

KANSAS – OKLAHOMA ARKANSAS RIVER COMPACT COMMISSION
ENGINEERING COMMITTEE REPORT

October 15, 2014
Marion City Building
Marion, Kansas

This report covers the time period from July 1, 2013 through June 30, 2014. The report contains the standard updating of streamflow data, water quality data and construction of reservoir conservation storage capacities in the compact basin areas.

The 2013 water year flow totals in Oklahoma were higher than the previous year (2012) at two of the five compact gaging stations. The Caney River near Ramona had an average flow of 1,024 cfs as compared 990 cfs, and the Neosho River near Commerce had an average flow of 3,276 cfs compared to 1,761 cfs. The other stations, Chikaskia near Blackwell, Cimarron near Waynoka and the Salt Fork at Tonkawa were down slightly from the 2012 WY.

In Kansas, both of the Compact gaging stations had higher flows for the 2013 water year than that of 2012. The Verdigris River at Independence, Kansas had an average flow of 1,521 cfs compared to 885 cfs, and the Arkansas River at Arkansas City, Kansas had an average flow of 1,910 cfs compared to 784 cfs in 2012. All gages were below their historic averages.

The Engineering Committee reports that there were no new water storage structures completed in Kansas or Oklahoma compact areas during the July 1, 2013 through June 30, 2014 time period that exceeded the 100 acre-foot conservation storage minimum requirement.

The Engineering Committee was given a special assignment to research possible water quality projects such as watershed restoration efforts within the compact area that both states could agree upon as beneficial, and to be funded by the Compact Commission Fund. The Committee will present ideas during an appropriate time of the fiftieth annual meeting.

Respectfully submitted by the Engineering Committee.

Robert Lytle, Member

Julie Cunningham, Member

FLOW DATA
KANSAS-OKLAHOMA ARKANSAS RIVER COMPACT
WATER YEAR 2013 (OKLAHOMA)

<u>Station</u>	Discharge (Acre-Feet)	
Caney River near Ramona, Oklahoma USGS Gage No. 07175500		
Annual WY – 2013	741,342	(1,024 cfs)
30 Year Average	1,158,883	(1600 cfs)
Chikaskia River near Blackwell, Oklahoma USGS Gage No. 07152000		
Annual WY – 2013	219,507	(303 cfs)
77 Year Average	444,239	(614 cfs)
Cimarron River near Waynoka, Oklahoma USGS Gage No. 07158000		
Annual WY – 2013	36,126	(50 cfs)
76 Year Average	198,357	(274 cfs)
Neosho River near Commerce, Oklahoma USGS Gage No. 0718500		
Annual WY – 2013	2,371,716	(3,276 cfs)
74 Year Average	2,763,643	(3,817 cfs)
Salt Fork Arkansas at Tonkawa, Oklahoma USGS Gage No. 07151000		
Annual WY – 2013	85,428	(118 cfs)
72 Year Average	671,336	(927 cfs)

WATER YEAR 2013 (KANSAS)

Verdigris River at Independence, Kansas USGS Gage No. 07170500		
Annual WY – 2013	1,101,079	(1,521 cfs)
45 Year Average	1,589,193	(2,195 cfs)
Arkansas River at Arkansas City, Kansas USGS Gage No. 07146500		
Annual WY – 2013	1,382,683	(1,910 cfs)
110 Year Average	1,414,363	(1,954 cfs)

WATER YEAR 2013

	<u>Minimum</u>	<u>Maximum</u>
Station 000215 <u>Verdigris River near Coffeyville</u>		
TDS (mg/L)	275	505
Hardness (mg/L)	203	272
Spec. Cond. (umhos/cm)	480	890
Water Temperature (C)	5	29

Station 000218
Arkansas River near Arkansas City

TDS (mg/L)	823	1023
Hardness (mg/L)	277	307
Spec. Cond. (umhos/cm)	1473	1827
Water Temperature (C)	11	28

Station 000529
Chikaskia River near Corbin

TDS (mg/L)	288	373
Hardness (mg/L)	172	254
Spec. Cond. (umhos/cm)	509	646
Water Temperature (C)	9	28

Station 000566
Neosho River near Oswego

TDS (mg/L)	199	323
Hardness (mg/L)	143	257
Spec. Cond. (umhos/cm)	322	553
Water Temperature (C)	6	26

Station 000214
Neosho River near Chetopa

TDS (mg/L)	197	278
Hardness (mg/L)	141	210
Spec. Cond. (umhos/cm)	322	486
Water Temperature	6	26

KANSAS OKLAHOMA ARKANSAS RIVER COMMISSION
ENGINEERING COMMITTEE ASSIGNMENT REPORT

The Engineering Committee was given a special assignment to research possible water quality projects, such as watershed restoration efforts within the compact area that both states could agree, would benefit both states. These efforts would be funded by the Compact Commission Fund.

A suggestion was made, to provide funds, for particular projects, grant match/ partnerships, information/education opportunities, etc., to entities whose goals meet the criteria of the compact. It is suggested there should be no direct payment to an individual, but only to entities such as 501c3s, state agencies, programs under state agencies, local government, and specific taxing entities (watershed districts), etc.

Focus for all KOAR watershed restoration efforts could include:

- Decrease or alleviate pollution to tributaries or lakes
- Renew or establish riparian areas
- Erosion control practices
- Information/Education activities such as; field days, tours, workshops, etc.
- Partnership to entity in their specific activities for watershed restoration
- Provide funds to assist grant proposals in meeting the required nonfederal match, if required
- Other conservation practices; and
- Research, studies monitoring, etc.
- Multi-state projects

Funding consideration would be based on how well the applicant's proposal articulates the watershed restoration components of their KOAR application.

QUESTIONS FOR DISCUSSION ON IDEA

1. Feasibility of suggestion: Is this viable program for Compact Commission Funds?
2. Set annual limit of funds from budget for program
3. Set allotment on a per applicant basis
4. Annual allotment of available fund for restoration projects should not exceed annual state assessments of \$5,800
5. All available annual funds go to one project and/or multiple projects
6. Allow Engineering Committee to decide what proposal should receive funds

- 7. Allow proposals to be submitted and approved from annual meeting to annual meeting**
- 8. Who will prepare restoration proposal criteria for applicants to meet**
- 9. How will program be advertised to potential applicants in each state**
- 10. When should program begin; immediately after the fiftieth annual meeting with Engineering Committee to proceed with writing: application criteria; format; review; fund if approved by committee; or wait and present details of program at fifty-first annual meeting**