

Colorado Division of Water Resources: Water Division 1 *"Irrigationists Symposium"*

Colorado's Water Future

John Stulp, Special Policy Advisor to the Governor for Water March 15th, 2012

"It is far better to foresee even without certainty than not to foresee at all." -Henri Poincare

Recent State Water Planning Efforts

- IBCC Visioning Process and Report to Governors Ritter and Hickenlooper--"Four Legs of the Stool"
- IBCC Subcommittee Work
- SWSI 2010 and Basin Roundtable Needs Assessments (Consumptive and Non-Consumptive) Completed.
- Portfolio and Trade-Off Tool Effort—Over 30 Portfolios submitted for the March 1st Summit
- IBCC and CWCB will Finalize Portfolios

Major tasks leading up to 2016

- Implement the SWSI 2010 Recommendations (16)
- Identification of and Implementation of Consumptive and Nonconsumptive Projects (grants and loans)
- Development of Implementation Plans for the Strategies
- Evaluate SWSI 2016 Methodology (involvement of the CWCB, IBCC and roundtables)
- SWSI 2016 Development
- Finalize SWSI 2016 and Water Plan

Scenario Development is Underway:

Demand Factors:

• Energy demands

• GW Replacement

• M&I growth

An Implementation Plan would include Elements Common to all Portfolios

High Demand High Demand Low Supply **High Supply Mid-Demand Mid-Demand Mid-Demand** Low Supply **Mid-Supply High Supply** Low Demand Low Demand Low Supply **High Supply**

CO River Supply Factors:

- Colorado River hydrologic variability
- Climate change
- Compact considerations

Portfolio Framework



"Four Legs of the Stool"

Identified Project and Processes (IPPs)



Examples of IPPs

- Pueblo Reservoir Enlargement
- Southern Delivery System
- Chatfield Reallocation
- Reuter Hess Reservoir
- Gross Reservoir
- Halligan & Seaman Reservoirs
- Northern Integrated Supply Project
- Pawnee Creek Reservoir

Conservation



Being Discussed by BRTs

Amount available for gap areas
Amount available for growth
Amount used for drought reserve

Upcoming Work •Permanency of savings •Infrastructure and Institutional arrangements

Agricultural Transfer Can Play Two Roles to Fill the Water Supply Gap

Meet Portion of Gap

Rotational Fallowing

Interruptible Supply

Evaluate

Technical

Legal / Institutional

Drought Reserve

Economic

Implementation Hurdles

Progress on Alternatives to Ag Water Transfers

- CWCB/IBCC/BRT involved in discussions and projects facilitating ATMs.
- Rotational Fallowing Pilot Project in Arkansas Basin
- Lower South Platte Water Cooperative Project
- Conservation Easements and Interruptible Water Supply Agreements (e.g. 3/10 years)
- Colorado Agricultural Water Alliance (CAWA) Involvement
- Front Range Water Provider Involvement
- Agricultural Continuity

IBCC Asked that Risk Management be Incorporated into New Water Supply Development

Ongoing State Activities

- Drought Plan
- Ark/Gun Aspinall Study
- Water Banking Study
- CRWAS
- Compact Compliance Study
- BRT Flaming Gorge
 Committee
- Yampa Projects and Methods
- Interruptible Supply Agreements
- Denver Basin Conjunctive Use / Aquifer Storage

Develop Conceptual Risk Management Strategies For Each Portfolio

"When the well goes dry, we know the worth of water"

-Benjamin Franklin

Nonconsumptive Next Steps

Basin Roundtables:

- Develop Nonconsumptive Implementation Plan
- Initiate 3-5 Nonconsumptive Projects
- Identify one or more pilot projects that integrate nonconsumptive with consumptive projects/needs by end of 2012
- Define technical questions related to nonconsumptive that need to be answered in your basin by the end of 2012

Evaluation of infrastructure and storage will be important for implementing all strategies



CWCB Technical Assistance for Implementation

CWCB and roundtables work together to identify next steps for their priority projects and methods

Develop next steps based on support project and method implementation

Complete technical work identified in next steps

Documentation that could be used in CWCB Grant and Loan Programs

Opportunities to move consumptive and nonconsumptive projects and methods forward in the short-term

Workshop \rightarrow Roundtable

- Project and Method Prioritization
- CWCB Grant and Loan Program Review
- Use CWCB consultant funds to help get projects to next stage
- Select projects
- Work to fund projects (and leverage those funds)

Multi-Purpose Projects

- Work with water providers up front
- Identify opportunities to benefit many purposes:
 - Environmental
 - Recreation
 - Agriculture
 - Compacts
 - Municipal/Industrial

Trends in Water Use in Colorado

- Increased Efficiency
- Adoption of Technologies in the Use and Management of Water (e.g. South Platte DSS, Telemetric Measurement Devices, Depletion/Accretion Tool, Sprinklers/Drip Systems)

Future Work

Agricultural Gap
Non-Consumptive Gap
Continue Working on M&I Gap
Storage

"More Crop per Drop." -Unknown