Agricultural Water Conservation, Productivity, and Water Transfers Workgroup

Co-Chairs: Ken Nowak, Bureau of Reclamation Tina Shields, Imperial Irrigation District Reagan Waskom, Colorado State University

Membership includes:

Conservation Organizations Municipal Water Providers Agricultural Water Providers CH2M Hill Contractor Team Federal Agencies State Agencies Academia Tribal Representatives

Ag Workgroup Objectives

- Quantify agricultural conservation and transfers of Colorado River water (both in and outside of the Basin) that have occurred to date
- Document Ag water conservation programs that have been successful to date
- Identify existing future plans for these types of activities, and estimate what potential savings could come from these existing plans



Agriculture Served by Colorado River Water



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Ag Water Conservation Means Different Things

- Decreased crop consumptive use
- Improved irrigation application efficiency
- Increased crop water productivity
- Increased irrigation water diversion and delivery efficiencies
- Reduced water use or evaporation through adoption of conservation measures and new technologies
- Increased capture and utilization of precipitation

Ag Water Conservation: No Free Lunch!

Challenges

- Legal
- Financial
- Environmental
- Political
- Social

Opportunities

- Improved water quality
- Drought protection
- Conserved water for other uses
- Partnerships
- Financial benefits



Key Message

Available data demonstrate that producers have implemented a wide range of conservation and efficiency measures and often increased productivity as a result.

TABLE 4-4Summary of Select Agricultural Conservation Programs with Quantified Acres and WaterSavings

Туре	Acres	Annual Water Savings ¹ (KAFY)	Unit cost (\$ per AFY) ²
Conveyance System Improvements	N/A	456	20–150
On-Farm Efficiency Improvements	362,227	124	285
Consumptive Use Reduction	73,601	400	30–246
Total		980	
Transfers	N/A	650	

Ag Productivity in the Basin



Consumptive Use (KAF), 5-year average ——Irrigated Acres (thousands), 5-year average ——Change in Productivity (%, right axis), 5-year average

Case Studies



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Opportunities

Opportunity 3: Pursue flexibility associated with strategic consumptive use reductions (for example, deficit irrigation, crop selection, or fallowing).

Opportunity 4: Enhance and use mechanisms to facilitate flexible water management (for example, banking, transfers, or exchanges).



