

Alternative Methods to Permanent Dry-Up of Irrigated Agriculture

South Platte Forum



October 19, 2011



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LSPWCD

What are Alternative Transfer Methods?

- ✓ Interruptible Supply Agreements (ISA)
- ✓ Rotational Fallowing Arrangements (RFA)
- ✓ Water Banks
- ✓ Reduced Agriculture CU
 - ✓ Alternative Cropping
 - ✓ Deficit Irrigation Practices

Alternative Transfers - Where?

- ✓ Western United States
- ✓ Colorado
- ✓ South Platte Basin



Western United States

Western Governor's Association and
the Western States Water Council

Identification of Smart Water Sharing Strategies

- **Innovative Water Transfers Workshop**
July 26-27, 2011 in Bend, OR

Water Transfers in the West:

Trends Over the Last 22 Years of Water Rights Trading



**WESTERN
GOVERNORS'
ASSOCIATION**

Carlee Brown
Water Policy Specialist
Western Governors' Association
Innovative Policy Workshop
Bend, Oregon
Wednesday, July 27, 2011



Data Source

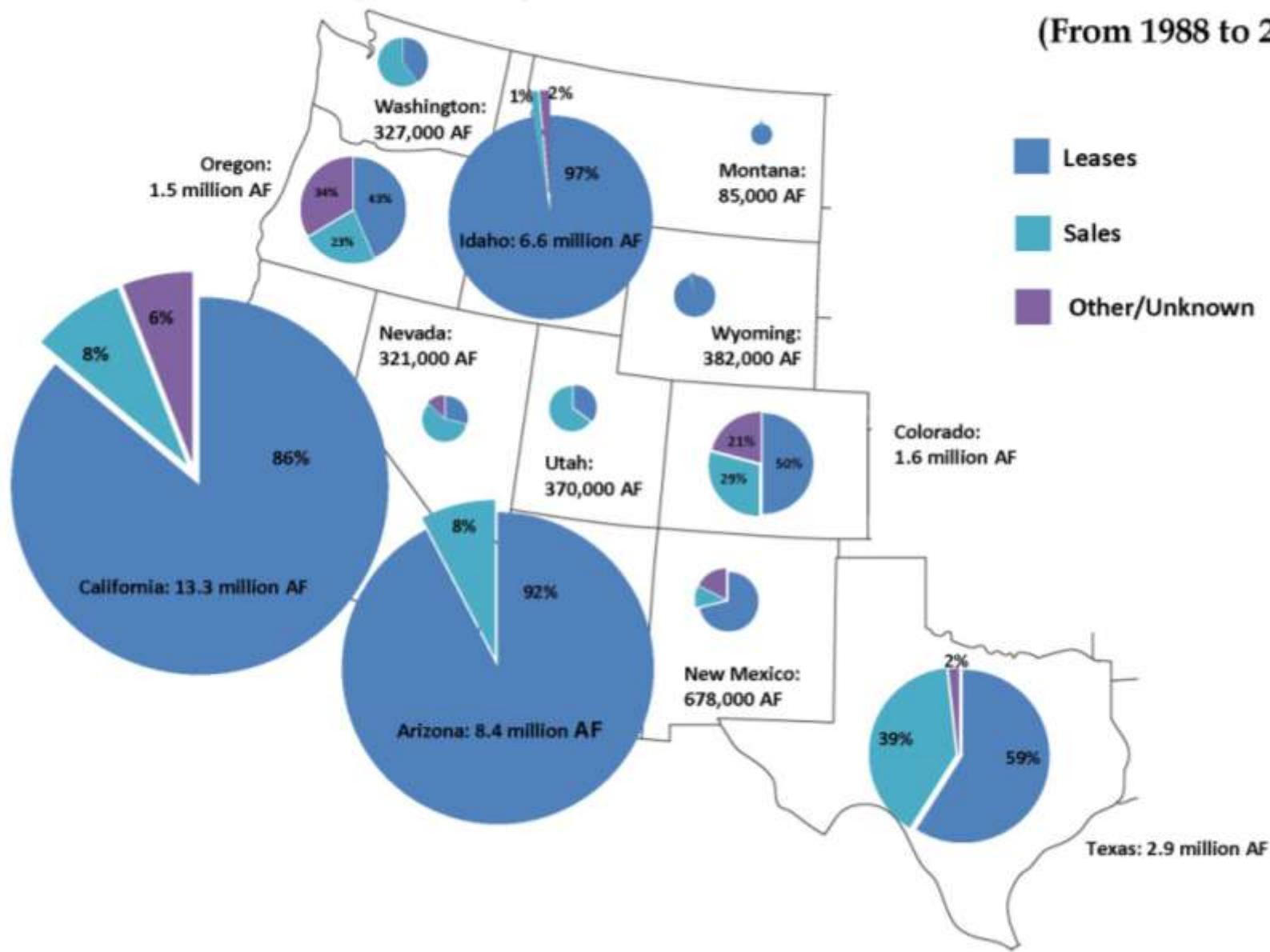
- UC Santa Barbara's
Bren School
- Collected from the
Water Strategist
- Includes 12 WGA
member states



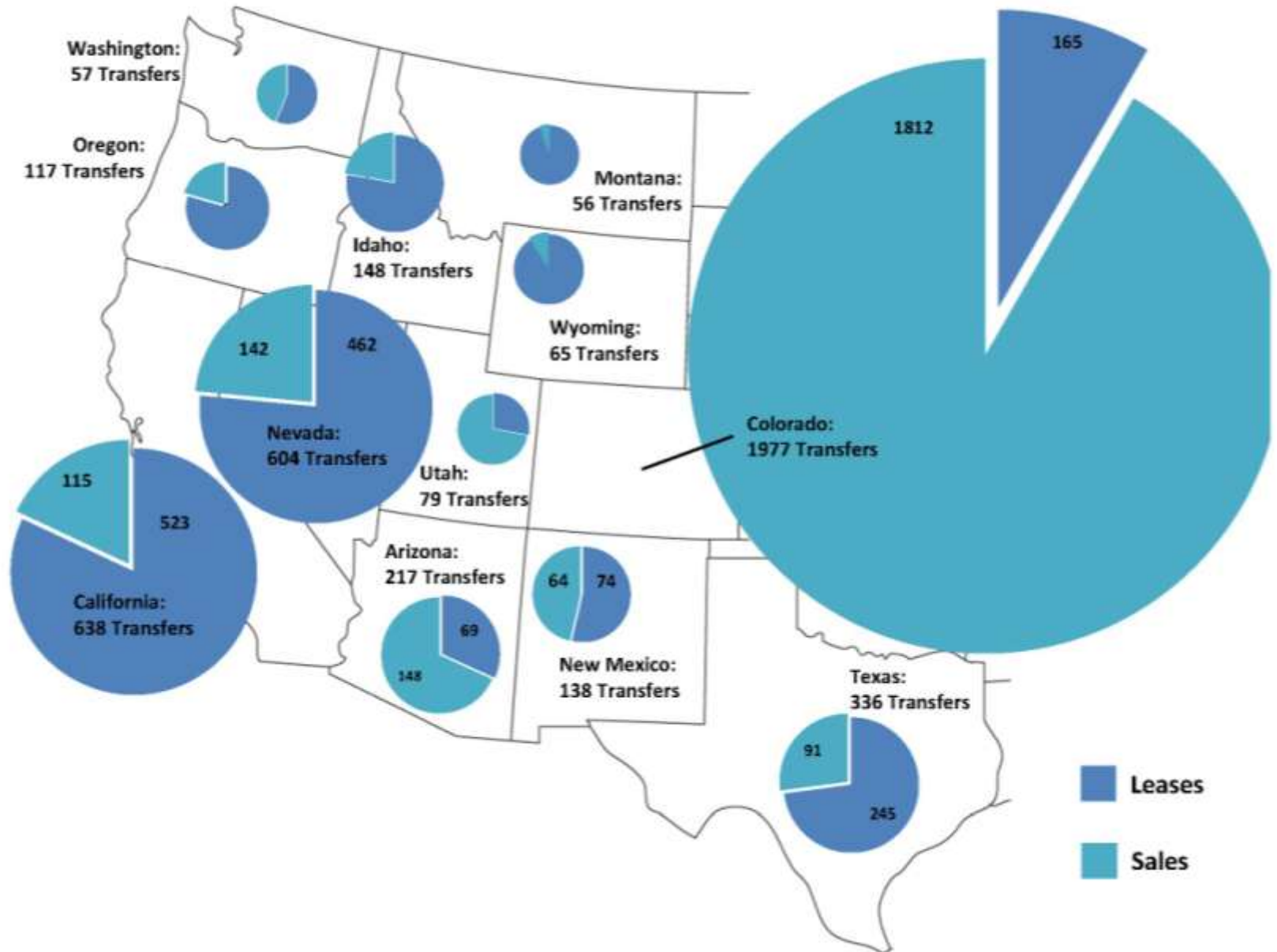
- **Innovative Water Transfers Workshop II**
October 27-28, 2011 in Denver, CO

Water Transfers by State: Type of Transaction and Total Volume Traded

(From 1988 to 2009)



Water Transfers by State: Total Transactions (From 1988 to 2009)



Colorado

- ✓ Statewide Water Supply Initiative 2010
- ✓ CWCB Agricultural Water Transfer Methods Grant Program
 - ✓ 2008 \$1.5 million for Arkansas and South Platte Basins
 - ✓ 2011 \$1.5 million Statewide
- ✓ Inter Basin Compact Committee
 - ✓ Alternative Transfers Subcommittee
 - ✓ Dialogue between Front Range Water Providers and Colorado Agriculture Water Alliance (CAWA)
- ✓ Other Projects / Support
 - ✓ Public
 - ✓ Private
 - ✓ Environmental

2008 CWCB – ATM Grant Recipients

Colorado Corn Growers	Development of Practical Alternative Agricultural Water Transfer Methods
Parker WSD and Colorado State University	Lower South Platte Irrigation Research and Demonstration Project
Lower Arkansas Valley Water Conservancy District	Lower Arkansas Valley Super Ditch Company
Farmers Reservoir and Irrigation Company (FRICO)	Investigation of water banking by utilization of existing FRICO infrastructure
Colorado State University Extension Office	Assessment of returning fallowed land to production
Highline Canal Company	Exploration of implementation of various alternative transfer methods

2011 CWCB – ATM Grant Recipients

The Nature Conservancy	Rotational Fallowing Hay Meadows
Colorado River Water Conservation District	Compact Water Bank
Lower Arkansas Valley Water Conservancy District	Farm Financial Planning Tool
Colorado Water Innovation Cluster	Lake Canal Demonstration Project
East Cherry Creek Valley Water Conservancy District	Maintaining Ag Productivity on Formerly Irrigated Lands
Parker Water & Sanitation District	Lower South Platte Irrigation Demonstration Project
Lower South Platte Water Conservancy District	Lower South Platte Water Cooperative
Colorado Corn Growers Association	FLEX Market Model Project

South Platte Basin

Existing Examples

- North Sterling Irrigation District – Xcel Energy
- Ft. Morgan Reservoir and Irrigation Co. – Xcel Energy
- Others

In Progress

- Lower South Platte Water Cooperative
- Flex Market Model
- Lower South Platte Irrigation Demonstration Project
 - Parker WSD and Colorado State University
- Regenesi Management Group
 - Sustainable Water & Innovative Irrigation Management® (SWIIM)
 - USDA – Agriculture Research Services
 - Colorado State University
- Others

Issues and Considerations

■ Infrastructure / Water Quality

- Major piping / storage / water treatment
- Exchange Capabilities

■ Permanency and Certainty

- Current leases are short term up to 40 years
- Lease Rates

■ Potential High Transaction Cost

- Water Court Change Cases
- Contracts

■ Water Rights Administration

- Oversight and ensuring non-Injury

■ Regional Coordination / Marketing

- Organizational Cooperation

Infrastructure

Much of water supply “Gap” of the Arkansas basin, nearly 20,000 acre-feet, could be addressed in the near term if, and only if, the Rotating Agricultural Fallowing method is coupled with regional cooperation on new infrastructure.

Extract of the [Arkansas Basin Roundtable’s November, 2009 Resource Document](#)



† As an example, delivering an additional 40,000 acre-feet of irrigation water annually to the Denver metro area might require in the neighborhood of 80,000 acre-feet of storage and additional pipelines to move water north to south.

Footnote from the [Filling the Gap, Commonsense Solutions for Meeting Front Range Water Needs](#), Western Resource Advocates, Trout Unlimited and Colorado Environmental Coalition – February 2011

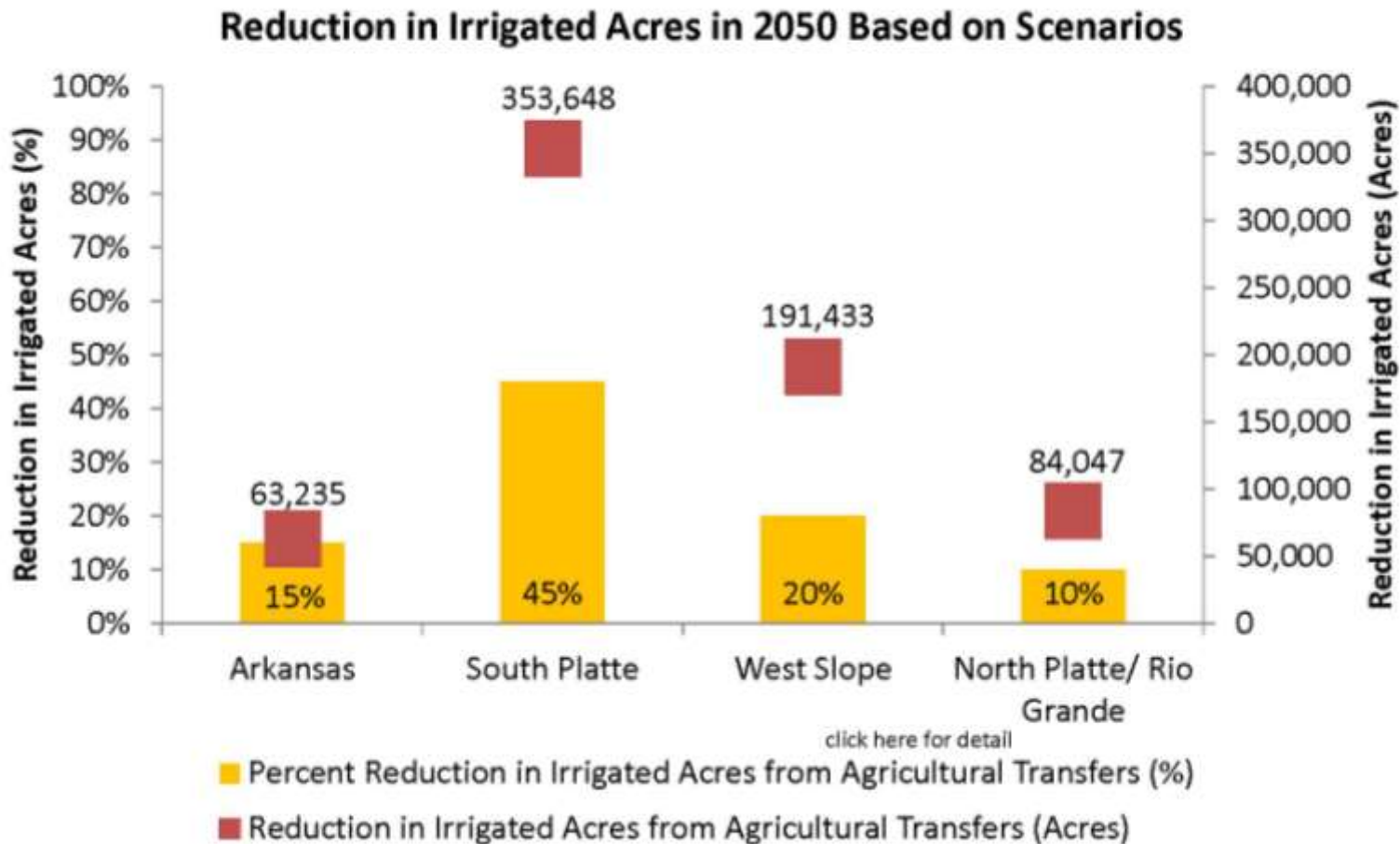
High Transaction Costs?

Are changes to legislation necessary?

- HB 11-1068
- Arkansas BRT and South Platte BRT Water Supply Reserve Account funding for \$20,000
 - Research and analyze existing Colorado Revised Statutes regarding agricultural fallowing and potential beneficial changes
 - Facilitate stakeholders in a multi-basin dialogue to determine common areas of interest and identify a potential collaborative approach

CWCB Portfolio Tool

Example Scenario – Status Quo



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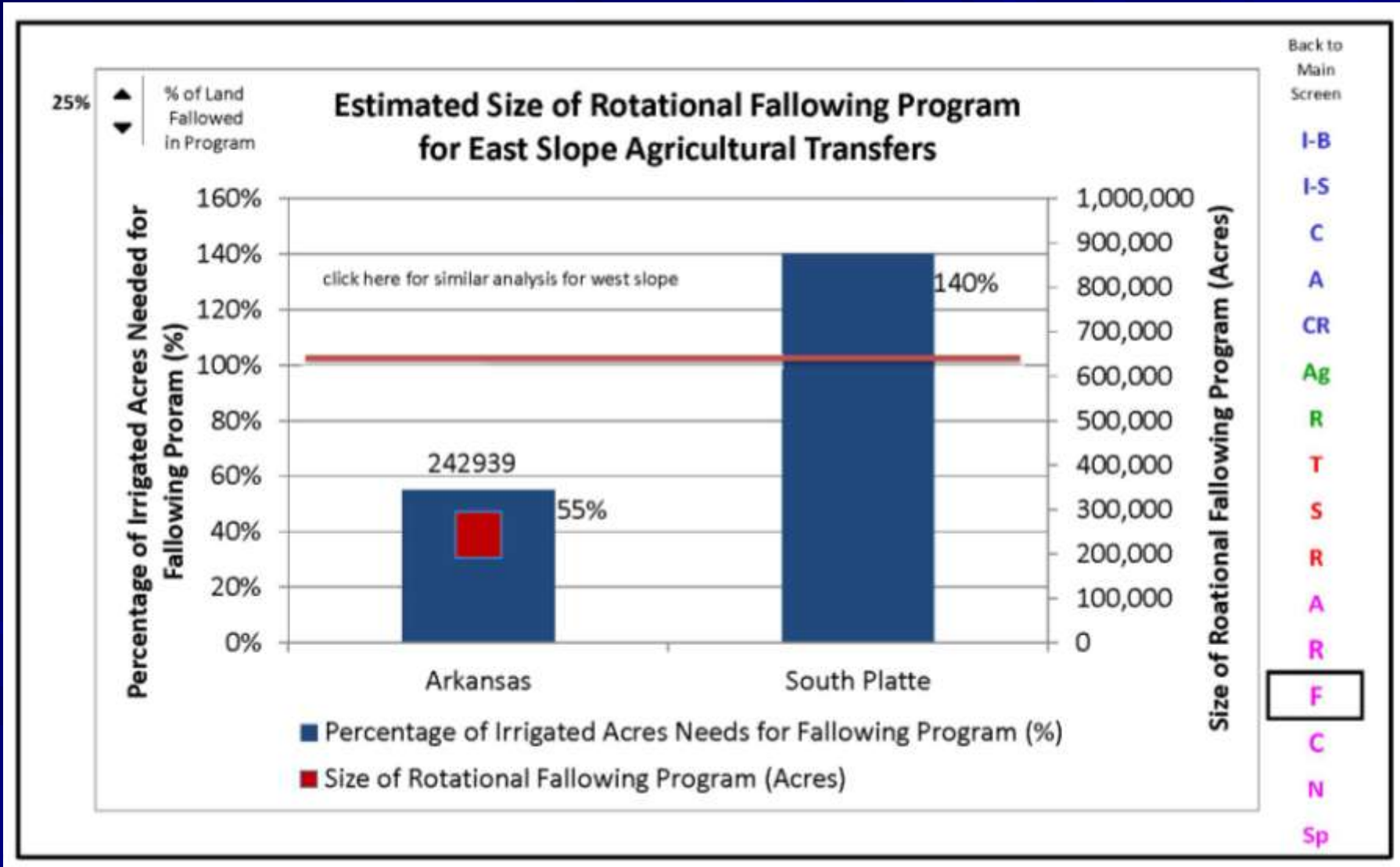
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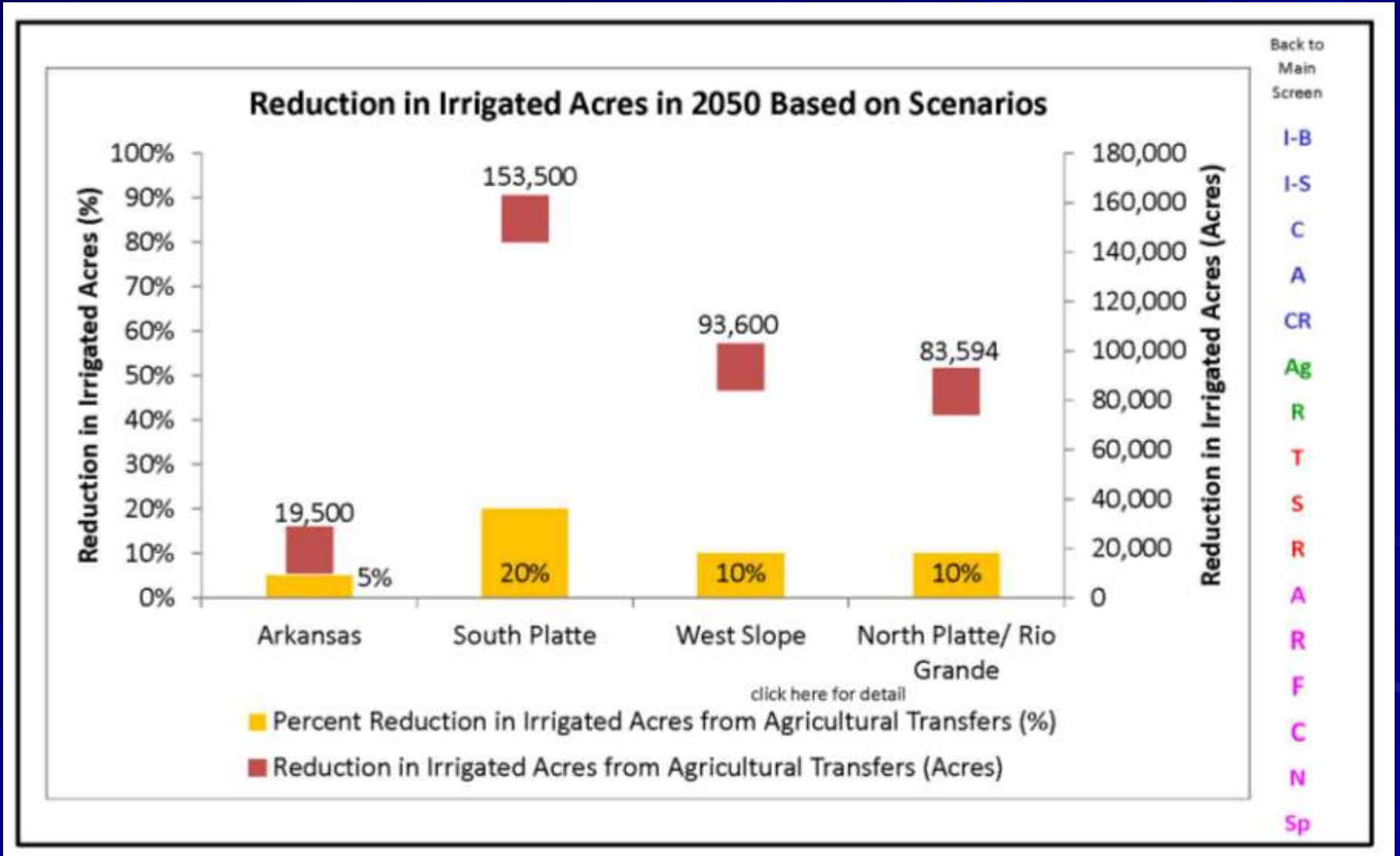
CWCB Portfolio Tool

Example Scenario – Status Quo



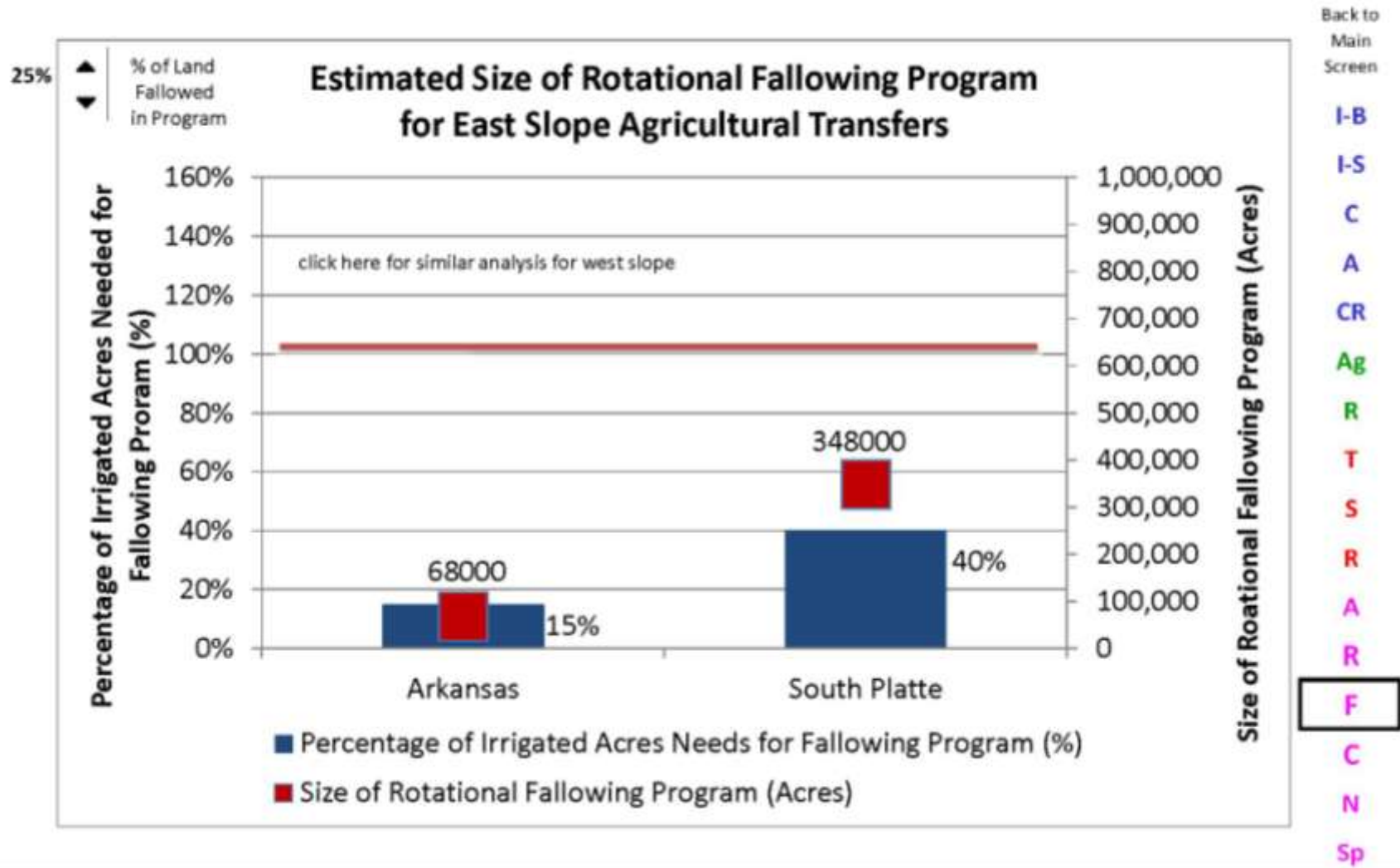
CWCB Portfolio Tool

Example Scenario – SPBRT Trial #1



CWCB Portfolio Tool

Example Scenario – SPBRT Trial #1



Final Thoughts

- Continued dialogue, innovation, and progress
- An option, but not the only option.
- May work best when integrated with other solutions
- Hurdles and Opportunities

Stay Tuned!

Questions?

