

# Agricultural Water Conservation, Productivity, and Water Transfers: **Cooperation**

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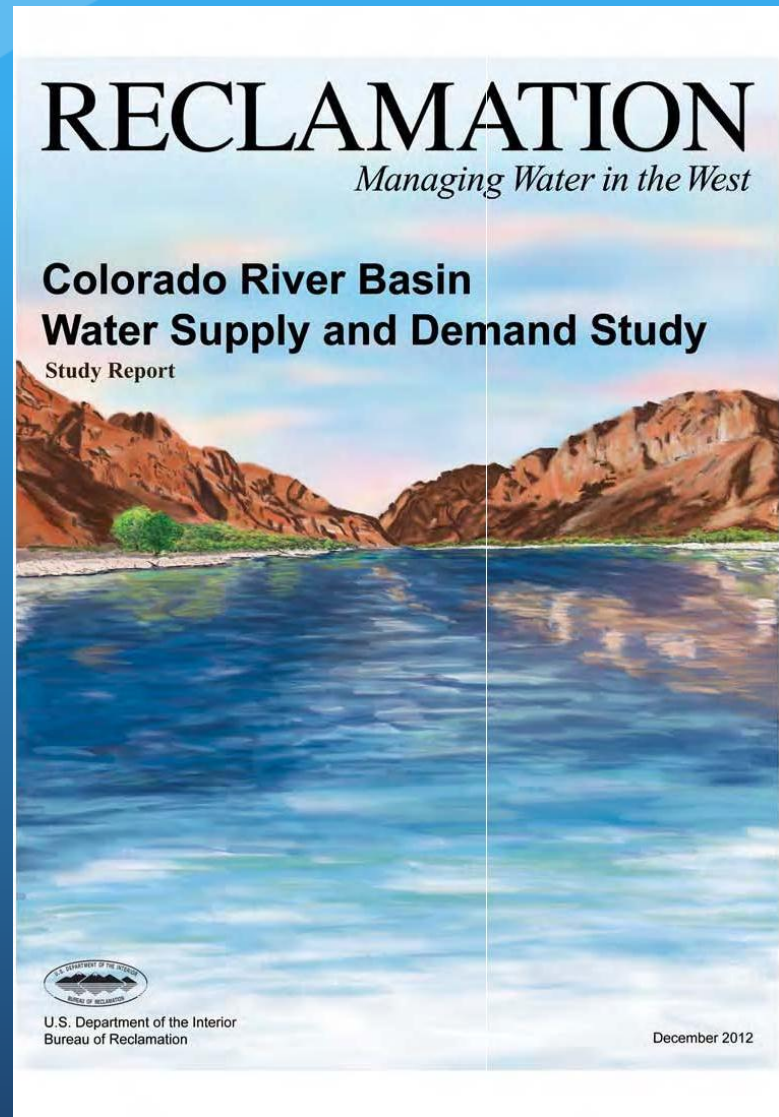
Colorado River Water Users Association Annual Conference

Las Vegas, Nevada

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# Colorado River Basin Water Supply and Demand Study

- Bureau of Reclamation and seven basin states
- Comprehensive study
- Confirmed likelihood of significant
- Options reduce Basin resource vulnerability
- Diligent planning and collaboration required





# Moving Forward

## Three Workgroups

- Municipal and Industrial Water Conservation and Reuse
- Environmental and Recreational Flows
- **Agricultural Water Conservation, Productivity, and Transfers**

Reclamation/Ten Tribes  
Partnership study

# Agricultural Water Workgroup

- **Three co-chairs**

Reagan Waskom, Colorado Water Institute

Tina Shields, Imperial Irrigation District

Ken Nowak, US Bureau of Reclamation

- **Over 40 members**

All states, NGO's represented

- **Three main focus areas**

Agricultural uses

Conservation practices

Transfer methods

# Agricultural Water Workgroup

**Why do we care?**

**Conclusions from the Basin Study:**

*Current* agricultural demands dwarf all other demands combined;

*Future* agricultural water supplies are threatened by other sectors;  
significant future actions needed to protect sustainable agricultural water  
uses;

Agricultural productivity and economies are at risk.

# Agricultural Water Workgroup

## **Phase 1 – Seven Tasks (Data Collection)**

- Create a baseline of existing projects and transfers
- Document the outcome of existing projects
- Identify opportunities for future programs and estimate yield
- Document potential impacts, costs, funding/incentive programs
- Document issues related to conservation and transfers in each state
- Categorize third party impacts on agriculture and communities
- Conduct periodic outreach to build consensus and prepare summary report

**Propose Phase 2 activities to be conducted in 2014**







# Agricultural Water Workgroup

## Data Collection: Conservation Programs Template

Conservation Programs			
Year or range of years for which information below is provided?			
Advanced Irrigation Scheduling			
Implemented conservation programs focused on irrigation scheduling?		Describe and reference	
Year initiated?		Continuing?	
Total acreage to which irrigation scheduling has been applied			
Estimated annual diverted water savings			
Estimated percent change in crop yield			
Estimated total average annual cost (\$)		Total Initial Investment (\$)	
Was the program funded via cost share with an entity and/or program?		Percent of funding from other sources/programs?	
Deficit Irrigation			
Implemented conservation programs focused on deficit irrigation?		Describe and reference	
Year initiated?		Continuing?	
Total acreage to which deficit irrigation has been applied			
Targeted crop types			
Estimated annual consumptive use savings			
Estimated percent change in crop yield			
Estimated total average annual cost (\$)		Total Initial Investment (\$)	
Was the program funded via cost share with an entity and/or program?		Percent of funding from other sources/programs?	
On-Farm Irrigation System Improvements			
Implemented conservation programs focused on on-farm irrigation system improvements?		Describe and reference	
Year initiated?		Continuing?	
	Prog. 1		
Acres converted			
Previous irrigation system type (e.g., flood)			
New irrigation system type (e.g., center pivot)			

# Alternative Transfer Methods

Water Banking

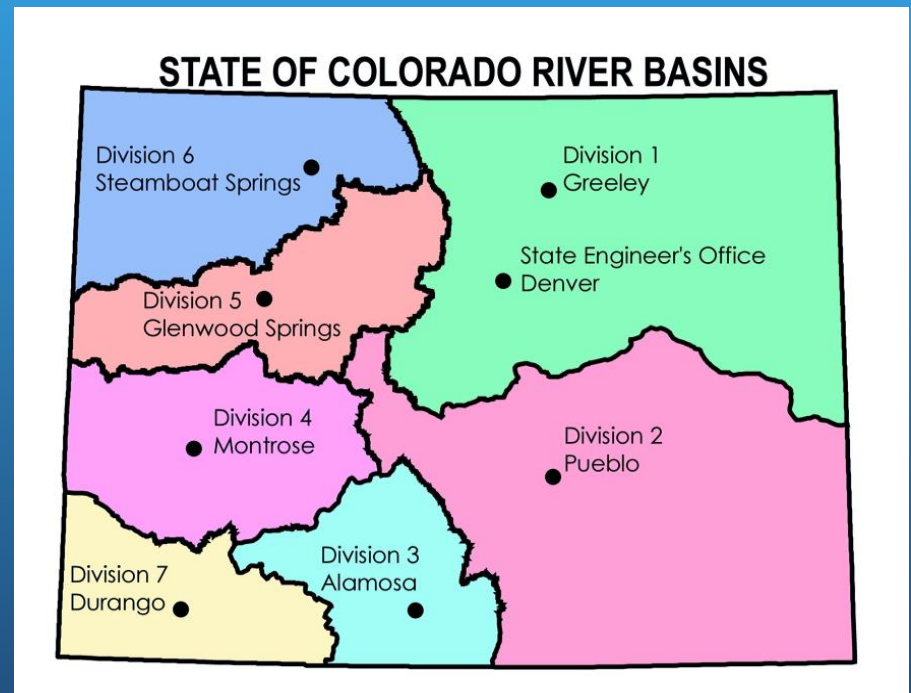
# Colorado River Water Bank Work Group

- Colorado Water Conservation Board
- Colorado River Water Conservation District
- Southwestern Water Conservation District
- Front Range Water Council
- The Nature Conservancy

**Cooperation**

# Colorado River Water Bank Work Group

- Willing agricultural participants
- Temporarily fallow or deficit irrigate lands irrigated by pre-Compact water rights
- Compensated for the loss of economic value while normal irrigation is reduced
- Saved consumptive use available to a Water Bank
- Post-Compact water users subscribe to Water Bank



# Colorado River Water Bank Work Group

## Phase 2 Report

- High altitude grass pasture presents special difficulties for fallowing or deficit irrigation
- Lower elevation systems do present an opportunity
- Non-economic values at issue
- Shepherding of saved CU
- Further education and research will be required to establish feasibility.

