22,800 total acres have been placed into native grass practices. Of these, 827 acres were enrolled in practice CP4d. The remainder are in CP2. This objective is 80 percent complete
	Water Quality	Reduce the application of groundwater for irrigation in the targeted area by 45,125 acre-feet, annually, with the enrollment of 25,950 irrigated acres.	A total of 47,500 acre-feet of authorized water rights for irrigation have been permanently retired from the enrollment of 22,586 irrigated acres. This rate is averaging just over 2 acre-feet per acre, a rate higher than estimated in the CREP objective, particularly because the majority of the enrollment in the project area has been in the western counties where water appropriation allowances are the highest in the state, and some irrigated acreage is authorized on land which is not being enrolled at the irrigated rate due to FSA restrictions. This objective continues to be increasingly exceeded with each additional year since 2017 and is 100 percent complete.
	Water Quality	By 2020, increase the frequency of meeting minimum desirable stream flows in the Arkansas River at the USGS gaging stations at Great Bend and	Measurement of the impact of enrollment of acres into the Upper Arkansas River CREP on minimum desirable stream flow will begin after water rights have been terminated and enough time has elapsed to have an effect on the system. Most of the acres enrolled have just recently terminated the

		Kinsley from 71 percent and 52 percent, respectively, as measured in 1996–2004.	water rights or are still allowed temporary limited irrigation to establish vegetation on soils susceptible to wind erosion. The frequency, magnitude and duration for which minimum desirable streamflow (MDS) was not met will be compared for the pre-CREP years (1960 to 2006) to the post-CREP years (2007 to 2017). A nonparametric test, the Wilcoxon rank-sum, will be used to determine if a statistically discernible difference existed between the pre- and post-CREP period. The same comparison will be made using the pre- and post-CREP period and the average annual Palmer Drought Severity Index (PDSI) for the region in which the MDS gage was located. This will create an index for the antecedent moisture conditions that will be a primary factor in determining each period's flow condition. One would expect that in those regions where the PDSI had become significantly greater (wetter), one should see a concomitant improvement in the magnitude, frequency or duration of the MDS condition. Finally, the trend for the annual summarizations of the three components of flow will be assessed. This assessment will be used to determine whether there is a discernible trend in the annual frequency, magnitude or duration of minimum desirable stream flows through time (1960 to 2006).
	Water Quality	Reduce stream flow transit losses due to inefficiencies in the delivery of the water by improving the channel and canal delivery system.	Improvements to the stream flow delivery system are underway. Construction is complete on the cleaning and reshaping of the canal used by the South Side Ditch Company to enhance delivery of water to its members and to more efficiently deliver water to the downstream Farmers Ditch Company during a drought. A significant number of water check control structures on this system are under

			construction that will greatly improve water management and system delivery efficiency of water to irrigated fields using buried pipelines instead of leaky ditch lateral structures (which are difficult to maintain). It is estimated that water delivery to the Farmers Ditch Company via the refurbished canal has at least 15 percent less stream flow transit loss than delivery via the river channel. Also, significant upgrades and enhancements were initiated on the Amazon Canal intake structure and flume across Sand Creek near the Lakin Golf Course during 2015 and concluding in 2016. Additional improvements are underway or being planned for river routing model study to improve river management and state line river flow delivery efficiency to the South Side, Farmers and Garden City Ditch systems that are being implemented as part of the Western Kansas Water Conservation Projects Fund expenditures.
	Water Quality	By 2020, reduce the rate of groundwater declines in the alluvial aquifer and the hydraulically connected High Plains aquifer in the CREP area from those measured during the winter months for the pre-CREP five-year period (2003 to 2007) and pre-CREP ten-year period (1998 to 2007).	A water use analysis tool and preliminary assessment of this objective has been initiated in 2018 by the Department of Water Resources. This effort will continue to be refined and re-assessed until 2020 and beyond. The impact of enrollment of acres into the Upper Arkansas River CREP on groundwater conditions will be made in 2020 and after all water rights have been terminated. Water levels have been monitored at least annually at numerous locations in the CREP counties. The map below includes the locations of historical water level measurements in the area. Groundwater Management District (GMD) 5 obtains water level measurements from 25 wells in the CREP area. Annual measurements are collected from 14 of these wells and quarterly measurements of 11 wells are planned to continue. Data collected from each of these measurements

			will be used to assess the progress towards meeting this objective. Water levels within the CREP area, particularly in the areas where contracts are approved, will be measured over time. Depending on levels of change, monitored changes could also be compared with predicted changes with computer modeled scenarios. The steering committee is cooperating to create an enhanced monitoring network for the aquifer close to the retired CREP acres and water rights. Possible improvements mentioned include providing additional annual monitoring wells and increasing the measurement frequency, equipping some key well sites with pressure transducers and temperature loggers, and designating some wells as index calibration wells. Additional plans to analyze the impact on CREP water right retirements include: 1) additional water level measurements need to be taken from new monitoring wells on established CREP fields, and 2) additional monitoring should be established in undisturbed areas adjacent to the CREP enrollments (upstream, downstream and control spots) in order to analyze the relative effects of what is happening with the water right dismissals and water use reductions in the broad context of the High Plains or Ogallala Aquifer. Assessment of the impact of the CREP project on water use and water levels will include the water-balance approach which is based on average annual water-level change versus annual water use, and also the correlation between annual water use and radar precipitation for the area before and after its implementation. The use of precipitation data for the CREP project area is important because it allows discernment of water-level and water use changes that are

			related to climate from those that are related to water conservation.
	Water Quality	By 2020, reduce the outward migration of river salinity within the High Plains aquifer from the currently projected extent based on 1990s groundwater conditions in the Arkansas River valley.	A total of 22,586 irrigated acres have been offered, approved and enrolled into the CREP program. Some of the offered acres are close to the river while most are further south. An assessment of this objective will be made in the future, once more acres are enrolled, and when most of the wells are permanently turned off. While no formal assessment of this objective is made at this time, the state's comprehensive stream water quality monitoring network, and past and future data from the groundwater quality networks of GMD3 and GMD5 as described below, will be used to determine progress in meeting this objective. Instream water quality and groundwater quality have been recorded historically through monitoring programs at the state and local level. The Kansas Department of Health and Environment (KDHE) has a long-standing network of monitoring stations along the Arkansas River from Coolidge to Great Bend. These stations are the foundation for the TMDL work in the Upper Arkansas Basin. Three years (2004–2006) of intensive bacteria sampling have been conducted with over 12 sessions of sampling 5 times within 30 days at these stations on the Arkansas River, in accord with K.S.A. 82a-2001, et seq. KDHE has been developing additional TMDLs in the Upper Arkansas Basin since 2011 for the next round of TMDLs on the Arkansas River. The existing stations will be used to assess future post-TMDL conditions, over the 15 years of CREP rental periods. It is not expected that CREP will have an impact on the overall Total Dissolved Solids (TDS) levels in the river; however, improvement is expected in the reduction of the advance of

			TDS or sulfate into the freshwater aquifers laterally from the river. 40 additional groundwater samples are now collected for analysis of uranium in the CREP area by the Kansas Geological Survey (KGS), including the regular suite of analysis. This work was done by KGS as an enhancement to a cooperative river flow sampling project funded by an EPA grant; it evaluates the deposition of uranium in Arkansas River flows. This work should broaden the water quality evaluations of CREP benefits and future management progress. Further east, groundwater quality monitoring in the area by GMD5 has been conducted for specific projects from 12 wells. This information can provide a basis for comparison in the future. This data will provide water quality information prior to CREP, and the continuing monitoring program will enable data analysis for documenting impacts of the program. This monitoring, along with the groundwater monitoring for other state initiatives, provides a baseline for post-CREP comparison. Stream and groundwater samples will be analyzed to determine mineral content at a frequency appropriate to determine representative water quality at least on an annual basis. At a minimum, sulfate, selenium and total dissolved solids will be quantified. Groundwater samples will be obtained for analysis and result comparison from wells with an analysis history. Wells with previous data will be monitored from both the alluvial and High Plains aquifers.

	Water Quality	By 2020, reduce the bacterial, nutrient and pesticide levels in the Arkansas River in Edwards and Pawnee counties from the 1990–2000 levels.	Bacterial impairments under the new state definition are in the middle reaches of the basin. Intense sampling for bacteria after 2016, concentrating on the Kinsley area, was conducted. Additional data will become available through the monitoring network described above.
	Habitat	Increase aquifer recharge and wildlife habitat by enrolling 400 acres of otherwise eligible playa lakes and soils, and other suitable locations for shallow water development through the use of CRP conservation practices CP4D, CP9, CP23, and/or CP23A as suitable to the specific land.	A total of 827 acres have been enrolled in practice CP4d. No acres have been formally offered for the CP9, CP23, and/or CP23A practices.
	Soil Conservation	Reduce agricultural use of highly erodible soils with a goal of enrolling 7,000 acres that are unsuitable for dryland farming.	Approximately 20,007 acres of soils unsuitable for dryland farming (Wind Erodibility Index ≥ 134) have been enrolled in the CREP program. This objective continues to be exceeded with each additional year since 2008 and is 100 percent complete.
	Soil Erosion	Reduce the amount of soil lost to erosion by approximately 80,000 tons per year on all enrolled acres.	With 23,146 acres enrolled in the CREP, the amount of soil lost to erosion will be reduced by about 91,200 tons per year. (In order to help establish vegetative cover, limited irrigation for up to two full calendar years will be a condition on the water right termination for offers with highly erodible soils of factor I-34 or greater. Prior to final contract approval, a conservation plan of operation will be prepared, and limited irrigation may be recommended.) One hundred percent of this objective has been met.

	Habitat	Protect the ecological and recreational viability of the Cheyenne Bottoms State Wildlife Area in Barton County, Kansas, with improved Arkansas River stream flow, as measured by an increase of the average annual bird count at the CBSWA in 2015 to 2023 as compared to those recorded from 1996 to 2004, and with increased human visitation rates in years 2015 to 2023 as compared to those recorded from 1996 to 2004.	The impact of enrollment of acres into the Upper Arkansas River CREP on the ecological and recreational viability of Cheyenne Bottoms will not be discernible until sufficient water rights have been terminated and the impacts to downstream surface water flows can be measured and assessed. Monitoring of the average annual bird count and human visitation rates will continue.
	Energy	Reduce energy consumption from an average of 59,850 kW-hrs to less than 5,000 kW-hrs per pivot for the first two years on pivots which become enrolled in the CREP. In subsequent years, energy consumption will be reduced to zero, as the pivots eligible for limited irrigation will be removed from the enrolled parcel. Total energy savings for the term of the CREP contracts will approach 8-million kW-hrs.	K-State Research and Extension staff provided a rough estimate of energy consumption for a 125-acre center pivot in counties along the Upper Arkansas River. Average energy consumption of 59,850 kW-hrs per pivot per year was derived from their estimates. In the first two years of the program, offers made for acres that occur in soils unsuitable for dryland agriculture will have the opportunity to irrigate minimally to ensure establishment of grass cover. Therefore, a small amount of energy consumption will still be experienced in the first years of the program. With 22,586 irrigated acres enrolled in CREP, more than 10 million kW-hrs of energy savings may be achieved each year. This objective continues to be increasingly exceeded with each additional year since 2013 and is 100 percent complete.

Louisiana I-Lower Ouachita River	Water Quality	The goal of this CREP is to enroll 50,000 acres of marginal cropland into 14 to 15-year CRP contracts to assist in reducing non-point pollution into these two watersheds while helping to reduce some of the hypoxia issues within the Gulf of Mexico.	The goal of this CREP is to enroll 50,000 acres of marginal cropland into 14 to 15-year CRP contracts to assist in reducing non-point pollution into these two watersheds while helping to reduce some of the hypoxia issues within the Gulf of Mexico
Maryland	Water Quality	Reduction of nutrient pollution from agricultural lands of approximately 11,500,000 pounds of nitrogen and 1,100,000 pounds of phosphorus on an annual basis.	Maryland's Watershed Implementation Plan (WIP) outlines specific actions and strategies that it will take to achieve pollution limits set by EPA by 2025. Maryland listed 41 agricultural milestone actions in their goals to accelerate Chesapeake Bay restoration and meet the TMDL goal. These actions included four categories of CREP practices: highly erodible land protection, riparian grass buffers, riparian forest buffers, and wetlands. Progress toward each practice is tracked and reported though the soil conservation districts and reported annually to EPA for progress. Subsequently, a suite of modeling tools are employed by the EPA Chesapeake Bay Program to estimate nutrient and sediment delivery across the watershed. In addition to newly installed practices, the Maryland Department of Agriculture (MDA) completes site inspections and field verification over the lifespan of Best Management Practice (BMP) to ensure water quality benefits remain. Additionally, DNR administers the CREP easement program to acquire permanent interest in CREP lands, ensuring the retention and maintenance of CREP practices beyond the life of the initial CREP contract. These acres are entered into the protected lands layer available on the state iMap system and

			are part of the easement monitoring system within DNR. Based on FY20 enrolled acreage, progress toward the goal is estimated as 2,061,060 pounds of nitrogen and 37,693 pounds of phosphorus reduced annually.
	Water Quality	Reduction of sediment loading into streams from agricultural lands of approximately 200,000 tons of sediment on an annual basis.	Maryland's Watershed Implementation Plan (WIP) outlines specific actions and strategies that it will take to achieve pollution limits set by U.S. Environment Protection Agency (EPA) by 2025. Maryland listed 41 agricultural milestone actions in their goals to accelerate Chesapeake Bay restoration and meet the TMDL goal. These actions included four categories of CREP practices: highly erodible land protection, riparian grass buffers, riparian forest buffers and wetlands. Progress toward each practice is tracked and reported though the SCDs and reported annually to EPA for progress. Subsequently, a suite of modeling tools are employed by the EPA Chesapeake Bay Program to estimate nutrient and sediment delivery across the watershed. In addition to newly installed practices, MDA completes site inspections and field verification over the lifespan of the best management practice to ensure water quality benefits remain. DNR administers the CREP easement program to acquire permanent interest in CREP lands, ensuring the retention and maintenance of CREP practices beyond the life of the initial CREP contract. These acres are entered into the protected lands layer available on the state iMap system, and are part of the easement monitoring system within DNR. Based on FY20 enrolled acreage, progress is estimated at 31,022 tons of sediment reduced annually.

	Habitat	Increase the survivability, distribution, and abundance of targeted fish, wildlife and plant species in the Chesapeake Bay region. Emphasis for Rare and Declining Species Habitat enrollments will be given to high priority species listed under the North American Waterfowl Management Plan and State and Federally listed threatened or endangered species, such as bald eagles, Delmarva fox squirrel, Eastern bog turtle, dwarf wedge mussel, glassy darter and harparella.	CREP practices have positive benefits on rare, threatened, endangered, and at-risk species (species that are in decline and could be listed in the future) and species identified in plans such as the North American Waterfowl Management Plan. Several species of waterfowl directly benefit from the 13,500 acres of CP-9, CP-23, and CP-22 practices, including black duck. These species primarily benefit from increased migration and wintering habitat while a few species such as the wood duck and hooded merganser can nest in these project areas if designed and managed properly. These practices, as well as other others such as CP-21 and CP-4D, will also benefit pollinators, some of which have recently been listed as endangered. Sensitive freshwater species, including mussels (dwarf wedgemussel, green floater, brook floater, yellow lance), fish (Eastern brook trout, Chesapeake logperch), and semi-aquatic species such as the northern bog turtle can benefit from any of the CREP practices, the 47,110 acres that reduce nutrients and sediments to streams and rivers within the watershed where they are located. Migratory fish, including shad, river herring, American eel, and striped bass benefit from cleaner water in the streams and rivers where they spawn, or in the case of American eel, the streams where many adult eels spend their life before migrating to the ocean to spawn. The 32,580 acres of CP-21 and CP-22 are especially important for these species. The federally threatened Eastern bog turtle benefits from practices that curtail over-grazing of the wet meadow habitat where they live, and from CREP buffers installed by their meadow habitat. Forested buffers along streams benefit bog turtles as they move along stream corridors during dispersal. Bald eagles and Delmarva fox squirrels have both been removed from the endangered species list since the Maryland

			CREP program was established. Both of these species benefited primarily from the 12,609 acres of CREP practices with tree planting. Eagles benefit from tree planting along larger tidal rivers while fox squirrels will benefit from any tree planting within their range, particularly for future habitat as the trees mature past 40-50 years old. CREP practices also benefit many species that are not yet listed as rare, threatened, or endangered, but are considered Species of Greatest Conservation Need in the Maryland State Wildlife Action Plan. For example, bobwhite quail and a suite of grassland-dependent birds have experienced precipitous population declines in recent decades. CREP practices, including CP-1, CP-2, CP-4D, CP-21, and CP-25 have directly restored nearly 32,000 acres of habitat for these at-risk grassland bird species, and also provide important travel corridors and habitat connectivity that has impacted an even larger area.
Minnesota Water Quality	Water Quality	Reduce phosphorus by 19,200 pounds per year	This CREP is designed to improve water quality in the project area by establishing and maintaining buffers of permanent vegetation between eligible waterbodies and adjacent agricultural cropland, restoring and maintaining wetlands, establishing permanent vegetative cover in wellhead protection areas, and establishing beneficial habitat for terrestrial and aquatic wildlife. While the original reduction estimates were to the field scale, a sub-watershed (12-digit hydrologic unit code outlet; 12-digist HUC outlet) approach is utilized here due to the restoration of marginal cropland enrolled in the CREP often taking years to become a fully functioning site, depending on the conservation practice type. The State of Minnesota has completed Hydrologic Simulation Program Fortran (HSPF) watershed modeling for the majority of the major watersheds

			in the State. The Minnesota Pollution Control Agency (MPCA) provided the Minnesota Board of Water and Soil Resources (BWSR) with average pollution reduction coefficients in pounds/acre of phosphorus for equivalent conservation practices by individual 12-digit HUC watersheds. BWSR calculated pollution reduction estimates by multiplying the acres treated by the coefficients from specific conservation practice types. For phosphorus reductions, the sub-watershed scale approach should provide comparable results to the field scale due to the nature of fate and transport of phosphorus within the HSPF model. It should be noted that watershed outlet values will have slightly lower pollution reductions compared to field scale methods. The BWSR is currently validating the pollution reduction estimates as calculated by the 12-digit HUC outlet approach. The reduction of pollutant loading will be reported in future annual reports.
	Water Quality	Reduce nitrogen by 1,220,000 pounds per year	The Minnesota CREP is designed to improve water quality by establishing and maintaining buffers of permanent vegetation between eligible waterbodies and adjacent agricultural cropland, restoring and maintaining wetlands, establishing permanent vegetative cover in wellhead protection areas, and establishing beneficial habitat for terrestrial and aquatic wildlife. While the original reduction estimates were to the field scale, a sub-watershed (12-digit HUC outlet) approach is utilized here due to the restoration of marginal cropland enrolled in the CREP often taking years to become a fully functioning site, depending on the conservation practice type. The State of Minnesota has completed HSPF watershed modeling for

			the majority of the major watersheds in the State. MPCA provided the BWSR with average pollution reduction coefficients in pounds/acre of nitrogen for equivalent conservation practices by individual 12-digit HUC watersheds. BWSR calculated pollution reduction estimates by multiplying the acres treated by the coefficients from specific conservation practice types. For nitrogen reductions, the sub-watershed scale approach should provide comparable results to the field scale due to the nature of fate and transport of nitrogen within the HSPF model. It should be noted that watershed outlet values will have slightly lower pollution reductions compared to field scale methods. BWSR is currently validating the pollution reduction estimates as calculated by the 12-digit HUC outlet approach. The reduction of pollutant loading will be reported in future annual reports.
	Water Quality	Reduce sediment runoff by 123,000 tons per year	The Minnesota CREP is designed to improve water quality in the project area by establishing and maintaining buffers of permanent vegetation between eligible waterbodies and adjacent agricultural cropland, restoring and maintaining wetlands, establishing permanent vegetative cover in wellhead protection areas, and establishing beneficial habitat for terrestrial and aquatic wildlife. While the original reduction estimates were to the field scale, a sub-watershed (12-digit HUC outlet) approach is utilized here due to the restoration of marginal cropland enrolled in the CREP, often taking years to become a fully functioning site, depending on the conservation practice type. The State of Minnesota has completed HSPF watershed modeling for the majority of the major watersheds in the State. The MPCA

			provided the BWSR with average pollution reduction coefficients in tons/acre of total suspended solids (TSS) for equivalent conservation practices by individual 12-digit HUC watersheds. BWSR calculated pollution reduction estimates by multiplying the acres treated by the coefficients from specific conservation practice types. For sediment reductions, the sub-watershed scale approach provides less comparable results to the field scale due to the ability of the HSPF models to process complex in stream processes for sediment fate, transport, and attenuation from the headwaters of a watershed to the watershed outlet. In the case of sediment and TSS, the sub-watershed scale pollution reductions from the HSPF model will be significantly less than calculating field scale loads with conventional soil loss models such as the Revised Universal Soil Loss Equation, Version 2 (RUSLE2) or the Water Erosion Prediction Project (WEPP) model. The BWSR is currently validating the pollution reduction estimates as calculated by the 12-digit HUC outlet approach. The reduction of pollutant loading will be reported in future annual reports.
Mississippi Delta	Water Quality	The Mississippi CREP program with funding through private partnerships matched with state, and federal partners is a restoration effort that combines both reforestation and hydrology restoration to provide critical habitat connectivity for threatened and endangered species, and to protect the	Improve water quality by implementing established conservation practices within priority watersheds. The amount of excess sediment, nitrogen, and phosphorous reduced and calculated on a per acre/year basis is used to determine the total volume of these nutrients leaving the fields and entering the waterways. Using the RUSLE model, we determined annual reduction rates per acre per year of 10,822 lbs of sediment, 5.4 lbs of nitrogen, and 10.8 lbs of phosphorous.

		quality of waterways from increased sedimentation.	
	Habitat	Provide critical habitat for numerous species, including some that have been listed as threatened or endangered	A total of 4,024 acres of fragmented forests and marginal farmed wetlands have been reforested and reconnected for wildlife habitat.
Montana-Missouri/Madison River	Habitat	Establish, restore, and improve up to 11,000 acres of riparian buffers along approximately 524 miles of the Missouri and Madison Rivers and their tributaries within a 2-mile-wide corridor in nine counties.	The specific measurable item will be acres of riparian habitat restored. Riparian habitat restoration will help recover candidate species and species of special concern such as the arctic grayling and westslope cutthroat trout and listed threatened and endangered species such as the pallid sturgeon. The riparian buffers are being monitored through biological indicators. Riparian obligate and riparian dependent bird species increased in density along the Madison River and upper Missouri River from 2004 to 2017 and a new species of diatom (*Cymbopleura laszlorum*) was discovered in the CREP riparian buffer contract area along the Madison River which rehabilitated a floodplain fen. This same CREP riparian buffer contract now also supports four rare native vascular plants which are species of concern in Montana: Mealy Primrose (*Primula incana*), Slender Indian Paintbrush (*Castilleja gracillima*), Annual Indian Paintbrush (*Castilleja minor*) and Wedge-leaf Saltbush (*Atriplex truncata*). This CREP riparian buffer contract supports contains the largest population of *Prima incana* currently known in the state. In addition, chara mats (an algae formed near spring heads and along shoreline) increased. This alga is an important component to diet of Trumpeter Swans, a species of special concern in Montana and a USFWS Species of Management Concern in Region 6. Over 250 wetland

			plants have been found in this CREP contract area along the Madison River. Riparian buffer (CP22) contract acreage is currently only 121.12 acres. Over 350 acres of riparian buffer contracts expired in 2019 in Madison County, and the participants chose not to re-enroll. Although the measurable item of acreage falls short of the objective, the biological indicators illustrate the positive effects that CREP contracts have had on local biodiversity.
	Habitat	Establish and improve up to 14,000 acres of permanent, native and introduced wildlife habitat with the 2-mile-wide corridor of the Missouri and Madison Rivers.	The specific measurable criteria of success will be acres of permanent wildlife habitat restored. Permanent native and introduced wildlife habitat contract acreage is currently 11,947.02 acres. The Missouri/Madison CREP agreement is capped at 14,000 acres, which limits the re-enrollment and enrollment of new offers. Monitoring and evaluation of some CREP project sites was initiated in 2005 and has continued through 2019. Baseline and pre- and post- wetland and riparian data is being gathered on migratory birds with emphasis on neotropical migrants, fisheries, and vegetation. Work is underway with the U.S. Fish and Wildlife Service, Montana Department of Fish, Wildlife and Parks, and the University of Montana to assist with monitoring. Over $185,000 from partner agencies was spent in 2005 and through 2019 on monitoring. Baseline fisheries, bird, and vegetation data will be available for some sites in the near future.
	Water Quality	Restore up to 1,000 acres of degraded wetlands within a two-mile-wide corridor of the Missouri and Madison Rivers.	The specific measurable criteria of success will be acres of wildlife habitat restored. Wetland contract acreage currently has no acreage enrolled.

		Wetland restoration within the corridor will support the fish and wildlife habitat restoration and water quality goals of the project.	Monitoring and evaluation of some CREP project sites was initiated in 2005 and has continued through 2019. Baseline and pre- and post- wetland and riparian data are being gathered on migratory birds, with emphasis on neotropical migrants, fisheries, and vegetation. Work is underway with the U.S. Fish and Wildlife Service, Montana Department of Fish, Wildlife and Parks, and the University of Montana to assist with monitoring. Over $185,000 from partner agencies was spent in 2005 and through 2019 on monitoring. Baseline fisheries, bird, and vegetation data will be available for some sites in the near future.
Nebraska II-Platte Republican Resource Area	Water Quantity	Reduce the application of water for cropland irrigation in the project area by 125,000 acre-feet annually from 2004 irrigated usage levels.	The estimated consumptive use savings for curtailing irrigation on CREP program acres for the 2020 irrigation season is 41,560 acre-feet. Implied irrigation efficiency is 0.68. Therefore, the expected reduction in application of water for 2020 is 61,120 acre-feet. This is 49 percent of the goal. For the 2020 irrigation season, approximately 45 percent of the acreage cap was enrolled in the program. The Nebraska Legislature passed a bill in 2017 that makes re-enrollment of irrigated land under a surface water appropriation more likely, because the number of years that a surface water appropriation may be protected from cancellation for nonuse was increased from 15 to 30 years. This paved the way for 15-year contracts to be renewed for another 15 years without placing the water appropriation in jeopardy.
	Water Quality	Increase surface and groundwater retention by a target amount of 85,000 acre-feet of water annually within the	The retention of surface and groundwater is dependent and synonymous with the reduction in consumptive use. Consumptive use of irrigation water is lost to lakes, streams, and the groundwater aquifer through irrigation. The estimated retention (consumptive use) from all sources is

		project area reservoirs, groundwater tables and streams.	41,560 acre-feet for 2020, which is 49 percent of the goal. This is in line with the overall level of participation. The Nebraska Legislature passed a bill in 2017 that makes re-enrollment of irrigated land under a surface water appropriation more likely, because the number of years that a surface water appropriation may be protected from cancellation for nonuse was increased from 15 to 30 years. This paved the way for 15-year contracts to be renewed for another 15 years without placing the water appropriation in jeopardy.
	Habitat	Provide up to 85,000 additional acres of native grassland habitat for wildlife in the project area, increasing the populations of pheasants and other ground nesting birds by 25 percent in the area.	Under the MOA, 85,000 acres may be put into the following practices: Permanent Native Grasses (CP2), Permanent Wildlife Habitat (CP4D), and Rare and Declining Habitat (CP25). In addition, practice Wildlife Food Plot (CP12) may be used in conjunction with any of the three primary practices. Currently, all but 155.8 acres of the enrolled acres in the CREP program are in these practices. Monitoring of wildlife populations in the Platte-Republican Basins CREP continues to be completed by the Nebraska Game and Parks Commission (NGPC) using standard game surveys. The primary impact on wildlife in the CREP area at this point has been the original enrollment of more than 46,000 acres of formerly cropped irrigated fields into appropriate wildlife cover. The bulk of the CREP acres were enrolled in the spring of 2005 and were planted to perennial cover in the fall of 2005 and spring of 2006. The NGPC has graphed several species' survey data showing prevalence since 2005. The survey data provides a baseline for detecting changes in populations that can be attributed, at least in part, to CREP enrollment. Annual variations in wildlife populations are very common, and in Nebraska, are typically tied to weather conditions.

			Surveyed wildlife populations in the CREP area are compared to those across the state in order to better understand the relative impact of CREP habitat enrollments on Nebraska wildlife populations of interest. Pheasants rebounded in the CREP area, while bobwhite quail continued to decline. All surveyed species in the CREP area are faring better than the statewide average.
	Habitat	Provide up to 15,000 additional acres of conservation buffers and restored wetlands.	Sign-up Incentive Payments (SIPs) and Practice Incentive Payments (PIPs) exist for Filter Strips (CP21), Riparian Buffer (CP22), Wetland Restoration (CP23) and Wetland Restoration/Non-Floodplain (CP23A) to encourage achieving this goal. Cover establishment is reimbursed with a 50/50 share between the USDA and State Partner to further incentivize participation. The 15,000-acre target is further broken down to 10,000 acres for CP21 and CP22, and 5,000 acres for CP23 and CP23A. Currently, there is only one contract for 155.8 acres in the CP23 practice. It is unusual in that it has irrigated land situated partly in a wetland area.
	Water Quality	Seek to reduce the application of triazine products by approximately 93,000 pounds annually, when fully enrolled, from existing application rates in the project area.	Under the terms of the program, lands included under contract must be replanted to native grasses and, therefore, would not be treated with herbicides. The average amounts of application-associated triazine compounds is 1.3 pounds per acre. Therefore, the amount of triazine that likely would have been applied to the contracted acres, had they remained as irrigated cropland, is approximately 58,500 lbs. The goal has only partially been met. This is in part due to enrollment at 45 percent of the acreage cap.
	Water Quality	Seek to reduce leaching of nitrate compounds into project area streams and groundwater by	Under the terms of the program, lands included under contract must be replanted to native grasses and, therefore, would not be fertilized. The average amount of application-

		5,900,000 pounds annually, when fully enrolled, from the 2004 application rates.	associated nitrogen is 200 pounds per acre. Therefore, the amount of nitrogen that likely would have been applied to the contracted acres, had they remained as irrigated cropland, is approximately 9,000,000 lbs.
	Water Quality	Seek to reduce the application of phosphate products by approximately 2,440,000 pounds annually, when fully enrolled, from 2004 application rates in the project area.	Under the terms of the program, lands included under contract must be replanted to native grasses and, therefore, would not be fertilized. The average amounts of application-associated phosphate is 20 pounds per acre. Therefore, the amount of phosphate that likely would have been applied to the contracted acres, had they remained as irrigated cropland, is approximately 900,000 lbs. This goal was not met.
	Water Quality	Assist community public water supplies (surface and groundwater) by reducing nitrogen and phosphorus levels from agricultural activities.	Nebraska's Natural Resources Districts (NRDs) are the primary regulator of nonpoint source pollution in groundwater. NRDs develop and implement groundwater quality managements plans that describe monitoring, assessment, and thresholds triggering regulatory measures. There are many examples throughout the state of increased regulatory measures to protect and restore community public water supplies. NRDs partner with local communities, agricultural producers, and the private sector to leverage resources to protect water quality. Education and outreach are offered, and cost-share is available for best management practices that help producers reduce water use and fertilizer application. Nitrate levels are annually measured and monitored and trigger levels for regulations have been implemented in several NRDs. The Nebraska Department of Environment and Energy (NDEE) administers the Wellhead Protection Program and state Nonpoint Source Management program. Together, these programs offer planning and financial assistance to

			public water systems interested in protecting and restoring their water supplies. Recently, NDEE is funding nonpoint source planning efforts specific to community water system wellhead (source water) protection areas. Once these community-based plans are approved by EPA, implementation is eligible for federal Clean Water Act Section 319 nonpoint source funds. Eight such plans are currently approved and in development.
	Education	Provide educational assistance to project area irrigators to develop a more efficient use of applied water, nutrients, and herbicides.	NRDs have been successful in working with state and local partners including the Nebraska Department of Natural Resources, the Nebraska Department of Environment and Energy (NDEE), the University of Nebraska-Lincoln Extension, and universities to research groundbreaking technology, cropping strategies, and input practices that best address local management needs. This research has been used to engage producers and stakeholders and demonstrate both the economic and conservation impacts of best management practices. Several NRDs have developed their own programs and networks that work to demonstrate efficiency impacts and offer producers real-time data and information to assist in making effective conservation-minded management decisions. While there are special Water Quality and Quantity Management Areas where certain practices are required, many of the most effective practices being implemented by producers across the state are done so voluntarily. Utilizing NRD funds to leverage state and federal dollars, local boards have been able to provide cost-share incentives to producers for innovative, research-driven advances in irrigation management.

			A few examples of some of the programs offered or required by NRDs are: NRD-level cost-share programs offering technical assistance of 0-100 percent on the purchase of soil moisture sensing equipment; required flow meters on groundwater wells over specified capacity; allocating a certain number of inches that can be pumped over a certain number of years; and requiring soil sampling for water quality indicators. In addition to support from extension offices, NRDs, and NRCS district conservationists, locally driven producer groups, such as the Nebraska Water Balance Alliance, have worked to provide producer seminars and education events on technologies and practices that can be adopted by producers to improve irrigation management. A recent example of a creative program to engage producers in adoption of new technologies is the Testing Ag Performance Solutions (TAPS) program (taps.unl.edu). This program provides opportunities for producers to virtually compete against each other as well as UNL scientists for (1) most profitable farm, (2) highest input (water and nitrogen) use efficiency, and (3) greatest grain yield. The goal of the competition is to promote efficiency and profitability while giving a chance to learn from those who grow corn profitably. The competition is supported by UNL Extension, NRDs, non-profit organizations, and agricultural industries, among others.
	Habitat	Monitor the aquatic communities and associated habitat parameters in project area reservoirs and rivers to determine biological relationships.	The fisheries program with Nebraska Game & Parks Commission (NGPC) has been involved in an on-going limnological assessment at Harlan County Reservoir during the entire Nebraska CREP program timeframe. NGPC has a consistent data base of abiotic, zooplankton and larval fish collection results. For the Platte River basin the NGPC

			conducts standardized annual fish monitoring surveys that on the reservoirs.
	Energy	For irrigation purposes, reduce the total consumption of fossil fuels by 350,000 gallons and electricity use by 10 million kW-hrs.	The Nebraska Department of Energy's data indicates that approximately 55 percent of all irrigation pumps are powered by electricity and 45 percent are powered by fossil fuels. Nebraska Public Power District, one of the Nebraska Platte/Republican CREP partners, provided information from a 2001 Report – "Estimated Irrigation Costs" by Roger Selley, UNL. Using assumptions based upon that report, the following method has been employed each year to estimate the energy savings from the Nebraska CREP. The representative distribution system is a 135-acre center pivot pumping 800 gallons per minute and applying 9.5 acre-inches per acre with a lift of 100 feet at 60 percent efficiency, the annual electric usage is 45,966 kW-hrs, and fossil fuels (diesel, propane and gasoline) average 4,600 gallons. The formulas used below are (electric consumption = acres x .55 x (46,000 kW-hrs/135 acres)) and (fossil fuel consumption = acres x .45 x (4,600 gallons/135 acres)). Using this method, the 2020 estimated electrical energy savings would have been 8,585,671 kW-hrs. The estimated fossil fuels savings would have been 702,464 gallons. It appears the fossil fuel goal is likely met. The electrical energy savings was about 85 percent met.
New Jersey	Water Quality	Reduce water quality impairments from agricultural run-off and to improve water quality along both impaired and unimpaired New Jersey streams. Maintenance and restoration of ecological functions of streams	Monitoring stations have been established throughout the state in an effort to obtain information regarding water quality. In the future, the New Jersey Department of Environmental Protection (NJDEP) will be able to monitor the effectiveness of the New Jersey CREP through their comprehensive ambient monitoring network. There are approximately 206 Ambient Monitoring Stations located at

		by reducing biological impairments and improving water quality.	perennial streams throughout the state. The monitoring consists of macro-invertebrate sampling and habitat quality monitoring and assessment. In addition, the reporting of practice implementation has been enhanced to include HUC 14 information, hydrologic soil groups involved, type of practice, extent of project, drainage area and land use type. This additional information will allow NJDEP to show CREP coverage areas on a statewide map. This data will also allow for the calculation of estimated load reductions that have been achieved by the implementation of CREP practices.
New York I-New York City	Water Quality	Reduce the amount of silt and sedimentation entering the tributaries, main stems, and reservoirs in the Catskill and Delaware watersheds of the New York City drinking water supply system.	Progress toward achieving goals related to reduction of sedimentation entering the New York City drinking water supply system can estimated through modeling. The Chesapeake Assessment Scenario Tool (CAST) estimates edge of stream load reductions for sediments using coefficients for various best management practices. CAST estimates for the 1,628.05 acres of Riparian Forest Buffers under contract through 9/22/20 had the potential to reduce sedimentation by 440 tons annually. In addition to CREP, the Watershed Agricultural Program (WAP) has implemented thousands of additional agricultural best management practices (i.e., nutrient management plans, cover crops, manure storages, roof runoff management, calf housing, exclusion fencing, etc.) since the NYC CREP agreement was signed in 1998 that have also helped reduce the amounts of sediments that enter the water supply system. WAP staff engaged in extensive monitoring to track survivability rates of established riparian forest buffers. During 2020, WAP staff monitored 23 CREP riparian forest buffers, individually inspecting 7,195 trees and shrubs. This monitoring program is in addition annual status reviews (ASR) that are conducted

			on farms with Whole Farm Plans (WFP) that include CREP as a WFP best management practice.
	Water Quality	Reduce the amount of phosphorous and nitrogen entering the tributaries, main stems, and reservoirs in the Catskill and Delaware watersheds of the New York City drinking water supply system.	CAST estimates that the 1,628.05 acres of riparian forest buffers under contract as of 9/22/20 have the potential to reduce phosphorous by .96 tons and nitrogen by 29 tons annually.
	Water Quality	Reduce the amount of waterborne pathogens entering the tributaries, main stems, and reservoirs in the Catskill and Delaware watersheds of the New York City drinking water supply system	It is difficult to evaluate progress toward achieving goals related to reduction of the amount of waterborne pathogens entering the New York City drinking water supply system attributable to CREP because of the size and dynamics of the watershed. Additionally, there are numerous other programs and practices in the watershed dedicated to controlling and monitoring pathogens in the watershed, including ultra-violet treatment. In addition to CREP, WAP has implemented thousands of additional agricultural best management practices (i.e., nutrient management plans, cover crops, manure storages, roof runoff management, calf housing, exclusion fencing, etc.) since the NYC CREP agreement was signed in 1998 that have also helped reduce the amounts of pathogens in the water supply.
	Habitat	Promote the continued health and viability of natural habitats and ecosystems in the Catskill and Delaware watersheds of the New York City drinking water	It is difficult to evaluate progress in promoting the continued health and viability of natural habitats and ecosystems in the Catskill and Delaware watersheds of the New York City drinking water supply system, including those for endangered species, such as the Bald Eagle, and native cold

		supply system, including those of endangered species, such as the Bald Eagle, and native cold-water fish.	water fish, because of the size and dynamics of the watershed. True aquatic habitat benefits for cold water species or eagle habitat will be achieved when canopy closure over CREP reaches on the streams is achieved. The Stroud Water Research Center in southeastern Pennsylvania, which has highly productive soils and a warmer, extended growing season than the NYC Watershed, estimates reaching canopy closure in 15 years with perfect tree maintenance management. WAP staff estimate that it will take at least 25 years to achieve canopy closure in the NYC watershed based on soils, climate, and management.
New York II-Syracuse	Water Quality	Reduce the risk of pathogens from animal waste applied to pasture and cropland.	The city has had a coordinated watershed program since 1994. Per the annual report to the City/New York State Department of Health, numerous and measurable accomplishments have been achieved. To data 56.66 acres have been enrolled into the CREP agreement.
	Water Quality	Reduce sediment deposition in Skaneateles Lake and its tributaries attributable to erosion of cropland.	A 1-acre stormwater attenuation wetland was constructed in a reach of Shotwell Brook.
	Water Quality	Reduce nutrient runoff from animal waste and fertilizer applied to adjacent cropland and pastures.	The farmer participation rate in Skaneateles Lake Watershed Agricultural Program (SLWAP) is 86 percent.
	Water Quality	Assist the City of Syracuse in continuing to meet filtration avoidance criteria issued by the NY State Department of Health	The city has had a successful watershed program for 26 years.

		in order to comply with the Safe Drinking Water Act.	
	Water Quality	Establish, preserve, or enhance wildlife habitat leading to an increase in populations and diversity of birds, mammals, and aquatic organisms.	In excess of 1,000 acres of cover crops are implemented annually to help keep the soil on the land and the nutrients in the soil. More farmers implementing buffers around field borders, which enhance wildlife and diversity of habitat.
New York III-Statewide	Water Quality	Reduce Phosphorous from 145,284 lbs. per year to 72,642 lbs. per year	Phosphorus reductions for CREP practice cost-share and/or for complementary practices in the eligible watersheds contracted in 2020 are estimated by using the Chesapeake Assessment Scenario Tool (CAST, Chesapeake Bay Program). Monitoring of the reductions is accomplished by performing the CAST analysis annually. For 2020, phosphorus reductions are estimated at 5,521 lbs.
	Water Quality	Reduce Nitrogen from 77,316 lbs. per year to 38,688 lbs. per year	Nitrogen reductions for CREP practice cost-share and/or for complementary practices in the eligible watersheds contracted in 2020 are estimated by using the Chesapeake Assessment Scenario Tool (CAST, Chesapeake Bay Program). Monitoring of the reductions is accomplished by performing the CAST analysis annually. For 2020, nitrogen reductions are estimated at 73,085 lbs.
	Water Quality	Reduce Sedimentation from 175,316 tons per year to 70,216 tons per year	Sediment reductions for CREP practice cost-share and/or for complementary practices in the eligible watersheds contracted in 2020 are estimated by using the Chesapeake Assessment Scenario Tool (CAST, Chesapeake Bay Program). Monitoring of the reductions is accomplished by performing the CAST analysis annually. For 2020, sediment reductions are estimated at 1,155 tons.

	Water Quality	Establish riparian buffers adjacent to 4,598 stream miles	Progress towards establishing riparian buffers adjacent to 4,598 stream miles is not measured or monitored. Progress towards this goal is unknown.
	Water Quality	Establish riparian buffers adjacent to 473,457 acres of surface waters	Progress towards establishing riparian buffers adjacent to 473,457 acres of surface waters is not measured or monitored. Progress toward this goal is unknown.
	Water Quality	Establish conservation cover on areas that serve EPA-approved wellhead zones.	Progress towards establishing conservation cover on EPA-approved wellhead zones is minimal.
North Carolina	Water Quality	Restore and enhance riparian habitat corridors next to streams, drainage ditches, estuaries, wetlands, and other water courses by enrolling up to 85,000 acres of riparian forested buffers, grass filter strips and other riparian tree plantings.	28,610 acres.
	Habitat	Restore up to 15,000 acres of non-riparian wetlands either associated with drainage ditches or adjacent to primary fishery nursery areas to address impacts associated with drainage.	2,439 acres.
North Dakota	Habitat	Enroll 20,000 acres of cropland in the Conservation Reserve Program (CRP) consisting of filter strips, riparian buffers, and	A total of 932.19 acres have been enrolled towards this goal. These acres are providing habitat for all species. Annual compliance monitoring is completed.

		pollinator habitat to improve and maintain water quality and wildlife habitat, including habitat and forage for pollinators.	
	Habitat	Enroll 40,000 acres of land into the North Dakota Game and Fish Department's Private Land Open to Sportsmen (PLOTS) program.	In total, 1,544 acres of CREP lands have been enrolled towards this goal.
	Water Quality	Improve water quality in the project area by enrolling 1,500 acres annually reducing the amount of Nitrogen, Phosphorus and sediment entering rivers, streams and other waterbodies by 75,000 pounds of Nitrogen per year; 37,500 pounds of Phosphorus per year and 4,750 tons of sediment per year.	Utilizing RUSLE2 calculations for the enrolled CREP acres: 1,184 tons of sediment have been removed. 101,696 lbs. of nitrogen have been removed. 10,170 lbs. of phosphorus have been removed.
Ohio I-Lake Erie	Water Quality	To install 67,000 acres in conservation practices on 10 percent of the total riparian acres in the basin.	Progress is measured by the amount of practices that are installed annually. During FY 2020, a total of 663 acres of new practices were installed. Some acres may have been lost due to producers not re-enrolling. More than 90 percent of these newly installed practices were total riparian acres in the basin.
	Water Quality	To protect farmlands from erosion and to reduce loads of sediment to Lake Erie.	Progress is measured by data collected by Heidelberg College through water quality sampling. Final flow values from USGS generally do not become available until at least a year after the end of the water year of interest. Since these

			data are needed to calculate loads, calculations for the most recent year are based on provisional data and are subject to revision. After 19 years, the sediment saved is substantially greater than the target savings for the entire program, and more than double the target for sediment saved through 2019. Cumulative discharge through 2019 is about 11 percent above that expected (calculated from the average of 1990 to 1999) and recent discharges have been higher than expected since 2008. Concern has been expressed that years with above-average discharge may cause the reported "savings" to shrink rapidly. Multiple years have had above-average discharge—most notably 2007, 2008, 2011, 2015, 2017, and 2019—and the sediment savings remain.
Ohio III-Scioto River Basin	Enrollment	Seek enrollment of 70,000 acres of conservation practices on cropland and marginal pastureland in the Scioto River Watershed	Progress is measured by acreage in practices that are installed annually. Near the end of FY20, new enrollments were allowed, and 42.81 new acres were enrolled in the program. For FY20, a total of 20,406 acres were successfully re-enrolled into the program. For FY21, new acreage enrollment is expected to increase as more program acres are available and incentives will likely encourage new enrollment.
	Water Quality	Reduce sediment and phosphorus loading by 20 percent and nitrogen loading by 30 percent on an annual basis upon reaching enrollment goals.	Absent field scale monitoring sediment, phosphorus and nitrogen loads can only be estimated. Site variabilities and annual water volume in runoff influence riparian buffer effectiveness. While buffer effectiveness greatly varies, a Penn State University study reported the relative gross effectiveness of filter strips for sediment reduction as follows: sediment, 65 percent; phosphorus, 75 percent; and nitrogen, 70 percent. Similarly, an EPA report on buffers shows the effectiveness of trapping sediment to range from 41 to 100 percent and nitrogen removal efficiency between 9

			to 100 percent. While it is difficult to measure the level of effectiveness when compared to loading, research shows that buffers reduce sediment and nutrient level contributions to streams and rivers. For the Scioto CREP, enrollment of conservation practices effectively reached the 70,000-acre enrollment goal in 2010. Since this time and up until this year, conservation practices have been at peak enrollment levels. This would mean conservation practices are achieving the greatest benefit from 2010 to present as the maximum level of conservation practices were in place during this time period. Regarding sediment and nutrient loads, Heidelberg University maintains a statewide tributary monitoring program and measures loading in Ohio's river systems throughout the year. For the Scioto River, a water monitoring station is maintained on the main stem of the river near Chillicothe. Annual loads are calculated for suspended solids, total phosphorus, nitrate, and total nitrogen. Ohio EPA conducts a mass balance study for Ohio's major river systems. This study computes annual phosphorus and nitrogen loads and allocates loads to 3 primary contributor groups: non-point source, point source, and household sewage systems. The 5-year average load distribution for the Scioto River watershed shows 62 percent of the total phosphorus and 81 percent of the total nitrogen coming from non-point sources.
	Permanent Protection	Seek up to 5,000 acres of permanent conservation easements	There are 585 acres that are permanently protected with conservation easements. These easements protect approximately eight miles of streambank. Funding for these easements came from Clean Ohio grant funds and a one-time contribution from the Nature Conservancy.

	Habitat	Stabilize and improve the distribution and abundance of species in the Scioto River watershed. Use Index of Biotic Integrity (IBI), Invertebrate Community Index (ICI) and the Qualitative Habitat Index (QHEI) to measure progress.	Over time, the distribution and abundance of species in the Scioto River have shown continued improvement. The lower mainstem of the Scioto River has been regularly surveyed and assessed by Ohio EPA since 1979. Ambient biological monitoring since that time has documented steady and regular improvement, culminating in full warmwater habitat aquatic life use attainment in 2011; many sites supported exceptional or near exceptional fish and macroinvertebrate communities. Currently, the Scioto River stands as Ohio's richest and most intact large river system. As a result of the improvements Ohio EPA is recommending that a portion of the Scioto River be redesignated as exceptional warmwater habitat in lieu of the current warmwater habitat designation. Gross measures of biological community performance for the Scioto River have greatly improved over time. Species abundance has increased. Biotic Integrity Index (IBI) and Invertebrate Community Index (ICI) also show trending improvements.
	Habitat	Increase targeted habitats in the Scioto River Watershed by at least 15 percent to benefit targeted wetland, grassland, and riparian corridor species groups.	Habitat for wildlife has experienced growth and distribution as a result of CREP. Pheasant distribution in Ohio is closely tied to Ohio's top CRP counties, many of which are counties with Scioto CREP. A direct connection between CRP cover and the distribution and abundance of other grassland bird species exists as well. Land use plays a major role in the number of pheasant and grassland bird species. As the percent of CRP grassland cover increases, so does pheasant occurrence. Major increases in pheasant populations occur when CRP cover reaches 10-15 percent. In contrast, an increase for both developed land and forest cover show a decrease in pheasant

			occurrence. Ohio has experienced significant increases in wildlife as a result of the Scioto CREP.
Oregon	Water Quality	Restore 100 percent of the area enrolled for the riparian forest buffer practice to a properly functioning condition in terms of distribution and growth of woody plant species, filtration of nutrients and sediment from agricultural runoff, shade and stabilization of stream banks under normal non-flood conditions	In 2019, Oregon Watershed Enhancement Board (OWEB) worked with 5 CREP technicians in Oregon to pilot a monitoring approach to track contract performance and inform management of CREP buffers. This monitoring approach, developed in coordination with OWEB-funded CREP technicians, includes completion of a CREP monitoring checklist and repeating the Stream Visual Assessment Protocol (SVAP) on a subset of active contracts. OWEB elected to pilot the approach before implementing it statewide. The technicians will report their findings in early 2020 and OWEB will incorporate lessons learned from this pilot monitoring effort into a refined monitoring approach in 2020 and 2021.
	Water Quality	Provide a way for farmers and ranchers to voluntarily meet the water quality requirements established under federal law and under Oregon's water quality act.	In 2019, Oregon Watershed Enhancement Board (OWEB) worked with 5 CREP technicians in Oregon to pilot a monitoring approach to track contract performance and inform management of CREP buffers. This monitoring approach, developed in coordination with OWEB-funded CREP technicians, includes completion of a CREP monitoring checklist and repeating the Stream Visual Assessment Protocol (SVAP) on a subset of active contracts. OWEB elected to pilot the approach before implementing it statewide. The technicians will report their findings in early 2020 and OWEB will incorporate lessons learned from this pilot monitoring effort into a refined monitoring approach in 2020 and 2021.
	Water Quality	Attain enrollments for the following targets for a maximum	Based on enrollment numbers, Oregon has achieved the goals set forth in the various regions outlined for the state.

		of 100,000 acres enrolled in Oregon under CREP: 1. Coastal Basins - 1,250 acres of riparian forest buffer; 1,000 acres of restored wetlands = 2,250 acres 2. Columbia Basin - 8,000 acres of riparian forest buffers; 1,000 acres of restored wetlands = 9,000 total acres 3. Interior drainages - 3,500 acres of riparian forest buffers, 1,000 acres of restored wetlands = 4,500 total acres 4. The Tualatin Watershed Option implemented by Clean Water Services has worked to restore the Tualatin Watershed primarily through riparian forest buffer practices.	
	Habitat	This is the primary goal that the listed goals 1-3 aim to address, while also providing additional benefits as listed in goals 1-3: A number of fish species native to Oregon have been either listed or proposed for listing as threatened or endangered species under the federal Endangered Species Act. This Agreement for this Oregon CREP seeks to help	As a result of the nearly 48,000 acres that are enrolled in CREP, the water temperatures and shade provided by riparian buffer practices, in addition to filtering agricultural runoff, have provided improved habitat for a number of fish species located in the state.

		alleviate some of these problems.	
Pennsylvania I-Chesapeake Bay Watershed	Other: Water Quality and Habitat	Permit the Commonwealth's producers to voluntarily restore wetlands, riparian areas, and grasslands by enrolling up to 219,746 acres of farmland into the Chesapeake Bay CREP, through financial and technical assistance.	Pennsylvania currently has 85,490 acres of wetlands, riparian areas, and grasslands enrolled in the Chesapeake Bay CREP.
	Water Quality	Reduce erosion on cropland in the Chesapeake Bay watersheds by an estimated 3.5 million tons using April 22, 2000, as the beginning of the base period for measuring erosion reduction levels.	Pennsylvania's CREP program reduced an estimated 39,206.07 tons/yr. of sediment from entering the Chesapeake Bay Watershed during this program year. This estimate is based on data provided by the USDA's FSA and use loading rates and reduction coefficients based on a Chesapeake Bay Watershed model.
	Water Quality	Prevent 72,500 tons of sediment, and 4.4 million pounds of nitrogen and phosphorus from reaching the Chesapeake Bay using April 22, 2000, as the beginning of the base period for measuring erosion reduction levels.	Estimated pollution prevented from entering the Chesapeake Bay Watershed during this program year: - 39,206.07 U.S. tons/yr. of sediment - 1,921,332 lbs./yr. of nitrogen - 102,813 lbs./yr. of phosphorous These estimates are based on data provided by the USDA's FSA and use loading rates and reduction coefficients based on a Chesapeake Bay Watershed model.
	Water Quality	Restore and enhance riparian habitat corridors next to streams, estuaries, wetlands, and other watercourses by seeking to	Pennsylvania currently has 16,865.23 acres of buffers, grass filter strips, and wetlands enrolled in Chesapeake Bay CREP.

	And Habitat	enroll at least 31,746 acres of buffers, grass filter strips, and wetlands.	
	Water Quality And Habitat	Restore and enhance grassland habitats for declining grassland dependent wildlife and improve water quality by seeking to enroll 188,000 acres of highly erodible cropland in conservation cover plantings.	Pennsylvania currently has 68,624.97 acres of highly erodible cropland in conservation cover plantings through the Chesapeake Bay CREP.
	Water Quality And Habitat	Improve the water quality and restore damaged riparian areas of the Susquehanna and Potomac Watersheds to facilitate the health of fish, game, and other wildlife populations.	Under the Chesapeake Bay CREP, Pennsylvania currently has 16,865.23 acres of buffers, grass filter strips, and wetlands and 68,624.97 acres of highly erodible cropland in conservation cover plantings.
Pennsylvania II-Ohio River Basin	Water Quality and Habitat	Permit the western Commonwealth's producers to voluntarily restore and protect wetlands, highly erodible land (HEL), and riparian areas by enrolling up to 40,000 acres of cropland into the Ohio River Basin CREP.	Pennsylvania currently has 14,499.80 acres of cropland enrolled in the Ohio River Basin CREP.
	Water Quality	Reduce erosion on cropland by an estimated 10,154 tons per year using March 4, 2004 as the beginning of the base period for	Pennsylvania's CREP program is responsible for preventing an estimated 4,996.13 tons of sediment from entering the Chesapeake Bay Watershed during this program year. This estimate is based on data provided by the USDA's FSA

		measuring erosion reduction levels.	and use loading rates and reduction coefficients based on a Chesapeake Bay Watershed model.
	Water Quality	Prevent 10,154 tons of sediment, 738,500 pounds of nitrogen, and 16,000 pounds of phosphorous per year from entering the Ohio River and Gulf of Mexico, using sediment and nitrogen loading levels measured on March 4, 2004.	Estimated pollution prevented from entering the Ohio River and Gulf of Mexico during this program year: - 4,996.13 U.S. tons/yr. of sediment - 271,018 lbs./yr. of nitrogen - 8,005 lbs./yr. of phosphorous These estimates are based on data provided by the USDA's FSA and use loading rates and reduction coefficients based on a Chesapeake Bay Watershed model.
	Water Quality And Habitat	Restore and enhance riparian habitat corridors next to streams, estuaries, wetlands and other watercourses by seeking to enroll at least 6,000 acres of buffers, grass filter strips, and wetlands.	Pennsylvania currently has 3,828.4 acres of buffers, grass filter strips, and wetlands enrolled in the Ohio River Basin CREP.
	Water Quality And Habitat	Restore cover on up to 34,000 acres of HEL to protect water quality and create wildlife habitat, particularly grassland habitat for song and ground-nesting birds, by planting native warm-season grasses and/or cool-season grasses, creating field borders, and protecting intact habitats.	Pennsylvania currently has 10,671.4 acres of highly erodible land (HEL) enrolled in the Ohio River Basin CREP.

Pennsylvania III - Delaware River Basin	Other: Water Quality and Habitat	Permit Pennsylvania landowners and operators to voluntarily restore and protect wetlands, highly erodible land, and riparian areas by enrolling up to 20,000 acres of farmland into the Delaware River Basin CREP.	Pennsylvania currently has 75.77 acres enrolled in the Delaware River Basin CREP.
	Water Quality	Reduce erosion in the Delaware River, and ultimately the Delaware Bay, by an estimated 557 tons per year when fully enrolled.	The Delaware River Basin CREP is responsible for preventing an estimated 11.778 tons of sediment from entering the Delaware River, and ultimately the Delaware Bay, during this program year: This estimate is based on data provided by the USDA's FSA and use loading rates and reduction coefficients based on a Chesapeake Bay Watershed model.
	Water Quality	Prevent 557 tons of sediment, 349,500 pounds of nitrogen and 12,353 pounds of phosphorus per year from entering the Delaware River and Bay when fully enrolled.	Estimated pollution prevented from entering the Delaware River and Bay during this program year: - 11.778 U.S. tons/yr. of sediment - 934 lbs./yr. of nitrogen - 29 lbs./yr. of phosphorous These estimates are based on data provided by the USDA's FSA and use loading rates and reduction coefficients based on a Chesapeake Bay Watershed model.
	Water Quality and Habitat	Restore up to 4,000 acres of riparian buffers and wetlands; this will reduce flooding, improve in-stream water quality, stabilize stream banks and floodplains, reduce water temperature, increase time to	Pennsylvania currently has 3.5 acres of buffers, grass filter strips, and wetlands enrolled in the Delaware River Basin CREP.

		runoff, facilitate groundwater recharge, and provide a host of other benefits to humans and wildlife.	
	Water Quality and Habitat	Restore up to 16,000 acres of HEL to protect water quality and create wildlife habitat, particularly grassland habitat for song and ground-nesting birds, by planting native warm-season grasses and/or cool-season grasses, creating field borders, and protecting intact habitats.	Pennsylvania currently has 72.4 acres of Highly Erodible Land enrolled in the Delaware River Basin CREP.
South Dakota-James River	Water Quantity	Restore the environmental functions on 60,000 acres of wetlands and associated buffers, and reduce peak flooding by 2 percent for a 25-year storm event and 1 percent for a 100-year storm event.	Approximately 44,600 acres of wetlands and associated buffers have been restored to reduce flooding by 1.5 percent for a 25-year flood and 0.75 percent for a 100-year flood in the James River Watershed.
	Water Quantity	Establish 25,000 acres of permanent vegetation to serve as natural filters for pollutants and sediment and to create prime nesting cover for migratory and resident wildlife species.	This is being measured and monitored by the number of acres enrolled in the James River Watershed CREP, all of which help meet this goal. Over 79,000 acres of permanent vegetation has been created to filter pollution and sediment from runoff, while also providing prime nesting and breeding habitat for migratory and resident wildlife like the bobolink, upland sandpiper, chestnut collared longspur, western meadowlark, grasshopper sparrow, savannah sparrow, dickcissel, sedge wren, waterfowl and ring-necked pheasants.

	Water Quantity	Establish 15,000 acres of buffers for riparian areas and filter strips.	This is measured and monitored by performing a spatial analysis in Geographic Information System software of the acres of land enrolled in the James River watershed CREP that are adjacent to a river or stream. Currently there are over 30,000 acres that meet these criteria.
	Water Quantity	Provide a reduction of sediment pollution on agricultural land previously used for row crops by 90 percent from 60,000 tons/year to 6,000 tons/year.	This is measured by running each piece of land enrolled in CREP through the Spreadsheet Tool for Estimating Pollutant Loads (STEPL) model to estimate sediment reductions. It is monitored by these lands continuing to be maintained in perennial vegetative cover and complying with the CRP contract. Sediment pollution has been reduced by 98 percent from 72,362 tons/year to 1,471 tons/year.
	Water Quantity	Provide a reduction of phosphorous and nitrogen on agricultural land previously used for row crops by 65 percent from 221,000 lbs/year to 144,000 lbs/year for phosphorous, and from 840,000 lbs/year to 546,000 lbs/year for nitrogen.	This is measured by running each piece of land enrolled in CREP through Spreadsheet Tool for Estimating Pollutant Loads (STEPL) model to estimate phosphorus and nitrogen reductions. It is monitored by these lands continuing to be maintained in perennial vegetative cover and complying with the CRP contract. Phosphorus has been reduced by 95 percent (from 109,402 lbs/year to 4,825 lbs/year) and nitrogen has been reduced by 85 percent (from 360,302 lbs/year to 51,065 lbs/year).
	Water Quantity	Provide a reduction of sediments and nutrients entering waterways from lands adjacent to enrolled riparian buffer acres by 50 percent from 4,200 tons/year to 2,100 tons/year for sediment, from 10,400 lbs/year to 5,200 lbs/year for phosphorous, and	This is measured by running each piece of land enrolled in CREP adjacent to a river or stream through the Spreadsheet Tool for Estimating Pollutant Loads (STEPL) model to estimate sediment, phosphorous, and nitrogen reductions. It is monitored by these lands continuing to be maintained in perennial vegetative cover and complying with the CRP contract. Sediment pollution has been reduced by 98 percent (from 27,430 tons/year to 550 tons/year). Phosphorus has been reduced by 95 percent (from 41,500 lbs/year to 2,075

		from 56,000 lbs/year to 28,000 lbs/year for nitrogen.	lbs/year) and nitrogen has been reduced by 85 percent (from 136,600 lbs/year to 20,500 lbs/year).
	Water Quantity	Stabilize 90 percent of the stream channel on the portion of the stream where riparian buffers are installed through this CREP.	This is measured and monitored by the number of miles of streams or rivers that are buffered by lands enrolled in CREP providing a buffer of perennial vegetation and stabilizing 90 percent of the stream channel. The South Dakota Department of Game, Fish and Parks completed a research study from January 1, 2013 to December 31, 2015, in which it contracted with South Dakota State University. The objectives of the study were to determine the effects of CREP enrolled lands on water quality in the James River, its tributaries, and watershed wetlands and aquatic fauna. Three years of field work were completed for this study with final reports completed in the spring of 2017. They found that CREP enrolled acres adjacent to streams and rivers promoted bank-stabilizing vegetation. Riparian vegetation and function quickly recovered from previous agricultural
	Wildlife Production	Produce an additional 285,000 pheasants annually.	According to the 2006 report by Nielson et al. estimating response of ring-necked pheasant (*Phasianus colchicus*) to CRP enrollment, 100,000 acres of CRP is estimated to produce 285,000 pheasant annually. Based on the number of acres enrolled in CREP, it is estimated that over 225,000 additional pheasants are produced annually.
	Wildlife Production	Contribute an additional 60,000 ducks to the fall flight annually.	According to the 2007 report by Reynolds and Shaffer, *Waterfowl Response to the Conservation Reserve Program and Swampbuster Provision in the Prairie Pothole Region, 1992-2004*, 100,000 acres in CRP is estimated to produce 60,000 ducks annually. Based on the number of acres enrolled in CREP, it is estimated that over 47,000 additional ducks are produced annually.

	Habitat	Create an additional 85,000 acres of breeding habitat for wetland and grassland dependent species including bobolink, upland sandpiper, chestnut collared longspur, western meadowlark, grasshopper sparrow and savannah sparrow, dickcissel, and sedge wren.	This goal is measured and monitored by the number of acres enrolled in this CREP. The South Dakota Department of Game, Fish and Parks completed a research study from January 1, 2013 to December 31, 2015, in which it contracted with South Dakota State University. The objectives of the study were to assess the benefits of CREP to grassland nesting birds. Three years of field work were completed for this study with final reports completed in the spring of 2017. The researchers observed a rapid response in game and non-game grassland birds using lands enrolled in the CREP. They conducted observations on 693 breeding bird transect surveys and documented 3,081 individuals consisting of 49 species. Seven of eight CREP focal bird species of conservation concern were documented (except for chestnut-collard longspur). They also observed several other non-game species, as well as ring-necked pheasant, sharp-tailed grouse, and 9 waterfowl species. Nest searching of 144 fields yielded 731 nests of 28 different species, including the same 7 CREP focal species of conservation concern. There were 79,121.56 acres enrolled in this CREP for FY2020.
Vermont	Water Quantity	Supplement existing efforts to achieve phosphorus reductions attributable to non-point sources (NPS) described in the Lake Champlain Basin Program (LCBP). The LCBP identifies a NPS phosphorus reduction target of 48.3 tons per year.	Acres enrolled by land use are modeled to estimate phosphorous and nitrogen losses treated, reduced, or prevented by the installation of the buffers. Based on the acres enrolled through 2018, CREP buffers are responsible for 3.6 percent of the required load reduction for all sectors of the Lake Champlain Basin TMDL and over a 6,000 lbs/yr reduction in nitrogen loading in the Connecticut River Watershed.

	Habitat	Provide secondary benefits to wildlife and aquatic habitat.	Total acres enrolled in the program.
Virginia I-Southern Rivers	Water Quality	Riparian buffer enrollment of 13,500 acres.	To date, approximately 15,564.26 acres of buffer have been restored through this CREP agreement along with 881 miles of stream buffered.
	Water Quality	The second goal for this CREP agreement is wetland enrollment of 1,500 acres.	Thus far, approximately 1 percent of Southern Rivers CREP sign-ups have been for CP-23 Wetland Restoration on cropland for a total of 16 sign-ups.
	Water Quality	The SR CREP's third goal is 3,000 acres of enrolled permanent CREP easements.	Most CREP easements were enrolled between 2004 and 2011 with over 1,745 acres statewide enrolled (Bay and Southern Rivers). In the Bay, approximately $715,610 in state funding has gone towards easements.
Virginia II-Chesapeake Bay	Water Quality	This CREP agreement includes a goal of 22,000 acres of buffers enrolled in riparian buffers.	To date, approximately 18,606 acres of riparian buffer have been enrolled under the Chesapeake Bay CREP agreement.
	Water Quality	The CREP agreement includes a goal of 3,000 acres of wetland enrollment.	Ten CP-23 Westland Restoration best management practices have been implemented in the history of this CREP agreement, which is 1 percent of total CREP sign-ups.
	Water Quality	The CREP agreement for the Bay includes a goal of 6,000 acres of CREP easements.	Most CREP easements were enrolled between 2004 and 2011 with over 1,745 acres statewide enrolled (Bay and Southern Rivers). In the Bay, approximately $715,610 in state funding has gone towards easements.
Washington	Habitat	Restoration of 100 percent to the area enrolled for the riparian forest practice to a properly functioning condition in terms of	Annual monitoring evaluates growth rate, species diversity, and percent invasive species. Over the past 5 years, most sites have growth rates appropriate for their location (or

		distribution and growth of woody plant species.	better). Monitoring has shown that species diversity stabilizes over time as buffers mature.
	Water Quality	Reduction of sediment and nutrient pollution from agricultural lands adjacent to the riparian buffers by more than 50 percent.	A recent literature review by the Washington Department of Ecology noted that most sediment trapping in a buffer tends to occur in the first few meters. In particular, a 5-meter buffer can trap about 80 percent of incoming sediment. Buffers in the Washington CREP program average 142 ft (433.28 m) width, greatly exceeding the 80 percent reduction afforded by 5 meters and the 50 percent reduction goal.
	Water Quality	Establishment of adequate vegetation on enrolled riparian areas to stabilize 90 percent of stream banks under normal (non-flood) water conditions.	Annual monitoring shows that CREP sites have stable banks with adequate vegetation and no active erosion.
	Water Quality	Reduction of the rate of stream water heating to meet State ambient water quality standards by planting adequate vegetation on all riparian buffer lands.	Annual monitoring shows that for small streams, CREP provides substantial canopy cover that should meet the goal of reduced stream water heating for salmonid health. In several watersheds where CREP implementation has occurred along a large portion of the creek (Tucannon River in southeast Washington; Tenmile Creek in Whatcom County; Chimicum Creek in Jefferson County) stream temperatures have reduced over time and salmon have returned in greater numbers than before CREP.
	Water Quality	Provision of a contributing mechanism for farmers and ranchers to meet the water quality requirements established under federal law and under	Farmers and ranchers that participate in CREP immediately realize a physical separation of their activity from streams and salmon habitat. Provision of off-stream water when riparian forest buffers are installed also enables ranchers to comply with water quality standards. A study by the Washington State Department of Agriculture found that

		Washington's water quality laws.	hedgerows, a practice allowed under Washington CREP on small streams, reduce pesticide deposition from aerial spray operations by 96 percent compared to fields without hedgerows.
	Habitat	Provision of adequate riparian buffers on 2,700 stream miles to permit natural restoration of stream hydraulic and geomorphic characteristics which meet habitat requirements of salmonids.	CREP currently provides riparian forest buffer along 900 miles of streamside on streams that support salmon. Annual increases in mileage have been approximately 30 miles per year.
West Virginia	Program enrollment	Enroll 9,160 acres annually.	Positive progress.
	Water Quality	Reduce runoff, sediment, and nutrients from ag enterprises.	Positive progress, as monitored through the State's Watershed Implementation Plan (WIP) goals, EPA models, Department of Environmental Protection (DEP) reviews, West Virginia Department of Agriculture (WVDA) monitoring, Nutrient Management Plans, EPA test sites, local water districts, and Source Water Protection Plans (SWPP).
	Water Quality	Promote water quality.	Positive progress, as monitored through the State's WIP goals, EPA models, DEP reviews, WVDA monitoring, Nutrient Management Plans, EPA test sites, local water districts, and Source Water Protection Plans (SWPP).
	Habitat	Enhance wildlife habitats.	Positive progress, as monitored through the State's WIP goals, EPA models, DEP reviews, WVDA monitoring, Nutrient Management Plans, EPA test sites, local water districts, and Source Water Protection Plans (SWPP).

Wisconsin	Water Quality	Riparian Project Area: The state seeks to improve the water quality of several water bodies that drain agricultural lands throughout the State of Wisconsin, through a reduction of sediment and the nutrient loading to these water bodies. Improving water quality through CREP will assist in improving water quality in the state's list of impaired waters (303d list). Wisconsin's CREP includes over 95 percent of the waters included on the state's list of impaired waters that are impacted by agricultural activities. The specific goals for Wisconsin's CREP are to: - Reduce nutrient runoff of phosphorus (610,000 pounds) and nitrogen (305,000 pounds) by up to 10 percent and sediment (335,000 tons) in runoff by up to 15 percent from cropland and pastureland in the project areas. - Establish riparian buffers on up to 50 percent (about 3,700 miles) of the stream miles in the project area that drain farmland which	The state tracks enrollment, payments, landowner transfers, buyouts, and environmental benefit progress information through a statewide CREP database. Wisconsin had 3,527 active CREP contracts on 40,475 acres as of October 1, 2020 and continues to have high enrollment activity. About three-quarters of the acres enrolled in the Wisconsin CREP are in riparian practices. Filter strips (CP21) comprise the majority of the riparian practices with 64 percent (17,500 acres), while riparian buffers (CP22) make up another 22 percent (6,100 acres). There are also just under 3,000 acres of wetland restorations (CP23) that are currently under active CREP agreements in the state. Out of 32 states with CREP contracts, Wisconsin ranks 4th in the number of farms the program has practices on, 5th in the number of CREP contracts, and 10th in the total acres of conservation practices installed according to the USDA-FSA CRP monthly summary report for October 2020. During the 2020 federal fiscal year, the state processed 349 CREP contracts totaling 4,341 acres, including 347 15-year agreements and 8 easements (2 finalized and 6 in review) across the CREP project areas. Of these, 210 were new CREP contracts on 2,621 acres. The state saw a net gain of acres enrolled in federal fiscal year 2020 as new and reenrolled acres were greater than acres under contracts that expired this year. Wisconsin authorized $28 million in funding for CREP. As of October 1, 2020, the state made 12,000 CREP incentive and cost share payments to landowners totaling almost $20.1 million. In addition, counties reported they spent $3.8 million in non-federal staff and other costs to administer

		currently is without adequate buffers.	CREP. Since inception, state and local costs for CREP total $23.9 million. Wisconsin CREP works with landowners to enroll agricultural land with runoff concerns into filter strips, riparian buffers, grassed waterway and small wetland restorations to improve water quality. An environmental benefits report that calculates an estimate of annual reductions in agricultural runoff is completed by county land conservation staff for each CREP site and reported to the state. From these reports, the state estimates that installing CREP conservation practices results in significant environmental benefits. Below are the 2020 summary results of the estimated annual reduction in phosphorus, nitrogen and sediment runoff along with the length of stream or shoreline buffered. Pounds of Phosphorus: 87,980 Pounds of Nitrogen: 47,339 Tons of Sediment: 43,771 Miles of Stream or Shoreline Buffered: 793 miles State CREP enrollment totals are slightly different than federal totals, as multiple CRP-1 contracts can be associated with a single state CREP contract and active CREP contracts for the state include both 15-year agreements and perpetual easements. Also, CREP CRP-1 contracts are often finalized with the FSA offices close to September 30th of each year. Subsequently, submittal of the majority of state CREP agreements for processing occurs into the following fiscal year. The state works with the FSA state office to cross reference state and federal CREP enrollment for each CRP sign-up to monitor and ensure all CRP-1s are accounted for that federal fiscal year.

	Water Quality	Grassland Project Areas: The state seeks to enhance wildlife habitats for endangered grassland birds and other wildlife species in two grassland project areas in north central and southcentral Wisconsin; the goal is to improve habitat for several grassland birds included under the Endangered Species Act. The specific goals for Wisconsin's CREP are to: - Establish an additional 10 percent (15,000 acres) of grassland habitat acreage within the grassland project areas to increase populations of endangered or threatened grassland birds.	Wisconsin CREP has two grassland project areas that can enroll up to 15,000 acres. In total, about 11,000 acres of grassland conservation practices are currently under an active CREP contract in the CREP grassland project areas. The conservation practices unique to these project areas include CP1 (permanent introduced grasses), CP2 (permanent native grasses), and CP25 (rare and declining habitat: prairie and oak savanna restoration). For the Wisconsin CREP, these practices must be placed adjacent to and within 1,000 feet of an eligible water body and be on steep slopes in order to address water quality issues as well as provide habitat for birds and pollinators. The CREP southern grassland project area reached its maximum allowable acres (10,000 acres) of grassland practice acres in 2016. Each year since then, acres that have come available for grassland practice from expirations have been filled with new enrollment. FSA reports that in federal fiscal year 2020, Wisconsin is close to meeting the acreage cap. The CP25 practice makes up just under 70 percent of the grassland practices established in the southern grassland project area. The northern grassland project area enrolled about a fifth of its allowable grassland practices with CP1 the primary practice established through CREP. Perpetual CREP conservation easements cover 207 acres in the southern project area and 57 acres in the northern area. Both of the grassland project areas overlap with the CREP riparian project area allowing the landowners various conservation options. Landowners in these regions often have multiple CREP contracts on their farm operation that correlate to either grassland or riparian practices that are installed through CREP to help resolve resource concerns.

	Water Quality	Lake Superior Project Area: The state seeks to reduce peak discharge flows from agricultural lands in the Lake Superior Basin that increase erosion and sedimentation in the steams and the outlets to Lake Superior. The specific goals for Wisconsin's CREP are to: - Reduce the peak runoff flow in critical areas of the Lake Superior Basin by 10 to 15 percent. The reduction in peak flow will be greater in the upper portions of watersheds with concentrations of agricultural lands. On individual participating farmland, reduce the overall hydrologic runoff curve numbers (from an average RCN of 89 to an RCN of 77 on the red clay soils on cropland and marginal pastureland). Based on models, this should reduce peak flow in streams thereby reducing stream scouring (bank cutting and erosion) and reducing sediment levels in the streams and to their outlets at Lake Superior.	Two counties in the Lake Superior project area, Ashland and Bayfield, have had landowners enroll in the CREP program for a total of five contracts covering 132 acres. Three of the contracts are perpetual easements on 43.1 acres. This project area includes the conservation practices available under the CREP riparian project area as well as CP30 (Marginal Pastureland Wetland Buffer). State and federal incentives and annual rental payment incentives are higher for these practices in this project area. All 132 acres currently enrolled in CREP in the Lake Superior project area are riparian buffers (CP22). The primary objective of this CREP is to reduce the peak flow in critical areas of the Lake Superior Basin and on individual fields to reduce the hydrologic runoff curve number (RCN) on the red clay soils on cropland and marginal pastureland. According to the agreement application, riparian buffers will greatly reduce the rate of runoff due to the "roughness" of the vegetation and the reduction in raindrop energy. Planting of trees on slumping banks will not only stabilize the bank and reduce sediment loss to the stream, but the planting of trees will prevent small channels from becoming further incised.