### Administration of the Arkansas River Compact

Steven J. Witte, P.E. Operations Secretary Arkansas River Compact Administration

### **Regulation of the Arkansas**

∺Typically subject to priority administration year round...only 5 "call free" instances since 1954.

- ₩Avg. annual basin yield, 884,000 af
- ₭Avg. annual imports, 126,933 af
- ₩Avg. stateline flow, 142,200 af
- **#**Avg. surface diversions, 2 M af (approx.) **#**Reuse ratio = 2.0

### **Arkansas River Compact**

#An outgrowth of previous interstate
litigation—1907; Doctrine of Equitable
Apportionment

#### ₭Negotiated in 1948, approved by Congress in 1949

Benefits of John Martin Reservoir allocated to Colorado and Kansas, 60/40
Not a specific performance contract...

### Article IV D Arkansas River Compact CRS 37-69-101

\*This compact is not intended to prevent development of the Arkansas river in Colorado, which may involve improved or prolonged functioning of existing works: <u>Provided</u>, the <u>waters</u> of the river <u>shall not be depleted</u> in usable quantity or availability to the water users in <u>Colorado and Kansas</u>...

### **Common Pool**



#### Description of Operational Practices-John Martin Res. Account System

**1980 Operating Resolution** 

## Winter Storage Nov. 1- Mar. 31



"Other Water" for Regulation... e.g. "Pueblo winter storage plan" Nov. 15-Mar. 15

₭ Amity (< 50,000 a.f.) \*</p>

- **#** Fort Lyon (20,000 a.f.)
- **#** Las Animas Consolidated (5,000)

第 35% of all deliveries above are transferred
 ☑Transit Loss account (< 1700 a.f.), then:</li>
 ☑11% Kansas account and 24% Colorado accounts

# Depiction of Winter Storage plus "Other Water"



# Summer Storage April 1- Oct. 31

∺All inflows…shall accrue to Conservation Storage <sup>3851'</sup><sub>335,693 af</sub> Bettom of Flood Pool until first exhaustion **#**Conservation Storage is transferred into accounts beginning no later than April 7th ⊠xfer @ 1000-1250 cfs ×40% to Kansas ⊠60% to Colorado

John Martin Reservoir



# Summer Storage (cont.) April 1- Oct. 31

Once Conservation Storage transfer into accounts has been completed, Colorado water rights below John Martin <u>may be</u> integrated with those above the Reservoir.

However, upstream water users have demanded an additional delay..."Agreement B"



# Summer Storage (cont.) April 1- October 31

₩When a runoff event causes inflow to exceed the existing irrigation requirements of Colorado below the reservoir by more than 1000 a.f. (per day)

- ☑The outlet gates are closed, except as needed for continuing demands for releases from accounts
- ☑The Colorado water rights below the reservoir are removed from the priority system
- ➢All inflows (except those "other waters" to which Amity is entitled) accrue to Conservation Storage. These waters are subsequently transferred to Kansas and Colorado accounts, beginning within 48 hours.

# Depiction of Summer Storage



### **Release out of Accounts**

Kansas and the various Colorado ditches may demand release of water contained in their respective accounts...at any time, at any rate.

- Releases to Colorado users are subject to transit losses.
- Releases to Kansas are measured at the Stateline. Such deliveries are ensured by additional releases from the Kansas transit loss account.

### **Depiction of Releases**



### **Permanent Recreation Pool**

By ARCA resolution dated August 14, 1976, a 15,000 a.f. pool was authorized.
Of this, up to 10,000 a.f. is to be retained within the flood pool in the event of spill
ARCA must approve all water stored within the permanent pool

### **Offset Account**

- △Kansas may demand the release of any fully consumable or "Stateline return flow" waters in the account at any time and at any rate.
- △A 2005 agreement establishes the credit Colorado is to receive for the delivery of water released upon demand by Kansas.

## **Spill Order / Procedures**





### Final Decree Kansas v. Colorado No. 105 Original

### Hydrological-Institutional Model deemed "reasonable" means to determine compliance

#10 year rolling compliance period #1<sup>st</sup> Compliance period 1997-2006