



1320 Research Park Drive
Manhattan, Kansas 66502

MINUTES OF THE STATE CONSERVATION COMMISSION

1. The State Conservation Commission meeting was called to order by Rod Vorhees, Chairman and Area V Commissioner, at 9:09 a.m., Monday, January 22, 2018, at the Kansas Department of Agriculture, 1320 Research Park Drive, Manhattan, Kansas.

2. **ATTENDANCE:**

Elected Commissioners:

Ted Nighswonger, Area I Commissioner – via phone conference
Andy Larson, Area II Commissioner – via phone conference
Brad Shogren, Area III Commissioner
John Wunder, Area IV Commissioner
Rod Vorhees, Area V Commissioner

Ex-Officio & Appointed Members:

Dan Devlin, Director, Kansas Center for Agricultural Resources and the Environment (KCARE), K-State Research and Extension
Peter Tomlinson, Ph.D., Associate Professor, Extension Specialist for Environmental Quality Agronomy Department, Kansas State University
Terry Medley, P.E., Water Structures Program Manager, Division of Water Resources, Kansas Department of Agriculture (left 9:55, returned 11:12)

Division of Conservation, Kansas Department of Agriculture Staff:

Rob Reschke, Executive Director
Scott Carlson, Assistant Director
Steve Frost, Administrative Manager
Dave Jones, Water Quality Program Manager
Hakim Saadi, Watershed Program Manager
Cindy Pulse, Administrative Specialist
Tim McCoy, Riparian & Wetland Program Manager
Cathy Thompson, Program Consultant
Andy Klein, Kansas Forest Service

Guests:

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Herb Graves, Executive Director, State Association of Kansas Watersheds (SAKW)
Larry Biles, State Forester, Kansas Forest Service (KFS)
Amanda Reed, Environmental Scientist, Kansas Department of Health & Environment
(KDHE)
Dale Fjell, Director of Research & Stewardship, Kansas Corn Growers Association

3. CERTIFICATION OF ELECTION:

A motion was made by John Wunder to certify the election to the Conservation Commission for a two-year term beginning January 1, 2018: Area I – Ted Nighswonger, Area III – Brad Shogren, and Area V – Rod Vorhees. The motion was seconded by Peter Tomlinson. Motion carried.

4. ELECTION OF CHAIRPERSON AND VICE-CHAIRPERSON OF THE COMMISSION:

A motion was made by Ted Nighswonger to nominate Rod Vorhees to serve as chairperson. The motion was seconded by John Wunder. Motion carried.

A motion was made by Brad Shogren to nominate John Wunder to serve as vice-chairperson. The motion was seconded by Ted Nighswonger. Motion carried.

5. ADDITIONS/CORRECTIONS TO AND APPROVAL OF AGENDA:

Changes made to:

10. New Business

d. Discuss District Outreach and Education

A motion was made by Brad Shogren to approve the agenda as amended. The motion was seconded by John Wunder. Motion carried.

6. MINUTES OF THE PREVIOUS MEETING:

A motion was made by Ted Nighswonger to approve the November 19, 2017, minutes as mailed. The motion was seconded by Peter Tomlinson. Motion carried.

7. COMMENTS FROM GUESTS:

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- a. Herb Graves, Executive Director, State Association of Kansas Watersheds (SAKW) – Thank you for allowing him to join the meeting.
- b. Larry Biles, KFS – Thank you for allowing him to join the meeting.
- c. Dale Fjell, Kansas Corn Growers - Appreciated being able to take part in the meeting. Hoping to have more dialogue with associations because there are so many common interests out there – we can all do good things together.
- d. Amanda Reed - KDHE – Many of their partners are Conservation Districts, but Watersheds are primary.

8. COMMUNICATIONS AND ANNOUNCEMENTS:

- a. Brittney Fagen, new District Manager in Hodgeman County
 - b. Breva Winderlin, new District Manager in Scott County
 - c. Tiffany Hoffman, new District Manager in Atchison County
 - d. Hayley Bulk, new District Manager in Clay County
 - e. Allisha Eastin, new District Manager in Kearny County
 - f. Jerry Wooley, Leavenworth County – his last day is January 12. Jefferson County Conservation District Board is working on an agreement with Leavenworth County Conservation District Board to provide assistance.
- * Brad expressed that he would like to see the ending date of old District Managers and beginning date of new Districts managers along with the list of new employees in the future. John said that we all need to know these new employees so we can improve on our working relationships.
- * Rob added that Steve provided updates to the Districts the Friday before the government shutdown as far as what to do in the event that it actually happens. Brad said his county has a policy in their employee handbook which was established by the Board so that they do not have to review the policy every single time a shutdown is a possibility. This would be a good thing to add in county agreements/policies.

9. UNFINISHED BUSINESS:

- a. Review Conservation Reserve Enhancement Program (CREP) Annual Report – Frost (See Attachment A)
 - * This is a compilation of the Annual Report submitted to FSA.
 - * This is the 10th anniversary of the start of this program – is focused on water rights that are permanently retired.
- b. Review SCC Spring Workshop dates and locations – Jones (See Attachment B)
 - * Dave reviewed the dates and locations
- c. Review Commissioner and staff out-of-state travel - Reschke
 - * Rob, Andy, and John will be attending NACD in Nashville, Tennessee, at the end of January

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- d. CSIMS 2.0/RALIS Update - Carlson
 - * RALIS and CSIMS are going well – have weekly phone calls with Murali to discuss both and he is here once a month.
 - * Cathy has recruited five District Managers to test CSIMS 2.0. March 19 is the target date for the core functions to go live, but will not be complete at that time. CSIMS 2.1 will include forums, a message board, and document submittal for archiving/easy access.
 - * CSIMS 2.0 is 78% complete. CSIMS 2.1 is 38% complete.
 - * RALIS is 90% complete and will be complete by July. Land Reclamation on-line compliance is 98% and Ag Lime on-line compliance is 99%.
 - * A \$300 re-licensing fee is now being implemented for late Land Reclamation license renewals and a \$100 late fee will be assessed for late Annual Mine Reports.

- e. Discuss possible date change for May SCC meeting to May 7th – Reschke
 - * All agreed and were satisfied with the date change.

- f. Streambank Projects Update – McCoy
 - * Tuttle - completion of 4 sites, beginning the bid process for 9 new ones that will be funded through the state revolving loan funds. Bidding of PETR project.
 - * Delaware - 2 sites currently in process of being built. Three sites are supposed to be built by April. Is getting ready to seek out new projects.
 - * Cottonwood - Two projects are in the process of design completion and bidding. Currently ground truthing to spend the \$1,000,000 from the legislature.

- g. Update on the Kansas Wildfire Cost-Share Initiative – Jones (See Attachment C)
 - * The most applications for Wildfire cost-share assistance were received from Clark County.
 - * Temporary electric fence and obstruction removal were added to the practice list.

BREAK 10:10 a.m. to 10:26 a.m.

10. NEW BUSINESS:

- a. Review and discuss FY 2019 proposed cost-share program policy revisions – Jones (See Attachment D)
 - * Water Conservation Through Xeriscape Practices Resolution – Dave’s concern with this is who will design and what standard will be used. There is a possibility of a pilot program with Kearny County to set an example. Water quality benefits – reduced fertilizer. Water quantity benefits – less water consumption. There is not a NRCS code for this practice. There will need to be justification for this practice and a load reduction strategy will need to be drawn up. Water conservation should be the focus. More information should be gathered to see if this is reasonable. Dan will talk to K-State Horticulture Extension Department to get more information/estimation of costs and will bring to the next meeting.
 - * Allow Less Than 40-Acre Minimum For Pasture and Rangeland Management Resolution – This is a grazing/grass stand issue – prefer to stay at 40 acres. There

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- will need to have more stringent grazing plan similar to NRCS. Districts will be able to petition DOC and SCC for exemption of 40 acres.
- * Cost-Share Contract Deposit Resolution – Steve discussed policy possibilities with KDA Legal department to find out what is necessary and worthwhile. Draft policy as requested by SCC will be ready for Spring Workshops. Policy statement is an option for Districts to use/not use and KDA Legal is comfortable with it. A separate bank account is recommended for this. This is not something that can be tracked through CSIMS. It would need to be part of the monthly financial reports.
 - * Cover Crop Resolution – Strongly suggest adding to DOC program and it does include NRCS standards. Dave recommended presenting at Spring Workshops to get District input on what they need/want from our program.
- b. Discuss Conservation District Annual Meeting schedule – Reschke (See Attachment E)
- * No overnight trip is recommended due to budget limitations and there are very few exceptions to this. DOC is trying to attend several meetings.
- c. Spring workshop agenda review – Reschke (See Attachment F)
- * There will be intense CSIMS training opportunity – Supervisors will be excused after lunch but are welcome to stay.
 - * Having lunch catered in is a great opportunity for personal relationships and discussions, as well as making it easier to get the workshop going back on time. Lunch arrangements are being reconsidered.
- d. Discuss District Outreach and Education – Pulse (See Attachment G)
- * Steve – Brought up the importance of how Districts can individually and collectively tell their story and reminded all of how important it is for Districts to become involved in delivery. We need to find a way to better market their stories.
 - * Rob – Emphasis on “Did you Know?” helpful tips e-mails. Renewed effort by DOC from a resource and operational aspect on how DOC and Districts can better themselves is a focus.
 - * Districts do things that we’re not aware of and are very innovative with many things we’re not aware of. How can we help them share that information? This should not be limited to just DOC and Districts/possibly help KACD-EO?
 - * How can we do this? What do we want to accomplish? This project is still in the infancy stage right now.
 - * Scott – CSIMS 2.1 will have a forum that District Managers can share this sort of information that should help the growth of this project.
 - * It is very difficult getting Supervisors involved – are they adequately informed by DOC? What form is best effective to reach out to Supervisors?
 - * The primary goal is to work together on education so we don’t have to re-invent the wheel.

LUNCH BREAK 12:16 p.m. to 12:57 p.m. – Scott Carlson showed the video for the Governor’s Land Mined Award during lunch.

11. REPORTS:

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a. Agency Reports:

- * Peter Tomlinson, K-State – WTAP farms have hit a stumbling block due to high costs. Midwest Cover Crop Council is March 13-14 and he is speaking there. There is a need for quality water to run broiler houses - peak water demand is in summer.
- * Dan Devlin, KCARE – There is lots of interest in Eastern Kansas wanting to start technology farms, particularly focusing on water quality. Suggested holding future SCC meeting at the technology farm.
- * Andy Klein, KFS – 2017 was a big year/great year for plantings. KFS is trying out direct seeding and is excited about the lower cost. They are also trying to get vegetative components going faster. (See Attachment H)
- * Larry Biles, KFS - KFS operates almost exclusively on grant money and they are working on hiring a special temporary staff member responsible for being an advocate/networker. Hopes are to have one hired by the end of April/beginning of May. Volunteer firefighters exemplify community spirit. The goal is to get more fire on the landscape than just wildfires. Larry is very thankful Andy is working in-house at KDA. (See Attachment I)
- * Amanda Reed, KDHE – WRAPS is funded primarily from federal dollars and they are hopeful that money continues to come through each year. They won't know till May if grants are funded July 1. They had a workgroup meeting in August and many agencies were involved. The WRAPS annual meeting is March 8-9 in Manhattan.
- * Terry Medley, DWR – Water use reports are due March and they prefer to be completed electronically. The Dam Safety Conference is at the beginning of March in Manhattan. He has been working on flood mapping projects.
- * Dale Fjell, Kansas Corn Growers Assn. – Kansas Corn has plans to start research facilities in Kansas because there currently are none. They want to be involved in soil health.
- * Stephanie Royer, KACD-EO – was not present but provided handout (See Attachment J)
- * Dan Meyerhoff, KACD – was not present but provided handout (See Attachment K)

b. Staff Reports:

- * Steve Frost – no report
- * Tim McCoy – no additions to previous report
- * Cathy Thompson – Has been sending e-mails to Districts asking for delinquent minutes. She will provide a document submittal report at the April SCC meeting.

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- * Dave Jones – There has been 30% less demand for soil health funds for No-Till on the Plains scholarships. This may be due to the location change (Salina to Wichita). He has been getting inquiries on the additional \$15,000 for soil health workshops. Donna and Dave will be attending No-Till on the Plains.
- * Cindy Pulse – License renewals are complete and is still working on updates with Scott and Murali, along with all the other normal daily Land Reclamation work. She has recently become the coordinator for the new strengths activities, has started working again on the outreach/education project, and is busy with website updates and improvements.
- * Scott Carlson – Showed the video on Governor’s Land Reclamation Award. Kansas has received the most reclamation awards nationally. This video will be put on the KDA website. CSIMS 2.0 will help tremendously both the Districts and DOC in document submittal. Scott has been sampling ag lime sites twice a year now. Bigger producers prefer this process; he was asked to start testing more often and is hoping to propose the change in statutes.
- * Hakim Saadi – Attended three Watershed District meetings (Nemaha-Brown WJKD 7, Wakarusa WJD 35, Doyle Creek WJD 68). He attended and presented at SAKW Annual Meeting and continues to provide assistance to KDHE CAFO Section 8 hours/week reviewing plans and specifications of confined animal facilities.
- * Rob Reschke – Added to Cathy’s comments about document submittal that the Districts need to have a reason why these reports are required to be turned into the DOC. CSIMS 2.0 will help eliminate delinquencies and make things less complicated in the document submittal process.

c. Commissioner reports:

- * Ted Nighswonger – Congratulated Rod and Andy on the awards they received at KACD convention. His county Annual Meeting was postponed till next week due to the weather.
- * Brad Shogren – He attended the streambank meeting in December. They are selectively picking producers willing to work on sites.
- * Andy Larson – He expressed his appreciation for the news release on the KDA website on the Don Rezac Award he received.
- * John Wunder – Has attended many meetings this winter. Congratulations to Rod and Andy on the awards they received at KACD convention. Reported that Leavenworth and Jefferson County Conservation Districts are a work in progress.
- * Rod Vorhees – Thanked John for his efforts in the Leavenworth/Jefferson County combined efforts.

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12. ADJOURNMENT:

The next regular Commission meeting is scheduled for Monday, April 16, 2018, at 9:00 p.m. at the Kansas Department of Agriculture, 1320 Research Park Drive, Manhattan, Kansas.

A motion was made by Brad Shogren to adjourn the meeting. The motion was seconded by Ted Nighswonger. Motion carried. The meeting was adjourned at 1:59 p.m.

A handwritten signature in black ink, appearing to read "Rob Reschke". The signature is fluid and cursive, with a large initial "R" and "R".

Rob Reschke
Executive Director

**UPPER ARKANSAS RIVER
CONSERVATION RESERVE ENHANCEMENT PROGRAM
PERFORMANCE REPORT
BY THE
STATE OF KANSAS
October 1, 2016 – September 30, 2017**



Conjunctive use of surface water and groundwater is an important feature of irrigation development in the UAR CREP project area.



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For additional information, contact:

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Executive Summary

The Conservation Reserve Enhancement Program (CREP) in Kansas is a federal/state partnership created for enhancing water conservation efforts along the Upper Arkansas River (UAR) corridor from Hamilton County to Rice County. The Upper Arkansas River CREP has been officially approved and operating for ten years; this annual report provides a synopsis of the implementation activities and progress to date.

CREP is an “enhanced” version of the Conservation Reserve Program (CRP) in which the Farm Service Agency (FSA) of the United States 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 services in the field to producers who are implementing FSA’s CREP contracts. The Kansas Department of Agriculture (KDA), Division of Conservation (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 (KWO); Kansas Department of Wildlife, Parks and Tourism; Kansas Department of Health and Environment; Kansas Geological Survey; Kansas State University; Groundwater Management District Nos. 3 and 5; Ducks Unlimited; and the Kansas Alliance for Wetlands and Streams.

The Upper Arkansas River CREP is a voluntary, incentive-based program allowing producers to enroll eligible irrigated acres in targeted areas for 14–15 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, plus 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 Upper Arkansas River CREP. The program also provides other resource benefits including soil conservation, 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 sandy and 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, financial opportunity and incentive for starting native grass stands and other conservation covers while limited irrigation water is still available.

As of Sept. 30, 2017, a total of 112 state CREP contracts on 18,659 acres have been approved by the state of Kansas (with the addition of 317 acres this year). These contracts have resulted in the permanent retirement of 37,999 acre-feet of annual water appropriation on 135 water rights from 166 wells. The contracts represent a total of \$1,210,511 in state sign-up payments to producers over the past ten years. These payments were matched by total annual producer rental payments from FSA totaling \$2,191,213 in FY2017. The state of Kansas has again met its financial commitment to provide at least 20 percent of the federal costs of the program through a combination of direct payments, technical assistance and in-kind contributions with at least 10 percent coming from direct cash match. Since Dec. 6, 2007, a total of \$11,969,636 from state, local and private expenditures has been made in support of the project to match an estimated total of \$33,538,379 federal program costs.

Annual Progress: Due to additional offers being received and approved in FY2017, the program recorded its first CREP enrollments from Barton and Edwards counties. And this year, the per county acreage limitation was increased from 7,237.5 acres to 10,000 acres — meaning that many pending offers awaiting additional acres to become available in Kearny and Gray counties can now be processed in FY2018. In cooperation with landowners, the Kansas CREP partnership continues to investigate innovative methods for encouraging participation and establishing improved conservation covers under challenging circumstances.

Overview

The Kansas Legislature approved funding for an Upper Arkansas River Conservation Reserve Enhancement Program (UAR CREP) in 2007 and 2008. CREP is a USDA program that creates individual rules and special conditions and rates for a geographic region or watershed. The USDA and the KWO worked with USDA's FSA and NRCS to develop and launch the program. A Memorandum of Agreement (MOA), 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 incentives and cost sharing to participants who enroll their land into eligible conservation practices such as native vegetation establishment or wildlife conservation for a period of 14 to 15 years. The CREP area lies within 10 counties along the Arkansas River corridor, covering 1,571,440 acres. In the CREP area, 718,683 acres were authorized for groundwater irrigation prior to program start-up. Another approximate 10,680 acres are 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 amend 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.

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 has 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 though releases from the John Martin Reservoir in eastern Colorado, and is managed through the Arkansas River Compact Administration. 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.

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, Parks and Tourism; the Kansas Department of Health and Environment; and the Kansas Geological Survey. These state agencies are joined by the Farm Services Agency, Natural Resources Conservation Service, Groundwater Management District Nos. 3 and 5, Ducks Unlimited and the Kansas Alliance for Wetlands and Streams.

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 Steering Committee met again on Sept. 27, 2017 (Attachment F). 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.

CREP Project Implementation Summaries

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 in Barton, Edwards, Finney, Ford, Gray, Kearny, Pawnee, Rice and Stafford counties. Hamilton County was previously ineligible for the program because it was at a maximum level of acres that could be enrolled in a Conservation Reserve Program (CRP). FSA rules regarding the maximum allowable acres specifically pertaining to CREP program enrollment were changed in 2011. Therefore, Hamilton County is now officially eligible for the program. The Kansas Legislature approved the enrollment limit up to a maximum of 40,000 acres. However, the program cap with FSA was initiated at the 20,000 acre level to stay

within a legislative stipulation which allows only one acre of land to be enrolled in CREP for every two acres of current CRP contracts which expire annually. This project cap has since been increased to 28,950 acres.

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 and;
- CP23/CP23A (Wetland Restoration, flood-plain & nonflood-plain) – 200 acres.

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 rental payments for 14 to 15 years at rates between \$153 and \$193 per acre per year. Rates vary depending on the Hydrologic Unit Code (HUC) and irrigation system currently in place. Cost-share funds and financial incentives are available for seeding and well plugging on enrolled land. 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 upfront signing bonus from the state of either \$97 per irrigated acre (Tier 1 Soils) or \$55 per irrigated acre (Tier 2 soils). The KWO office will also provide a \$350/acre bonus payment for the CP9 practice.

The current goal of the UAR CREP is to enroll up to 28,950 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.

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.

The UAR CREP is being implemented through continuous signup on a first come, first priority basis — until a county reaches the CREP program maximum for enrolled acres or the federal limit on CRP acreage enrolled in any one county. The application enrollment pattern in the first year demonstrated high interest in December of 2007, and in January and February of 2008, with a peak of more than 13,000 acres offered for enrollment. By March 2008, inquiries slowed, as most landowners had already made decisions on their land if a crop was to be planted during the upcoming season. A number of applications were subsequently withdrawn as some land was sold. Others were also withdrawn as crops were put in, as 2008 was a year of very high commodity prices and escalating land values. There were also a number of applications that ultimately were found to not meet the federal or state eligibility criteria during the review process. Finally, there were some inquiries that ultimately did not result in applications being filed because it initially appeared that the county cap had already been filled for Kearny and Gray counties. One state requirement is that no more than 25 percent of the CREP program acres can be in any one county, which in 2008 was a 5,000 acre cap. That cap has since been raised to 7237.5 acres per county.

At the end of the first fiscal year on Sept. 30, 2008, a total of 7,252 acres had officially been approved for enrollment in the CREP program. A total of 15,354 acre-feet of annual authorized water right allocations

associated with these acres had been voluntarily and permanently retired. By Sept. 30, 2009 (the end of the second fiscal year), an additional 1,902 acres had been approved for enrollment, bringing the project total to 9,155 acres. An additional 3,325 acre-feet of annual authorized water right allocations were also retired, bringing the project total to 18,679 acre-feet retired. At the end of the third fiscal year, 1,647 enrolled acres were added and another 2928 acre-feet of annual authorized water right allocations were also retired.

At the end of the fourth fiscal year, 247 enrolled acres were added, bringing the current project total to 11,049 acres, and an additional 532 acre-feet of annual authorized water right allocations were also retired, bringing the total to 22,139 acre-feet of annual authorized water right allocations retired. By Sept. 30, 2012, 4076 acres were added and a total of 15,126 acres had been enrolled, and 30,974 acre-feet of annual authorized water right allocations had been retired.

As of Sept. 30, 2013, a total of 15,800 acres had been enrolled, and 31,709 acre-feet of annual authorized water right allocations were retired. No additional acres were enrolled during the period Oct. 1, 2013, to Sept. 30, 2014. As of Sept. 30, 2015, an additional 1,189 acres had been enrolled, bringing the cumulative total to 16,989 acres, with 34,527 acre-feet of annual authorized water right allocations being retired. As of Sept. 30, 2016, the end of the ninth fiscal year, an additional 1,329 acres had been enrolled, bringing the cumulative total to 18,318 acres, with 37,430 acre-feet of annual authorized water right allocations being retired. During FY2017, the enrollment total increased to 18,659 acres with 37,999 acre-feet of annual authorized water right allocations being permanently retired.

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 occurred on the UAR CREP throughout western Kansas and during the legislative session. The implementation team developed an informational brochure and poster about CREP for use during the awareness campaign. This brochure and related promotional posters were also updated and revised during the third program year, FY2010, and again in the fourth program year, FY2011, as well as in the ninth program year, FY2016 (attachment A).

A coordinated approach to outreach and 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 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#3 and GMD#5, and the local conservation districts were especially instrumental initially, as identified in Attachment A.

Technical Assistance

Technical assistance is provided to the producers enrolled in the UAR CREP by USDA's NRCS and the 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 (KCREP_IP_02) has been modified to indicate that NRCS will meet at the CREP site with all new participants (Exhibit C).

A very productive meeting was convened between FSA, NRCS, DOC, KWO, DWR, GMD3 and GMD5 officials in Garden City on Feb. 26, 2009, to discuss the unique challenges, strategies, and techniques of establishing permanent grass covers on highly erodible soils associated with the majority of the CREP enrollment to date. Some very successful grass establishment was developed by the end of the 2010 season. NRCS staff had found a strategy involving an effective combination of cover crops, herbicides, irrigation and summer seeding times which has resulted in many circles of nearly 100 percent CRP grass

establishment after just two years. Other county offices were apprised of the methodologies so that the experience can be re-created in areas where the grass establishment has been difficult.

A second meeting was held in Dodge City at the USDA Service Center on July 7, 2011. Discussion at this meeting focused on the progress of the program including establishment of permanent vegetative cover. NRCS reviewed Kansas Conservation Reserve Program Technical Guidance Number 81, "Guidelines for Cover Crop and Grass Establishment on Sandy Sites Associated with Conservation Reserve Enhancement Program Acres." This guidance document has been updated to provide emphasis on the establishment of a cover crop, weed management, irrigation for establishment, and frequent monitoring.

NRCS staff expressed their concern with current conditions resulting from the severe drought being experienced in 2011 and the ability of participants to irrigate grass stands for establishment. The full effects of the drought on CREP stands will not be known for a few years. District conservationists had reported that some stands considered to be established in 2010 appeared to have died during 2011–2012.

NRCS conducted a field tour of selected CREP sites in Kearny County on May 22, 2012. As the drought had continued and worsened over the 2011–2012 winter, it became even more apparent that alternative strategies would be necessary to re-establish grass stands that were regressing to drastically low populations of desired prairie mixture species. After convening a technical team of soil and plant specialists, NRCS conducted sampling of sites which indicated problems or issues which might be resolved through alternative cropping or cultural practices. During the summer, KDA also conducted chemical sampling on the same sites for the purposes of determining any possible pesticide residual effects which could be contributing to plant deterioration. NRCS conducted a meeting with 30 landowners in Garden City on Nov. 13, 2012, to communicate the findings of the research effort and to convey recommendations for future planting of cover crops and grasses.

At the meeting, FSA announced its revised schedule of cost-share incentives for producers who needed to re-plant during the 2013 season. DOC, FSA and NRCS discussed compliance issues with the producers. (All parties are still in agreement that until fully normal precipitation patterns resume, no requirements will be enforced to re-cultivate fields with minimal cover that are in danger of blowing if adequate irrigation water is unavailable.) However, each CREP contract owner who is facing compliance issues because of drought related effects will still be required to be reviewed with a plan approved by the local FSA county committee.

The summer of 2014 brought a summer season of near normal rainfall to the project area, and provided moisture to annuals, weeds and grass for much needed ground cover. However, another very dry fall followed. This pattern was repeated in 2015 and 2016 with most of the project area receiving average to abundant summer precipitation, but very dry fall conditions. These stands will need to be evaluated again in future seasons to determine their post-drought status. The current conditions of the drought-stricken areas will challenge CREP participant's ability to establish the permanent cover required by the program.

NRCS has continued to conduct technical evaluations of the project sites — both at the local county office level, and with teams of experts from FSA, NRCS and DOC (May 7, 2014, and April 28, 2015). Another field tour is planned for the spring 2018 season to determine how covers are re-emerging after the winter.

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 Advisory Committee (now reformed as a Regional Advisory Committee) and 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 Kansas 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 assure 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, Parks and Tourism*** provides fish and wildlife population monitoring. KDWPT conducts wildlife and habitat surveys through several programs including stream monitoring and assessment and shorebird surveys. KDWPT conducts statewide stream surveys to document the current range and distribution of riverine species. Since 2002, KDWPT 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. KDWPT 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 GMDs have sponsored stakeholder meetings to help explain and promote the Upper Arkansas River CREP. The GMDs 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.

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.

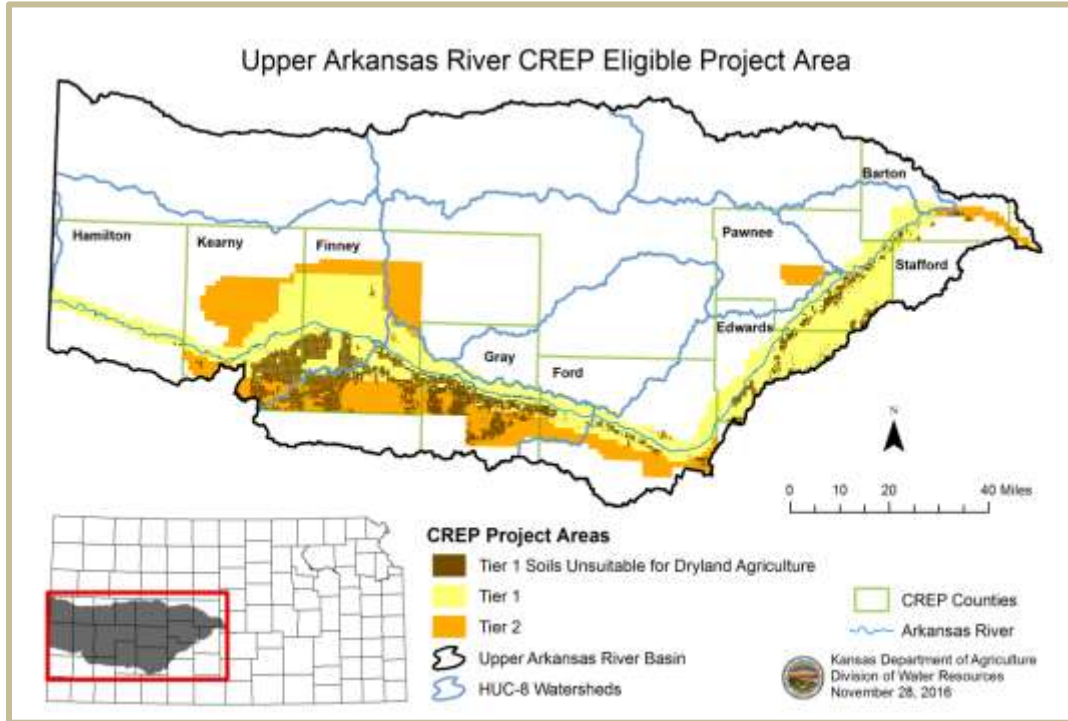
Natural Resources Conservation Service provides technical assistance on CREP contracts to create the conservation plan of operations and implement the approved practices. NRCS employees evaluate the offered acres with the applicant to determine the appropriate suite of practices to meet needs of the 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. [*In 2016, PF notified the CREP coordinator that their organization would no longer be able to support any financial commitments to the CREP project as originally envisioned, and subsequently requested to be withdrawn as an official financial partner in the project, but PF is still considered a technical advisor to the CREP Steering Committee.]

Figure 1: Map of Upper Arkansas River CREP Eligible Project Area



CREP Program Implementation Summaries

Land Conserved

As of Sept. 30, 2017, the total amount of land which has been offered and approved for enrollment into the CREP program is 18,659 acres, as detailed in the table below (also see Attachment D).

Acres Approved for Enrollment: December 20, 2007 to September 30, 2017											
CREP County	Dec 20, 2007 – Sept 30, 2008	Oct 1, 2008 – Sept 30, 2009	Oct 1, 2009 – Sept 30, 2010	Oct 1, 2010 – Sept 30, 2011	Oct 1, 2011 – Sept 30, 2012	Oct 1, 2012 – Sept 30, 2013	Oct 1, 2013 – Sept 30, 2014	Oct 1, 2014 – Sept 30, 2015	Oct 1, 2015 – Sept 30, 2016	Oct 1, 2016 – Sept 30, 2017	Total Acres Approved since Program Initiation
Barton										107.7	107.7
Edwards										127.5	127.5
Finney	129.4	574.2	76.5		1,338.6			412.7	475.9	150.5	3,157.8
Ford											
Gray	2,677.8	723.5	1318.6	247.1	1,087.4	673.9		613.8			7,296.9*
Hamilton									242.9		242.9
Kearny	4,203.8	605.0	251.9		1,520.0			162.9	610.2		7,353.8
Pawnee	241.7				130.7						372.4
Rice											
Stafford											
Total	7,252.7	1,902.7	1,647.0	247.1	4,076.7	673.9	0	1,189.4	1,329.0	385.6	18,659*

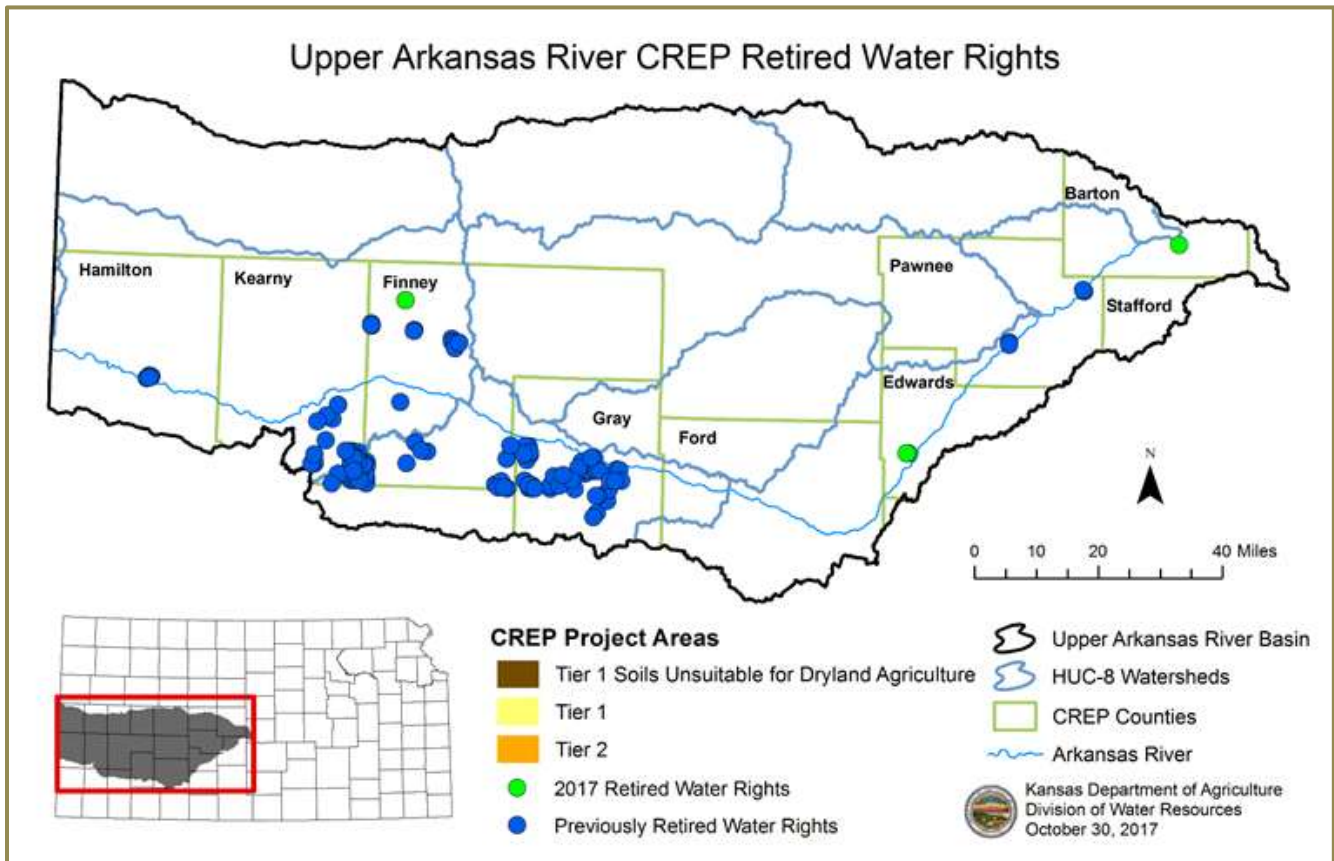
*These figures adjusted by -45.2 acres from 2016 to match & reflect FSA records

Water Conserved

The total amount of water rights that have been offered and accepted for permanent retirement under state approved contracts from the beginning of enrollment on Dec. 20, 2007, through Sept. 30, 2017, are shown in the table below. To date, a total of 37,430 acre-feet of annual authorized water right allocation has been permanently retired from irrigation through enrollment into the Upper Arkansas River CREP.

CREP Authorized Water Right Allocation Permanently Retired: 2007–2017		
CREP County	Authorized Quantity (Acre-Feet) of Annual Water Right Allocation Permanently Retired on State Contract Approved Acres	Number of Irrigation Wells Being Permanently Retired on State Contract Approved Acres
Barton	150	1
Edwards	150	1
Finney	6,078 AF	26 Wells
Ford		
Gray	15,304 AF	62 Wells
Hamilton	386	3 wells
Kearny	15,345 AF	57 Wells
Pawnee	586 AF	16 Wells
Rice		
Stafford		
Total	37,999 AF	166 Wells

Figure 2: Map of Upper Arkansas River CREP Retired Water Rights



Groundwater Monitoring Activities

Groundwater level measurements and annual water use reports are being collected for the CREP project area (average groundwater levels and locations of monitoring wells are provided in Attachment E).

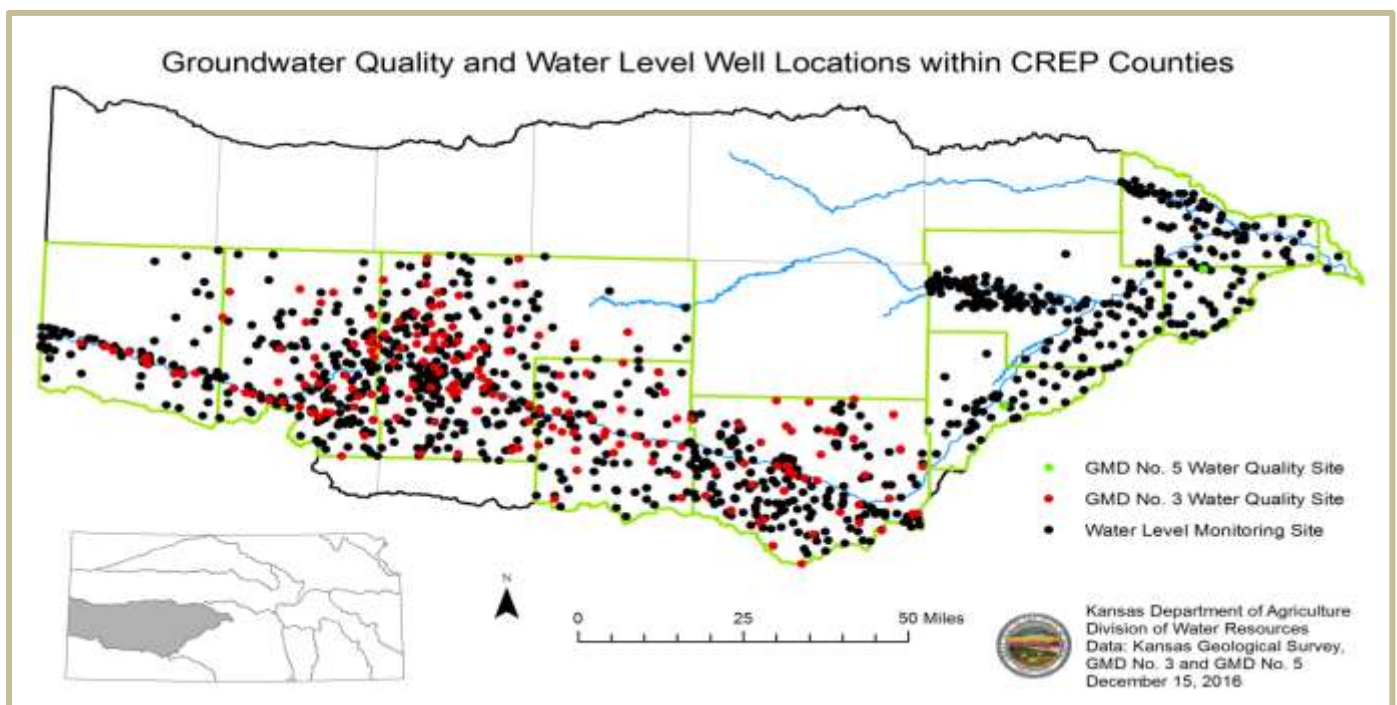
Water levels have been monitored at least annually at numerous locations in the CREP counties. Figure 3 includes the locations of historical water level measurements in the area. GMD5 obtains water level measurements from 25 wells in the CREP area. Annual measurements are collected from 14 of these wells and quarterly measurements of 11 wells are planned to continue.

Water levels within the boundaries of the CREP area, particularly in the areas where contracts are approved, will be measured over time. The KGS is also working cooperatively with DWR and GMD3 to enhance the monitoring network for the aquifer close to the retired CREP acres and water rights in Kearny, Finney and Gray counties. Improvements 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.

Two index wells have been installed in the High Plains aquifer in Finney County within the CREP area — one at the Willis Water Technology Farm in south-central Finney County south of the Arkansas River, and the other in west-central Finney County at an area being considered for a possible Local Enhanced Management Area (LEMA). The index wells have pressure transducers that record water levels every hour — the hydrograph data for the records can be viewed and downloaded online on the KGS index well website at http://www.kgs.ku.edu/HighPlains/OHP/index_program/index.shtml. The record for the Willis index well started in late July 2016, and the other in the possible KE-FI LEMA started in mid-June 2017.

Plans are also in development to conduct some future comparative analysis on CREP vs. non-CREP acres/wells. Since a great deal of the enrollments in Gray and Kearny counties are in very close proximity, the establishment of such an enhanced monitoring program would result in some very specific information about the effects of substantial water right retirements in these highly localized areas.

Figure 3: Upper Arkansas River CREP Water Quality and Water Level Monitoring



Annual Irrigation Water Usage in CREP Area: 2007 - 2016

Water use reports of authorized acres actively being irrigated each year within the CREP project area have been received and verified by DWR for the 2007–2016 reporting years, as shown below (also see Attachment D).

CREP Project Area Reported Irrigated Water Use and Irrigated Acres: 2007 - 2011										
County	2007 Reported Irrigated Acres in CREP Project Area	2007 Reported Irrigation Water Use (AF) in CREP Project Area	2008 Reported Irrigated Acres in CREP Project Area	2008 Reported Irrigation Water Use (AF) in CREP Project Area	2009 Reported Irrigated Acres in CREP Project Area	2009 Reported Irrigation Water Use (AF) in CREP Project Area	2010 Reported Irrigated Acres in CREP Project Area	2010 Reported Irrigation Water Use (AF) in CREP Project Area	2011 Reported Irrigated Acres in CREP Project Area	2011 Reported Irrigation Water Use (AF) in CREP Project Area
Barton	16,658	15,779	15,972	12,221	16,705	15,338	16,318	17,761	16,556	22,780
Edwards	36,827	31,198	36,265	38,147	36,313	35,891	37,137	39,024	37,206	49,121
Finney	209,396	254,171	206,581	282,700	202,362	243,859	200,120	276,955	200,220	330,961
Ford	43,165	45,430	41,778	50,296	41,324	44,773	42,267	47,965	44,019	61,857
Gray	85,535	99,824	83,957	105,862	83,390	93,775	81,318	97,535	77,617	114,230
Hamilton	11,384	15,869	12,658	18,376	13,316	16,220	12,585	18,250	12,617	21,205
Kearny	104,157	184,318	108,261	191,691	112,080	169,005	109,822	189,093	108,176	179,663
Pawnee	50,861	40,291	50,627	40,585	50,315	44,129	50,645	53,990	52,757	67,955
Rice	336	281	331	221	331	229	331	370	331	611
Stafford	628	600	628	551	628	695	628	788	628	970
Total	558,947	687,761	557,058	740,650	556,764	663,914	551,171	741,731	550,127	849,353

CREP Project Area Reported Irrigated Water Use and Irrigated Acres: 2012 - 2016										
County	2012 Reported Irrigated Acres in CREP Project Area	2012 Reported Irrigation Water Use (AF) in CREP Project Area	2013 Reported Irrigated Acres in CREP Project Area	2013 Reported Irrigation Water Use (AF) in CREP Project Area	2014 Reported Irrigated Acres in CREP Project Area	2014 Reported Irrigation Water Use (AF) in CREP Project Area	2015 Reported Irrigated Acres in CREP Project Area	2015 Reported Irrigation Water Use (AF) in CREP Project Area	2016 Reported Irrigated Acres in CREP Project Area	2016 Reported Irrigation Water Use (AF) in CREP Project Area
Barton	16,638	21,522	15,985	14,473	16,433	15,324	16,501	17,494	15,985	14,473
Edwards	37,188	45,581	36,469	34,930	37,231	36,967	36,974	39,481	36,469	34,930
Finney	196,864	320,129	197,956	288,393	193,295	272,586	191,902	229,675	197,956	288,393
Ford	42,182	55,682	42,863	46,780	43,533	43,284	42,094	40,211	42,863	46,780
Gray	76,689	100,898	74,954	94,532	71,897	87,467	72,339	71,587	74,954	94,532
Hamilton	13,471	21,856	14,223	19,476	14,474	18,338	13,842	15,932	14,223	19,476
Kearny	88,747	146,479	89,114	130,614	101,820	147,606	115,886	159,467	89,114	130,614
Pawnee	50,929	61,029	52,354	48,163	52,832	51,249	52,886	49,663	52,354	48,163
Rice	336	353	336	311	336	341	166	238	336	311
Stafford	625	859	622	589	628	657	628	711	622	589
Total	523,669	774,388	524,798	678,261	532,479	674,089	543,195	624,458	524,876	678,261

Summary of Non-Federal Program Expenditures

The total estimated federal costs of the program to date are \$33,538,379. The state of Kansas, with its partners of other agencies, conservation districts, groundwater management districts and private associations, has provided a cost share that meets or exceeds the required 20 percent match of federal costs. The state of Kansas agreed to pay not less than 20 percent of the program costs, as required for a CREP program, through a combination of direct payments, technical assistance and in-kind contributions. No less than 10 percent of this match is in direct match. Since Dec. 6, 2007, a total of \$11,969,636 of non-federal expenditures has been made in support of the CREP project. The state direct match now totals \$8,354,663.

State / Federal Match Summary (in dollars)											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
DOC Payments	439,901	116,122	93,916	15,320	245,011	37,677	0	113,669	118,146	30,749	1,210,511
Other KS Direct	143,089	673,670	1,576,507	1,278,249	336,275	336,285	49,134	287,424	1,728,119	735,400	7,144,152
Total KS Direct	582,990	789,792	1,670,423	1,293,569	581,286	373,962	49,134	401,093	*1,846,265	766,149	8,354,663
KS Indirect	651,988	412,286	374,911	318,747	302,160	286,771	357,304	287,714	306,730	316,362	3,614,973
KS Dir & Indirect	1,234,978	1,202,078	2,045,334	1,612,316	883,446	660,733	406,438	688,807	*2,152,995	1,082,511	11,969,636
ACCUM Kansas		2,437,056	4,482,390	6,094,706	6,978,152	7,638,885	8,045,323	8,734,130	*10,887,125	11,969,636	11,969,636
ACCUM Federal				19,667,225	21,274,225	22,464,790		28,317,828	31,347,166	33,538,379	33,538,379
10% of federal											3,353,837
20% of federal											6,707,675

*Corrected from 2016

As of Sept. 30, 2017, a total of \$1,210,511 has been expended by the DOC for the State Upfront Payments (SUPs) in 112 separate state contracts to producers who have been approved and enrolled in the CREP program, as shown below. Producers will receive an average of about \$2,191,213 annually in direct payments from FSA over the 14-15 year period of the CREP contracts.

State Upfront Payments Approved by County											
COUNTY	State Upfront Payments 2008	State Upfront Payments 2009	State Upfront Payments 2010	State Upfront Payments 2011	State Upfront Payments 2012	State Upfront Payments 2013	State Upfront Payments 2014	State Upfront Payments 2015	State Upfront Payments 2016	State Upfront Payments 2017	COUNTY TOTAL
Barton										\$9,991	\$9,991
Edwards										\$9,894	\$9,894
Finney	\$8,022	\$33,756	\$2,677		\$78,251			\$34,124	\$45,299	\$10,864	\$212,993
Ford											
Gray	\$156,954	\$44,856	\$75,618	\$15,320	\$64,419	\$37,677		\$59,540			\$454,384
Hamilton									\$23,561		\$23,561
Kearny	\$260,632	\$37,510	\$15,620		\$94,241			\$20,005	\$49,286		\$477,294
Pawnee	\$14,291				\$8,103						\$22,394
Rice											
Stafford											
TOTAL	\$439,901	\$116,122	\$93,916	\$15,320	\$245,011	\$37,677	\$0	\$113,669	\$118,146	\$30,749	\$1,210,511

As of Sept. 30, 2017, a total of \$8,354,663 has been expended in the project for both cash payments and direct match. A total of \$766,149 was provided as cash payments and direct match during the 2017 fiscal year, as shown below.

Direct Match to Federal Dollars from October 1, 2016 to September 30, 2017		
Organization	Amount	Activities
KDA – Division of Conservation State Upfront Payments	\$30,749	State sign-up payments to CREP participants
State CREP Coordinator	\$50,033	Coordinate implementation of program with FSA, conservation districts, NRCS, and state agencies
KDA – Division of Conservation	\$0	Cost share on well plugging and other allowed practices
Western Water Conservation Project Funds	\$685,367	Alternate delivery route, ditch lining, Lake McKinney storage capacity and bypass
Pheasants Forever / Quail Forever	\$0	Cost share on seeding; loan of grass seeder
Kansas Water Office	\$0	Cost share on tamarisk control, or wetland bonus payments
TOTAL DIRECT	\$766,149	Cash Payments and Direct Match

As of Sept. 30, 2017, a total of \$3,614,973 has been expended in the project for technical assistance and in-kind services as indirect match. A total of \$362,316 was provided as indirect match during the 2017 fiscal year, as shown below:

Services by Organizations from October 1, 2016 to September 30, 2017		
Organization	Actual	Activities
Technical Assistance		
Western Water Conservation Projects Fund Management	\$0	Preferred interstate, grant applications, general TA water rights, laws and issues
KDA – Div. of Water Resources & Information Technology	\$5,194	CREP database maintenance, water right reviews, divisions and retirements for applications
Kansas Geological Survey	\$44,000	Water level monitoring, database management, phreatophyte investigations, TA, water right communication, modeling, river water quality and practical saturated thickness work
Kansas Department of Wildlife, Parks and Tourism	\$16,190	Wildlife and fish population investigations in CREP counties
Kansas Conservation Districts	-	No activity to report
State & Local In-Kind		
KDA – Div. of Conservation	\$270	Reports, outreach & CREP field inspections
Western Water Conservation Projects Fund	\$38,938	Alternative delivery system, storage capacity, and efficiency improvements (ARLFSC time)
Big Bend Groundwater Management District No. 5	\$118,500	Water level measurements, meter compliance, water banking, CREP assistance and clerical pay

Southwest Kansas Groundwater Management District No. 3	\$119,581	Water management, stakeholder assistance in CREP area, program promotion
Kansas Department of Health and Environment	\$14,706	Arkansas River coordination with Colorado, sampling of Arkansas River water quality
Kansas Water Office	\$1,651	Weather modification and phreatophyte CREP activities
Ducks Unlimited	\$2,291	Ark River CREP Landowner / Field Review Visits
KS Alliance Wetlands & Streams	\$995	2017 SW Kansas Playa Workshop
TOTAL INDIRECT	\$362,316	Technical Assistance / In-Kind Services

Progress on CREP Objectives (12 objectives)

1. 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.

As of Sept. 30, 2017, a total of 18,659 acres have been offered, accepted and enrolled into the CREP program. Of the total number of acres currently offered, only 2.6 percent (487 acres) was farmed dryland. Offers which are predominately "Tier 2 soils" comprise 8.9 percent (1679 acres) of the total approvals to date. Essentially 100% of the 18,659 total acres have been placed into the native grass practices of CP2 or CP4d. This objective is 64 percent complete.

2. 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.

As of Sept. 30, 2017, a total of 37,999 acre-feet of authorized water rights for irrigation have been permanently retired from the enrollment of 18,172 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 is 84 percent complete.

3. By 2020, increase the frequency of meeting minimum desirable stream flows in the Arkansas River at the USGS gaging stations at Great Bend and Kinsley from 71 percent and 52 percent, respectively, as measured in 1996–2004.

No assessment of this objective has been made as of Sept. 30, 2017. 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 sufficient time has elapsed to have an effect on the system. Most of the acres enrolled have just recently terminated the water rights, or are still allowed temporary limited irrigation to establish vegetation on soils susceptible to wind erosion. Following is a summary of the anticipated methodology for this objective.

There are three components to stream flow: frequency, magnitude and duration. Each of these components will be reviewed at the Great Bend and Kinsley MDS gage. The daily flow from 1960 to 2004 will be summarized into annual data. The summarization parameters include:

1. *The percent of time the MDS was not met (frequency of excursion).*
2. *The volume of flow less than MDS as calculated by the difference between MDS and reported flow (magnitude of excursion).*
3. *The maximum length in consecutive days that MDS was not met (duration of excursion).*

The frequency, magnitude and duration for which MDS was not met will be compared for the pre-CREP years (1960–2006) to the post-CREP years (2007–2017). 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 (1960–2006).

4. 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. This site was featured in a 2016 Kansas Natural Resources legislative tour of southwest Kansas hosted by the KGS that summer. Additional improvements are underway or being planned for river routing model study to improve river management and Stateline river flow delivery efficiency to the South Side, Farmers and Garden City Ditch systems that will be implemented as part of the Western Water Conservation Projects Fund expenditures.

5. 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 (2003–2007) and pre-CREP ten-year period (1998–2007).

No assessment of this objective has been made as of Sept. 30, 2017. 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. At the present time, limited irrigation is still provided on many of the enrolled acres to help establish vegetation, where the soils are highly susceptible to wind erosion. Following is a summary of the anticipated methodology for this objective (which is currently being reviewed to determine a more realistic methodology of analytical representation).

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. GMD5 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: 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 recent approach taken by the KGS regarding water reduction in the Sheridan-6 LEMA in Northwest Kansas Groundwater Management District No. 4. Methods include the water-balance approach recently published by the KGS, 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 of the LEMA 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.

6. 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.

As of Sept. 30, 2017, 18,172 irrigated acres have been offered, approved and enrolled into the CREP program. Some of the offered acres are close to the river, and most are south of the river. 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. A number of the wells are still in use for limited irrigation to help establish permanent vegetative cover. 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. 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 TDS (Total Dissolved Solids) levels in the river, however improvement is expected in the reduction of the advance of TDS or sulfate into the fresh water aquifers laterally from the river.

Annual groundwater sampling was temporarily suspended by GMD3 in 2011–2014 for the 183 monitoring sites in the CREP counties this report period. They were replaced by 40 additional groundwater samples collected for analysis of uranium in the CREP area by the 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.

- 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 be available through the monitoring network as described in Objective #6. However, an assessment of this objective will not be made at this time.

As of Sept. 30, 2017, 372 acres have been enrolled into the CREP program in Pawnee County. 127 acres were enrolled in Edwards County in 2017.

- Increase aquifer recharge and wildlife habitat by enrolling 400 acres of playa lakes and soils, and other suitable locations for shallow water development.

As of Sept. 30, 2017, no acres have been formally offered for the CP9 Shallow Water Areas practice. Approximately 8 acres of playa soils occur on acres offered into the CREP program.

- Reduce agricultural use of highly erodible soils with a goal of enrolling 7,000 acres that are unsuitable for dryland farming.

As of Sept. 30, 2017, approximately 17,586 acres of soils unsuitable for dryland farming have been enrolled in the CREP program. More than 100 percent of this objective has been met.

Acres Enrolled as of September 30, 2016	
Tier 1	1,309
Tier 1 Unsuitable Soils	15,671
Tier 2	1,679
Total Acres Enrolled	18,318

- Reduce the amount of soil lost to erosion by approximately 80,000 tons per year on all enrolled acres.

Soil erosion in the Upper Arkansas River Basin occurs primarily due to wind erosion. Water erosion is also a factor in soil erosion in the basin, but to a lesser extent. In comparison, wind erosion can reach 4 tons/acre whereas water erosion would total 0.3 ton/acre on the same soil types with the same cropping patterns and management practices. Factors that affect wind erosion include residue cover, field width, crop rotation intensity, and tillage operations (USDA 2006).

With 18,659 acres enrolled in the CREP program as of Sept. 30, 2017, the amount of soil lost to erosion will be reduced by about 74,636 tons per year. Approximately 93 percent of this objective has been met. 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.

Soil Erosion	
4 tons/acre/year	18,659 acres
Total soil erosion reduction	74,636 tons per year

11. Protect the ecological and recreational viability of the Cheyenne Bottoms with improved Arkansas River stream flow, as measured by an increase in the average, annual bird count at the Bottoms in 2015–2023 as recorded from 1996–2004, and with increased human visitation rates in 2015–2023 as recorded from 1996–2004.

No assessment of this objective has been made as of Sept. 30, 2017. 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 water rights have been terminated and wells turned off. Many application acres just recently had the associated water rights terminated, or have limited irrigation to establish permanent vegetative cover. Monitoring of the average annual bird count and human visitation rates will continue.

12. Reduce energy consumption from an average of 59,850 kW-hr to less than 5,000 kW-hr per pivot for the first two years on pivots 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-hr.

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. An average energy consumption of 59,850 kW-hr 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 17,855 irrigated acres enrolled in CREP as of Sept. 30, 2017, more than 7 million kW-hr of energy savings may be achieved each year. More than 100% of this objective has been met.

Energy Savings	
Irrigated Acres Enrolled as of September 30, 2016	18,172 acres
Approximate Number of Center Pivots Retired	145 pivots
Average Energy Consumption per Pivot	59,850 kW
Total Energy Savings per Year (kW)	8,678,250 kW

WATER AND SOIL CONSERVATION IN THE UPPER ARKANSAS RIVER CORRIDOR

The Conservation Reserve Enhancement Program affords potential benefits for both farmers, land and water resources in 10 counties along the Upper Arkansas River. Landowners who enroll in CREP will receive up to 15 years of rental payments, a state sign-up bonus, as well as state and federal dollars to put irrigated acres into a conservation planting. The water rights associated with the enrolled land will be permanently retired. Enrollment is on a first-come, first served basis - individual county caps apply. Enrollment availability is only assured through June 2016, at this time.

What is CREP?

CREP is a targeted, enhanced Conservation Reserve Program (CRP), a federal program administered by USDA's Farm Service Agency (FSA). CRP was designed to prevent soil erosion, but also has provided water quality and wildlife habitat benefits. CREP allows the focus to be on a state resource concern, in this case, water conservation.

What are the water and soil benefits?

Reducing irrigation demands on the stream-aquifer system will reduce aquifer declines. It will also reduce the spread of saline river water into the aquifer and help restore stream and riparian health. Most acres enrolled have highly erodible, sandy soils. Multi-year transition with limited irrigation allows establishment of cover vegetation.

This program provides cash payments for land transition, while irrigation is still possible. Irrigation is permitted to establish a suitable land cover.

Among the approved practices eligible for cost share money are native grass seeding, wildlife habitat establishment, shallow water area construction, wetland restoration and filter strip and riparian buffer installation.

Are there targeted areas?

The program places priority on acreage where the retirement of the land and attendant water rights would have the greatest water conservation benefit and protect highly erodible soils.

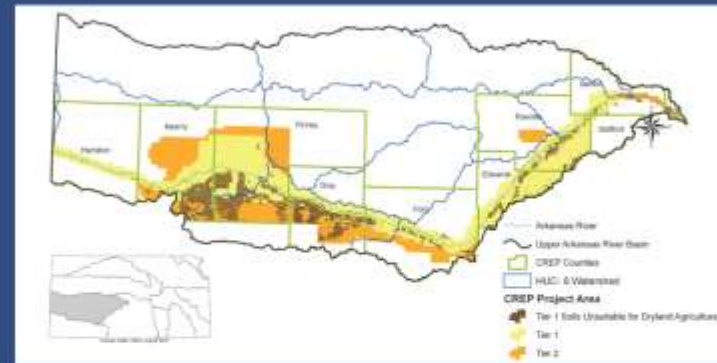
Are there wildlife benefits?

The conservation practices to be implemented open a host of opportunities for wildlife and landowner revenue related to hunting, recreation and other forms of agritourism.



Landowner visits with FSA, NRCS and KDA officials about CREP grass covers.

NEW IN 2016 INCREASED FEDERAL RENTAL PAYMENTS AND STATE INCENTIVES



8-Digit HUC	DAFP Approved Irrigated Rental Rates (\$/AC)
11030001 - Pivotal	160
11030001 - Gravity	153
11030003 - Pivotal	161
11030003 - Gravity	154
11030004 - Pivotal	183
11030004 - Gravity	176
11030005 - Pivotal	160
11030005 - Gravity	159
11030006 - Pivotal	161
11030006 - Gravity	154
11030008 - Pivotal	193
11030008 - Gravity	186

ELIGIBILITY CRITERIA

Federal and state eligibility criteria must be met to enroll your land in CREP. The partial list of the criteria will help to screen your eligibility in advance. Your local FSA office has a database to screen your application on these criteria.

1. At least one-half acre foot of water per acre was applied four out of six years (2008-2013).
2. At least 50 percent of the maximum annual quantity authorized to be diverted under the water right has been used in any three years within the most recent five years preceding offer submission for which DWR reports are available.
3. At least 51 percent of the offered land must be located within the CREP boundary.

BENEFITS TO FARMERS

- Federal annual irrigated rental and maintenance payments for 14 to 15 years.
- Rental payment on dryland cropland (i.e. center pivot corners) that's part of a whole field enrollment. State upfront payment of either \$97 or \$55 per irrigated acre.
- Up to 50 percent cost share on seeding.
- Well plugging cost share of \$1,000 per well.
- Bonus payment of \$350 per acre for shallow water area development in Kearny or Finney counties.
- Land can be leased for hunting.



A pheasant calls this CREP area his home

As you decide whether CREP enrollment fits your business plan, you'll be working with the USDA Farm Service Agency (FSA), Natural Resources Conservation Service (NRCS) and the Kansas Department of Agriculture (KDA).

1 First stop is your local FSA office. FSA personnel will use a CREP database to determine whether at least half of the irrigated land offered for enrollment lies within the CREP boundaries and if minimum water use criterion have been met. They also will be able to provide eligible producers with a preliminary estimate of rental and upfront payments.

2 Any questions on water rights will be referred to the KDA Division of Water Resources or Groundwater Management District No. 3 or 5. Producers whose land is accepted into the voluntary program are expected to permanently retire the associated water right(s).

3 KDA will make the state's upfront payments and practice cost-share payments on approved CREP contracts.

ARKANSAS RIVER CREP PARTNERS

Working partners include FSA, KDA, NRCS Southwest Kansas GMD No. 3, Big Bend GMD No. 5, Pheasants Forever, KGS, KDHE, KWO and Kansas Alliance for Wetlands and Streams



CONTACT

Steve Frost, CREP Coordinator, KDA
(785) 564-6622, Steve.Frost@kda.ks.gov

Carla Wikoff, USDA-FSA
(785) 539-3531, Carla.Wikoff@ks.usda.gov

APPLICANTS WATER RIGHT QUESTIONS:

DWR, Garden City	(620) 276-2901
DWR, Stafford	(620) 234-5311
GMD No. 3, Garden City	(620) 275-7147
GMD No. 5, Stafford	(620) 234-5352

FARM SERVICE AGENCIES (FSA)

Barton	(620) 792-5329
Edwards	(620) 659-3142
Finney	(620) 275-0211
Ford	(620) 227-3731
Gray	(620) 855-3515
Hamilton	(620) 384-6955
Kearny	(620) 355-7911
Pawnee	(620) 285-2821
Stafford	(620) 549-3321
Rice	(620) 257-5184

UPPER ARKANSAS RIVER CREP

CONSERVATION RESERVE
ENHANCEMENT PROGRAM

WATER AND SOIL
CONSERVATION IN THE UPPER
ARKANSAS RIVER CORRIDOR



SIGN UP TODAY
At Your Local USDA Farm
Service Agency Office



UPPER ARKANSAS RIVER CREP

CONSERVATION RESERVE ENHANCEMENT PROGRAM

Water and Soil Conservation in the Upper Arkansas River Corridor

What's in it for you?

Farmer's Benefits

- Upfront signing payment of up to \$97 per irrigated acre
- 50% cost share on seeding
- FSA irrigated rental payments are between \$153-\$193 for 14-15 years
- Renewed landowner revenue from hunting, recreation and agritourism
- Assured income with annual cash payments

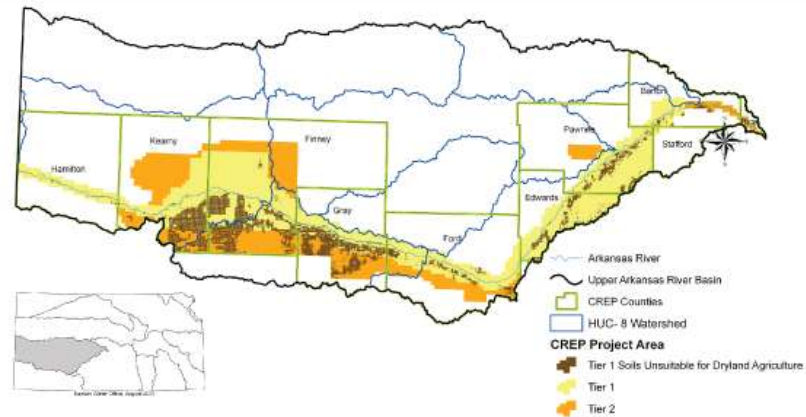
Regional Benefits

- Reduce aquifer declines
- Protect land from soil erosion with irrigated transition to a conservation cover
- Reduce the spread of saline water
- Restore stream and riparian health

Want more information?

Contact

Steve Frost, CREP Coordinator
 Kansas Department of Agriculture
 Steve.Frost@kda.ks.gov



SIGN UP AT YOUR LOCAL USDA FARM SERVICE AGENCY OFFICE!



Attachment B

Upper Arkansas River Conservation Reserve Enhancement Program Outreach

December 2007 – December 2008 Outreach for the Conservation Reserve Enhancement Program Events (Brochure distribution and conversation)

- Stakeholder Meeting – Garden City, GMD3, December 2007
- Conservation District Meetings in the 10 counties in CREP area – Jan. 11 - Feb. 28, 2008
- GMD5 Meeting – Stafford, February 7, 2008
- No-till on the Plains – Salina, January 2008
- 3i Show – Great Bend, May 2008
- Upper Arkansas Basin Advisory Committee Public Meeting – Jetmore, May 21, 2008
- Upper Arkansas Basin Advisory Committee Public Meeting – Garden City, July 16, 2008
- KSU Agronomy Day – August 2008
- Kansas Agribusiness Expo – November 2008
- CREP Producer Outreach Information Meeting – Larned, December 12, 2008; Garden City, December 17, 2008; Dodge City, December 18, 2008

December 2008 – December 2009 Outreach for the Conservation Reserve Enhancement Program

- Garden City Farm Show – January 2009
- NRCS All Personnel Meeting – Hays, February 11, 2009
- NRCS All Personnel Meeting – Scott City, February 12, 2009
- Collaborative Technical Issues Meeting – Garden City (FSA, NRCS, SCC, KWO, GMDs), February 26, 2009
- Middle Ark WRAPS Meeting – Dodge City (KSU, GMD3), March 3, 2009
- Middle Ark WRAPS Meeting – Larned (KSU, GMD5), March 5, 2009
- Upper Ark WRAPS Meeting – Garden City (KSU, GMD3), March 10, 2009
- Water and the Future of Kansas Conference – Topeka (SCC, KWO Presentation), March 12, 2009
- 3i Show – Great Bend, May 2009
- Kansas Legislative Field Tour – Lakin (SCC, KWO Presentation), June 4, 2009
- Stakeholder Meeting – Garden City, GMD3, October, 2009
- Public Information / Education Meeting – St. John (w/ GMD5) October 29, 2009

December 2009 - December 2010 Outreach for the Conservation Reserve Enhancement Program

- 3i Show – Garden City May 2010
- GMD3 CREP promotion – Ongoing

December 2010 – September 2011 Outreach for the Conservation Reserve Enhancement Program

- FSA National Press Release – August 23, 2011
- KDA & KWO Kansas Press Release – August 23, 2011
- 3i Show – Great Bend May 2011
- GMD3 CREP promotion – Ongoing
- Second technical meeting preparing for 2011 MOA updates - Dodge City, July 7, 2011 at USDA Service Center (DOC, NRCS, FSA, DWR, GMD3, and GMD5 participating)
- September, 2011 – DOC sent a directed mailing to 1235 landowners who appeared to have eligible water rights in the project area

October 2011 – September 2012 Outreach for the Conservation Reserve Enhancement Program

- 3i Show – Great Bend May 2012
- May 22, 2012 – NRCS CREP Drought Impacts Field Tour in Kearny County
- August 2012 – KDA field chemical sampling project in Gray, Finney and Kearny counties
- November 13, 2012 – NRCS CREP Drought Impacts Landowner Meeting in Garden City
- GMD3 CREP promotion – Ongoing

October 2012 – September 2013 Outreach for the Conservation Reserve Enhancement Program

- November 11, 2012 – CREP Producer Meeting in Garden City
- February 6, 2013 – Presentation to Kansas Water Congress Annual Meeting in Topeka
- August 1, 2013 – Presentation to Kansas Water Congress Summer Meeting in Garden City

October 2015 – September 2016 Outreach for the Conservation Reserve Enhancement Program

- Program training meeting for FSA, NRCS, DWR and GMD personnel – Dodge City, January 2016
- March, 2016 – DOC sent a directed mailing to 1,103 landowners who appeared to have eligible water rights in the project area

Brochures / Posters

- Updated CREP promotional poster to be distributed at CREP informational meetings in December to FSA offices and Conservation Districts
- Updated CREP promotional brochure for distribution by State Conservation Commission at stakeholder meetings in August
- Updated CREP promotional brochure used at 2011 K-State Agronomy Day
- Updated CREP promotional brochure used at 2011 Kansas Agribusiness Expo
- Updated CREP Promotional brochure and posters used in 2016 refreshed program rollout

Articles

- **Establishment of Upper Arkansas River CREP**, (December 2007, Governor Sebelius and KWO press release)
- [**Upper Arkansas River CREP Attracts More Than 12,000 Acres in Seven Days**](#) (January 2008 KWO HydroGram)
- [**CREP Conservation Practices Include Aquifer Recharge**](#) (January 2008 KWO HydroGram)
- [**Conservation Reserve Enhancement Program Benefits Water Resources & Farmers**](#) (September 2008 KWO HydroGram)
- **Response to Hutchinson Daily News editorial by SCC executive director on behalf of KDA, KDWP, and the KWO** (November 2008)
- [**Congressional funding measure keeps CRP rolls open**](#) (January 2008 HPJ news release)
- Pratt newspaper article on KDWP conducting a wildlife impact survey starting last spring per an article, as part of the CREP effort.

Internet

- **Access to various resources and reports on the Upper Arkansas CREP program are continuously updated and made available on the DOC's website at:**

www.agriculture.ks.gov/CREP

ATTACHMENT C
PROCESS FOR IMPLEMENTING UPPER ARKANSAS RIVER CREP IN KANSAS

FSA Kansas Exhibit 44 (Par. 171, 401)

2-CRP (Rev. 5), KS Amend. 6

March 9, 2016

STEP	ACTION	RESULT
<p>1. Initial Application with FSA</p>	<p>a. Producer visits local FSA office and provides a recent water use report with water use permit number for offered acreage. FSA enters water right number in CREP database to determine general eligibility. Water rights are by legal description. The website is: https://connect.kda.ks.gov (No WWW in front) (Each County will be provided a password)</p> <p>b. If a water right is ineligible, process would stop.</p> <p>c. If producer's water right meets basic eligibility as determined by CREP database, producer identifies physical location of acres and CREP practice (identify on an aerial photo). If, necessary consult with CREP coordinator to determine water rights acreage. FSA uses CRP-GIS tool, and determines total # acres and soil rate within CREP boundary and within HUCs.</p> <p>FSA estimates payment rate through CREP calculator. FSA reviews with producer total incentive package on another tab (includes state upfront payments, cost share, SIPs, PIPs if apply, etc.).</p> <p>NOTE: FSA follows normal continuous enrollment processing found in 2-CRP, Part 7, Section 3.</p> <p>Producer initiates process by signing CRP-2C and CRP-1 and processes the offer according to 2-CRP. NOTE: Applicant signs CRP-2C and CRP-1 based on application acres. The forms will be finalized based on actual contracted acres after water right review.</p> <p>d. FSA informs producer of process and works in conjunction with NRCS to determine appropriate practice. Producer is provided a packet with the process and practices. Producer is provided a sheet listing guidelines for cover crop establishment on sandy sites associated with CREP acres. If producer has questions on a water right issue, he/she is directed to a) DWR or GMD on water right termination issues; b) KDA-DOC for state upfront payments and Shareholder Agreement; and c) KWO for wetland bonus payment. NOTE: No water right is terminated without an approved, signed CREP contract.</p>	<p>a. FSA enters water right number into database and a register number is automatically assigned. This state developed database indicates eligibility based on water right information and location.</p> <p>b. If ineligible on CREP database, process stops here. Producer can contact DWR, GMD, or DOC to review water use history.</p> <p>c. Save an electronic copy of estimated total CREP payments and provide a copy to the producer. After acreage has been determined by measurement service scan and email an encrypted copy of the CRP-1, CRP-2C, aerial photo and summary of payment to the State Coordinator using password: KSCREP4State.</p> <p>d. Producer is responsible for getting additional signatures if needed, make a copy for personal record. The State Coordinator will complete any additional needed forms and provide to the producer.</p>

STEP	ACTION	RESULT
2. FSA	<p>a. Determination of basic Federal CREP Eligibility (FSA County Office) Example: ownership, person, land, practice, cropping history, CRP acreage cap. Ensure all eligibility requirements are met as provided in paragraph 181 in 2-CRP handbook.</p> <p>b. If eligible, FSA recommends conservation practices for application acres, and FSA provides NRCS a copy of CRP-2C.</p> <p>c. If ineligible based on Federal criteria, FSA notifies producer and copies State CREP coordinator. Explain appeals process to applicant.</p>	<p>a. FSA enters supplemental information related to practices and acres offered are entered into the CREP database.</p> <p>b. If eligible, process moves forward with NRCS and State CREP coordinator.</p> <p>c. If ineligible on federal criteria, producer can review with FSA.</p>
3. KDA-DOC	<p>a. State CREP Coordinator receives CRP-2C and map from FSA, and reviews for state eligibility, including county cap of 25% of total CREP acres. If not eligible, inform producer of finding and explain review process. State CREP coordinator determines predominant tier of irrigated acres in application, in consultation with FSA office.</p> <p>b. Review water right termination form for manageable unit and eligibility. 1) Identify if water right needs to be divided or if application acres have overlapping water rights. If yes, go to Step 3B. 2) Identify if application acres have both a ground water right and ditch water irrigation. If yes, go to Step 3C. 3) Identify if application acres unsuitable for dryland farming; if yes, notify owner he/she has option of requesting limited irrigation condition on water right termination to establish vegetative cover.</p> <p>c. After steps 3B & 3C are complete, if needed, and application meets state eligibility, sign water right termination form and forward it to KDA-DOC and copy FSA County Office with current status of application and file completion.</p> <p>d. Enter necessary information on application for SUP.</p> <p>e. Check GIS coverage for Tamarisk on application acres; note it on a file with applicant's name and HUC 8.</p> <p>f. Forward to KWO contract sheet for wetland bonus on CP-9, if applicable, with update on application status.</p> <p>g. Notify producer if application meets state eligibility and if all forms are in order. Provide information on State cost share for well plugging and tamarisk control and see if interested in participation.</p>	<p>a. If applicant doesn't meet state eligibility, explain applicant can meet with KDA-DOC to review application.</p> <p>Predominant tier will determine SUP rate.</p> <p>b. Owner may consider limited irrigation option if soils predominantly unsuitable for dryland farming, and discuss it with FSA as part of CPO, and request it from DWR, if desired.</p> <p>c. If needed, CREP coordinator notifies producer to meet with DWR on water right changes, or to get signatures on shareholder agreement and return to KDA-DOC (see 3B and 3C). Copy DWR on the referral.</p> <p>d. Inform FSA office and producer on preliminary status of state eligibility and file completion.</p> <p>e. SUP is to be shared with participants in same arrangement as on CRP contract.</p> <p>f. Notify KDA-DOC tamarisk control program manager.</p> <p>g. Wetland bonus is to be shared with participants in same arrangement as on CRP contract.</p>

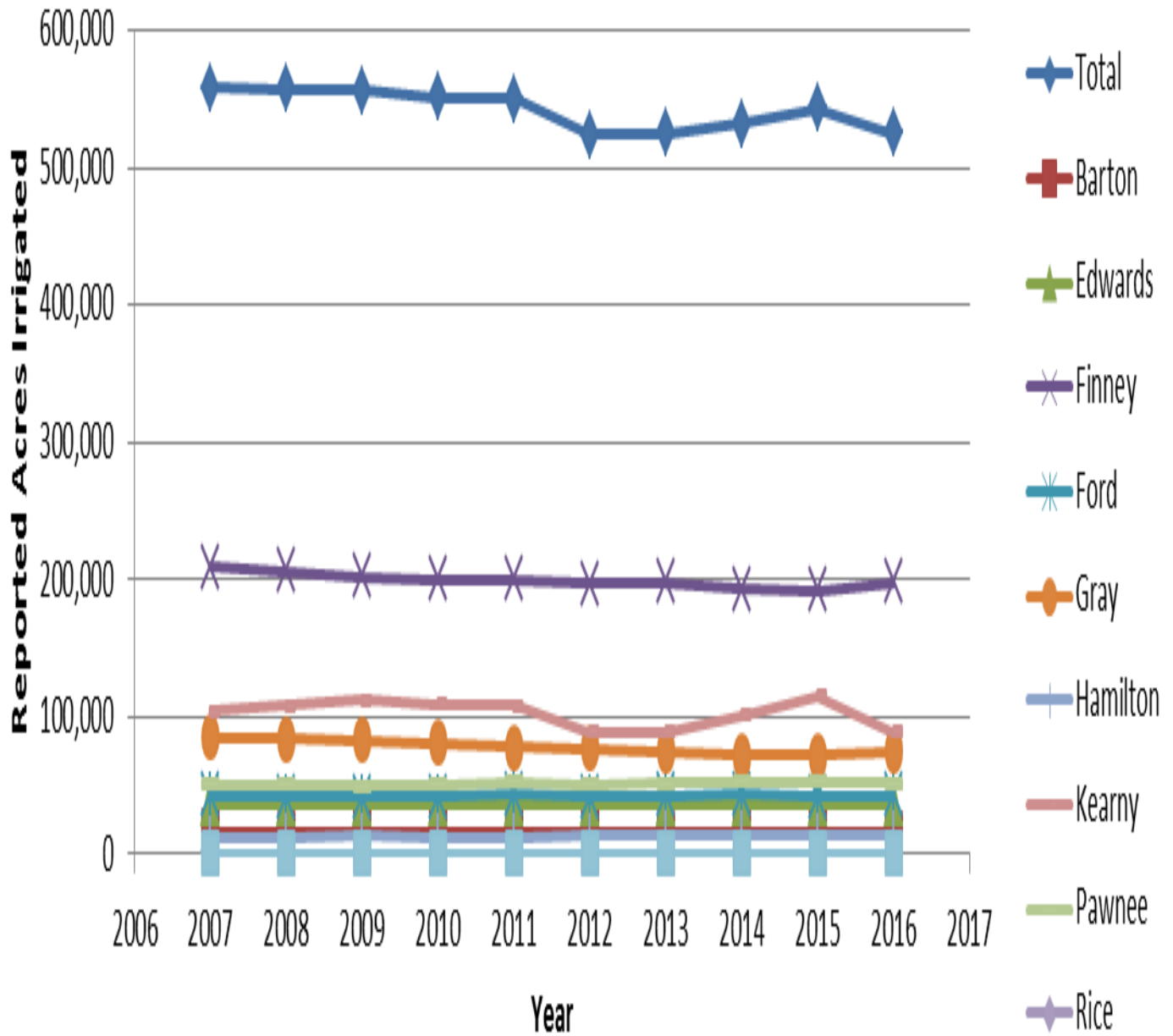
STEP	ACTION	RESULT
3B. KDA-DWR and KDA-DOC	<p><u>If needed:</u></p> <ul style="list-style-type: none"> a. Applicant meets with DWR or GMD to request necessary changes on water right. DWR or GMD flag change forms as a CREP Application. b. DWR completes process to adjust water right or place of use, so that a water right can be retired on CREP application acres. c. State CREP coordinator re-evaluates application based on split water right or adjusted application acres to confirm eligibility and maximum acres. 	<ul style="list-style-type: none"> a. Water right may need to be legally split or eligible place of use adjusted, so that a manageable unit is available for CREP enrollment. b. DWR copies CREP coordinator on changed water right information. c. KDA-DOC notifies producer and FSA County Office of re-evaluated application, maximum acres and file completeness.
3C. KDA-DOC	<p><u>If needed:</u></p> <ul style="list-style-type: none"> a. CREP Coordinator receives a signed copy of CREP Shareholder Agreement (KCREP_SA_03). Application acres with both a ditch surface irrigation and a ground water right, must file this form to not deliver ditch company surface water on specific tract(s) while enrolled in a CREP contract. b. When CREP Coordinator receives a fully signed form, update CREP database, and notify FSA County office and DWR. 	<ul style="list-style-type: none"> a. Applicant gets Irrigation Association or Ditch Company's signature, and returns signed shareholder agreement to CREP Coordinator. b. Enrolled acres cannot be irrigated by surface water during the life of the CREP contract. The associated ground water right must be terminated.
4. KDA-DWR	<p>Receives owner and KDA-DOC signed water right termination form.</p> <p>NOTE: The termination of the water right is conditional upon final approval of CREP contract. The CRP-1 is not approved by the COC at this point.</p>	<ul style="list-style-type: none"> a. Water right termination form will be held by DWR, and cannot be processed without a copy of producer and FSA signed CRP-1 contract.
5. NRCS	<p>NRCS makes a site visit to determine suitability of practice, needs and feasibility.</p>	<p>NRCS notify FSA County Office of practice suitability. Use CRP-2C form.</p>
6. FSA and NRCS	<ul style="list-style-type: none"> a. When KDA-DOC indicates application file is complete, FSA makes an appointment with applicant to finalize application at county office. b. FSA completes CRP-2C and CRP-1 for irrigated & dryland acres. c. NRCS develops CPO, and fills out CPA-52. CED completes & signs CPA-52. Identify if soil and climate conditions make this site at risk for wind erosion during seeding and special cover crop considerations should be included. 	<ul style="list-style-type: none"> a. Finalize application and adjust final contracted acreage at the county office. If necessary, enter the effective date and actual contracted acreage and practice totals to the CREP database.
7. FSA with producer	<ul style="list-style-type: none"> a. County FSA meets with producer to complete application materials. 	

STEP	ACTION	RESULT
FSA with producer Cont.	<ul style="list-style-type: none"> b. Producer signs CPO. c. Notify CREP Coordinator Producer has signed CRP-1 and CPO. 	
8. FSA KDA-DWR KDA-DOC	<ul style="list-style-type: none"> a. FSA County office confirms by electronic receipt and verification of CREP database, that water termination agreement has been signed by producer and evaluated by DWR. b. COC approves CRP-1 and CPO. c. FSA send a copy of CRP-1 and map to State CREP Coordinator, and notifies NRCS. 	<ul style="list-style-type: none"> a. FSA notifies producer. DOC updates CREP database. b. FSA County office updates CREP database with COC approval date.
9. KDA-DWR KDA-DOC FSA	<ul style="list-style-type: none"> a. DWR receives the copy of signed CRP-1 and issues the water right termination order by the Chief Engineer. DWR sends order to owner, with a reminder owner is responsible for filing a copy with County Registrar of Deeds. DWR provides a copy to State CREP coordinator. b. KDA-DOC notifies FSA county office of agreement completion, and updates CREP database. 	<ul style="list-style-type: none"> a. As applicable, FSA approves and pays SIP and State CREP Coordinator approves and pays SUP based on CRP contract shares.
10. NRCS or producer FSA KDA-DOC KWO	<ul style="list-style-type: none"> a. As required by procedure, either NRCS conducts an on-site review of practice installation and certifies installation on form FSA-848 or producer self certifies completion of practice on form FSA-848. b. CREP coordinator notifies KWO of CP-9 practice installation, where eligible for wetland bonus payment, and updates CREP database. 	<ul style="list-style-type: none"> a. As applicable, FSA issues PIP and cost share payments. b. KWO pays wetland bonus on CP-9, to participants as share on CRP contract.

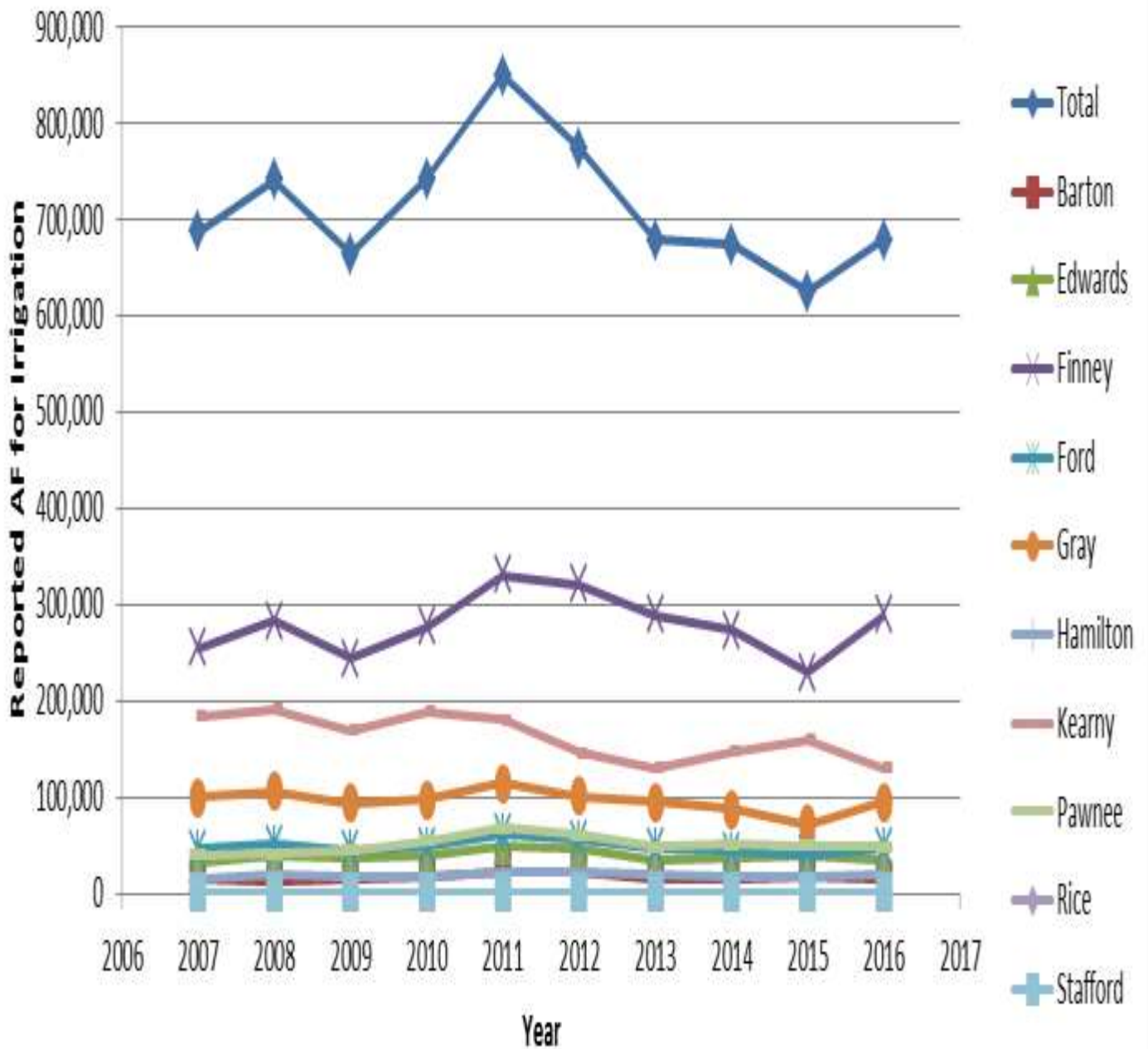
ATTACHMENT D

CREP Project Area Reported Irrigated Acres and Irrigated Water Use: 2007 – 2016

CREP Project Area Reported Irrigated Acres

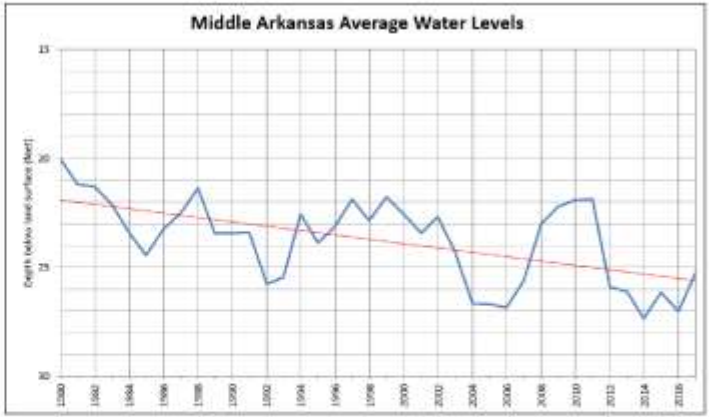
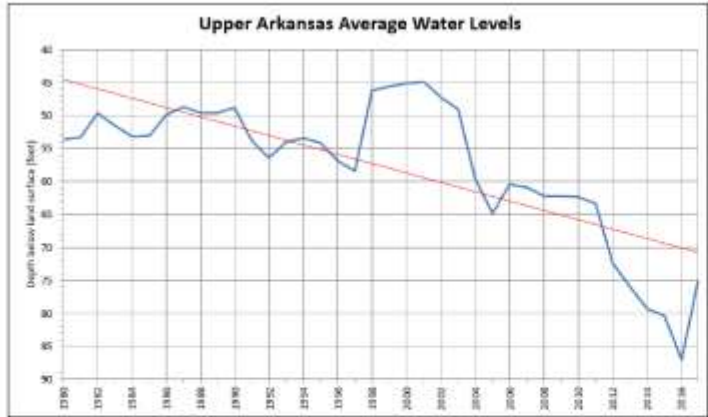
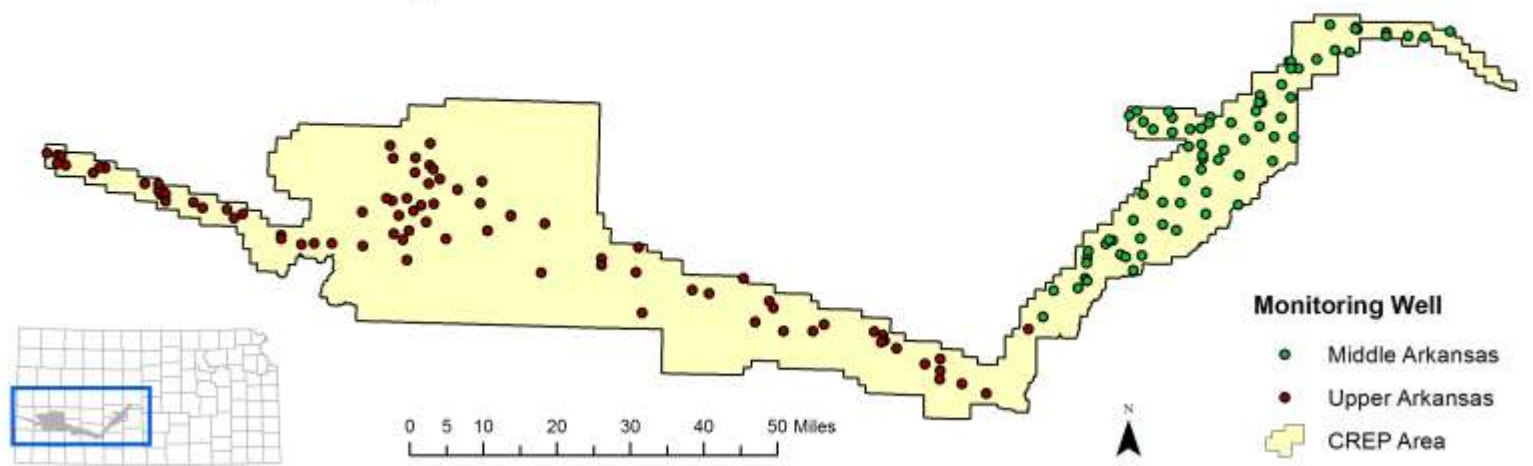



CREP Project Area Reported Acre-Feet for Irrigation Use



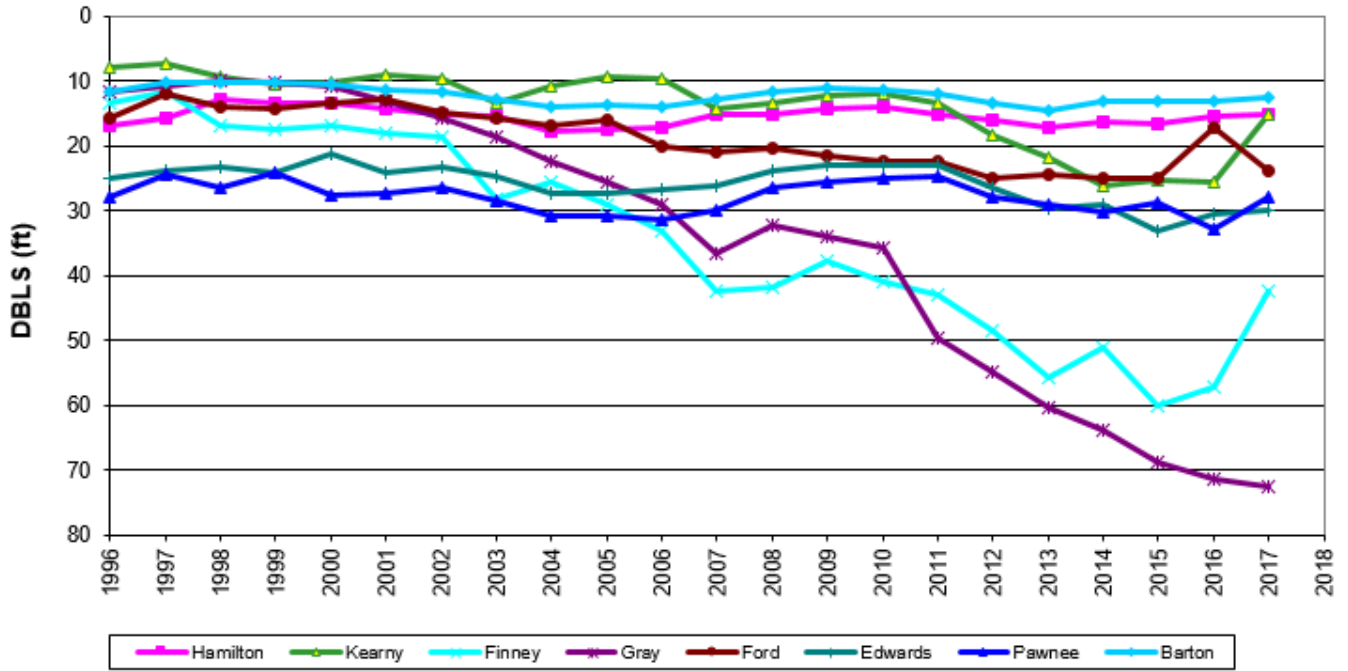
Monitoring Wells and Average Groundwater Levels

Upper and Middle Arkansas CREP Area 1980-2017

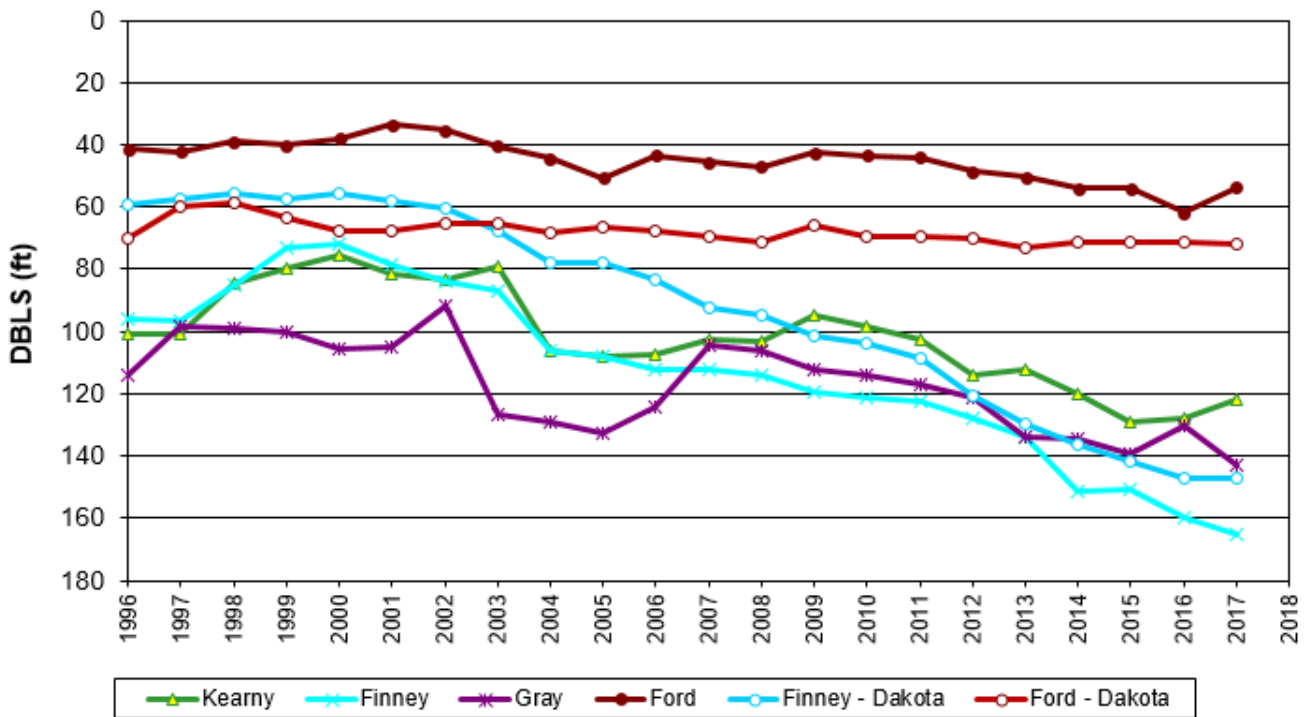


 Kansas Department of Agriculture
Division of Water Resources
November 20, 2017

CREP Alluvial Water Levels



CREP Ogallala/Dakota Water Levels



**Attachment F
Steering Committee Minutes**

**CREP Steering Committee Meeting
Wednesday, September 27, 2017
10:00 AM
KDA Conference Room 322**

Attendees:

Rod Winkler (FSA); Andy Burr (NRCS); Ginger Pugh (DWR); Steve Frost (DOC). **Joining by phone:** Diane Coe (KWO); Don Whittemore (KGS); Mark Rude, Jason Norquest, Chris Law and Trevor Ahring (GMD#3); Orrin Feril (GMD#5); Joe Kramer (KAWS); Mark Goudy (FSA).

Proceedings:

Steve started the meeting with introductions and providing tentative updated enrollment numbers for the CREP program during the current federal fiscal year – October 1, 2016 to September 30, 2017:

County	Total Acres
BT	107.7
ED	127.5
FO, RI, SF	0.0
FI	3,157.8
GY	7,296.9
HM	242.9
KE	7,353.8
PN	372.4
Program Total to Date	18,659

- * 18,659 acres will be approved for enrollment
- * 317 additional acres were added in FY2017
- * 166 wells retired on 18,172 irrigated acres from 135 water rights
- * 37,999 acre-feet of annual water appropriation rights have been permanently retired
- * 112 state contracts approved for a total of \$1,210,511 in sign-up cost-share incentives
- * 99% are CP2 practice code (native grasses) – and 91% are Tier 1 / Unsuitable soils

Due to additional offers being received and approved in FY2017, the program recorded its first CREP enrollments from Barton and Edwards counties.

Program Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
Acres Enrolled	7,252	1,903	1,647	247	4,077	674	0	1,189	1,329	385	18,659

Steve reported on current efforts to raise the individual county caps from 7,327.5 acres top 10,000 acres - meaning that many pending offers awaiting additional acres to become available in Kearny and Gray counties can now be processed in FY2018. This new allowance will likely cause the enrollment to jump by at least 5,525 acres in the next year, which would bring the total acres approved to about 24,000 total acres. In cooperation with landowners, the Kansas CREP partnership continues to investigate innovative methods for encouraging participation and establishing improved conservation covers under challenging circumstances.

Agency Reports / Special Comments from the Agencies:

FSA – From the state office perspective, Rod Winkler discussed the beneficial effects which the CREP program is having in the western counties where water levels are decreasing substantially and how CREP will support “economic impact of the inevitable”. He stated that the general trend of rental rates in CRP is down significantly, but not in CREP programs (although these could also be taken under review). Currently, Congress has limited enrollment in all CRP programs to 24 Million acres, but the Upper Ark CREP project is protected up to the previously authorized level of 28,950 acres. The passage of a new Farm Bill in 2017 or 2018 could provide many new variations for future CRP enrollments. A question was asked about determinations of payment rates for offers which have been pending for a couple of years – Rod stated that the payment rates and water use eligibility would have to be analyzed in two ways (both before and after the rate increase), and then accordingly which incentive payment should be applied consistent with the applicable period of the water use records. FSA County Executive Director, Mark Goudy from Kearny County, reported on the trial grazing management waiver which is being conducted on some CREP fields. He said that the grass and other native vegetation is responding well to the “hoof action” - he is still very optimistic about the progress and results so far, indicating that the livestock grazing was having a beneficial impact on the sandy soils with hard pans as far as retaining moisture and allowing better seed germination and root growth.

NRCS – Andy Burr provided a brief report from NRCS which included ongoing activities to determine improved plant varieties / mixtures and seeding techniques for the problem sandy soils in the southwestern counties. Steve asked about the possibility of NRCS conducting some type of an analysis of overall field conditions / compliance based on the use of a sampling strategy. This idea will be discussed further with other NRCS officials. Rod Winkler questioned whether the present CREP effort could theoretically become more of a working grasslands project, with fencing and stockwatering facilities being provided through the EQIP program.

DWR – Ginger Pugh provided a progress update on DWR related CREP activities, noting especially that two new Water Conservation Areas have been approved for landowner groups within the CREP project area – these two efforts share mutual objectives and are very compatible for the entire water conservation initiative. She discussed the recent IT updates to the CREP website, which have been very successful. Ginger also mentioned that 2016 water use reports are now available for determining next year’s enrollment eligibilities, and she again offered her assistance to any team members needing help with water rights and data needs.

KGS – Don Whittemore talked about the CREP project economic evaluation report presented to the Kansas Legislature during the 2017 session. He noted that the analysis only includes information about crop loss from enrolled acres, but not the economic value of the water being conserved – which is a very important economic factor. Don also observed that water level gradients are being reduced because of the project, which also reduces treatment costs for industries and municipalities. In agency news - KGS is discontinuing the Kinsley river gage and replacing it with a site at Larned, and multiple studies are being conducted in the Local Enhanced Management Area of Northwest Kansas which can be interpolated to the CREP project area. KGS is also continuing their water quality work with GMD#3 on the surface water flows of the Ark River.

KWO – Diane Coe reported on the KWO’s newly formed Regional Advisory Committees and recent meetings of the Upper Arkansas RAC. Diane noted that support is being expressed by that RAC group for additional water conservation cost-share opportunities, and that the committee has also provided a recommendation for KDA and DOC to allow the enrollment acreage cap expansions for Kearny and Gray counties.

GMD5 – Orrin Feril stated that his groundwater management district is dealing with many big issues, and that it is in favor of promoting a CREP project expansion into the Rattlesnake Creek area, or adopting a CREP project specifically for the Ark River and Rattlesnake Creek areas. He reported that the directors of the district are also considering a LEMA for the Rattlesnake and Ark River basins which could compliment other voluntary, incentive based opportunities. In response to both KWO and GMD#5, Steve agreed to provide a report on the CREP and WTAP programs at the next Big Bend Prairie RAC meeting. Orrin updated progress on the GMD#5 index well program and how it relates to KGS activities of the hydrologic modeling effort there.

KAWS / DU – Joe Kramer reported on the second Playa Lake Symposium which is being conducted in Colby on January 9–10, 2018. Playa Lake Joint Ventures, KAWS and Ducks Unlimited are the main partnering organizations – KDA’s DOC will again provide another \$10,000 sponsorship toward the education information effort. Research has shown playas to be important sites and sources of recharge for the High Plains Aquifer, and the goals of the symposium are aligned well with the CREP project. Steve mentioned the CP9 (shallow water development area) conservation practice which is an approved part of the FSA CRP practices for the Upper Arkansas CREP - more education and information to promote this practice needs to be incorporated in future public outreach efforts. DU now has a full time biologist stationed in Garden City – Abram Lollar, who is available and assisting in the effort. KAWS is trying to make the playa lake project fit into the UAR CREP whenever and however it can.

GMD3 – Mark Rude discussed the comments from Don Whittemore about the need to quantify the “future value of conserved water”. Mark also noted the development of more KWO “Water Technology Farms”, two of which are now in the CREP project area. Mark also updated the committee on the possible prospects of a LEMA formation in the Kearny and Finny counties area, which could also work in concert with the desire of landowners to enroll land and water rights into CREP.

Data Needs for Monitoring Results:

It was again noted that many of the monitoring activities which are incorporated in the CREP MOA are difficult for the agencies to significantly undertake at this time – or to determine any significant changes in results or impacts due to the CREP project because of the broad expanse of the water wells and related water use occurring in the overall aquifer area, both inside and near CREP fields. Even though enrollment is still increasing at this time, almost the entirety of the enrollment has been located in areas of the “Tier 1 / Unsuitable” soils classification in heavy water use areas some distance from the river valley. We have not yet seen enough statistically significant regional water use curtailment attributable solely to CREP to monitor, and the recent drought continued to exacerbate this situation.

Enhancing Enrollment during 2017 – 2018:

Steve stated that with the possibility of more promotional meetings in GMD5, the GMDS may undertake some type of public contact on their own with the updated water right eligibility lists. Kansas is still looking for more ways to increase interest and enrollment in the CREP project. FSA, DOC, KWO and the GMDs will work to re-market and promote the program noting the higher rental / incentive rates and highlight successes of the grass establishment strategies.

Identification of Other Issues:

In regard to the annual report, Steve asked that all the team entities submit their costs and narratives of activities by early November. The next annual report is based on the federal fiscal year of October 1, 2016 to September 30, 2017. Committee members were also asked to update the “Progress on CREP Objectives” section for the next report, particularly highlighting the narratives and contributions of each of their agencies.

Items to be addressed again in the upcoming project year include potentially expanding the overall CRP project size, and evaluating results of the Kearny County grazing study and possible FSA project-wide approval for problem areas. The committee should begin addressing post-contract issues such as needs, special EQIP contracts, and involving academics and the research community on what has been learned from the project so far.

Conclusion:

The steering committee members were sincerely thanked for their time and efforts in fulfilling the mission of the CREP program. The meeting was concluded at 12:09 PM.

2018 Spring Workshop Dates and Locations

- Area III – March 6, Prairieland Partners, McPherson
- Area II – March 7, KSU Experiment Station, Garden City
- Area I – March 8, Buffalo Bill Center, Oakley
- Area V – March 14, Old Iron Club, Fredonia
- Area IV – March 15, KDA Headquarters, Manhattan

ATTACHMENT C

Kansas Wildfire Cost-Share Initiative

					Cost-share funds requested
County	Landowner Name	Date of Application	Practice(s)	Practice Code Number(s)	for project
Clark	Ruth Amos	10/16/2017	obstruction removal	500	\$2,000.00
Clark	Mark Bergkamp	10/17/2017	tank, pipeline, crossfence	614, 516, 382	\$3,000.00
Clark	Vince Isenbart	10/18/2017	obstruction removal	500	\$2,000.00
Clark	Vince Isenbart	10/18/2017	tank	614	\$3,000.00
Clark	CK Ranch	10/20/2017	range seeding, livestock well, tank	550r, 642, 614	\$3,000.00
Clark	MTPRC, Ltd	10/30/2017	livestock well, solar pump	642, 533	\$3,000.00
Clark	Matt Wilson	10/30/2017	obstruction removal	500	\$2,000.00
Clark	Matt Wilson	10/30/2017	range seeding	550r	\$3,000.00
Clark	Warren Harrington	10/31/2017	livestock well, tank, solar pump	642, 614, 533	\$3,000.00
Clark	Debbie Isenbart	10/31/2017	obstruction removal	500	\$4,000.00
Clark	Angela Miller	10/31/2017	obstruction removal	500	\$2,000.00
Clark	Angela Miller	10/31/2017	range seeding	550r	\$3,000.00
Hodgeman	Oliver Salmans	10/31/2017	Obstruction Removal	500	\$2,000.00
Hodgeman	Oliver Salmans	10/31/2017	Windbreak Renovation	650	\$1,000.00
Reno	Jaris Regier	10/16/2017	Solar System	533	\$2,209.20
				Total	\$38,209.20

SCC Policy Statement

Conservation districts may adopt a cost-share cancellation contract fee deposit requirement. Within acceptable guidelines as established by the local board of supervisors, a fee deposit shall be forfeited by the applicant and used to pay all administrative expenses incurred by the conservation district related to the project if work is not timely completed under the terms of a state cost-share contract. Every conservation district implementing such a landowner fee deposit to ensure the utilization of approved state-cost share funds in a timely manner shall incorporate the term "contract cancellation fee deposit" to describe the agreement. [NOTE: district cost-share contract cancellation policies incorporating an after-the-fact penalty fee charged to a landowner are not allowed.]

Text for Kansas Conservation District Handbook, Chapter 5 (Financial Management)

Special Revenue Funds – to account for the proceeds of specific revenue sources that are restricted by law or administrative action to expenditure for specific purposes, e.g. a grant.

State Cost-Contract Cancellation Fee Deposit Agreements:

Districts may enter into agreements with landowners for the approval of state cost-share contracts which involve the collection of deposits and charging of a contract termination fee under the following guidelines:

1. Districts are not authorized to assess an after-the-fact penalty for uncompleted projects, but they may accept deposits to be held in trust for the landowner to secure final completion of the project in accord with the terms of the cost-share contract;
2. A deposit not to exceed 10% of the total amount allocated for the project may be required upon the approval / signing of a contract. The board may implement other total dollar minimum and maximum deposit limits;
3. Contract termination fees should be deposited to a special revenue fund and if the deposit fee is returned after successful completion of a contract, the reimbursement should be made out of the same account;
4. All deposit funds collected for termination of contracts should be accounted for as a special revenue source and may only be expended by a district to offset its costs incurred from the administration of processing the contract;
5. The board of supervisors should establish a profile of acceptable reasons and conditions for which the termination fee will be waived, e.g.
 - a. extensions requested and granted prior to the contract expiration date;
 - b. the landowner voluntarily requests a contract cancellation within 60 days of the expiration date; and
 - c. an error by the district requires the termination of a contract; and
6. Before terminating any state cost-share contract, the Board of Supervisors will review the reason for termination and a deposit fee should only be retained after a formal action of the board of supervisors.
7. Records of any cost-share deposits and refunds / forfeitures shall be maintained in the same county cost-share contract records for review by DOC.

Cost Share Contract Deposit

Whereas, State Cost share funds are declining each year, and a landowner can cancel a project with limited time to reallocate the funds before cancellation; and

Whereas, other landowners in the conservation district willing to complete projects have little opportunity to apply for the funds; and

Whereas, Districts would like to maintain all cost share allocations for their County to address natural resource conservation concerns; and

Whereas, a deposit of up to 10% of the approved contract would invest the contract holder in insuring completion in a timely manner;

Therefore, be it resolved, the Kansas Association of Conservations Districts recommends the Kansas Department of Agriculture-Division of Conservation develop a policy to allow, but not require, a deposit up to 10% be paid by each cost share contract holder.

Water Conservation through Xeriscape Practices

Xeriscape (zîr'î-skāp'): A landscaping method that employs drought-resistant plants in an effort to conserve resources, especially water.

WHEREAS, using native habitat vegetation can reduce water usage in rural and urban areas by as much as 50% to 75%. Over 50% of most residential water is used on lawn and landscape.

WHEREAS, Native grasses, shrubs, trees, or other "drought-resistant plants" can reduce soil erosion because they are better suited to their climate and will spread with more vigor while using less resources.

WHEREAS, the use of Xeriscape practices will eliminate the over applications of pesticides, such as weed control chemicals, grass control chemicals and insecticide chemicals because they are already adapted to the local ecosystem.

WHEREAS, the use of native vegetation can improve the local ecosystem by providing food and shelter to organisms suited to their local environment while discouraging foreign pests that rely on out of area plants to survive.

WHEREAS, over applying fertilizers and chemicals is harmful to the ground water. Native plants will require little or no fertilizer because they are already suited to their soil profile and less chemical because their vigor can choke out unwanted weeds.

THEREFORE BE IT RESOLVED, that the Kansas Association of Conservation Districts recommends to the Natural Resource Conservation Service and the Kansas Department of Agriculture Division of Conservation to adopt Xeriscaping practices as a cost share program to conserve water resources and prevent pollution in drought or non-drought afflicted areas.

Allow Less Than 40-Acre Minimum for Pasture and Rangeland Management

Whereas, many counties adjacent to and surrounding metropolitan areas are experiencing a high degree of fragmentation of agricultural lands; and

Whereas, hobby livestock farming and horse ownership is a growing trend that can cause severe degradation of the land and water resources; and

Whereas, there is a great opportunity to share the benefits and successes of traditional conservation practices with a new demographic and new generation of landowners and their neighbors; and

Whereas, pasture and rangeland management practices are the only practices with a 40-acre minimum;

Therefore, be it resolved, that the Kansas Association of Conservation Districts encourage the Kansas Department of Agriculture Division of Conservation to waive the 40-acre minimum in counties at the request of a county conservation district.

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

COVER CROP

(Acre)

CODE 340

DEFINITION

Crops including grasses, legumes, and forbs for seasonal cover and other conservation purposes.

PURPOSE

- Reduce erosion from wind and water
- Increase soil organic matter content
- Capture and recycle, or redistribute nutrients in the soil profile
- Promote biological nitrogen fixation
- Increase biodiversity
- Weed suppression
- Provide supplemental forage
- Soil moisture management
- Reduce particulate emissions into the atmosphere
- Minimize and reduce soil compaction

CONDITIONS WHERE PRACTICE APPLIES

On all lands requiring vegetative cover for natural resources protection and/or improvement.

CRITERIA

General Criteria Applicable to All Purposes

Plant species, seedbed preparation, seeding rates, seeding dates, seeding depths, fertility requirements, and planting methods will be consistent with approved local criteria and site conditions.

The species selected will be compatible with other components of the cropping system.

Cover crops will be terminated by harvest, frost, mowing, tillage, grazing, crimping, and/or herbicides in preparation for the subsequent crop. The cover crop termination must be at or before the time periods specified in the Natural Resources Conservation Service (NRCS) Cover Crop Termination Guidelines.

Herbicides used with cover crops will be compatible with the subsequent crop.

Avoid using plants that are on the state's noxious weed or invasive species lists.

Cover crop residue will not be burned.

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service State Office or visit the Field Office Technical Guide.

NRCS, KS
March 2017

Additional Criteria to Reduce Erosion from Wind and Water

Cover crop establishment, in conjunction with other practices, will be timed so that the soil will be adequately protected during the critical erosion period(s).

Plants selected for cover crops will have the physical characteristics necessary to provide adequate protection.

The amount of surface and/or canopy cover needed from the cover crop shall be determined using current erosion prediction technology.

Additional Criteria to Increase Soil Organic Matter Content

Cover crop species will be selected on the basis of producing high volumes of organic material and/or root mass to maintain or improve soil organic matter.

The NRCS Soil Condition Index (SCI) value, located in the current water and wind erosion technology, will be used to determine the amount of biomass required to have a positive trend in the soil organic matter sub-factor.

The cover crop will be terminated as late as feasible to maximize plant biomass production, taking into consideration the time needed to prepare the field for planting the next crop and soil moisture depletion. Follow Cover Crop Termination Guidelines, Version 3, dated September 2014 for termination dates.

Additional Criteria to Capture and Recycle Excess Nutrients in the Soil Profile

Cover crops will be established and actively growing before the expected period(s) of nutrient leaching.

Cover crop species will be selected for their ability to take up large amounts of nutrients from the rooting profile of the soil.

When used to redistribute nutrients from deeper in the profile up to the surface layer, the cover crop will be killed in relation to the planting date of the subsequent crop. If the objective is to best synchronize the use of cover crop as a green manure to cycle nutrients, factors such as the carbon/nitrogen ratios may be considered to kill early, and have a faster mineralization of nutrients to match release of nutrients with uptake by following cash crop. A late kill may be used if the objectives are to use as a biocontrol and maximize the addition of organic matter. The right moment to kill the cover crop will depend on the specific rotation, weather, and objectives.

Additional Criteria to Promote Biological Nitrogen Fixation

Only legumes or legume-grass mixtures will be established as cover crops.

The specific Rhizobium bacteria for the selected legumes will either be present in the soil or the seed will be inoculated at the time of planting.

Additional Criteria to Increase Biodiversity

Cover crop species shall be selected that have different maturity dates, attract beneficial insects, increase soil biological diversity, serve as a trap crop for damaging insects, and/or provide food and cover for wildlife habitat management.

Additional Criteria for Weed Suppression

Species for the cover crop will be selected for their chemical or physical characteristics to suppress or compete with weeds.

Cover crop residues will be left on the soil surface to maximize allelopathic (chemical) and mulching (physical) effects.

For long-term weed suppression, reseeding annuals and/or biennial species can be used.

Additional Criteria to Provide Supplemental Forage

Species selected will have desired forage traits, be palatable to livestock, and not interfere with the production of the subsequent crop.

Forage provided by the cover crop may be hayed or grazed as long as sufficient biomass is left for resource protection. All label restrictions on grazing cover crops will be observed.

Additional Criteria for Soil Moisture Management

Terminate growth of the cover crop sufficiently early to conserve soil moisture for the subsequent crop. Cover crops established for moisture conservation shall be left on the soil surface.

In areas of potential excess soil moisture, allow the cover crop to grow as long as possible to maximize soil moisture removal.

Additional Criteria to Reduce Particulate Emissions into the Atmosphere

Manage cover crops and their residues so that at least 80% ground cover is maintained during planting operations for the following crop.

Additional Criteria to Minimize and Reduce Soil Compaction

Select and manage cover crop species that will produce deep roots and large amounts of surface or root biomass to increase soil organic matter, improve soil structure, and increase soil moisture through better infiltration. Where surface compaction is identified as a resource concern, species identified with a /1 in KS Table 1 of Form KS-ECS-6, Cover Crop Design, may be used. For subsurface compaction, a rating of Very Good or Excellent without the /1 footnote, will be used. All species used in the mixes will have a rating of Very Good or Excellent, as defined in KS Table 1 of Form KS-ECS-6.

CONSIDERATIONS

Plant cover crop in a timely manner to establish a good stand.

Maintain an actively growing cover crop as late as feasible to maximize plant growth, allowing time to prepare the field for the next crop, and moisture depletion.

Use deep-rooted species to maximize nutrient recovery.

Use grasses to utilize more soil nitrogen, and legumes that utilize both nitrogen and phosphorus.

Avoid cover crop species that harbor or carryover potentially damaging diseases or insects.

For most purposes for which cover crops are established, the combined canopy and surface cover is at nearly 90% or greater, and the above-ground (dry weight) biomass production is at least 4,000 pounds per acre.

Cover crops may be used to improve site conditions for establishment of perennial species.

Use plant species that enhance bio-fuel opportunities.

Use plant species that enhance forage opportunities for pollinators by using diverse legumes and other forbs.

Use cover crops to break pest cycles.

Use cover crops to recycle nutrients in the soil.

Use a diverse mixture of 3 or more species to address multiple purposes.

PLANS AND SPECIFICATIONS

Plans and specifications will be prepared for the practice site. Plans for the establishment of cover crops shall include:

- Species or species of plants to be established
- Seeding rates
- Recommended seeding dates
- Establishment procedure
- Planned rates and timing of nutrient application
- Planned dates for destroying cover crop
- Other information pertinent to establishing and managing the cover crop

Plans and specifications for the establishment and management of cover crops may be recorded in narrative form, on job sheets, or on other forms.

OPERATION AND MAINTENANCE

Control growth of the cover crop to reduce competition from volunteer plants and shading.

Control weeds in cover crops by mowing or by using other pest management techniques.

Control soil moisture depletion by selecting water efficient plant species and terminating the cover crop before excessive transpiration.

REFERENCES

A. Clark (ed.). 2007. *Managing Cover Crops Profitably*. 3rd ed. Sustainable Agriculture Network Handbook Series; bk 9.

Hargrove, W.L., ed. *Cover Crops for Clean Water*. SWCS, 1991.

Magdoff, F. and H. van Es. *Cover Crops*. 2000. p. 87-96 *In Building Soils for Better Crops*. 2nd ed. Sustainable Agriculture Network Handbook Series; bk 4. National Agriculture Library. Beltsville, Maryland.

Reeves, D.W. 1994. *Cover Crops and Erosion*. p. 125-172 *In J.L. Hatfield and B.A. Stewart (eds.) Crops Residue Management*. CRC Press, Boca Raton, Florida.

2018 Conservation Districts Annual Meeting Information

COUNTY	DATE AND TIME	RSVP	MEETING LOCATION	SPEAKER/PRESENTER	PROGRAM DESCRIPTION
Allen	February 21 2018 06:30 PM	February 16 2018	Dr. John Silas Bass North Community Center-505 N. Buckeye, Iola, KS 66749	Emporia Theatrical Group	Skit on Soil Health
Anderson <i>Cathy</i>	February 07 2018 06:00 PM		St. Rose School - 530 East 4th - Garnett, Kansas 66032		Overview of district activities and award winners
Atchison <i>Cathy</i>	February 22 2018 06:00 PM	February 01 2018	908 Tiger Rd. Effingham, KS 66023	Kurt Dillon	Ag Workforce Needs
Barber	January 20 2018 06:00 PM	January 16 2018	Community Bujilding, Kiowa, KS		Awards
Barton	January 27 2018 06:30 PM	January 17 2018	Barton County Community Collete	pending	
Bourbon	February 03 2018 06:00 PM		Fort Scott Middle School Commons Area		conservation awards poster limerick essay awards
Brown	February 20 2018 06:00 PM	February 13 2018	Fisher Community Center, 201 East Iowa St, Hiawatha, KS	Mykel Taylor	Current land values and fair leasing rates
Butler <i>Cathy</i>	February 01 2018 06:00 PM	January 26 2018	The Benton Church, 14300 SW 20th, Benton, KS 67017		Symphony in the Flint Hills
Chase <i>Tim</i>	February 06 2018 06:00 PM	January 26 2018	Community Building- Swope Park-Cottonwood Falls, KS	N/A	Annual Meeting
Chautauqua	February 12 2018 06:00 PM	February 09 2018	Sedan Country Club		Dinner and Award Presentation
Cherokee	February 26 2018 06:00 PM		Columbus Unified High School Cafeteria and Auditorium, 124 South High School Ave, Columbus, KS		Business Meeting including - Election of Supervisors, Presentation of Conservation Awards, and Drawing for Door Prizes
Cheyenne	February 19 2018 06:00 PM	February 12 2018	American Legion Hall Bird City, KS.	Ian DeWaal	Conservation and Poster Awards. Local speaker discussing farming practices with minimal water.
Clark	February 12 2018 06:30 PM	February 05 2018	Ashland High School Cafeteria, 311 JE Humphreys St., Ashland,KS		
Clay <i>Tim</i>	February 05 2018 06:30 PM	January 30 2018	Family Life Center 921 5th Street; Clay Center, KS 67432		Hugh Hammond Bennett Documentary Video
Cloud	February 01 2018 06:30 PM	January 29 2018	OLPH Catholic Parish Hall, 307 West 5th Street, Concordia, KS 66901	Jeremy Hacker, Banker	Hugh Hammond Bennett Documentary
Coffey	January 31 2018 06:00 PM	January 24 2018	Burlington High School		Annual Conservation Awards Presentation
Comanche	January 08 2018 06:30 PM	December 28 2018	Coldwater Veterans Building		Annual Meeting, Bankers Award

Cowley	February 08 2018 06:00 PM	February 01 2018	Baden Square, 700 Gary St., Winfield, KS 67156		Conservation District Annual Program and Meeting
Crawford	February 17 2018 06:00 PM		Girard High School Cafeteria, 415 North Summit, Girard, KS		Banker Awards, Grassland Awards & Poster & Essay Awards
Decatur	February 05 2018 06:30 PM	January 19 2018	GATEWAY CIVIC CENTER 1 Morgan Drive Oberlin, KS	Jami Seirer	WINDBREAKS in NW KS; BANKER AWARDS; POSTER AWARDS
Dickinson <i>Herb</i>	February 08 2018 06:00 AM	February 02 2018	619 North Rogers Abilene, KS		Annual Election, Conservation Awards, and Entertainment
Doniphan <i>Donna</i>	January 22 2018 06:00 PM	January 18 2018	1217 Last Chance Road, Troy, KS		Kansas Banker Awards, partner booths, Poster Contest Winners, business meeting
Douglas	February 08 2018 06:00 PM	February 01 2018	Flory Meeting Hall, 2120 Harper Street, Lawrence, KS 66046		Annual meeting, award presentations, and buffet
Edwards	February 10 2018 06:30 PM		Edwards County 4H Building		
Elk	February 21 2018 06:00 PM	February 16 2018	Cox Building, Corner of Washington & Wabash		Dinner and Award Presentation
Ellis <i>Jane</i>	January 25 2018 06:30 AM	January 19 2018	Rose Garden Ballroom, Hays, KS 67601	Ross Janssen, KWCH TV	
Ellsworth <i>Ellsworth</i>	January 22 2018 06:00 PM	January 16 2018	American Legion, 615 E 15th St, Ellsworth	N/A	conservation award presentations
Finney	February 13 2018 09:30 AM	February 07 2013	Grandstand Meeting Room, Finney County Fairground, 209 Lake, Garden City, KS 67846		Kansas Agriculture Emergency Response Corp. - Pending
Ford	February 03 2018 06:00 PM	January 26 2018	Ford Co. 4-H Fair Bldg., 901 W. Park Street, Dodge City		Documentary Video entitled, "Hugh Hammond Bennett - The Story of America's Private Lands Conservation Movement in the U.S."
Franklin <i>Dave</i>	February 08 2018 12:00 PM	February 01 2018	Celebration Hall, Franklin Co Fair Grounds 1737 S Elm Ottawa KS		Free lunch, awards and business meeting
Geary	January 25 2018 06:30 PM	January 20 2018	Geary County 4-H building		
Gove <i>Gove</i>	February 05 2018 06:00 PM	January 29 2018	American Legion Grainfield, KS	speeches	Photo, Poster, Windbreak, and Soil Conservation Winners
Graham <i>Graham</i>	January 22 2018 06:00 PM	January 12 2018	1 Ringneck DR - Hill City JR-SR High	Musical Entertainment	Meal, Business, Entertainment, Awards
Grant	January 26 2018 12:00 PM		524 S Main Ulysses Kansas		
Gray	February 17 2018 06:30 PM	February 12 2018	Gray Co Rec Center, Newman Bldg. 17002 US Hwy 50, Cimarron, KS		KBA awards, poster contest awards, scholarship awards, dinner, presenter

Greeley	February 12 2018 06:00 AM	February 02 2018	4H Building Tribune KS	McKinney Sisters	Bluegrass Gospel Music
Greenwood <i>Cathy</i>	January 24 2018 06:00 AM	January 19 2018	Eureka High School, Eureka, Ks		Annual Meeting
Hamilton <i>PKS</i>	January 17 2018 10:00 AM	January 11 2018	Hamilton County Fair Building	Randy Currie	
Harper	February 26 2018 06:30 PM	February 20 2018	Anthony Municipal Hall 130 E Main St., Anthony, KS 67003		Bankers Awards, short film, poster awards, soil tunnel trailer, rainfall simulator
Harvey	February 05 2018 06:00 PM	February 02 2018	Halstead High School USD 440	Kansas Humanities	A presenter from Kansas Humanities Board will speak about conserva Issues in Kansas
Haskell	January 29 2018 06:00 AM	January 19 2018	Haskell County Fairgrounds Sublette, Kansas	Joe Kramer	Playa Lakes
Hodgeman	February 17 2018 06:00 PM	February 09 2018	Elks Plaza (Old high school gym), Hanston Kansas		Awards, Meal, Business Meeting
Jackson <i>Dave</i>	February 21 2018 06:00 PM	February 14 2018	First United Methodist Church, 1401 West. 6th Street, Holton, KS 66436		
Jefferson	January 24 2018 12:00 PM	January 19 2018	Valley Falls Community Building, 408 Broadway St, Valley Falls, KS 66088	TBA	Meal, KBA, Business Meeting
Jewell	February 14 2018 06:30 PM	February 01 2018	214 N. High Street Mankato, KS 66956	?	Meal, Annual Meeting, Entertainment
Johnson	January 23 2018 06:30 PM	January 18 2018	11811 S. Sunset Dr, Olathe KS 66061	None	Business Meeting and meal
Kearny	January 22 2018 06:00 PM	January 16 2018	Kearny County Fair Grounds 1482 Road R Lakin, Kansas 67860	Adam Elliott	The Many Hats of the Starbuck Fire- Healthy soils are Full of Life
Kingman	January 22 2018 06:30 PM	January 16 2018	Kingman VFW Hall, 126 N Main St., Kingman		Banker Awards & PLE Awards
Kiowa	February 13 2018 06:30 PM	February 06 2018	First United Methodist Church 600 West Lincoln		Annual Business Meeting, Banker Awards & Poster Winners Recogniz
Labette	January 27 2018 06:30 PM	January 19 2018	Labette County High School, Altamont, KS		
Lane <i>Kevin</i>	January 27 2018 06:00 PM	January 19 2018	St. Theresa Catholic Hall, 322 S. 1st, Dighton, KS	KDWPT	Skulls and Skins by KDWPT, Business Meeting & Awards Banquet
Leavenworth <i>Scott</i>	January 27 2018 06:00 PM	January 15 2018	Lansing Community Center, 800. 1st Terrace, Lansing Kansas 66043	Shane New	Soil improvement
Lincoln	February 10 2018 06:30 PM	January 31 2018	Lincoln Elementary School Gym, 304 S. 4th Street, Lincoln, KS 67455	Dalton Street	Piano entertainment
Linn	January 17 2018 06:30 PM	January 12 2018	Jayhawk Linn High School, Mound City, KS	Local FFA Chapters	Award presentations, FFA Chapter Updates

Logan	February 12 2018 06:00 AM	February 08 2018	Buffalo Bill Cultural Center, Oakley KS	none	Hugh Hammond Bennett Video
Lyon	February 05 2018 06:00 PM	January 26 2018	Anderson Building- Lyon County Fairgrounds Industrial Road, Emporia	Local FFA Chapers	Tighty Whitey Challenge
Marion	February 24 2018 06:30 PM	February 15 2018	Eastmoor UM Church, Marion, Ks.	Candy Thomas	Program on Soil Health, Conservation Awards Presentation and business meeting
Marshall <i>Done</i>	January 24 2018 06:30 PM	January 18 2018	American Legion 310 Veterans Memorial Dr N Marysville KS 66508		Awards Banquet
McPherson	January 22 2018 06:30 PM	January 17 2018	4-H Building, 710 W. Woodside, McPherson	Ross Janssen	Entertaining talk about weather and his experiences as KWCH Chief Meteorologist
Meade	February 24 2018 06:00 AM	February 16 2018	Meade High School		Meal & Awards
Miami	January 16 2018 06:00 PM	January 02 2018	Paola High School Commons Area, 401 N Angela St, Paola, KS	GHS Field Biology	Dinner, Annual Mtg, Election, Banker, Grassland, Buffer Awards, Hillsdale Education Progr
Mitchell					
Montgomery	January 18 2018 05:30 PM	January 10 2018	ICC West	Jeff Davidson	
Morris	January 27 2018 06:30 PM	January 24 2018	Morris County Community Center - 614 US Hwy. 56, Council Grove, KS 66846	K-State's Swingin' Spurs	78th Annual Meeting - Advances country two-step and swing dancing for all audiences
Morton	February 17 2018 06:30 PM	February 12 2018	Morton County Civic Center 400 Orchard St. Elkhart, KS 67950		Annual Meeting
Nemaha	February 15 2018 06:00 PM		Nemaha County Community Building 1500 Community Drive Seneca KS 66538		free meal, bankers awards, poster & limerick contest, supervisor election
Neosho	February 05 2018 06:00 PM	January 29 2018	Tony's Function Junction 10300 Highway 59 Erie, Kansas 66733		Banker Wildlife & Grasslands Awards Poster Awards & Whitey Title Results Chanute High School Door Prizes
Ness	February 05 2018 06:30 PM	January 26 2018	Sacred Heart School Gym		
Norton	February 22 2018 06:00 PM	February 15 2018	St. Francis Parish Hall, Norton, Kansas	N/A	
Osage	January 22 2018 06:00 PM	January 17 2018	Osage City school lunchroom, 420 S 4th St, Osage City		presentation of banker awards, conservation awards and poster/limerick awards
Osborne	January 29 2018 06:30 PM	January 19 2018	St. Aloysius Parish Center, 219 N Elm, Osborne	pending	pending
Ottawa	January 27 2018 06:00 PM	January 19 2018	Minneapolis Grade School, 312 Delia, Minneapolis KS		Pending
Pawnee	January 27 2018 06:00 PM	January 22 2018	Haas Building, Pawnee County Fairgrounds, Larned, ks	na	Meal, Annual Meeting, Elections, Bankers Awards

Phillips <i>Tim</i>	February 03 2018 06:30 PM	January 29 2017	Fairgrounds building north of Phillipsburg	Phillipsburg High School Forensics class	Members of the Phillipsburg High School speech class will do presentations.
Pottawatomie	January 22 2018 06:00 PM	January 16 2018	St. Joseph's Catholic Church Parish Hall in Flush, Kansas		Poster, Limerick and Essay Contest Winners, Banker Award Winner Presentation and Speech Contest Winner
Pratt	January 29 2018 06:30 PM	January 22 2018	Pratt Area 4-H Center, 81 Lake Road, Pratt, Kansas		Annual Business Meeting and recognizing Banker Award Winners & Poster, Limerick Contest winners
Rawlins	February 08 2018 06:00 PM	February 01 2018	Columbian Hall, Lake Road, Atwood, KS	Roger Tacha	Rangeland Management, Fire Burn Associations
Reno	February 22 2018 06:00 PM	February 15 2018	Nickerson Community Building	n/a	Review District Activities, handout Conservation Awards, fellowship
Republic	February 01 2018 06:00 PM	January 29 2018	Cuba Community Hall, Main Street, Cuba, Kansas	"Chicken Parts" Tom Jensen and Stephanie Thayer	Classic Country to Acoustic Rock
Rice	January 22 2018 06:00 PM	January 12 2018	Dwight Lamson Post #258 American Legion in Little River		Annual Meeting, Bankers Awards, & Poster Awards
Riley	February 01 2018 06:30 PM	January 26 2018	Pottorf Hall, Manhattan KS		Meal, entertainment TBD, poster contest, banker/grassland award, business meeting
Rooks	February 05 2018 06:30 PM	January 26 2018	Plainville Grade school		Banker Awards, Poster Contest Awards
Rush	January 27 2018 06:30 PM	January 22 2018	St. Michaels Parish Center, 918 Lincoln St, LaCrosse KS	TBA	2017 Accomplishment Presentation, Banker Awards, Poster Awards & Entertainment
Russell	February 12 2018 06:00 AM	January 29 2018	4-H Building Russell KS		Banker Winners, Poster & Limerick Winners
Saline	January 18 2018 06:30 PM	January 11 2018	Webster Conference Center, 2601 N. Ohio, Salina		Report, Business Meeting, Entertainment
Scott	February 08 2018 12:00 PM	February 01 2018	Scott County Fairgrounds	N/A	Meal, Business, Awards, Supervisor Elections
Sedgwick <i>Scott</i>	February 21 2018 06:00 AM	February 18 2018	EXTENSION BUILDING	JEFF DAVIDSON	WESTERN SINGER & HISTORIAN
Seward	February 17 2018 06:30 PM	February 12 2018	Seward County College Liberal Ks.	Peterson Bros.	ag promotion
Shawnee	February 01 2018 06:30 PM	January 17 2018	KS Historical Society & Museum, 6425 SW 6th Avenue, Topeka		Awards and report on District activities.
Sheridan	February 05 2018 12:00 PM		Sheridan Co. 4-H Building		Windbreak Award, Soil Conservation Award, Meal
Sherman	February 12 2018 12:00 PM	February 12 2018	Wolak Building - Goodland, KS	Weston McCary	Precision Ag program being taught the Vo-Tech College

Smith	February 05 2018 06:00 PM	January 29 2018	Nation Guard Armory, Smtih Center, KS	none	Entertainment will be the Three Amigo's at a cost of \$150.00
Stafford	February 12 2018 07:00 PM		St John Service Center conference room		
Stanton	January 30 2018 06:00 PM		4-H Building, Johnson, Kansas		meal, poster winners
Stevens	February 24 2018 06:30 PM	August 07 2017	Memorial Hall, 6th 7 Monroe, Hugoton, KS 67951	unknown at the moment	Appreciation Banquet, Business & Election.
Sumner	February 17 2018 06:00 PM	February 01 2018	Raymond Frye Complex, 320 N Jefferson Ave, Wellington, KS		Bankers Awards, Poster Awards, District Annual Meeting
Thomas	February 13 2018 12:00 PM	January 30 2018	Colby Community Building, 285 E 5th Street, Colby, KS		Producer Appreciation Lunch, Business Meeting, KBA Awards
Trego	February 05 2018 07:00 PM		Western Cooperative Electric Meeting Room		Awards and report on District activities.
Wabaunsee	January 18 2018 06:30 PM	January 10 2018	Mission Valley High School Commons Area, Eskridge		meal, Presentation of the Soil & Grassland Awards & poster contest winners
Wallace	January 22 2018 06:00 PM	January 08 2018	521 N Main Sharon Springs, KS	musical entertainment	Business meeting and award presentations
Washington	February 03 2018 06:30 PM	January 26 2018	Washington County High School Gymnasium		Conservation and Poster Awards
Wichita	January 29 2018 06:30 PM	January 24 2018	Leoti Community Bldg	Deb Goodrich	Deb is a story teller and co-host of the weekly show, Around Kansas.
Wilson	January 13 2018 06:00 PM	January 02 2018	Fredonia Senior High School, 916 Robinson St, Fredonia 66736	none	Kansas Bankers Award winners, conservation poster contest artists, outstanding teachers, Grasslands Award, speech contestant, ECO Community Stewardship Award -all these will be recognized as well as Annual Meeting business including elections will be cond
Woodson <i>Rod</i>	February 03 2018 06:30 PM		Woodson County 4H / Community Build South Fry (Hwy 75) Yates Center, KS		Wo Co Conservation District Annual Meeting
Wyandotte	February 15 2018 06:00 PM	February 08 2018	Edwardsville Community Center	tba	



Agenda 2018 SCC Spring Workshops

<u>TIME</u>	<u>TOPIC</u>	<u>PRESENTER</u>
9:00 a.m.	REGISTRATION	Division of Conservation (DOC)
9:15 a.m.	Welcome / Introductions / Comments	SCC Area Commissioner
9:30 a.m.	DOC Report / Updates <ul style="list-style-type: none"> • Legislative Update • FY 2019 State Cost-Share Program Revisions 	DOC Staff
9:55 a.m.	NRCS Report <ul style="list-style-type: none"> • Programs Update • Budget Update 	NRCS
10:20 a.m.	Break	
10:35 a.m.	KACD Report <ul style="list-style-type: none"> • Legislative Update • 2018 NACD & 2018 KACD Convention • Employees Organization Report 	Dan Meyerhoff, KACD Executive Director Area KACD-EO Representative
11:00 a.m.	Kansas Forestry Topic	Kansas Forest Service
11:30 a.m.	Lunch on your own	
12:30 p.m.	CSIMS 2.0 Training	DOC Staff
3:00 p.m.	Open discussion/participation	ALL
3:15 p.m.	ADJOURN	SCC Area Commissioner

Tentative Goals for District Outreach and Education project:

1. Self-marketing – help Districts share what they do to advocate for their District
2. Improve efficiency –
 - a. timely submittal of documents/enforce accountability
3. Training
4. Improved communication
 - a. Between Districts and DOC
 - a. Between DOC & Supervisors – more updates, knowledge, training
5. Improved involvement between DOC, Districts and Supervisors
6. Set/meet goals – DOC, Districts, Supervisors
 - a. Goals need to be reasonable, realistic, achievable, repeatable that can be met
 - b. Need to stay consistent in order to meet goals
7. Assist Districts improve, grow, share, learn, etc.
8. Benefits of project
 - a. DOC – improves DOC/District efficiency, self-marketing for DOC and Districts
 - b. Districts – eliminates need to “re-invent the wheel”, provide “toolbox” of ideas, tips, inspiration to try something new/make things better, promote comradery of Districts working together on projects
 - c. Supervisors – increase knowledge of nuts and bolts of their District and DOC
9. Did You Know?/Tips & Reminders
 - a. Administrative (Donna) – send out e-mails as reminders, tips/ideas on an as needed-basis
 - b. Educational (Cindy) – start building the “toolbox” – plan to do a gradual release on a regular basis
10. Possibility of sharing duties/responsibilities of the project with KACD
11. Encourage Districts, Supervisors, and DOC to think outside the box
12. Website
 - a. Stay more current
 - b. Have section to recognize Districts – notable project of interest, highlighting program development and progress
13. End result
 - a. Better communication
 - b. Smoother-moving, “well-oiled” Districts
 - c. Time efficiency improved
 - d. Educate Districts and Supervisors even more
 - e. Improve self-marketing

Survey Suggestions

Here are the preliminary suggestions for a survey to conservation districts about improvements to DOC services and communications. The current thought is to solicit CD input on these topics via a Google poll. The poll could take one of two possible forms – answers to questions, ranking pre-determined topics, or a mixture of both. The survey may have to be shorter and more condensed in order to get the best participation and chance for feedback.

1. What can we do to help better serve you and your supervisors?
2. Are there areas that you feel you could use extra support/education on what DOC could provide to you? What are they?
3. What project ideas might you have in the idea stage but don't quite know how to get them going?
4. We are working on improving our website functionality, effectiveness, and user-friendliness. Is there anything in particular you feel would be beneficial to add to our website? Updating the website on a more timely fashion and adding district news (What's going on in Districts) are just a few of the adjustments we are making.
5. We have been discussing ways to reach out to districts to provide reminders, updates, new information, along with what's going on with other districts. We are in the planning stage of creating a "toolbox" for the districts. What kind of information would be of interest to you to receive anywhere from monthly to weekly?
6. Are the reminders and information we currently send out to you easy to understand/comprehend/read etc.? Do you have any suggestions on ways to improve our line of communication?
7. What do you want to be doing in your district that you are not already doing? How can we help?
8. Would you be willing to share what you have going on in your district? i.e. meetings, seminars, teaching kids and adults, contests, field days, fundraisers, etc.
9. Is working on projects/meetings/etc. with other districts as a joint project something of interest to you?
10. Is there something the DOC can do to help you become a better/more proficient district manager? What would that be?
11. What types of training would be most important / helpful – and what is the best way for districts to receive training (i.e. webinars, one-on-one personal visits, etc.)
12. What particular questions do you have about district financial and administrative operations that need clarification?
13. Are there any particular related discussion or forum topics which could be used in Spring Workshops or presentations at the KACD convention?

Scoring example: Would your district like to see a monthly email sent statewide that references specific topics/reminders/information/how to's, etc? If so, listed below are some topics that maybe considered. Please rate each topic on a scale from 1-20 with 1 the most favorable and 20 the least desirable. Also, please include any additional topic items that you would like to see the DOC cover.

<u>Topic</u>	<u>Score</u>
KS Conservation Partnership Agreements	_____
Annual Meeting Requirements	_____
Post Annual Meeting Requirements	_____
Supervisor Election Requirements/Resignations & Appointments	_____
Regular/Special Board Meetings	_____
Kansas Open Meetings Act	_____
Quorum/Lack of Quorum	_____
CD Meeting Minute Requirements	_____
Making Corrections to Board Meeting Minutes	_____
Conducting Executive Sessions	_____
Bond Requirements	_____
Use of Conservation District Funds	_____
Budget Procedures and Guidelines	_____
State Aid to CD's Matching Funds Process	_____
Treasurer's Reports and Unpaid Bills Reports	_____
Audit Guidelines	_____
Process of a Cost-Share Contract	_____
Steps in Getting Ready for a New Cost-Share Program Year	_____
Filing and Maintaining Cost-Share Documents	_____
Cost-Share and Operation Reviews	_____

Additional Topics: _____

Kansas Forest Service – Kansas Department of Ag Division of Conservation Streambank Protection Riparian Forest Buffers

2017 results

- 21 sites were planted
 - 34.21 acres of riparian forest buffer
 - Protecting 19,972 feet of streambank
 - Program enrollment – multiple landowners per site
 - 15 CRP contracts
 - 8 DOC Incentive Program
 - 1 “other”
- 70 sites with active contracts
- Cover crop has been doing an excellent job suppressing weeds, even Johnsongrass
- Routine inspections have identified small problems before they become big ones
- New techniques in site preparation have produced outstanding first-year survivability
- With the help of DOC and support of the Interagency Streambank Team, the contracting and administration processes of buffer sites has been streamlined, which will allow more time to spend in the field working with landowners to achieve the greatest conservation effects.

2018 forecast

- 10 new sites will be added spring 2018
- 19 will conclude by spring 2018
- 61 sites with active contracts by summer 2018



Kansas-based Research Regarding the Importance of Riparian Forests

Balch, P. 2003. Evaluation of Streambank Erosion in the Little Blue Watershed, Kansas. State Conservation Commission.

Based on an analysis of U.S. Department of Agriculture crop slides and aerial photography for a study period from 1977 to 2001 in the Little Blue River Watershed, **the most common hotspots of streambank erosion were cropland sites where riparian vegetation had been removed.**

A total of 12,679,909 tons of soil was lost from 1977 to 2001 to the Little Blue River system, which eventually flows into Tuttle Creek Reservoir. The total soil loss per linear foot of streambank for the 31 sites was 298 tons, or an average of 13 tons per year.

Geyer, Wayne A.; Nepl, T.; and Brooks, K. 1999. Protect Streambanks with Trees. Kansas Agricultural Experiment Station Research Reports: Vol. 0: Iss. 12.

Forest collected soil on streambanks, while grassland riparian areas lost an average of 78 ft of streambank, and cropland riparian areas lost an average of 150 ft. The study estimated that 9.4 acres of grassland and 18.2 acres of cultivated land were lost per stream mile during the flood due to lack of adequate riparian forest. The latter is equivalent to more than a quarter section of land for every 10 miles of stream distance in the study.

Sass, C. K. and T.D. Keane. 2011. Evaluation and development of predictive streambank erosion curves for Northeast Kansas using Rosgen's "BANCS" Methodology. PhD Dissertation: Dr. Christopher Sass. PhD Major Professor: Dr. Timothy Keane. Department of Environmental Planning and Design. College of Architecture, Planning and Design. Kansas State University. Manhattan, Kansas.

Sass, C. K., and T.D. Keane. 2012. Application of Rosgen's BANCS model for NE Kansas and the development of predictive streambank erosion curves. *Journal of the American Water Resources Association*, 48(4), 774-787.

Sass and Keane conducted a streambank erosion study of eighteen study banks at nine sites located mostly along unstable reaches of the upper, middle and lower Black Vermillion Watershed (tributary to Tuttle Creek Reservoir) from 2007 to 2010. Results indicated that **streambanks without woody vegetation had at least three times higher erosion rates than those with riparian woody vegetation.**

Woody riparian vegetation in the Black Vermillion watershed plays a vital role regarding streambank erosion and lateral migration rates, ranging from a low of 0.2 feet of bank retreat per year for woody vegetated banks to a high value exceeding 3 feet of bank retreat per year for those without woody vegetation.

Sass, C. K. and T.D. Keane. 2008. Inventory and Analysis of the Black Vermillion River System Riparian Corridors. MLA Thesis: Christopher Sass. MLA Major Professor: Dr. Timothy Keane. Department of Landscape Architecture / Regional and Community Planning, College of Architecture, Planning and Design, Kansas State University. Manhattan, Kansas.

Within the Black Vermillion Watershed, changes in riparian vegetation from the fibrous root structure of trees compared to the finer roots of grasses and shallow roots of crops has made riparian areas and streambanks more susceptible to erosion

Dodd, W.K and R.M. Oakes. 2008. Headwater influences on downstream water quality. *Environmental Management* 41:367–377. DOI 10.1007/s00267-007-9033-y.

In a study of 68 watersheds in four ecoregions of Eastern Kansas, **Dodds and Oakes found that nonpoint pollution control strategies should consider protection and restoration of riparian areas associated with small upland streams** as important, integrated components of water quality conservation programs.

Meade B.K. and R.A. Marston. 2009. *Spatial Extent, Timing and Causes of Channel Incision, Black Vermillion Watershed, Northeastern, Kansas*. MA Thesis: Benjamin Meade. MA Major Professor: Dr. Richard Marston. Department of Geography. College of Arts and Sciences, Kansas State University. Manhattan, Kansas.

Riparian trees and the stabilizing and cohesive effects of their fibrous rooting systems were noted for holding streambanks in place during flood events and reducing mass wasting of streambanks in the watershed. The impacts of land use conversion from tallgrass prairie to cropland and impacts to the hydrology and stream power generated through increased runoff from the altered drainage area were also identified as having deleterious effects on the stability of the stream systems in the watershed.

Fox, G. A., Sheshukov, A., Cruse, R., Kolar, R. L., Guertault, L., Gesch, K. R., & Dutnell, R. C.. 2016. Reservoir sedimentation and upstream sediment sources: Perspectives and future research needs on streambank and gully erosion. *Environmental Management*, 57, 1–11.

Fox et al. noted the sediment and nutrient loads from streambanks were responsible for 30%-83% of total soil erosion occurring in agricultural watersheds across the world. **They also reported that riparian forests reduces the sediment and total phosphorus load from streambanks by three to four times compared to banks without riparian forests.**

Grudzinski, B.P. and M.D. Daniels. *Influence of Watershed Management on Stream Geomorphology in Grassland Headwater Streams*. PhD Dissertation: Dr. Bartosv Grudzinski. PhD Major Professor: Dr. Melinda Daniels. Department of Geography. College of Arts and Sciences, Kansas State University. Manhattan, Kansas.

Grudzinski and Daniels concluded that cattle grazing at both moderate and high densities is damaging to grassland stream water quality, stream structure and surrounding riparian habitats.

Hargrove, W.L., D. Johnson, D. Snethen and J. Middendorf. 2010. From Dust Bowl to Mud Bowl: Sedimentation, conservation measures, and the future of reservoirs. *Journal of Soil and Water Conservation*, 65(1): 14A-17A.

In a literature review and synthesis of research needs regarding sedimentation of reservoirs in the U.S., Hargrove et al. identified that 60-80% of stream reaches in areas of the Midwest were

experiencing significant streambank failures and that channel erosion processes were primary contributors to sediment loading in streams and sedimentation of reservoirs, carrying with them nutrients and pesticides from agricultural sources. Streambank stabilization, riparian area protection practices and sediment trapping above reservoirs as accomplished with properly functioning riparian forests.

Juracek, K.E. and A.C. Ziegler. 2009. Estimation of sediment sources using selected chemical tracers in the Perry lake basin, Kansas, USA. *International Journal of Sediment Research*, 24: 108–125.

In a study of sediment sources using chemical tracers in the Perry Lake Basin, Juracek and Ziegler concluded that the **dominant sources of sediment to Perry Lake were from channel-bank sources** and the channel-bank contribution increased in importance with distance downstream in the basin.

Burke, K.J. and T.D. Keane. 2015. *Understanding Gully Process in Two Kansas Landscapes*. PhD Dissertation: Dr. Katherine Burke. PhD Major Professor: Dr. Timothy Keane. Department of Environmental Planning and Design. College of Architecture, Planning and Design. Kansas State University. Manhattan, Kansas.

In a study of gully formation and factors affecting agricultural fields, **Burke and Keane identified lack of vegetation and associated surface roughness and cohesive forces of roots as being a major contributor to erosion and delivery of sediment from agricultural fields to streams.**

Larson, D.M. W.K, Dodds, and A.M. Veach. 2017 (In Review, Personal Communication with W.K. Dodds). *Whole-catchment Riparian Removal Substantially Altered Streams in an Otherwise Undisturbed Grassland*

This study underscores the concept that protection of riparian zones is particularly important to uphold water quality, quantity and ecosystem functions and suggests that protection of riparian zones should be a high priority since they may represent the most sensitive areas in watersheds to disturbance and impart relatively greater influence on stream ecosystems than upslope landscapes.

Winders, K. and W.K. Dodds. 2010. *Ecosystem Processes of Prairie Streams and the Impact of Anthropogenic Alteration of Stream Ecological Integrity*. MS Thesis: Christopher Sass. MS Major Professor: Dr. Walter Dodds. Division of Biology. College of Arts and Sciences. Kansas State University. Manhattan, Kansas.

On 23 Kansas and Missouri streams Winders and Dodds found that streams buffered by riparian forest required higher discharge rates to mobilize solid particles and generally had lesser total suspended solid concentrations relative to unbuffered streams during high discharge events. Streams with forested buffers also had less frequent floods, leading to less transport of total suspended solids downstream.

Banner, E.B.K., A.J. Stahl and W.K. Dodds. 2009. Stream Discharge and Riparian Land Use Influence In-Stream Concentrations and Loads of Phosphorus from Central Plains Watersheds. *Environmental Management*, 44:552–565. DOI 10.1007/s00267-009-9332-6.

Results of the study suggested that a **proportional reduction in total phosphorus concentration should occur as cropland in the near-stream area is replaced with more permanent riparian vegetation**, especially in large watersheds.

Kansas Center for Agricultural Research and the Environment. 2014. *Understanding Sedimentation of Kansas Lakes*.

Lack of cohesive riparian forest vegetation was implicated as a factor leading to greater incidences of streambank mass wasting and potentially sediment mobilization,

Williams, J. and C. Smith. 2008. *Economic Issues of Watershed Protection and Reservoir Rehabilitation*. In: *Sedimentation in Our Reservoirs: Causes and Solutions*. Kansas Center for Agricultural Research and the Environment

Using Tuttle Creek Reservoir as a case study, **Williams and Smith estimated that implementing streambank stabilization with plantings of 100 foot riparian forest buffers on 10,448 miles of streambanks in the Tuttle Creek Watershed would result in \$42,051,296 of savings in the avoided costs to dredge sediment contributed from these sources to the lake**. Compared to other best management practices such as no-till farming, vegetative buffers, and terraces, streambank stabilization with riparian forest plantings was 0.8 to 3 times more effective at providing cost savings compared to dredging sediment (assuming \$5/ cubic yard dredging cost) transported to the lake from these sources after the fact. Compared to doing nothing, streambank stabilization with riparian forest plantings was 10 times more cost-effective than dredging.

Kansas Water Authority. 2010. *Reservoir Roadmap*. Presentation to the Kansas Legislature by the Kansas Water Authority.

Based on studies of landscape erosion (Kansas State University), sediment yield studies (Kansas Water Office) and evaluation of active streambank erosion sites (The Watershed Institute and Kansas Water Office) on the Neosho and Cottonwood Rivers above John Redmond Reservoir, **streambank erosion (which includes gully erosion) was identified as the primary source of excessive sediment loads delivered to John Redmond Reservoir. Based on an economic analysis of costs to implement streambank stabilization with 100 foot riparian forest buffers compared to the cost of dredging the sediment that would end up in the reservoir (using a conservative \$10/cu yard estimate), each \$1 spent in prevention yielded \$10 savings in avoided dredging costs.**

Kansas Forest Service and Kansas Alliance for Wetlands and Streams. 2017. *Remote Assessment of Riparian Forest Best Management Practice Opportunities in Ten Kansas Basins. Final Report (Pending) to Natural Resource Conservation Service Regional Conservation Partnership Program*. Kansas Forest Service, Manhattan, Kansas.

In a remote assessment of riparian buffers in 57 HUC-12 watersheds in 10 Kansas basins, predominantly above federal reservoirs, the Kansas Forest Service and the Kansas Alliance for Wetlands and Streams identified 51.5% of the riparian areas as in need of riparian forest establishment (currently in cropland, pasture and grassland) and 30.2% in need of riparian forest management, out of total of 160,627 acres assessed for two active channel widths along the streams and rivers. Only 2.3% of the riparian area was assessed as in need of conservation (higher quality

forest with adequate cover), with the remainder of the riparian area in development. The predominance of the riparian areas in the ten basins were in need of attention to ensure adequate functioning condition, health and biodiversity, which could include a suite of best management practices ranging from tree and shrub establishment, timber stand improvement, natural channel design to address head-cut migration upstream and bank instability and floodplain connectivity.

Mikesell, F.L. and J. Zimmerman. 1988. Avian Habitat Selection in the Attenuated Riparian Forest on the Tallgrass Prairie. MS Thesis: Fred Mitchell. MS Major Professor: Dr. John Zimmerman. Division of Biology. College of Arts and Sciences. Kansas State University. Manhattan, Kansas.

Regional forests with adequate interior spaces would likely support higher avian species diversity and a larger species pool for colonization of headwater riparian forests.

Johnson, T.N. and B.K. Sandercock. 2006. Ecological Restoration of Tallgrass Prairie: Grazing Management Benefits Plant and Bird Communities in Upland and Riparian Habitats. MS Thesis: Tracey Johnson. M.S. Major Professor: Dr. Brett Sandercock. Division of Biology. College of Arts and Sciences. Kansas State University. Manhattan, Kansas.

Riparian zones are particularly important as breeding and wintering sites for bird communities and as stopover sites used during migration.

Eitzman, J.L. and C. Paukert. 2008. Spatial Habitat Variation in a Great Plains River: Effects on the Fish Assemblages and Food Web Structure. MS Thesis: Jeffrey Eitzman. M.S. Major Professor: Dr. Craig Paukert. Division of Biology. College of Arts and Sciences. Kansas State University. Manhattan, Kansas.

In a study of fish assemblages and food web structure along the Kansas River, Eitzman and Paukert found that heterogenous in-stream reaches with more riparian forests supported more complex food webs and intolerant fluvial specialist fish species compared to more macrohabitat generalist fish species in urbanized and channelized homogenous reaches with less riparian habitat.

Two intolerant species (blue sucker and shovelnose sturgeon) captured in high abundance in the river were captured in the upper river reaches that were less impacted by urbanization and channelization and had more riparian forest. Maintaining suitable habitat for fluvial specialist species and restoration of impacted areas of the river and riparian areas downstream to create more heterogeneity were recommended as strategies for conserving intolerant, native species in the Kansas River.

Schumm, S.A. and R.W. Lichty. 1963. Channel Widening and Flood-Plain Construction Along Cimarron River in Southwestern Kansas. Geological Survey Professional Paper 352-D. U.S. Government Printing Office. Washington, DC.

In a historical study of changes in stream channel geomorphology and the effects of floodplain vegetation along the Cimarron River in southwestern Kansas (semi-arid, sand-based stream), Schumm and Lichty found that the channel of the Cimarron River in southwestern Kansas had changed significantly during historic times. The average width of the river was 50 feet in 1874. The floodplain and banks of the river were vegetated and relatively stable from 1874 to 1914. Bank vegetation was apparently destroyed by the 1914 flood. During and after the major flood of 1914, the

river widened until an average width of 1,200 feet was reached in 1942. In summary, the trees that bordered the channel offered considerable protection to the banks, and channel widening was minimal under these conditions.

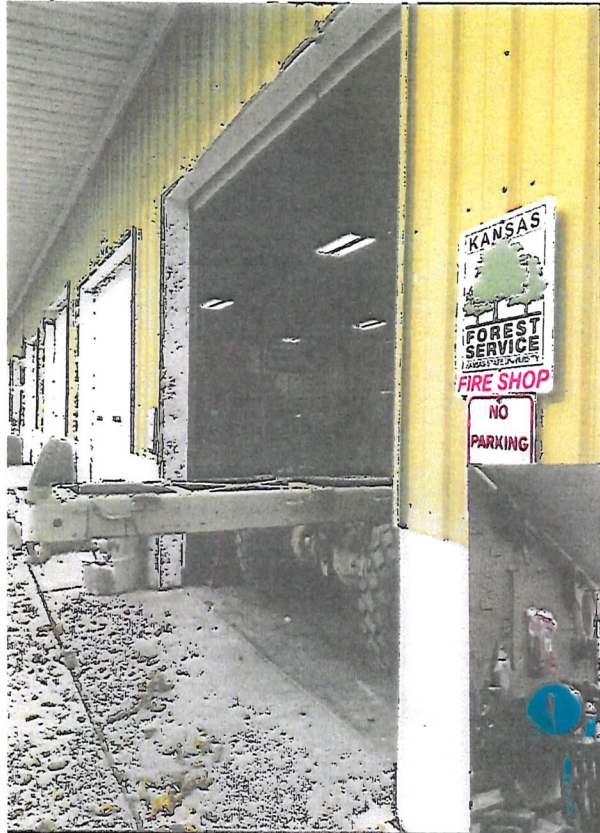
Kansas Water Office. 2017. John Redmond Watershed Streambank Erosion Assessment. Topeka, Kansas.

The purpose of this Kansas Water Office project was to reduce the amount of sediment entering John Redmond Reservoir by rehabilitating and stabilizing portions of the Cottonwood and Neosho Rivers and their tributaries, which are known to contribute significant sediment loads and pollutants to the watershed and John Redmond Reservoir, as well as restoring riparian forest adjacent to the stream rehabilitation sites. The Kansas Water Office 2017 assessment quantified annual tons of sedimentation from streambank erosion between 1991 and 2015 in the John Redmond watershed. A total of 366 streambank erosion sites, covering 197,470 feet of unstable streambank were identified. Eighty percent of the identified streambank erosion sites were identified as having a poor riparian condition (riparian area identified as having cropland or grass/crop streamside vegetation rather than riparian forest). Sediment transport from identified streambank erosion sites accounts for 525,447 tons (426 acre-feet) of sediment per year transported from the John Redmond watershed streams to John Redmond Reservoir annually, accounting for roughly 55 percent of the total load estimated from the most recent bathymetric survey in 2014. Based on the average stabilization costs of \$71.50 per linear foot, conducting streambank stabilization practices for the entire watershed would cost approximately \$14.1 million.

Assimilated by the Kansas Alliance for Wetland and Streams

Summarized by Larry Biles, Kansas Forest Service

Current Building





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KACD-EO Report

SCC Meeting

January 2018

While attending the KACD Directors meeting in Topeka on January 16th, I listened to Amanda Reed with KDHE talk about their WRAPS program and how some conservation districts were not being supported of WRAPS efforts. Dan and I both asked what districts and what were they not supportive of. Amanda alluded to the idea that some districts have issues with WRAPS focusing on target areas and only making cost-share payments on management practices such as no-till management in regards to soil health. Amanda would not say what districts she had issues with and Dan and I both stressed that the strain in the working relationships with WRAPS program and district managers was not those two issues. I requested Amanda to get with me later so she could share the names of the counties she was having issues with. Dan and I know some issues arose because conservation districts are doing the work of the WRAPS coordinators in some WRAPS areas and not receiving any compensation. District managers have also been turned down for the open WRAPS coordinator positions. Dan and I will continue to work with KDHE to bring out these real reasons and to try to make some improvements.

Took the opportunity to work with KACD Director, Dan Meyerhoff, and the KACD Directors to push for support for conservation districts with the Kansas Governors Water Vision. While in Topeka on January 17th I went around with KACD Area I Director, Allen Rothe, and Dan Meyerhoff to visit with representatives and senators to promote conservation districts. Points stressed in those conversations was restoring district funding back to the full \$25,000 and allowing the districts to assist the state in the Governor's Water Vision as the needs arise. Hit home that there is no need to create new paths when the districts along with KDA-DOC have an excellent, proven process that works. The other KACD Directors had made appointments as well to visit with other representatives and senators in Kansas.

While districts are preparing for their annual meeting here in January and February, they are having to deal with a government shutdown. Hopefully things will run smoothly wherever they find a home for their office during this period of time. It takes a lot of planning to pack up this time a year and keeping the district operations moving forward.

KACD-EO reps will focus on getting prepared for the KACD-EO area meetings this spring. If any of you have topics you would like added to the agenda please email them to me.

Our next KACD EO meeting is set for April 19th at 10 am in Salina. It will be at the NRCS meeting room. All SCC Directors and KDA-DOC staff are encouraged to attend.

DM will be attending the next KACD meeting which will be held during the next state Envirothon. It is scheduled for April 26 in Lil Toledo Lodge in Chanute.

And as always, if anyone has any questions or issues they need assistance with please contact myself or your area KACD-EO rep for assistance.

KACD Executive Director Report
SCC board meeting
January 22, 2018

2017 Annual Convention Summary – 250 registrants, 10 non profit/agency exhibitors and 7 commercial exhibitors. NTOP also contributed but did not exhibit. 315 attended the SCC luncheon, 330 attended the banquet, 260 attended the breakfast. I am wrapping up proceedings document.

Technical Assistance Grant – Received approval from NACD to hire 5 conservation technicians. Have received first \$25000 from NACD so need to move forward with getting those positions hired. Have visited with the district managers letting them know that they will be receiving a packet soon. All of the district boards are aware that they may be getting a technician.

NFWF update – In final approval process in getting the grant approved for providing technical assistance on the monarch butterfly initiative. Hopefully this will be finalized in the next couple of weeks.

Attended Kansas Ag Alliance welcome back luncheon for legislators. It was a good opportunity to introduce myself to legislators from across the state. The KAA hosted a tour for 15 state legislators from the ag committees on Friday. This was well received and I hope that KACD and the SCC/DOC can follow up with a tour focused on conservation at some time in the future.

Have placed an order for two AR sandboxes. Ended up going with two more expensive units that will be easier to transport and set up. If I have them before the spring workshops I would like to be able to set one up and demonstrate. I am also finalizing the deal for an additional rainfall simulator. We should have it available for summer field days and county fairs.

Oklahoma Association of Conservation Districts hosted a movie night last month in Ponca City, OK showing the films “Rancher Farmer Fisherman” and the Hugh Hammond Bennett video. They followed this up with a panel discussion on soil health. Had 89 in attendance. The executive director from Oklahoma and I have been visiting about doing a few more along the border and co-hosting. We did help advertise this event, asking districts in SC Kansas to post the fliers and send the news release to local papers.

NACD and SRM are looking at a joint national meeting in 2021. They are interested in Kansas hosting the event. I have had some conversation with SRM on this and we had a teleconference last Thursday. We will visit again this Friday to decide if we want to move forward with this. KACD is on board, the SRM has some reservations.

I did visit with Connie Schmitt from the KS State Fair. If you were happy with last years arrangement we will do the same this year. Please let me know and I will go ahead and sign the contract and send back in.

We will be announcing the Aldo Leopold award around March 1st and take nominations through June 1st. Barth Crouch, Mike Beam and I will be following up with the sponsors from last year to make sure they all are continuing their commitment and will be looking for additional sponsors as well.