South Fork Republican River water users meeting

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Presentation overview

- Republican River Compact implications to the region, both Colorado and the South Fork
- Colorado’s Augmentation project: what it is, why they built it
- Bonny Reservoir – why Colorado drained it, what do we know of its future viability
- Current status of discussions with Colorado
Republican River Compact (1943) and 2002 Final Settlement Stipulation

- Compact defines each state’s share of the basin’s water supply – total and by tributary
- 2002 FSS:
  - Provides clear, agreed-upon tests of compliance
  - Augmentation allowed, but plans must be approved by States, prior to implementation
  - Jointly developed groundwater model determines groundwater pumping impacts to streamflow, including pumping from the Ogallala aquifer
Colorado non-compliance

- Colorado overused its **statewide** allocation more than 50,000 acre-feet for the 5-year period 2003-2007 and continues to overuse

- In addition, over the same period, Colorado consistently overused its South Fork Republican River allocation, depriving Kansas of its share

Colorado actions toward statewide compliance

- Colorado retired most of its surface water projects
- Colorado used voluntary incentive-based programs (CREP, EQIP) to retire approx. 35,000 acres of groundwater pumping
- These actions proved insufficient. In 2008, rather than cut groundwater pumping further, Colorado proposed to built an “augmentation pipeline” to offset depletions.
Colorado’s total groundwater irrigated acres in the Republican River Basin:
500,000 acres

Groundwater retired under voluntary programs (in red):
35,000 acres

Groundwater acres retired for their augmentation pipeline:
12,000 acres

The project pumping does not directly affect Kansas since Colorado retired an equivalent amount of historic pumping and the pumping is far from KS.
Kansas has not given final or long-term approval to the augmentation project principally as it allows the replacing Colorado’s South Fork overuse on the North Fork.

- Colorado dedicated the project during August 2012. First deliveries were in 2014.
- Kansas has approved temporary use of the augmentation project while we work on a solution.

## South Fork allocations and use

- South Fork allocations
  - Colorado allocation: 44.4%
  - Kansas allocation: 40.2%
  - Nebraska allocation: 1.4%
  - “Unallocated” (reserved for mainstem): 14%
- Colorado has been using its share, the unallocated supply, and a portion of Kansas allocation.
- Most of Kansas use is alluvial pumping.
To address its non-compliance on the South Fork, Colorado drained Bonny Reservoir.

- This reduces Colorado’s use on the South Fork by approx. 3000 AF/year (evaporation)
- Inflows into Bonny Reservoir have been in long-term decline, reducing its use and long-term viability.
While precipitation is steady, Bonny inflow are rapidly declining
As Bonny inflows have declined, so have South Fork flows into Kansas
- [KS-CO Stateline gage data only available since 2002]
- Declining flows into Kansas have reduced our surface water use and recharge of the South Fork alluvial valley
Colorado and Kansas agree in good faith to discuss the following items with the goal of reaching agreement by November 1, 2015:

1. Identify options to increase streamflow on the South Fork at the stateline.
2. RRCA modeling and accounting for Bonny Reservoir.
3. Access to the unallocated portion of the South Fork Republican River.
4. An action plan to resolve the above issues.
Recent higher flows years temporarily benefitted water levels in the alluvial valley.