

**UPPER ARKANSAS RIVER  
CONSERVATION RESERVE ENHANCEMENT PROGRAM  
PERFORMANCE REPORT**

**BY THE**

**STATE OF KANSAS**

**October 1, 2024 – September 30, 2025**



Arkansas River near Lakin, Kansas with center pivots over winter wheat in the background.



## Table of Contents

<a href="#">Executive Summary</a> .....	3
<a href="#">Implementation Summary</a> .....	4
<a href="#">Progress on CREP Objectives</a> .....	6
<a href="#">Summary of State Program Expenditures</a> .....	7
<a href="#">Attachment A: Authorized Irrigated Acres and Highly Erodible Soils</a> .....	10
<a href="#">Attachment B: Project Area Monitoring Wells and Alluvial Aquifer Hydrographs</a> .....	11
<a href="#">Attachment C: Dakota Aquifer Hydrographs and Rattlesnake Creek Basin Hydrographs</a> .....	12
<a href="#">Attachment D: Groundwater Level and Water Quality Monitoring Wells</a> .....	13
<a href="#">Attachment E: Project Area Reported Irrigated Acres and Irrigation Water Use: 2007–2023</a> .....	14
<a href="#">Attachment F: Project Overview and Implementation References</a> .....	16

**For additional information, visit the CREP website at**

**[www.agriculture.ks.gov/CREP](http://www.agriculture.ks.gov/CREP)**

**or contact**

Steve Frost, Director - Division of Conservation  
Kansas Department of Agriculture, Division of Conservation  
1320 Research Park Dr. Manhattan, KS 66502 785-564-6622

**[www.agriculture.ks.gov/DOC](http://www.agriculture.ks.gov/DOC)**

## Executive Summary

The Conservation Reserve Enhancement Program (CREP) in Kansas is a federal and state partnership created for enhancing water conservation efforts along the Upper Arkansas River (UAR) corridor from Hamilton County to Rice County. **The UAR CREP has been officially approved and operating for 18 years;** this annual report provides a synopsis of the implementation activities and progress to date. The Kansas Legislature made updates to the statutory authorization that provided additional legislative guidance for the program at the end of the 2025 Legislative Session in House Bill 2255, and the Kansas Department of Agriculture (KDA) Division of Conservation (DOC) is continuing to work with federal partners to reflect state legislative intent.

CREP is an enhanced version of the Conservation Reserve Program (CRP) in which the Farm Service Agency (FSA) of the U.S. Department of Agriculture (USDA) and the State of Kansas have mutually agreed to address specialized natural resource concerns. The Natural Resources Conservation Service (NRCS) is USDA's provider of technical assistance and field services to producers who are implementing CREP contracts. The KDA-DOC is the primary coordinator of the program in concert with numerous other state, local and private partners including KDA's Division of Water Resources; Kansas Water Office; Kansas Department of Wildlife and Parks; Kansas Department of Health and Environment; Kansas Geological Survey; Kansas State University; Groundwater Management District Nos. 3 and 5; Ducks Unlimited; Pheasants Forever; and Kansas Alliance for Wetlands and Streams.

UAR CREP is a voluntary, incentive-based program allowing 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 DOC.

Groundwater is the dominant source of water for all uses in the basin, and aquifer declines are a serious concern. **Therefore, water conservation is the main management objective in the UAR CREP.** The program also provides other resource benefits including soil conservation, erosion reduction, water quality protection, wildlife habitat enhancement, and energy savings. The majority of irrigated acres enrolled have been on highly erodible sandhills soils that are unsuitable for dryland farming.

**One of the most significant merits of the program to date has been establishing cover on these highly erodible lands.** The extremely fragile, windblown soils of the sandhills will be very difficult to re-vegetate after irrigation is no longer possible and crop production ceases due to groundwater declines. The CREP program has provided these producers a viable option, incentive and financial opportunity for starting prairie grass stands and other conservation covers while limited irrigation water is still available.

As of September 30, 2025, a total of 142 state CREP contracts on 24,140 acres have been approved by the State of Kansas. **These contracts have resulted in the permanent retirement of 49,146 acre-feet of annual water appropriation on 174 water rights from 217 wells.** The contracts represent a total of \$1,910,001 in one-time state sign-up incentive payments to producers since project start-up in 2007.

**The UAR CREP project was initiated to beneficially utilize damage award funds received as a result of the KS v. CO lawsuit regarding depletion of the Arkansas River.** The Kansas Legislature's underlying intent is to provide some economic replacement to the water using community that suffered groundwater declines because of upstream flow losses, as well as to conserve and extend the life of the Ogallala Aquifer underlying the river. Since 2007, a total of \$17,572,697 of direct and indirect expenditures and in-kind costs from state, local and private partners have been made to match an estimated total of \$37,405,894 in federal program costs.

**Annual Progress:** To increase landowner participation, the 2025 Kansas Legislature approved substantive amendments to the state's CREP statutory authorization. With FSA approval, basic water right eligibility standards can now be significantly relaxed to allow more enrollment flexibility, including enhanced land management practices for landowners and producers such as routine grazing, limited irrigation, and dryland farming. Once adopted, these changes could incentivize additional enrollment in the program, which would increase water savings over the life of the project.

In 2025, the Legislature also increased the allowable project allotment to 60,000 cumulative acres with limitations on per county enrollments. These limitations include a county-level cap of 12,000 acres, and an annual cap on

enrollment in any individual county of 1,600 acres, unless the acreage is determined to be a high priority for water conservation by the Secretary of Agriculture in consultation with the Chief Engineer of the State of Kansas. For the 60,000-acre statewide and 12,000-acre county limitations, the limit may be exceeded to allow for the enrollment of the last eligible offer.

With these appropriate statutory changes, the development of a CP100 dryland farming practice to be offered on suitable soils in the project area continues. This CRP dryland farming concept incorporates significant wildlife habitat and water quality buffer protection benefits into a financially sound opportunity for landowners to transition out of irrigated agriculture, maintain profitability, and sustain family legacy farming. DOC is coordinating necessary updates to our federal-state MOU with an expectation of a renewed program re-rollout by October 1, 2026 (FY2027).

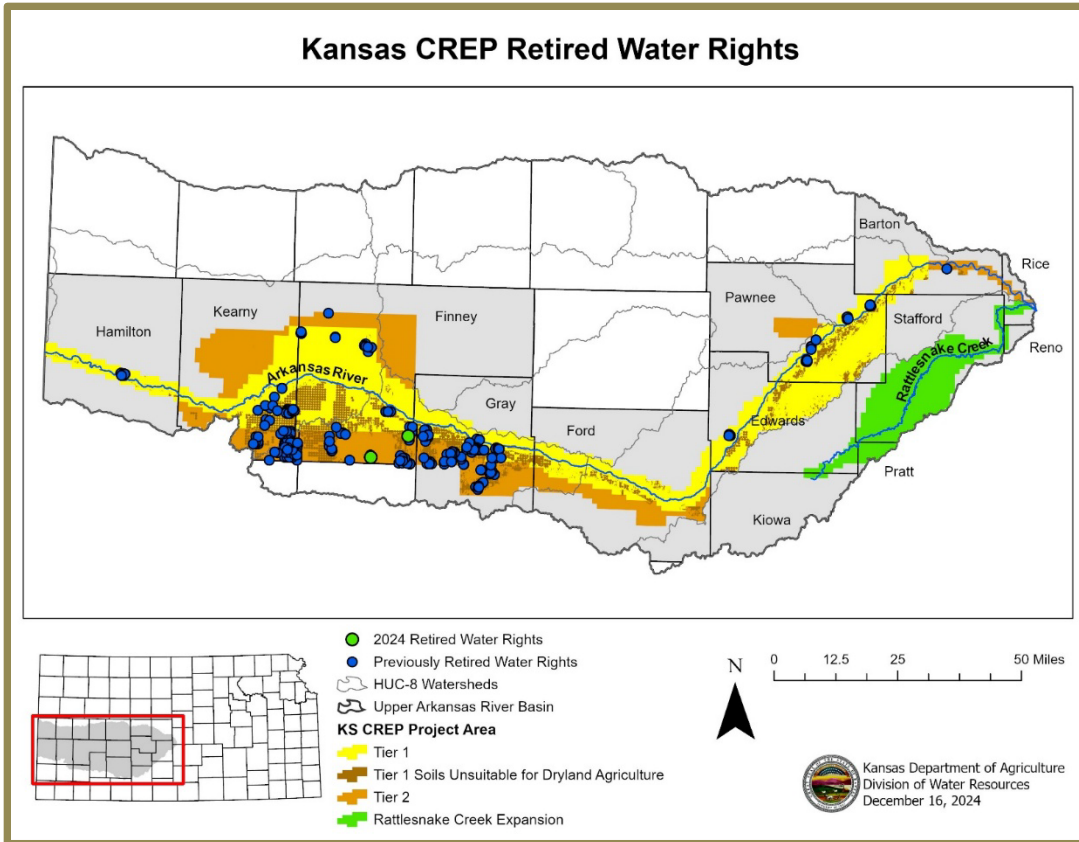
## CREP Program Implementation Summary

### Approved Contract Acreage Totals as of September 30, 2025

County	BT	ED	FI	FO	GY	HM	KE	KW	PN	PR	RI	RN	SF	TOTAL
<b>Acres</b>	107.7	127.5	6,181.3	0	7,501.0	242.9	9,078.9	0	901.5	0	0	0	0	<b>24,140.8</b>

- 24,140 acres have been approved for enrollment over the life of the project.
- 217 wells have been retired on 23,891 irrigated acres from 174 water rights.
- 49,146 acre-feet of annual water appropriation rights have been permanently retired.
- 142 state contracts are approved for a total of \$1,910,001 in sign-up incentives cost-share.
- 99% are CP2 practice code (native grasses) and 91% are Tier 1 / Tier 1 unsuitable soils.
- Enrolled CREP acres represent approximately 3.1% of total project area irrigated acres in 2025.

## Kansas CREP Retired Water Rights



<b>CREP Authorized Water Right Allocation Permanently Retired: 2007 – 2025</b>		
<b>CREP County</b>	<b>Authorized Quantity (Acre-Feet) of Annual Water Right Allocation Permanently Retired on State Contract Approved Acres</b>	<b>Number of Irrigation Wells Being Permanently Retired on State Contract Approved Acres</b>
Barton	150 AF	1 Well
Edwards	150 AF	1 Well
Finney	12,206 AF	48 Wells
Ford		
Gray	15,824 AF	63 Wells
Hamilton	386 AF	3 Wells
Kearny	19,380 AF	72 Wells
Pawnee	1,050 AF	29 Wells
Pratt		
Reno		
Rice		
Stafford		
<b>Total</b>	<b>49,146 AF</b>	<b>217 Wells</b>

**Progress on CREP Objectives – The program continues to work with federal partners to update these goals and objectives to reflect amendments to K.S.A. 2-1933.**

**Goal 1 (Water Quantity):** Enroll a maximum of 40,000 acres into CRP through this CREP in the project area (to be comprised of up to 37,000 irrigated cropland acres and up to 3,000 acres of dryland center-pivot corners).

- **Progress towards meeting Goal 1:** Progress is measured by recording CRP enrollments in the UAR CREP. The cumulative project total remains 24,140.8 acres enrolled, reflecting a 60.3% completion rate based on the original project maximum acreage limit of 40,000 acres.
- **Difficulties in meeting Goal 1:** Due to a complex interrelationship of agricultural economic variables including commodity prices, land values and operating costs, and especially CRP rental rates, landowners and producers in the project area showed limited interest in the program as it is currently designed. We expect interest in the program to increase once statutory changes made by the Legislature in 2025 are approved by federal partners.

**Goal 2 (Water Quantity):** Reduce the consumption of groundwater for irrigation in the project area by 65,000 acre-feet of permitted water appropriations based on the enrollment of 37,000 irrigated acres.

- **Progress toward meeting Goal 2:** Progress is measured by recording the amount of annual water appropriation rights that are voluntarily retired in conjunction with CRP enrollment of irrigated lands within the project area. The cumulative project total remains 49,146 acre feet of annual water appropriation water rights retired, reflecting a 75.6% completion rate based on the original project acreage total of 40,000 acres.
- **Difficulties in meeting Goal 2:** Due to a complex interrelationship of agricultural economic variables including commodity prices, land values and operating costs, and especially CRP rental rates, landowners and producers in the project area showed limited interest in the program as it is currently designed. We expect interest in the program to increase once statutory changes made by the Legislature in 2025 are approved by federal partners.

**Goal 3 (Soil Conservation):** Reduce agricultural use of land that is unsuitable for dryland farming by enrolling 25,000 acres with a Wind Erodibility Index (WEI) or greater.

- **Progress towards meeting Goal 3:** Progress is measured by recording CRP enrollments in the UAR CREP which are classified as being in soil types of Wind Erodibility Index (WEI) of 134 or greater. The cumulative project total for soil types with a WEI of 134 or greater remains 21,029 acres enrolled, reflecting a 84% completion rate based on the original total project acreage limit of 25,000 acres.

Acres Enrolled as of September 30, 2025	
Tier 1	1,307
Tier 1 Unsuitable Soils	21,029
Tier 2	1,804
<b>Total Acres Enrolled</b>	<b>24,140</b>

- **Difficulties in meeting Goal 3:** Landowners in these highly erodible soil types are seemingly becoming more reluctant to follow NRCS standards and protocols for attempting to re-establish grass stands after decades of continuous irrigation - which is affecting participation. Limited irrigation or other new options as authorized by the Kansas Legislature could provide landowners and producers with the tools necessary to establish grass on highly erodible soils.

**Goal 4 (Soil Conservation):** Reduce the amount of soil lost to erosion by approximately 150,000 tons / year.

- **Progress towards meeting Goal 4:** Progress is measured by recording CRP enrollments in the UAR CREP and multiplying the total acres enrolled by a “tons of soil saved” soil erosion conservation factor of 4 tons /

acre/ year. No additional CRP enrollments were recorded in FY2025. The cumulative project total for this goal is now 96,563.2 tons of soil saved, and this goal is 64.3% complete.

Soil Erosion Reduction	
4 tons / acre / year	24,140 acres
<b>Total soil erosion reduction</b>	<b>96,560 tons per year</b>

- **Difficulties in meeting Goal 4:** By increasing interest and enrollment in the program, it is possible that annual soil erosion reduction may be increased closer to the goal of 150,000 tons / year. For acres that have already been enrolled with native grasses established, soil erosion benefits continue to accumulate.

**Goal 5 (Energy):** Reduce the total annual use of electricity by 16 million kilowatt hours when full enrollment met.

- **Progress towards meeting Goal 5:** Progress is measured by recording CRP enrollments in the UAR CREP and multiplying the estimated number of center pivots by a "total energy savings per center pivot" conservation factor of 59,850 kilowatt hours per center pivot. The cumulative project total for this goal is now 11,072,250 kilowatt hours saved, and this goal is 69.2% complete.

Energy Savings	
Irrigated Acres Enrolled as of September 30, 2025	23,430 acres
Approximate Number of Center Pivots Retired	185 pivots
Average Energy Consumption per Pivot	59,850 kW
<b>Total Energy Savings per Year (kW)</b>	<b>11,072,250 kW</b>

- **Difficulties in meeting Goal 5:** None. By increasing interest and enrollment in the program, it is possible that there could be additional energy savings through center pivot retirement and reduced usage. For acres that have already been enrolled with retired center pivots, energy savings continue to accumulate.

**Goal 6 (Agricultural Transition):** Demonstrate the ability to gradually transition from irrigation farming to non-irrigation farming through enrollment of 1,000 acres of land that has a Wind Erodibility Index (WEI) of less than 134, and will be devoted to CRP practice CP43.

- **Progress towards meeting Goal 6:** Progress is measured by recording the number of CRP acres enrolled in conservation practice CP43 — "Prairie Strips." This goal was added to the CREP authorizing Memorandum of Agreement on August 9, 2021. No offers for this conservation practice have yet to be received.
- **Difficulties in meeting Goal 6:** Introducing CP43 into the CREP agreement is intended to provide landowners an opportunity to transition out of irrigation farming with a strategy of blending both dryland farming and incorporation of substantial conservation covers through a financial package of irrigation rental rates and additional financial incentives in the same whole field enrollment. Landowners and producers have not expressed interest in conservation practice CP43 considering the level of current irrigated rental rates. Once new practices are incorporated into the state plan, including routine grazing, limited irrigation, and dryland farming, they may prove to be more attractive to producers than CP43, and this goal could be transitioned to measures the effectiveness and adoption rates of those practices.

## Summary of State Program Expenditures

Because the program did not have any new enrollments in state fiscal year 2025 pending the incorporation of 2025 legislative amendments in the state plan, funding provided by the state for the CREP/ Water Transition Assistance Program line item of the State Water Plan was primarily utilized for the Water Transition Assistance Program.

State Upfront Payments										
COUNTY	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Barton										\$9,991
Edwards										\$9,894
Finney	\$8,022	\$33,756	\$2,677		\$78,251			\$34,124	\$45,299	\$10,864
Ford										
Gray	\$156,954	\$44,856	\$75,618	\$15,320	\$64,419	\$37,677		\$59,540		
Hamilton									\$23,561	
Kearny	\$260,632	\$37,510	\$15,620		\$94,241			\$20,005	\$49,286	
Kiowa										
Pawnee	\$14,291				\$8,103					
Pratt										
Reno										
Rice										
Stafford										
<b>TOTAL</b>	<b>\$439,899</b>	<b>\$116,122</b>	<b>\$93,915</b>	<b>\$15,320</b>	<b>\$245,014</b>	<b>\$37,677</b>	<b>\$0</b>	<b>\$113,669</b>	<b>\$118,146</b>	<b>\$30,749</b>

State Upfront Payments										
COUNTY	2018	2019	2020	2021	2022	2023	2024	2025		COUNTY TOTAL
Barton										\$9,991
Edwards										\$9,894
Finney	\$224,822					\$79,437	\$91,584			\$608,836
Ford										
Gray						\$69,607				\$523,991
Hamilton										\$23,561
Kearny	\$172,252	\$12,289								\$661,835
Kiowa										
Pawnee		\$24,638		\$24,861						\$71,893
Pratt										
Reno										
Rice										
Stafford										
<b>TOTAL</b>	<b>\$397,074</b>	<b>\$36,927</b>	<b>\$0</b>	<b>\$24,861</b>	<b>\$0</b>	<b>\$149,044</b>	<b>\$91,584</b>	<b>\$0</b>		<b>\$1,910,001</b>

As of Sept. 30, 2025, a total of \$1,910,001 has been expended by DOC for the State Upfront Payments (SUPs) in 142 separate state contracts to producers who have been approved and enrolled in the CREP program.

A total of \$25,000 was provided as direct match during the 2025 fiscal year, as shown below.

<b>Direct Match to Federal Dollars from October 1, 2024, to September 30, 2025</b>		
<b>Organization</b>	<b>Amount</b>	<b>Activities</b>
KDA – Division of Conservation	\$0	State sign-up payments to CREP participants
KDA – Division of Conservation	\$25,000	Salary of State CREP Coordinator
<b>TOTAL DIRECT</b>	<b>\$25,000</b>	State Sign-up Payments and Direct Match

A total of \$377,632 was provided as indirect match during the 2025 fiscal year, as shown below:

<b>Indirect Matching Services by Organizations from October 1, 2024, to September 30, 2025</b>		
<b>Organization</b>	<b>Actual</b>	<b>Activities</b>
<b>Technical Assistance</b>		
KDA – Div. of Water Resources	\$941	CREP website / database maintenance, water right reviews, divisions and retirements for applications
Olsson Engineering Associates	\$30,813	CP100 - Programmatic Environmental Assessment prep
<b>State &amp; Local In-Kind</b>		
Kansas Geological Survey	\$46,600	Water level monitoring, modeling, river water quality and practical saturated thickness work, database management
Kansas Department of Health & Environment	\$10,000	Water quality monitoring and watershed analysis
Kansas Department of Wildlife & Parks	\$17,465	Wildlife and fish population investigations in CREP counties
Southwest Kansas Groundwater Mgmt Dist #3	\$163,538	WWPF management, meter compliance, CREP assistance
Big Bend Groundwater Mgmt Dist #5	\$53,000	Water management, meter compliance, CREP assistance
Kansas Alliance for Wetlands & Streams	\$55,275	Outreach & Education workshops, BMPs
<b>TOTAL INDIRECT &amp; In-Kind</b>	<b>\$377,632</b>	Technical Assistance / In-Kind Services

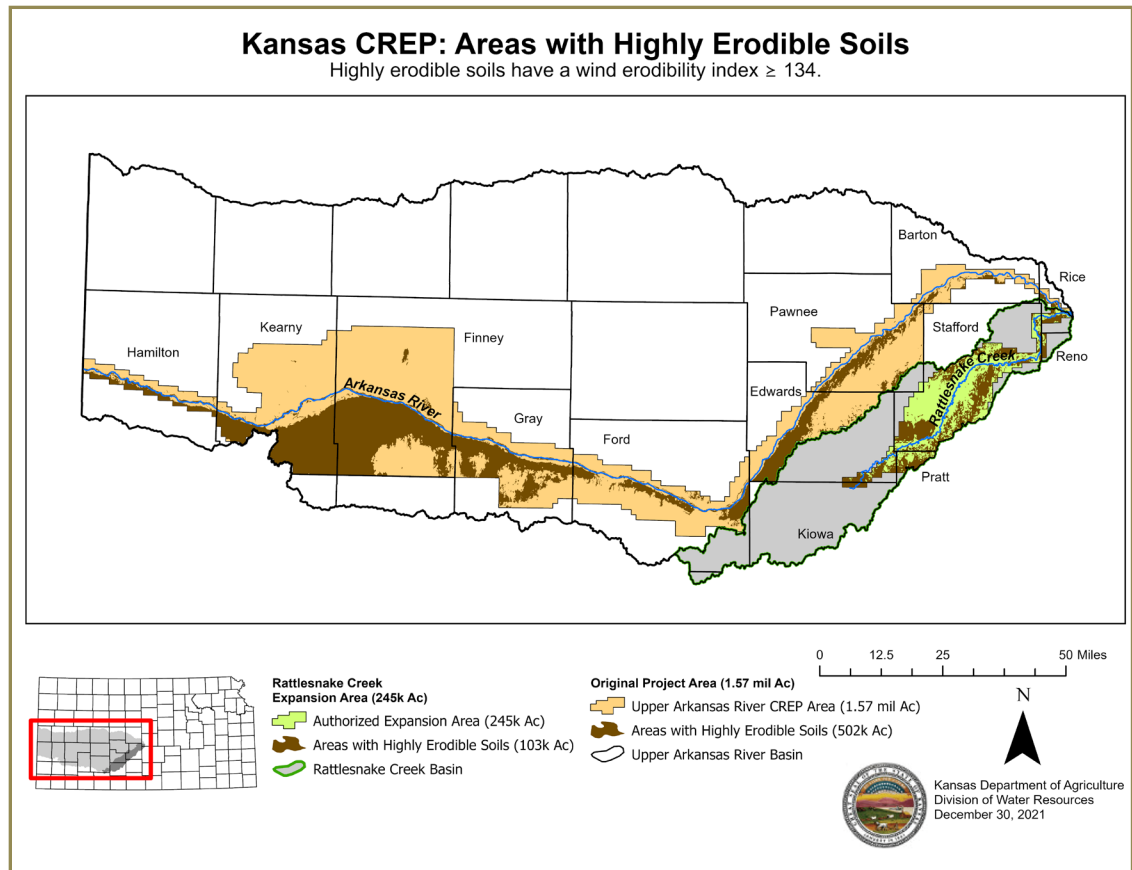
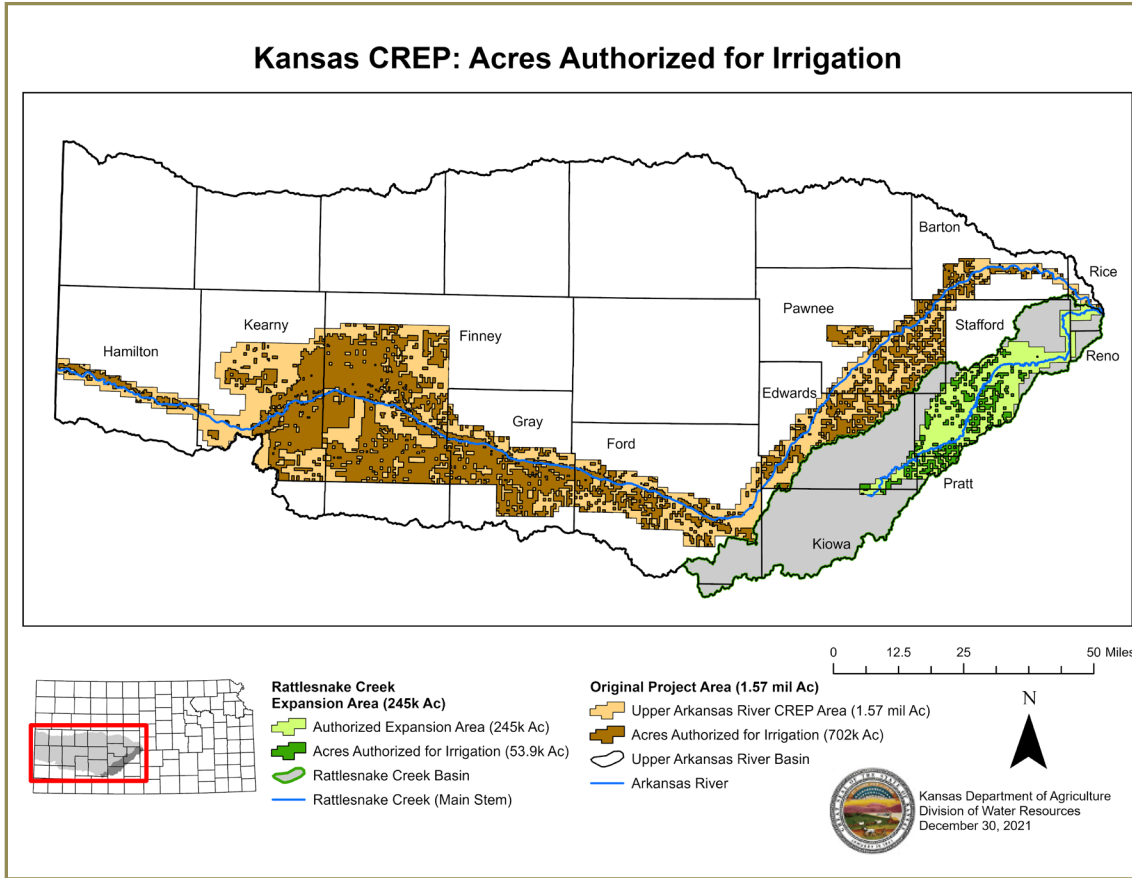
As of Sept. 30, 2025, a total of \$11,994,717 has been expended in the project for both cash payments and direct match. A total of \$5,602,980 has been expended in the project for technical assistance and in-kind services as indirect match.

The total federal project costs are now \$37,405,894. The State of Kansas direct match now totals \$11,994,717 — an amount which exceeds 10% of the federal costs (\$3,740,589). And the State of Kansas, with its partners of other agencies, conservation districts, groundwater management districts and private associations, has provided a total project match of \$17,572,697 — an amount which exceeds the required 20% match of federal costs (\$7,481,178).



# ATTACHMENT A

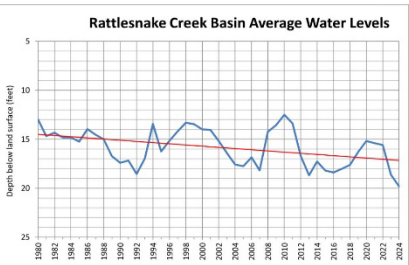
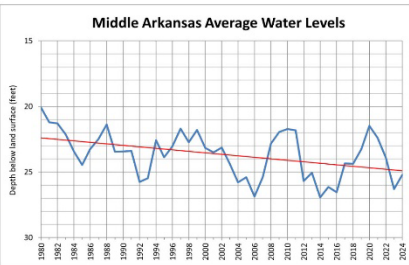
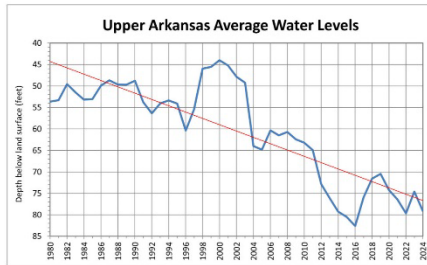
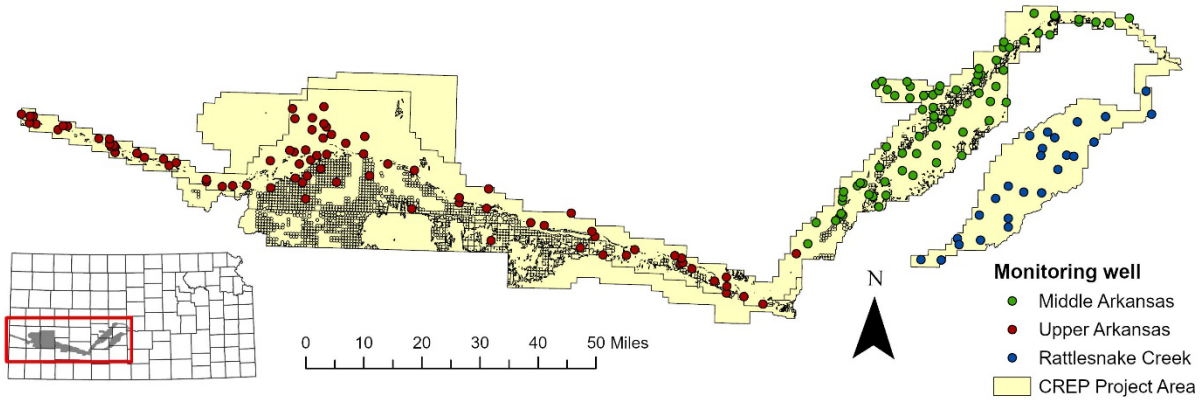
## Authorized Irrigated Acres and Highly Erodible Soils



# ATTACHMENT B

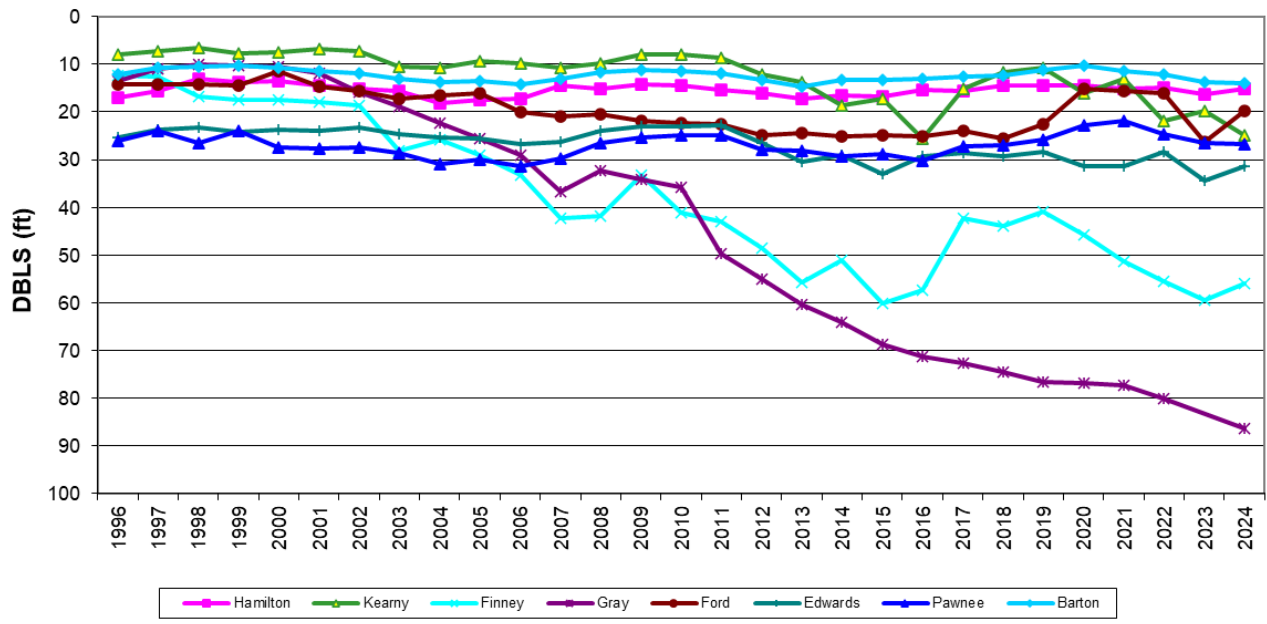
## Project Area Monitoring Wells and Alluvial Aquifer Hydrographs

### Monitoring Wells and Average Groundwater Levels Kansas CREP Area 1980-2024



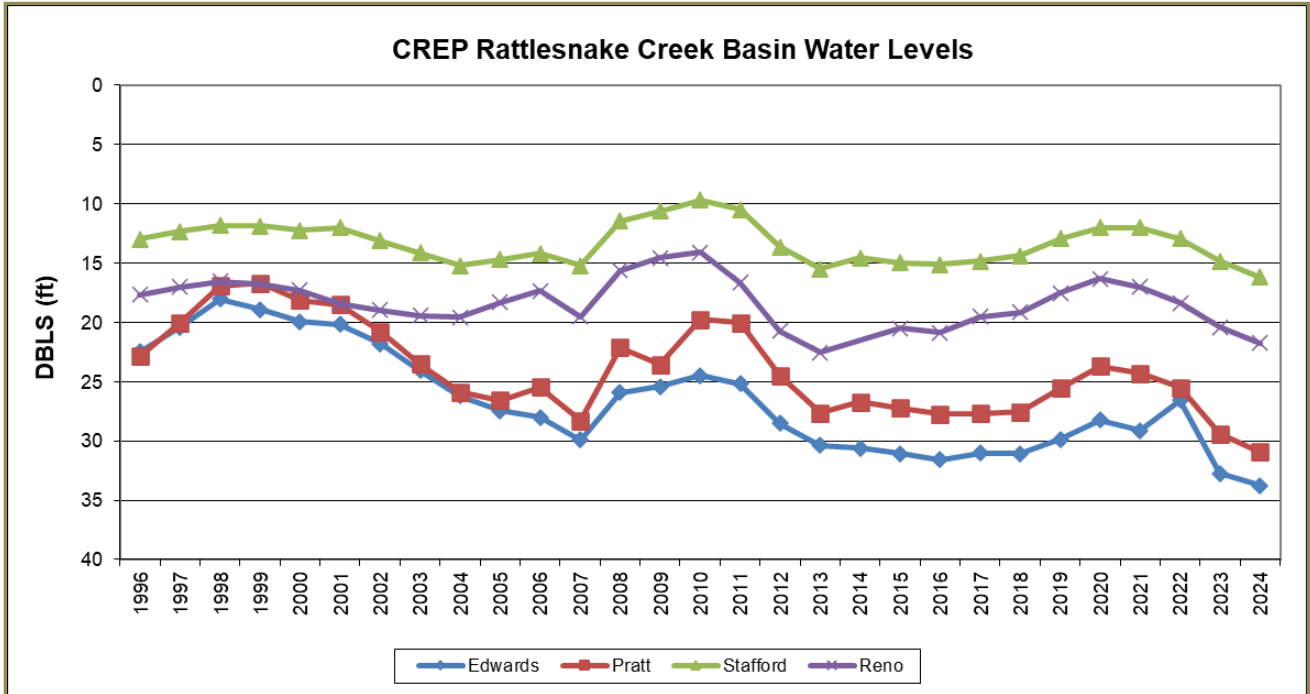
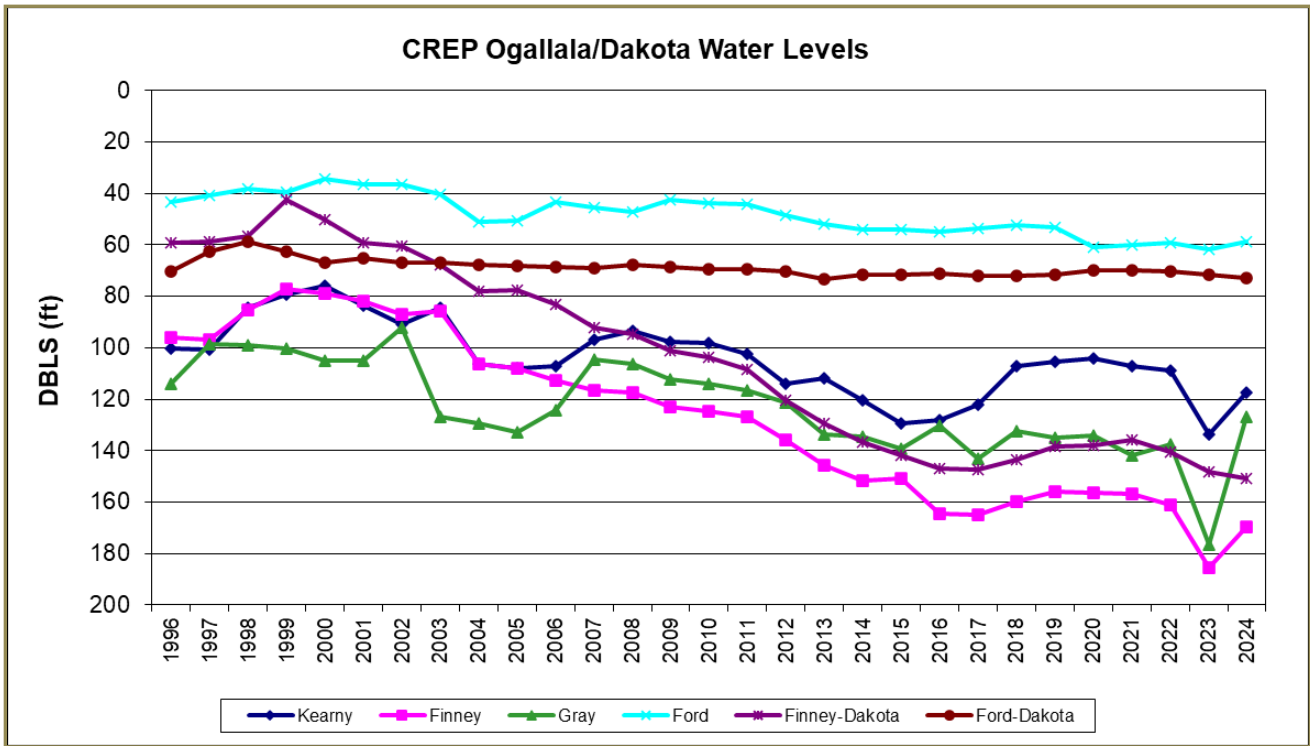
Kansas Department of Agriculture  
Division of Water Resources  
December 16, 2024

### CREP Alluvial Water Levels



# ATTACHMENT C

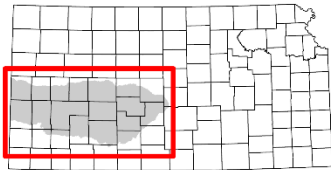
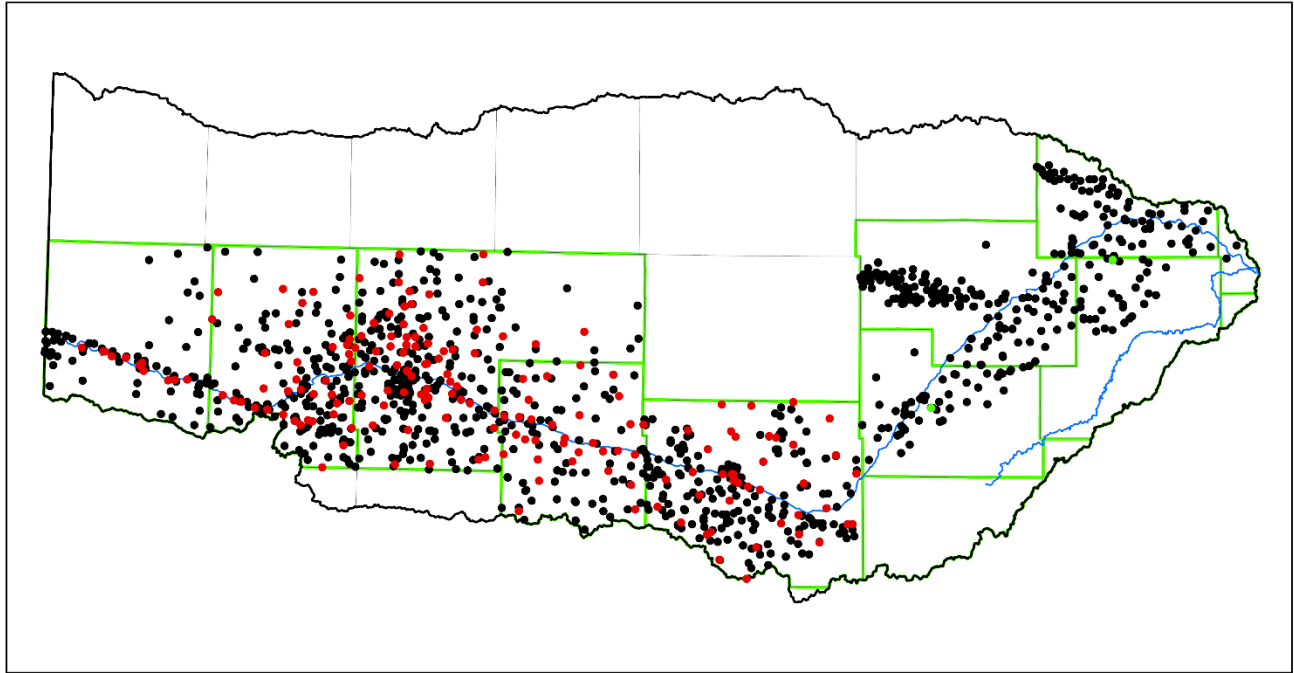
## Dakota Aquifer Hydrographs and Rattlesnake Creek Basin Hydrographs



# ATTACHMENT D

## Groundwater Level and Water Quality Monitoring Wells

### Groundwater Quality and Water Level Well Locations within CREP Counties



- GMD No. 5 Water Quality Site
- GMD No. 3 Water Quality Site
- Water Level Monitoring Site



0 12.5 25 50 Miles



Kansas Department of Agriculture  
Division of Water Resources  
Data: Kansas Geological Survey,  
GMD No. 3, and GMD No. 5  
December 22, 2021



## ATTACHMENT E

### Project Area Reported Irrigated Acres and Irrigation Water Use: 2007–2023

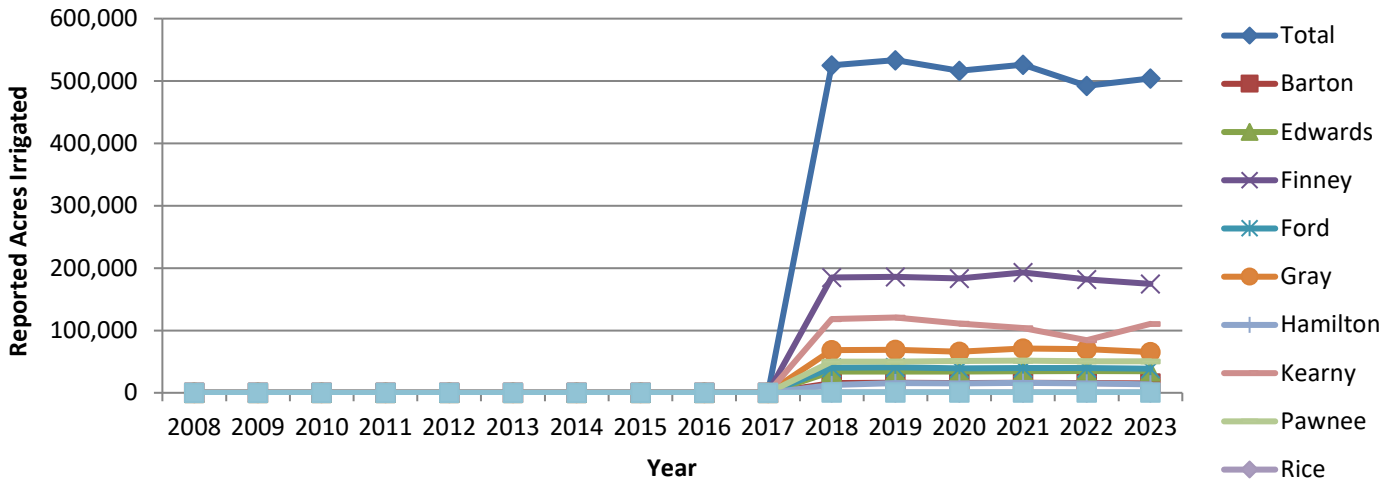
CREP Project Area Reported Irrigated Water Use and Irrigated Acres: 2007-2013															
County	2007	2007	2008	2008	2009	2009	2010	2010	2011	2011	2012	2012	2013	2013	
	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	
Barton	16,658	15,776	15,972	12,218	16,705	15,335	16,318	17,759	16,556	22,780	16,638	21,519	15,985	14,471	
Edwards	36,827	31,203	36,265	38,152	36,313	35,896	37,137	39,023	37,206	49,127	37,188	45,573	36,469	34,930	
Finney	209,396	254,161	206,581	282,693	202,362	243,857	200,120	276,958	200,220	330,958	196,864	320,130	198,042	288,398	
Ford	43,165	45,428	41,778	50,449	41,324	44,772	42,267	47,963	44,019	61,856	42,182	55,686	42,863	46,780	
Gray	85,535	99,823	83,957	105,866	83,390	93,774	81,318	97,536	77,617	114,229	76,689	100,897	74,954	94,531	
Hamilton	11,384	15,870	12,658	18,377	13,316	16,219	12,585	18,253	12,617	21,204	13,471	21,854	14,223	19,307	
Kearny	104,157	184,320	108,261	191,688	112,080	169,009	109,822	189,095	108,176	179,661	88,747	146,481	89,114	130,611	
Pawnee	50,861	40,285	50,627	40,585	50,315	44,125	50,645	53,988	52,757	67,943	50,929	61,025	52,354	48,160	
Rice	336	281	331	221	331	230	331	370	331	611	336	353	336	311	
Stafford	628	601	628	552	628	695	628	788	628	969	625	860	622	588	
<b>Total</b>	<b>558,947</b>	<b>687,747</b>	<b>557,058</b>	<b>740,802</b>	<b>556,764</b>	<b>663,912</b>	<b>551,171</b>	<b>741,733</b>	<b>550,127</b>	<b>849,339</b>	<b>523,669</b>	<b>774,377</b>	<b>524,962</b>	<b>678,088</b>	
CREP Project Area Reported Irrigated Water Use and Irrigated Acres: 2014-2020															
County	2014	2014	2015	2015	2016	2016	2017	2017	2018	2018	2019	2019	2020	2020	
	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	Reported Irrigated Acres in CREP Project Area	Reported Irrigation Water Use (AF) in CREP Project Area	
Barton	16,433	15,320	16,501	17,496	16,675	14,181	16,431	17,244	15,736	14,716	16,179	12,753	15,460	13,895	
Edwards	37,231	36,969	36,974	39,480	37,023	33,364	35,884	39,559	33,863	28,436	33,979	29,898	33,954	31,981	
Finney	193,381	272,819	191,988	229,663	194,355	226,596	191,644	205,655	184,960	210,766	186,218	207,354	183,334	245,754	
Ford	43,533	43,321	42,094	40,184	42,491	37,569	41,884	42,793	40,409	40,393	40,921	37,973	39,258	41,009	
Gray	71,897	87,469	72,339	71,420	71,230	70,209	71,289	71,018	68,552	73,500	68,947	66,581	66,113	76,593	
Hamilton	14,474	18,336	13,842	15,931	14,483	16,183	14,197	14,728	12,449	14,081	15,543	16,456	14,952	19,579	
Kearny	101,820	147,607	115,863	159,466	116,147	164,874	120,877	146,021	118,054	155,703	120,764	162,992	111,074	144,663	
Pawnee	52,832	51,250	52,886	49,658	51,231	36,894	52,094	52,861	50,041	42,617	49,732	42,996	50,908	46,930	
Rice	336	341	166	238	336	362	564	646	564	604	564	512	568	572	
Stafford	628	657	628	711	626	528	627	759	630	554	628	663	629	638	
<b>Total</b>	<b>532,565</b>	<b>674,089</b>	<b>543,281</b>	<b>624,247</b>	<b>544,597</b>	<b>600,759</b>	<b>545,491</b>	<b>591,284</b>	<b>525,258</b>	<b>581,370</b>	<b>533,475</b>	<b>578,177</b>	<b>516,250</b>	<b>621,614</b>	

2021 Reported Irrigated Acres in CREP Project Area	2021 Reported Irrigation Water Use (AF) in CREP Project Area	2022 Reported Irrigated Acres in CREP Project Area	2022 Reported Irrigation Water Use (AF) in CREP Project Area	2023 Reported Irrigated Acres in CREP Project Area	2023 Reported Irrigation Water Use (AF) in CREP Project Area
5,907	15,993	15,538	20,448	15,182	16,451
34,335	33,963	34,874	46,286	34,359	38,090
192,957	229,851	181,694	279,928	174,573	190,668
39,466	39,930	39,589	52,641	38,849	40,542
71,060	70,695	69,784	90,102	65,444	69,305
15,917	18,046	14,844	19,748	13,555	14,873
103,911	135,278	84,311	135,947	110,432	132,490
51,570	49,332	50,503	64,178	50,531	47,255
568	540	568	638	571	591
623	763	623	883	622	718
<b>526,314</b>	<b>594,391</b>	<b>492,328</b>	<b>710,801</b>	<b>504,118</b>	<b>550,983</b>

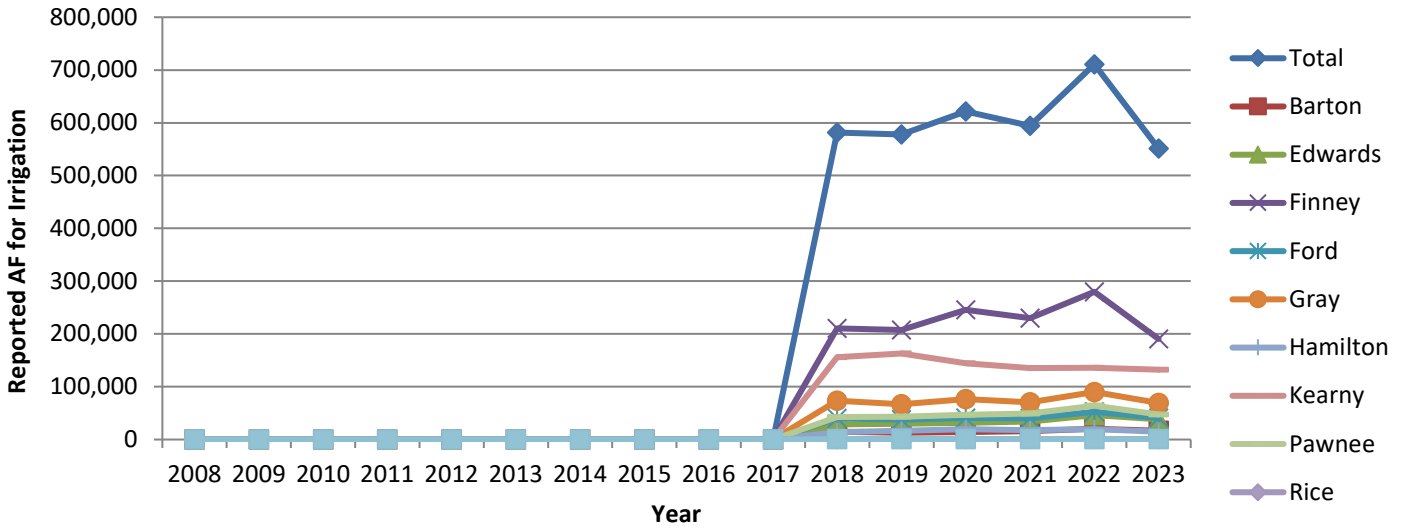
ATTACHMENT E cont.

Project Area Reported Irrigated Acres and Irrigation Water Use: 2007–2023

CREP Project Area Reported Irrigated Acres



CREP Project Area Reported Acre-Feet for Irrigation Use



## **Attachment F**

### **Project Overview and Implementation References Through 2021 MOA**

#### **Overview**

CREP is a special USDA Conservation Reserve Program that creates individual rules, special conditions and financial incentives for a geographic region or watershed with unique issues and/or resource goals. The Kansas Legislature approved funding for an Upper Arkansas River Conservation Reserve Enhancement Program (UAR CREP) in 2007 and 2008. The KDA-DOC and KWO worked with USDA's FSA and NRCS to develop and launch the program. A Memorandum of Agreement, signed by Kansas Governor Kathleen Sebelius on Nov. 27, 2007, and by Acting USDA Secretary Charles Conner on Dec. 4, 2007, officially established the Kansas UAR CREP.

The UAR CREP is a voluntary program that provides signing incentives, market rental rates and cost sharing to participants who enroll their land into eligible conservation practices such as native vegetation establishment for a period of 14 to 15 years. The CREP project area lies within 10 counties along the Arkansas River corridor, covering 1,571,440 acres. Prior to program start-up, 718,683 acres were authorized for groundwater irrigation in the CREP project area. Another 10,680 acres were also authorized for irrigation from surface water. Reducing irrigation demands on the stream-aquifer system will help slow the aquifer declines, mitigate the spread of saline waters into the aquifer, and help restore stream and riparian health.

The Kansas Legislature has approved the enrollment limit up to a maximum of 40,000 acres, and FSA conducted its environmental impact assessment and initial approval procedures at that level. The state sought to first enroll up to 20,000 acres under the initial MOA — 17,000 acres of irrigated land, and 3,000 dryland corners from irrigated circles based on 1) the amount of funds that were then available; and 2) an additional stipulation regarding the amount of land coming out of CRP at that time. In 2011, FSA approved an expansion of the total project size to 28,950 acres with a target goal of 25,950 irrigated acres to be enrolled under a revised MOA. Joint efforts occurring during the 2015 program year again amended the MOA between USDA and the State of Kansas. These amendments were approved to increase state incentive rates, update important water use eligibility criteria and provide mechanisms for future flexibilities in adjusting the current county cap enrollment limits.

In 2021, the project underwent another milestone MOA revision for updating partner requirements to be consistent with changes in the 2018 Farm Bill. In addition to the overall profile of policy amendments which were updated, Kansas was able to add four significant provisions to the agreement which stand to enhance water management objectives for the state, as follows:

- 1) Expanding the current project area to include a portion of the Rattlesnake Creek sub-basin.
- 2) Increasing the total allowable enrollment acres cap to 40,000.
- 3) Adding a new conservation practice, CP-43 "Prairie Strips," which can incorporate dryland farming in between approved conservation covers on certain soil types.
- 4) Further defining and increasing the State of Kansas funding commitment for direct incentive payments to participants as "the USDA per-acre annual rental payment x 15 x 13.5 percent." (This rate represents an approximate 350% increase in the state payment commitment since some of the previously approved direct contributions are no longer allowed under the most recent farm bill changes.)

These MOA amendments were completed and approved by both parties on August 9, 2021, to become effective October 1, 2021 — the next federal fiscal year for the program.

#### **History**

The CREP project area lies within the Upper Arkansas River basin. Overall, the target area includes portions of ten counties (Hamilton, Kearny, Finney, Gray, Ford, Edwards, Pawnee, Stafford, Barton and Rice counties) and two groundwater management districts (Southwest Kansas Groundwater Management District No. 3 [GMD3] and Big Bend Groundwater Management District No. 5 [GMD5]) along the river corridor. Within the entire project area, the Arkansas River has hydrologic interactions of surface flow and groundwater. The main water sources for producers within the project area are local stream/river surface waters, and the alluvial and High Plains

aquifers. The Arkansas River flows from headwaters in the Rocky Mountains and has been diverted for more than 100 years for irrigation in Colorado and Kansas. The river and groundwater system have had several decades of well-documented flow depletions entering the state of Kansas, and groundwater declines in the aquifer are resulting in loss of base flow to the river, decline in well yields, and in some locations, degradation of groundwater quality.

The Arkansas River is a resource of state and national concern for both water quantity and water quality. The flow into Kansas is extensively controlled through releases from the John Martin Reservoir in eastern Colorado and is managed through the Arkansas River Compact Administration (as described in the section below). Reduced flows as the river entered Kansas, in violation of the compact, have historically resulted in stream flow depletion, groundwater declines, and economic damage. The river is also one of the most saline in the nation where it enters Kansas, a result of the extensive concentration of salts occurring from irrigation use and reuse. The declining flows and deteriorated water quality threaten the viability of this important surface water source in western Kansas. Correlated with the reduced flow and increasing salinity of the river is the degradation of riparian health and wildlife habitat. Native plant communities have declined, and there has been an extensive and aggressive infestation of tamarisk and other non-native phreatophytes.

### **Kansas-Colorado Arkansas River Compact**

The Kansas-Colorado Arkansas River Compact (Compact) was negotiated in 1948 between Kansas and Colorado with participation by the federal government. Its stated purposes are to settle existing disputes and remove causes of future controversy between Colorado and Kansas concerning the waters of the Arkansas River, and to equitably divide and apportion between Colorado and Kansas the waters of the Arkansas River as well as the benefits arising from John Martin Reservoir.

Kansas filed an original action in the United States Supreme Court, *Kansas v. Colorado*, No. 105, in 1985 to enforce the terms of the Compact. In 1994, a Special Master appointed by the Court, Arthur J. Littleworth, recommended that the Court determine that Colorado had violated Article IV-D of the Compact by means of post-compact well pumping in Colorado. On May 15, 1995, the Supreme Court agreed. Colorado paid Kansas more than \$35.1 million in damages for Colorado's Compact violations. This money has been deposited in three funds created by statute that specify generally how and where the money will be spent. The acceptable uses of two of these funds are consistent with UAR CREP objectives, while the third is for future litigation. The Water Conservation Projects Fund, now known as the Western Water Conservation Projects Fund after transfer to GMD No. 3, must be applied to projects within a portion of the CREP area.

The Special Master's fifth and final report to the Supreme Court in January 2008, and the Supreme Court "Judgment and Decree" entered on March 9, 2009, provided that the Supreme Court would retain jurisdiction for a limited period while the states evaluated the sufficiency of the 1996 Colorado Use Rules.

As a result of that evaluation, modifications of the initial judgment and decree were jointly developed by Kansas and Colorado based on decisions by the Special Master and the United States Supreme Court. The decree contains several appendices, such as the hydrologic-institutional model and accounting procedures, which will be used to determine if Colorado is in compliance. The states submitted a modified appendix to the Supreme Court on Aug. 4, 2009, bringing an end to the retained jurisdiction.

### **Rattlesnake Creek Expansion**

In February of 2019, representatives from the State of Kansas began discussions with officials at USDA's Farm Service Agency about including additional geographic areas in the approved CREP project. One particular hydrologic area of interest for increasing voluntary conservation opportunities was the watershed of Rattlesnake Creek, a tributary stream to the Arkansas River in South Central Kansas. The Upper Arkansas River basin and the Rattlesnake Creek sub-basin are hydraulically connected by groundwater resources which underlie both physiographic watersheds. Each area exhibits very similar hydrologic, physiographic and sociocultural characteristics which are associated with an integrated agribusiness economy based in large part on irrigation from depleting groundwater reserves.

The purpose of the proposed expansion was considered to be consistent with the purpose and goals of the original project in that it aimed to conserve depleting groundwater supplies and improve deteriorating water quality conditions. Through the provision of voluntary, incentive-based conservation practices, it was intended that the proposed CRP benefits would reduce irrigation water use and non-point source contamination associated with agricultural chemicals and sediment that contribute to poor water quality in the state's streams and alluvial and other groundwater systems, including the High Plains Aquifer. The permanent retirement of irrigation water rights, as well as the establishment of permanent vegetative cover and protection of associated natural resource features, would slow groundwater level declines and loss of baseflow to streams, resulting in improved streamflow and enhanced wildlife habitat (both terrestrial and aquatic), improved water quality, conserved energy and reduced erosion.

On September 17, 2020, a formal request to USDA was initiated by the State of Kansas' Department of Agriculture and Kansas Water Office at the behest of various natural resource partners and local landowner groups in the Rattlesnake Creek area. The request had broad support with numerous other state, local, and private partners, including the Kansas Department of Wildlife and Parks, the Kansas Department of Health and Environment, and Big Bend Groundwater Management District No. 5. Of special importance in promoting the request are the Water Protection Association of Central Kansas and The Nature Conservancy — two non-governmental organizations which are collaborating to find water management solutions for the mutual benefit of all local and state citizens interested in the water-based welfare of the community economies and vital wetland resources in the area.

After many months of extensive collaboration, review and negotiation, FSA granted a categorical exclusion request to the project's original environmental impact assessment on February 22, 2021, and conditionally allowed 244,679 additional acres in portions of Kiowa, Edwards, Pratt, Stafford, Pawnee, Reno and Rice counties into the project. The new enrollment area identified 53,912 acres of land which is authorized for irrigation and is eligible for CREP enrollment. The Rattlesnake Creek expansion area was formally included in the Upper Ark Project area on August 9, 2021, with the completion of an amended MOA to become effective and available for landowner participation on October 1, 2021.

### **CREP Project Implementation**

The CREP program is designed to protect water quality and extend the usable life of the of the High Plains Aquifer by establishing conservation practices and retiring the associated water rights on irrigated project lands.

Eligible cropland conservation practices approved by FSA to meet the goals and objectives for this CREP project are as follows:

- CP2 (Establishment of Permanent Native Grasses and Legumes) — up to 27,550 acres
- CP4D (Permanent Wildlife Habitat, non-easement) — up to 400 acres
- CP9 (Shallow Water Areas for Wildlife) — up to 200 acres
- CP21 (Filter Strips) — up to 100 acres
- CP22 (Riparian Buffer) — up to 100 acres
- CP23 / CP23A (Wetland Restoration, floodplain & non-floodplain) — 200 acres
- CP43 Prairie Strips

CREP applications are typically made in the county where the land is located, and all applications are considered on a first-come, first-served basis. Farmers who enroll irrigated cropland in the program and permanently retire their water rights will receive CRP rental payments for 14 to 15 years at special irrigated rental rates established annually from NASS rates by FSA.

As a part of CRP, CREP acres are subject to normal FSA haying, grazing, burning, and other management provisions, and they can also be leased for hunting. Producers receive an up-front signing bonus from the state that is based on a factor of 2.025% of the per acre annual rental payment from FSA.

There are currently 755,900 irrigated acres in the project area. A current goal of the UAR CREP is to enroll up to 40,000 acres of eligible cropland within the designated area to significantly reduce the amount of irrigation

water consumptively used. Water quality will be improved through the reduction of agricultural chemicals and sediment entering waters from agricultural lands, and thereby impeding the spread of poor-quality river water into the fresh alluvial and High Plains aquifers.

Through permanent retirement of water rights appurtenant to the lands enrolled in CREP and the establishment of conservation covers and other resource management practices, the reduction of water consumption and non-point source contaminants will slow aquifer declines, moderate the loss of base flow, enhance associated wildlife habitat (both terrestrial and aquatic), and conserve energy.

### **CREP Steering Committee**

The Upper Arkansas River CREP Steering Committee consists of the Kansas Water Office; the Kansas Department of Agriculture–Division of Conservation; the Kansas Department of Agriculture–Division of Water Resources (DWR); the Kansas Department of Wildlife and Parks; the Kansas Department of Health and Environment; Kansas State University; and the Kansas Geological Survey. The Farm Services Agency, Natural Resources Conservation Service, Groundwater Management District Nos. 3 and 5, Ducks Unlimited, Pheasants Forever, The Nature Conservancy and the Kansas Alliance for Wetlands and Streams also provide additional information and advice to the committee and the state CREP Coordinator.

The steering committee meets at least annually to review the progress of the CREP project and to make recommendations regarding the accomplishment of important goals and objectives. The input of the steering committee on the success of the CREP program and ways to improve it will become very beneficial as more acres enroll and the impact of the water right retirements and land conservation practices begin to become measurable.

Successfully meeting the goals and objectives of the UAR CREP involves interagency cooperation and adherence to a coordinated implementation plan. The implementation plan covers each agency's responsibility and the step-by-step process for outreach, processing applications, providing technical assistance, and monitoring success.

### **Outreach**

Public outreach for the UAR CREP was initiated prior to and during the preparation of the project proposal to gather information and assess public support. Many outreach meetings about the project have occurred to landowners throughout western Kansas and to other stakeholder groups throughout the state.

A coordinated approach to information support will continue through implementation of the program. Much of the initial success of the UAR CREP is a result of strong marketing of the program to interested producers. The outreach is accomplished through periodic direct mailings, newspaper press releases, educational brochures, radio broadcasts and local informational meetings. Each of the agencies cooperating in the program is responsible for the outreach component, but the KWO, DOC, GMD No. 3 and GMD No. 5, and local conservation districts are especially instrumental.

### **Technical Assistance**

Technical assistance is provided to the producers enrolled in the UAR CREP by USDA's NRCS and DOC. Over the brief life of the program, there have been a number of meetings between NRCS and the producers discussing the challenges of transitioning to a permanent cover on soils that are highly susceptible to wind erosion (the majority of the enrolled acres are in this category). These meetings and communications became even more frequent and heightened with the impacts of drought conditions. The process for implementing CREP in Kansas has been modified to indicate that NRCS will meet at the CREP field site with all new participants.

### **Agency and Organization Cooperation**

The **Kansas Water Office**, the state's planning agency for water issues, provides direction for the CREP program development. KWO contributes to public outreach through presentations at the Upper Arkansas Basin

Regional Advisory Committee and the Great Bend Prairie Regional Advisory Committee, the Kansas Water Authority meetings and to other interested stakeholders. KWO works collaboratively with DOC and each of the agencies identified below to prepare and provide USDA with annual CREP progress reports. The KWO director originally administered the Western Water Conservation Projects Fund for projects in the Upper Arkansas River corridor that provide water conservation, efficiency gains and aquifer recharge. Legislative directives from the 2008 session transferred the fund and administrative duties to GMD No. 3. The KWO director continues to review and give approval for proposed projects recommended by the GMD No. 3 and the Arkansas River Litigation Funds Advisory Committee, with input from the DWR's chief engineer. The use of these funds is consistent with the purposes of CREP. KWO also provides a bonus incentive payment to landowners for enrollment of CREP shallow-water development practices.

The ***Kansas Department of Agriculture Division of Conservation*** (formerly *State Conservation Commission*) coordinates with local groundwater, watershed and county conservation districts, state and federal agencies, and other conservation partners to implement programs that improve water quality, reduce soil erosion, conserve water and reduce flood potential. DOC administers the state portion of CREP. DOC also is responsible to contract with eligible participating entities for the state upfront incentive payments (SUPs); to review, and make assurances that all CREP eligibility criteria are met and correctly documented; to ensure that the relevant water right is properly and permanently dismissed; and to provide appropriate recommendations regarding final approval of FSA CREP applications. The DOC also administers a similar, solely state-funded water right retirement program (Water Transition Assistance Program). DOC utilizes an existing staff position as the State CREP Coordinator for Kansas to facilitate and oversee CREP in the Upper Arkansas River basin.

The ***Farm Service Agency*** is the lead USDA agency for CREP. FSA provided the first public announcement of the program signups and made broad outreach to all potentially eligible persons. FSA field office staff work with landowners and producers to determine if CREP is a program that fits for their acreages and circumstances. FSA initiates the contract with interested parties; provides estimates of payments, and works with the landowner and NRCS to determine suitable conservation practices. Final approval of contracts comes from FSA county committees. FSA has no responsibility for the water right terminations, but coordinates with DOC and DWR as to the sufficiency of the voluntary dismissals.

The ***Kansas Department of Agriculture Division of Water Resources*** provides verification of water rights in good standing, administration of retired water rights, issuance of term permits, water well investigations and monitoring of aquifer levels and stream flows. DWR has and will continue to provide legal partitioning of water rights to facilitate enrollments, as necessary. This agency assists the Arkansas River Compact Administration with compact compliance. The chief engineer of DWR also reviews proposed project applications for water conservation and efficiency in the Upper Arkansas River basin through the Western Water Conservation Projects Fund. These efforts are consistent with the CREP objectives.

The ***Kansas Department of Health and Environment*** monitors surface water quality in the Arkansas River and its tributaries. Activities include collection and preparation of chemical, bacteriological and radiological lab samples taken at seven sites located between Coolidge and Great Bend. Analysis is then conducted to determine chemical, microbiological and radiological content. KDHE coordinates water quality issues and meetings with Colorado and other Kansas state agencies, and partners and stakeholders.

The ***Kansas Geological Survey*** provides annual monitoring of aquifer levels and conducts technical studies on the fate and transport of salinity, aquifer characterization, and groundwater modeling. KGS maintains a long-term research site for investigating phreatophyte and stream-aquifer interactions in the Arkansas River valley northeast of Larned. Wells are screened in the alluvial aquifer and the underlying High Plains Aquifer. Some of the wells are instrumented with pressure transducers that record water levels on a 15-minute time interval year-round. In 2017, the KGS has also installed two index wells within Finney County, the area of GMD3, which are used in model developments pertinent to the CREP project area.

The ***Kansas Department of Wildlife and Parks*** provides fish and wildlife population monitoring. KDWP conducts wildlife and habitat surveys through several programs including stream monitoring and assessment and shorebird surveys. KDWP conducts statewide stream surveys to document the current range and distribution of riverine species. Since 2002, KDWP has coordinated a volunteer effort to survey shorebirds at wetlands

throughout Kansas. Portions of these ongoing survey efforts as well as additional wildlife population monitoring activities can serve as in-kind contribution towards the CREP project. KDWP monitors visitation rates at Cheyenne Bottoms Wildlife Area, to be used in evaluation of CREP objectives.

**Groundwater Management Districts** monitor water levels, collect water quality samples, recommend water management actions to the chief engineer, review and advise on water conservation projects in the Upper Arkansas River valley, and promote water conservation. Both GMD Nos. 3 and 5 have sponsored stakeholder meetings to help explain and promote the Upper Arkansas River CREP. They have also provided technical assistance to interested parties on partitioning of water rights or fields to meet both the CREP eligibility criteria and the needs of the producer. GMD No. 3 provides an especially important fiduciary function in the program by serving as the administrator of the Western Kansas Water Conservation Project.

**Kansas State University** has provided public outreach support to the cooperating state and local agencies involved with the UAR CREP proposal and implementation. K-State Research and Extension (KSRE) has established extension agents and outreach networks to transfer important information and results to clientele and end users of program information. K-State also has the capacity to analyze and interpret economic impacts as the CREP program is further implemented. These impacts will include both positive and negative impacts in the sub-basin communities. Positive impacts will result from changes in the environment as less water is diverted for irrigation and related stream flow and the useable life of the aquifer is extended. Negative impacts will result from decreased economic activity as irrigated land is removed from agricultural production, whether temporarily or permanently. K-State has also been very instrumental in providing analysis and recommendations on appropriate market rental rate figures to be considered by FSA for enhancing landowner participation.

**Natural Resources Conservation Service** provides technical assistance on CREP contracts to create the conservation plan of operations and implement the approved practices. NRCS employees evaluate the offered acres with the applicant to determine the appropriate suite of practices to meet needs of the land and producer. Specifications for practice implementation are documented and provided to the participant on conservation practice worksheets. NRCS personnel then follow up with participants by making site visits to evaluate progress, and by making recommendations to help with management decisions. NRCS determines whether the established conservation covers meet agency specifications.

**Kansas Alliance for Wetlands and Streams (KAWS)** is a 501(c)(3) not-for-profit that collaborates with local people, conservation and community organizations, agencies and local governments to promote conservation of streams, wetlands, riparian areas, prairies, watersheds and wildlife. With an apolitical, inclusive, efficient, and science-based approach to promoting sustainability of the natural ecosystems and working lands of Kansas, KAWS is supported by a broad range of partners and advisors which make a good fit with the goals and objectives of the CREP program.

**Ducks Unlimited (DU)** became a new technical advisor to the steering committee in 2017. DU is a 501(c)(3) not-for-profit that collaborates with local people, conservation and community organizations, agencies and local governments to promote conservation of migratory waterfowl habitat and associated ecosystems. DU members are a diversified group of hunters, non-hunters, farmers, ranchers, landowners, conservation enthusiasts and wildlife officials organized in local regions who work through fundraising and project development efforts to make a difference by creating habitat, restoring wetlands and protecting prairies. With an apolitical, inclusive, efficient, and science-based approach to promoting sustainability of the natural ecosystems and working lands of Kansas, DU is supported by a broad range of partners and advisors which make a good fit with the goals and objectives of the CREP program.

**Pheasants Forever (PF)** is a national nonprofit conservation organization dedicated to the conservation of pheasant, quail, and other wildlife. They promote cooperative endeavors through public awareness, education and land management policies and programs which are being implemented in the UAR CREP.



Arkansas River at Coolidge, Kansas — August 26, 2015

**For additional information, visit the CREP website at**

**[www.agriculture.ks.gov/CREP](http://www.agriculture.ks.gov/CREP)**

**or contact**

Steve Frost, Director - Division of Conservation  
Kansas Department of Agriculture, Division of Conservation  
1320 Research Park Dr. Manhattan, KS 66502 785-564-6622

**[www.agriculture.ks.gov/DOC](http://www.agriculture.ks.gov/DOC)**