

South Fork Republican River Water Users' Meeting

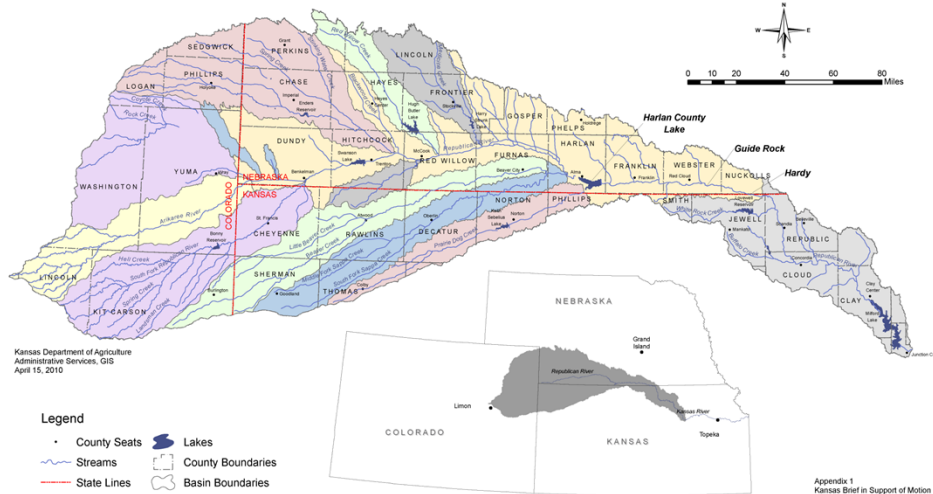
Background on the Republican River Compact

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Republican River Basin



Republican River Compact (1943)

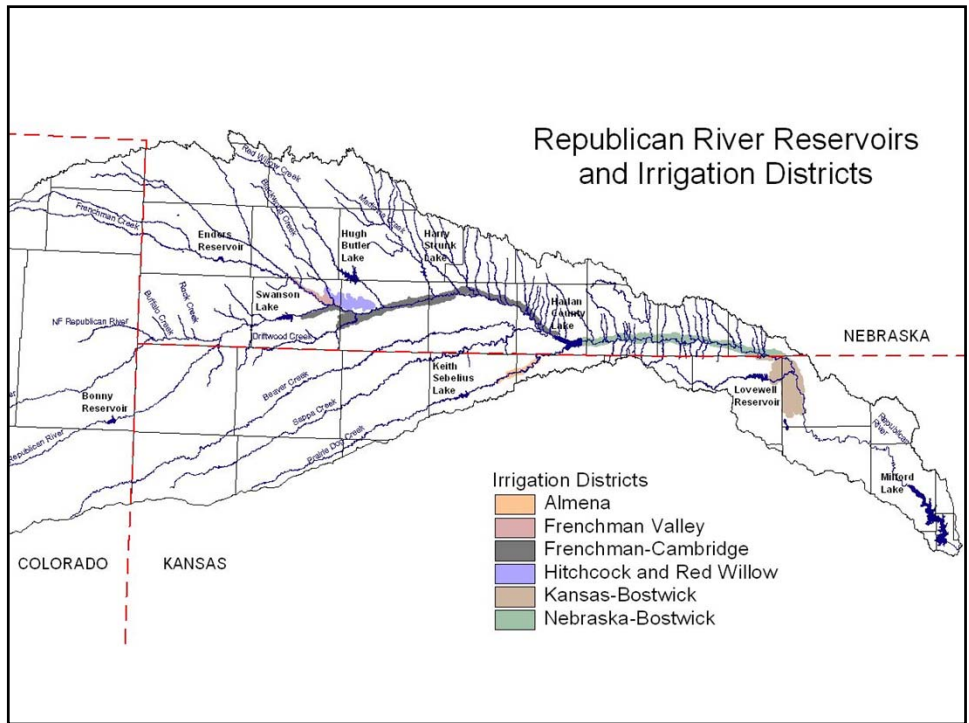
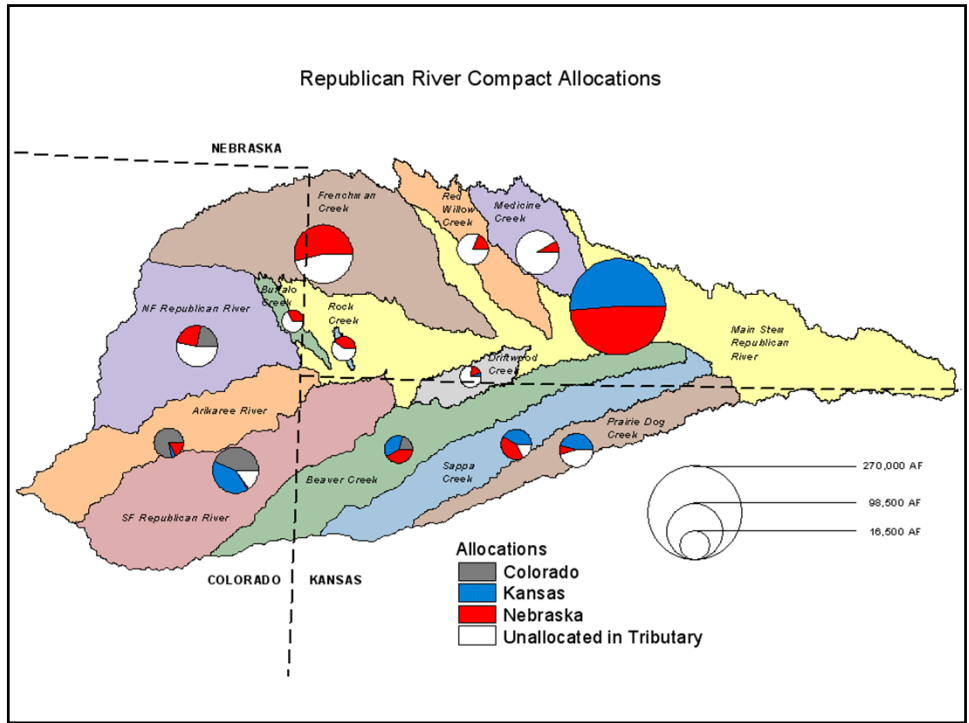
- Compact was formed as a prerequisite for federal flood control and irrigation projects
- Three States: Kansas, Colorado and Nebraska
- Approved by the States, Congress
- Allocates 100 percent of the basin's water supply among the states, by tributary
- Requires each state to stay within allocation
- If one state uses too much, the downstream state is shorted

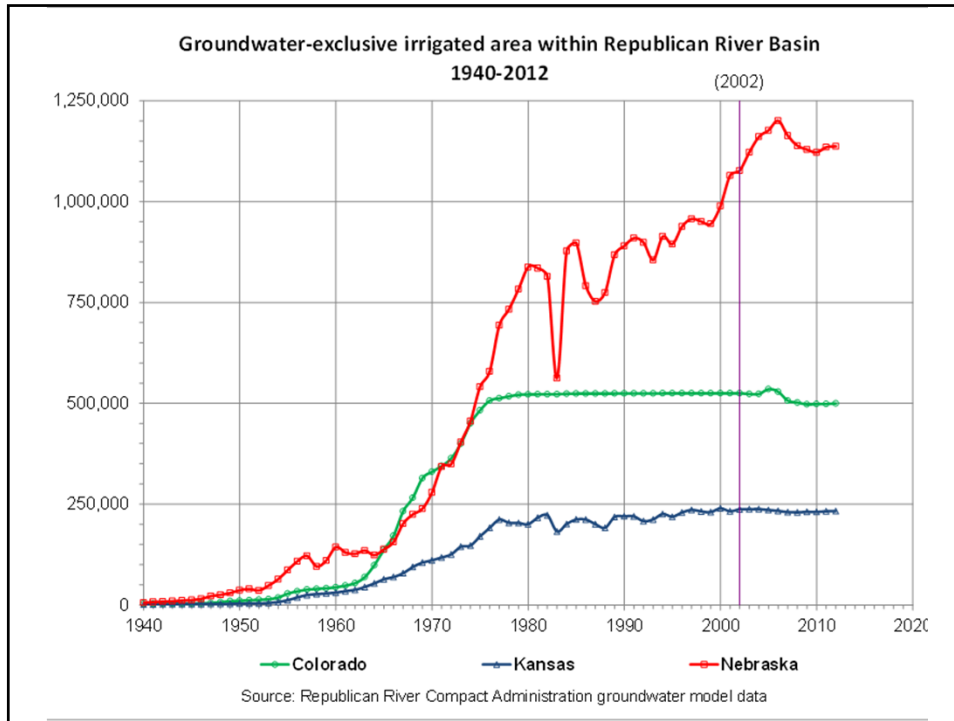


Republican Compact Allocation Method

- The negotiators estimated the Basin's "virgin water supply" and allocated 100 % of it to the States by major tributary (sub-basins).
 - Nebraska: 234,500 acre-feet (AF)
 - Colorado: 54,100 AF
 - Kansas: 190,300 AF divided between:
 - Northwest KS tributaries: 52,300 AF
 - KS main stem, 138,000 AF





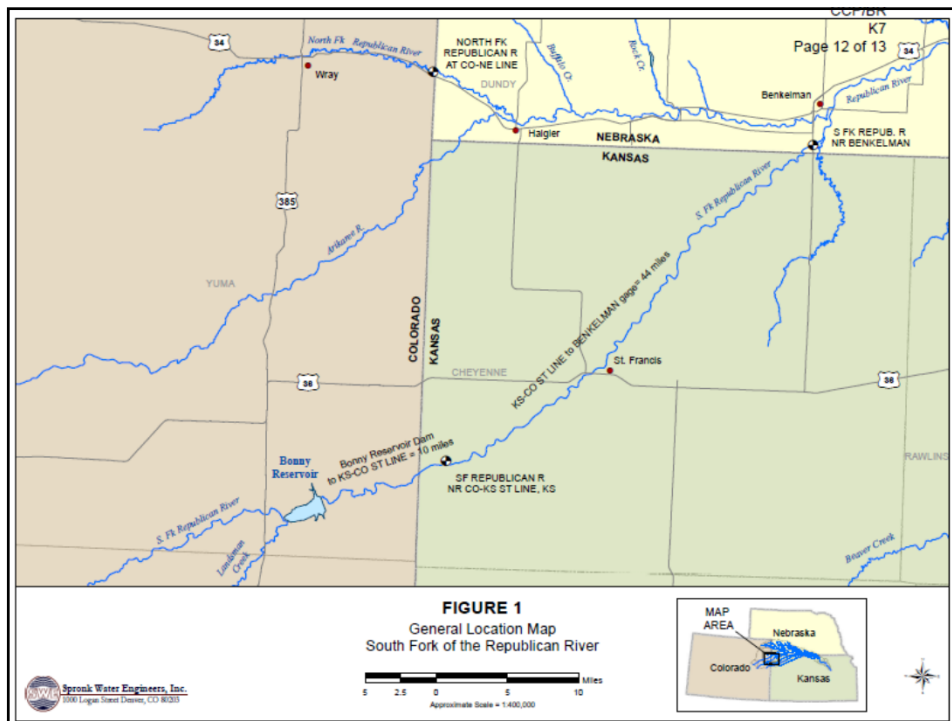


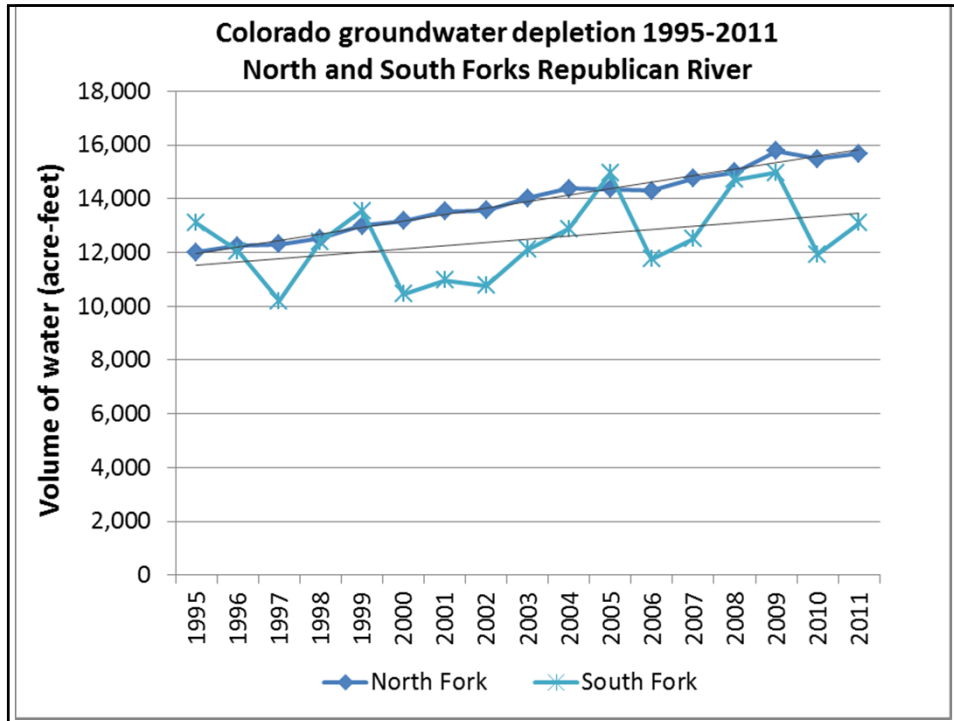
Compact Enforcement History

Year	Issue
1980s - 1990s	Nebraska begins to overuse its share. Kansas seeks to address concerns via the Compact Administration
1998	Kansas files suit in U.S. Supreme Court. Nebraska asserts that the Compact does not include groundwater.
2000-2002	Court rules that groundwater pumping impacts to streamflow must be accounted for; States negotiate comprehensive settlement
2003	U.S. Supreme Court approves settlement
Settlement includes clear compact compliance requirements and jointly developed groundwater model/accounting methods	

Final Settlement Stipulation (FSS)

- Clearly defines how compact compliance will be measured
- Adopts RRCA Groundwater Model to determine groundwater depletions to streamflow
- Flexibility provided consistent with terms of compact and needs of the states
 - Multi-year flexibility: 5 year normal vs. 2 year water-short compliance tests
 - Tributaries: a state cannot use a downstream state's specific allocation





Republican River Compact 5 Year Average Test for Colorado

Table 3A: Colorado's Five-Year Average Allocation and CBCU (Values in Acre-Feet)*

Year	Allocation	Computed Beneficial Consumptive Use	Imported Water Supply Credit	Allocation - (CBCU - IWS Credit)
2003	21,420	33,470	NA	(12,050)
2004	21,540	33,670	NA	(12,130)
2005	25,040	35,460	NA	(10,420)
2006	21,090	30,760	NA	(9,670)
2007	24,590	32,980	NA	(8,390)
Average	22,750	32,910	NA	(10,590)
Total of years 2003 to 2007				(52,930)

Colorado non-compliance and actions

- Colorado overused its allocation more than 50,000 AF for the 5-year period 2003-2007 and continues to overuse
- Colorado first retired surface water projects; used CREP to retire groundwater pumping
- As these actions provided insufficient, in 2008, rather than cut groundwater pumping further, Colorado proposed to built an “augmentation pipeline” to offset depletions.



Augmentation Issues

- Since 2008, Kansas has not been able to approve Colorado’s augmentation proposal since:
 - it facilitates replacing Colorado’s South Fork overuse on the North Fork,
 - it fails to determine the augmentation credit using the groundwater model, and
 - it lacks sufficient operational limits, more
- This dispute has been arbitrated twice.
- The arbitrator largely found for Kansas



South Fork allocations

- Total virgin water supply: 57,200 acre-feet (AF)
- Colorado allocation: 25,400 AF (44.4%)
- Kansas allocation: 23,000 AF (40.2%)
- Nebraska allocation: 800 AF (1.4%)
- "Unallocated" (reserved for mainstem): 8000 AF (14%).



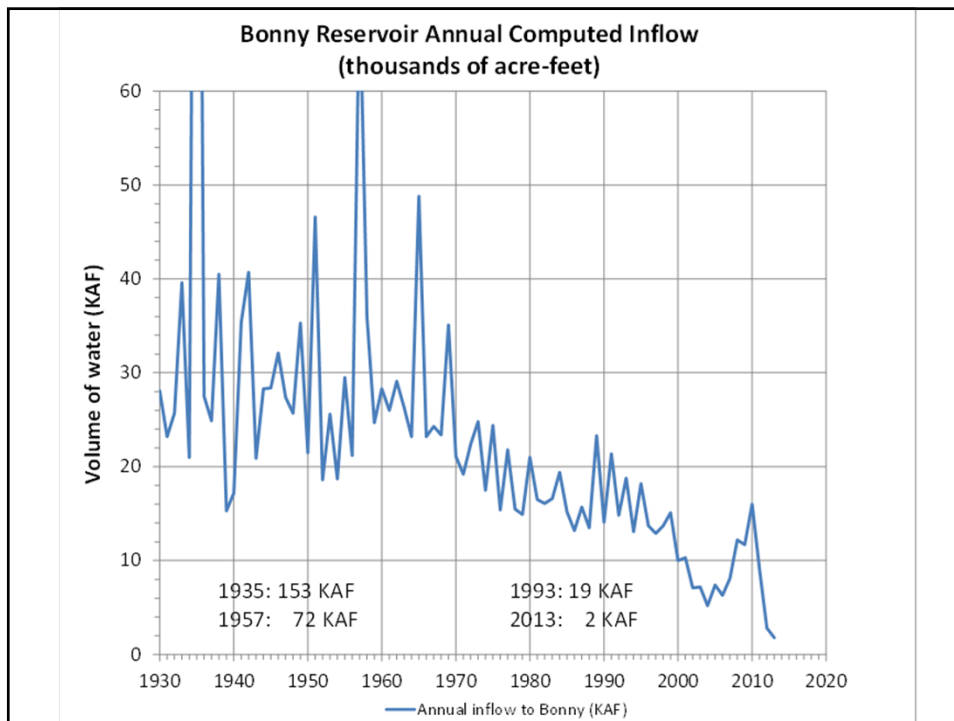
Colorado South Fork Non-compliance

Compliance for the South Fork Republican Sub-basin (Values in Acre Feet)*

Basin	Allocation	Unallocated Supply	Imported Water Supply Credit	Total Available Supply	Computed Beneficial Consumptive Use	Available Supply - CBCU
2003	10,540	3,300	NA	13,760	15,920	(2,160)
2004	10,690	3,370	NA	14,060	16,800	(2,740)
2005	12,230	3,850	NA	16,080	18,660	(2,580)
2006	9,240	2,910	NA	12,150	15,050	(2,900)
2007	10,220	3,200	NA	13,440	15,050	(2,170)
Average	10,570	3,330	NA	13,900	16,410	(2,510)

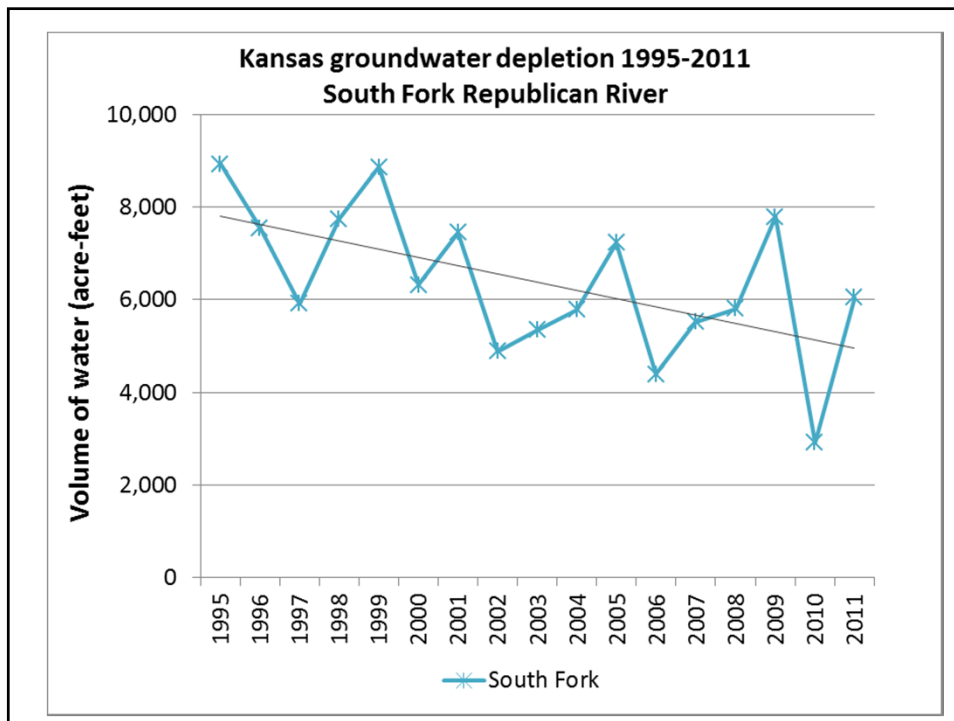
Bonny Reservoir issues

- To address its non-compliance on the South Fork, Colorado drained Bonny Reservoir.
 - Inflows into Bonny Reservoir have been in long-term decline, reducing its use and long-term viability.
 - While this action provides temporary benefits to Kansas, Kansas long-term concerns remain.



South Fork disputes

- Kansas cannot agree to Colorado's current proposal because it hides more than half of Colorado's actual pumping depletions to the stream, without any reduction in groundwater pumping, which threatens to further diminish flows into Kansas.
- Bonny operation and evaporation issues



Questions