

KANSAS-OKLAHOMA ARKANSAS RIVER COMPACT COMMISSION
ENGINEERING COMMITTEE REPORT
JULY 28, 2010
CHAPLIN NATURE LODGE, ARKANSAS CITY, KANSAS

This report covers the period from July 1, 2009 through June 30, 2010. 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 2009 water year flow totals were above the historic averages for the gaging stations reported upon for the compact except for the Caney River near Ramona, Oklahoma, and the Cimarron River near Waynoka, Oklahoma.

Stream water quality data for selected stations in Kansas is attached.

The Engineering Committee Reports that there was no new conservation storage within the compact area constructed in either Kansas or Oklahoma that met the compact 100 acre-foot conservation storage minimum criteria.

Although not within the compact area, a large reservoir named Horse Thief was constructed in Kansas this past year. It is located in Hodgeman County and dams Buckner Creek, a tributary to the Arkansas River. When full, its conservation storage will be 6,230 acre-feet and will have a surface area of approximately 500 acres.

Respectfully submitted by the Engineering Committee.

Robert F. Lytle Jr. , Chairman
Kansas

Julie Cunningham, Member

FLOW DATA
 KANSAS-OKLAHOMA ARKANSAS RIVER COMPACT
 WATER YEAR 2009
 (OKLAHOMA)

<u>FLOW DATA</u>	<u>DISCHARGE (ACRE-FEET)</u>	
Caney river near Ramona, Oklahoma USGS Gage No. 07175500		
Annual WY- 2009	1,229,936	(1,699 cfs)
26 Year Average (since Hulah and Copan)	1,231,380	(1,701 cfs)
Chikaskia River near Blackwell, Oklahoma USGS Gage No. 07152000		
Annual WY- 2009	841,916	(1,163 cfs)
74 Year Average	453,462	(626 cfs)
Cimarron River near Waynoka, Oklahoma USGS Gage No. 07158000		
Annual WY- 2009	94,471	(130.5 cfs)
72 Year Average	206,756	(285.6 cfs)
Neosho River near Commerce, Oklahoma USGS Gage No. 07185000		
Annual WY- 2009	4,969,649	(6,865 cfs)
70 Year Average	2,788,100	(3,851 cfs)
Salt Fork Arkansas at Tonkawa, Oklahoma USGS Gage No. 07151000		
Annual WY- 2009	1,043,165	(1,441 cfs)
68 Year Average	690,018	(953 cfs)

FLOW DATA
KANSAS-OKLAHOMA ARKANSAS RIVER COMPACT
WATER YEAR 2009
(KANSAS)

FLOW DATA

DISCHARGE (ACRE-FEET)

Verdigris River at Independence, KS
USGS Gage No. 071705000

Annual WY- 2009	2,622,753	(3,623 cfs)
41 Year Average	1,653,238	(2,284 cfs)

Arkansas River at Arkansas City, KS
USGS Gage No. 07146500

Annual WY-2009	2,210,844	(3,405 cfs)
106 Year Average	1,425,480	(1,969 cfs)

WATER YEAR 2009

Station 000215
Verdigris River near Coffeyville

	<u>Minimum</u>	<u>Maximum</u>
TDS (mg/L)	147	301
Hardness (mg/L)	101	242
Spec. Cond. (umhos/cm)	210	531
Water Temperature (C)	4	23

Station 000218
Arkansas River near Arkansas City

TDS (mg/L)	413	1063
Hardness (mg/L)	157	379
Spec. Cond. (umhos/cm)	685	1839
Water Temperature (C)	3	24

Station 000529
Chikaskia River near Corbin

TDS (mg/L)	317	403
Hardness (mg/L)	216	280
Spec. Cond. (umhos/cm)	498	687
Water Temperature (C)	4	25

Station 000566
Neosho River near Oswego

TDS (mg/L)	149	341
Hardness (mg/L)	100	291
Spec. Cond. (umhos/cm)	215	577
Water Temperature (C)	4	27

WATER YEAR 2009

	<u>Minimum</u>	<u>Maximum</u>
Station 000214		
<u>Neosho River near Chetopa</u>		
TDS (mg/L)	129	343
Hardness (mg/L)	87	294
Spec. Cond. (umhos/cm)	182	573
Water Temperature (C)	4	27