



# SANTA ANA RIVER CONSERVATION AND CONJUNCTIVE USE PROGRAM (SARCCUP)

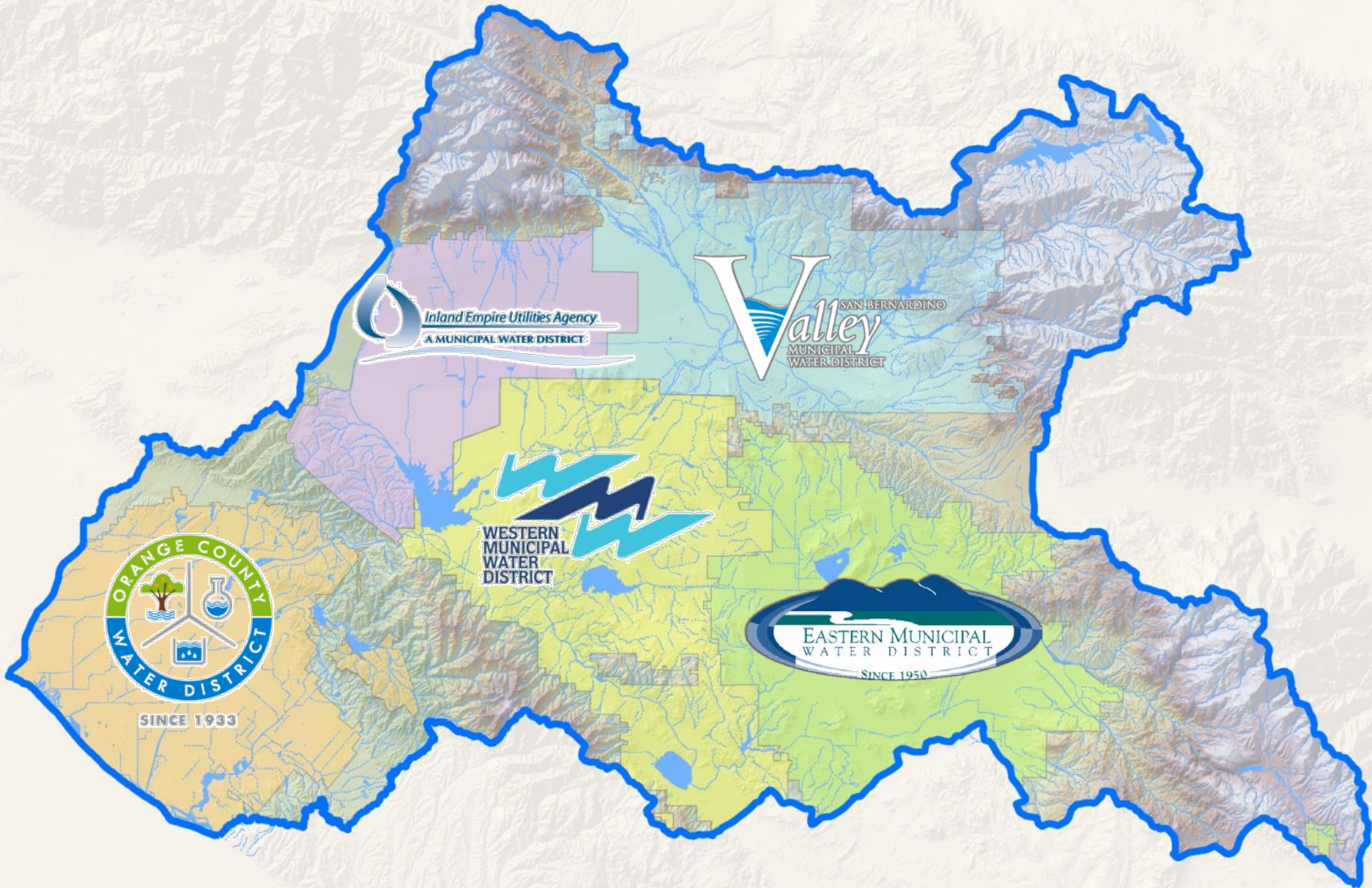


Santa Ana River Conservation & Conjunctive Use Program

One Water One Watershed Conference

2017

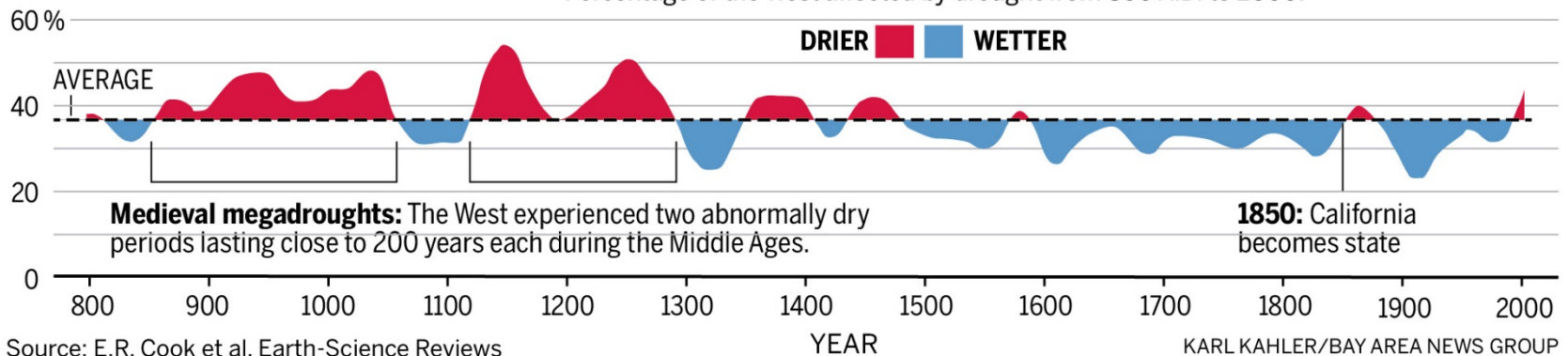
# SARCCUP COLLABORATION



# Droughts lead to Innovation

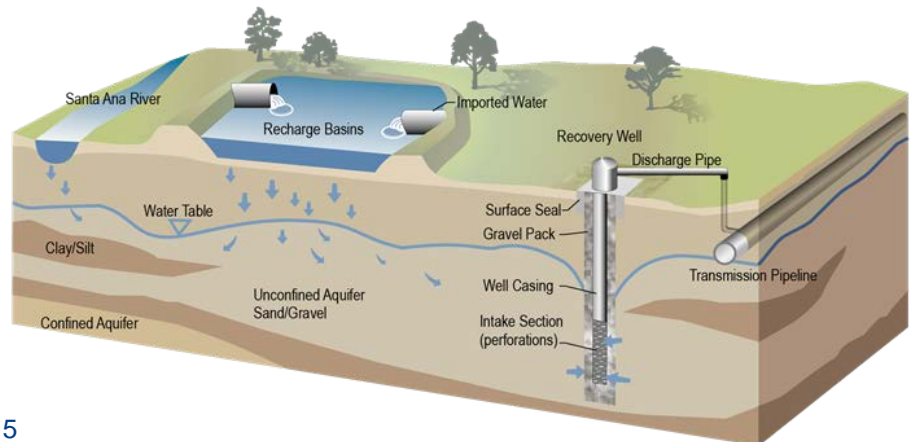
## A 200-year drought?

Evidence from tree rings shows that drought was historically much more widespread in the American West than now, while the 20th century was wetter than normal. Percentage of the West affected by drought from 800 A.D. to 2000:



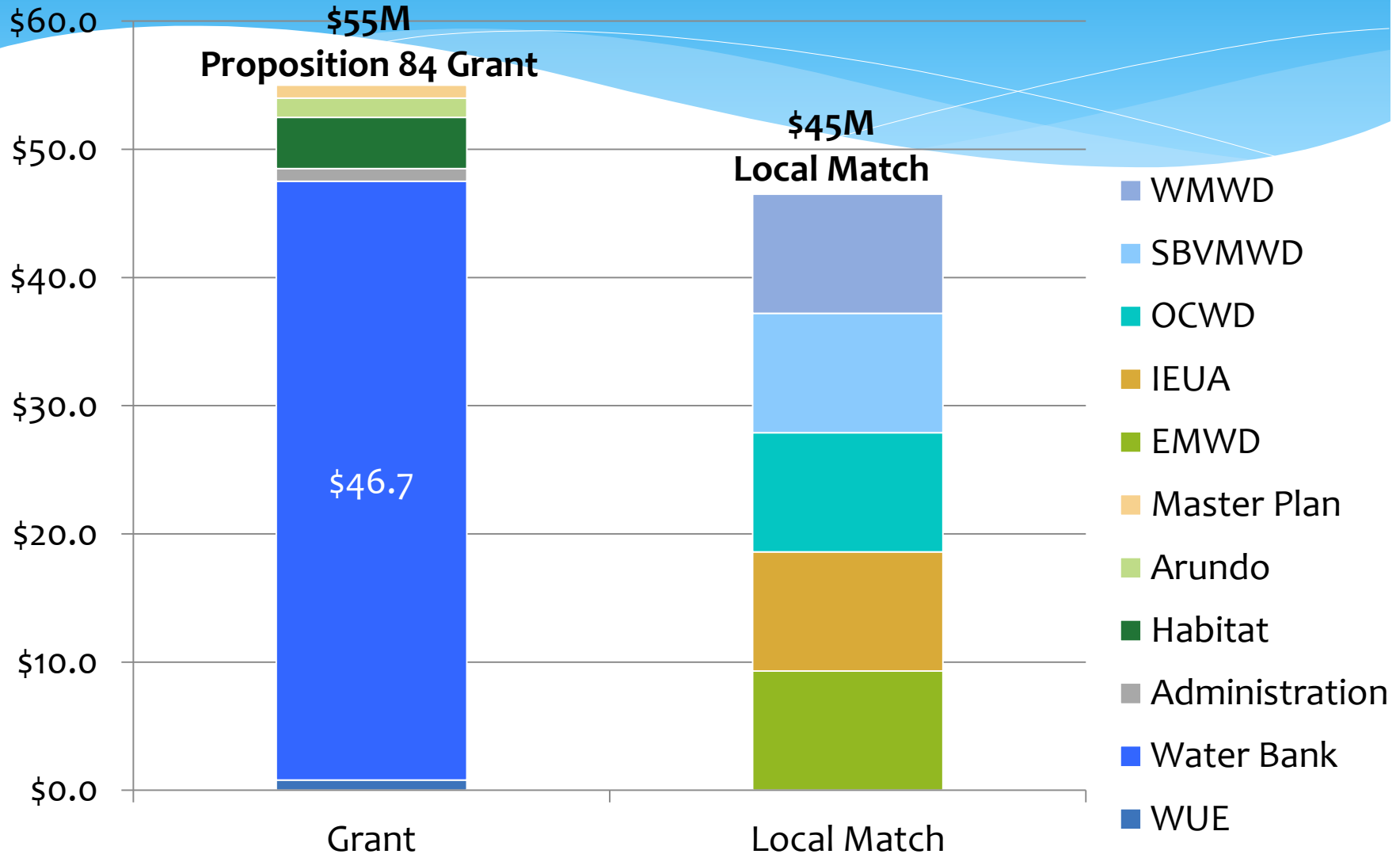
# SARCCUP Elements

- Habitat Improvement: Arundo Removal & Santa Ana Sucker fish habitat restoration
- Water Use Efficiency: Conservation-Based Rates Support, Water-use Efficient Landscaping Design
- Groundwater Banking: “Put and Take” Conjunctive Use Facilities



# Cost Sharing

Total SARCCUP Project Cost = \$100 million

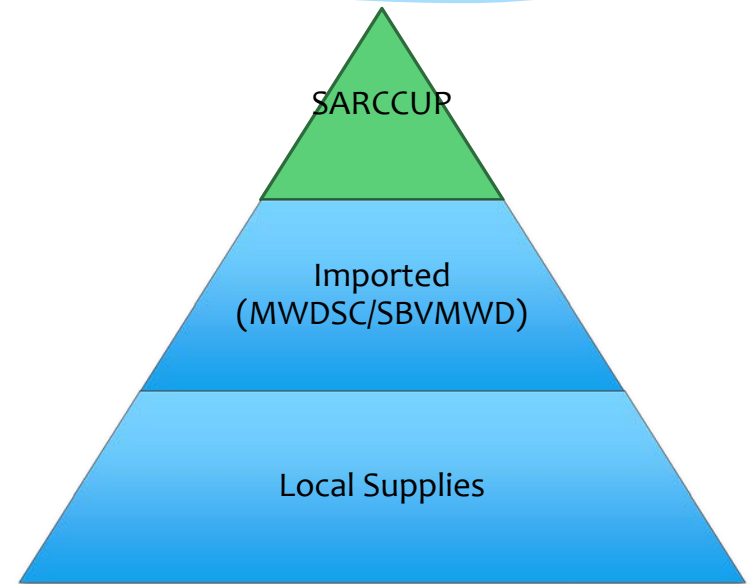


# SARCCUP Benefits

	New Water Supply
* Habitat Creation & Arundo Removal (conserved water supply)	2,000 AFY
* Water Use Efficiency - Turf Removal & Conservation-Based Rates (conserved water supply)	7,500 AFY
* Groundwater Bank (New Dry-Year Yield)	<u>60,000 AFY</u>
<b>Total New Water Supply</b>	<b>69,500 AFY</b>

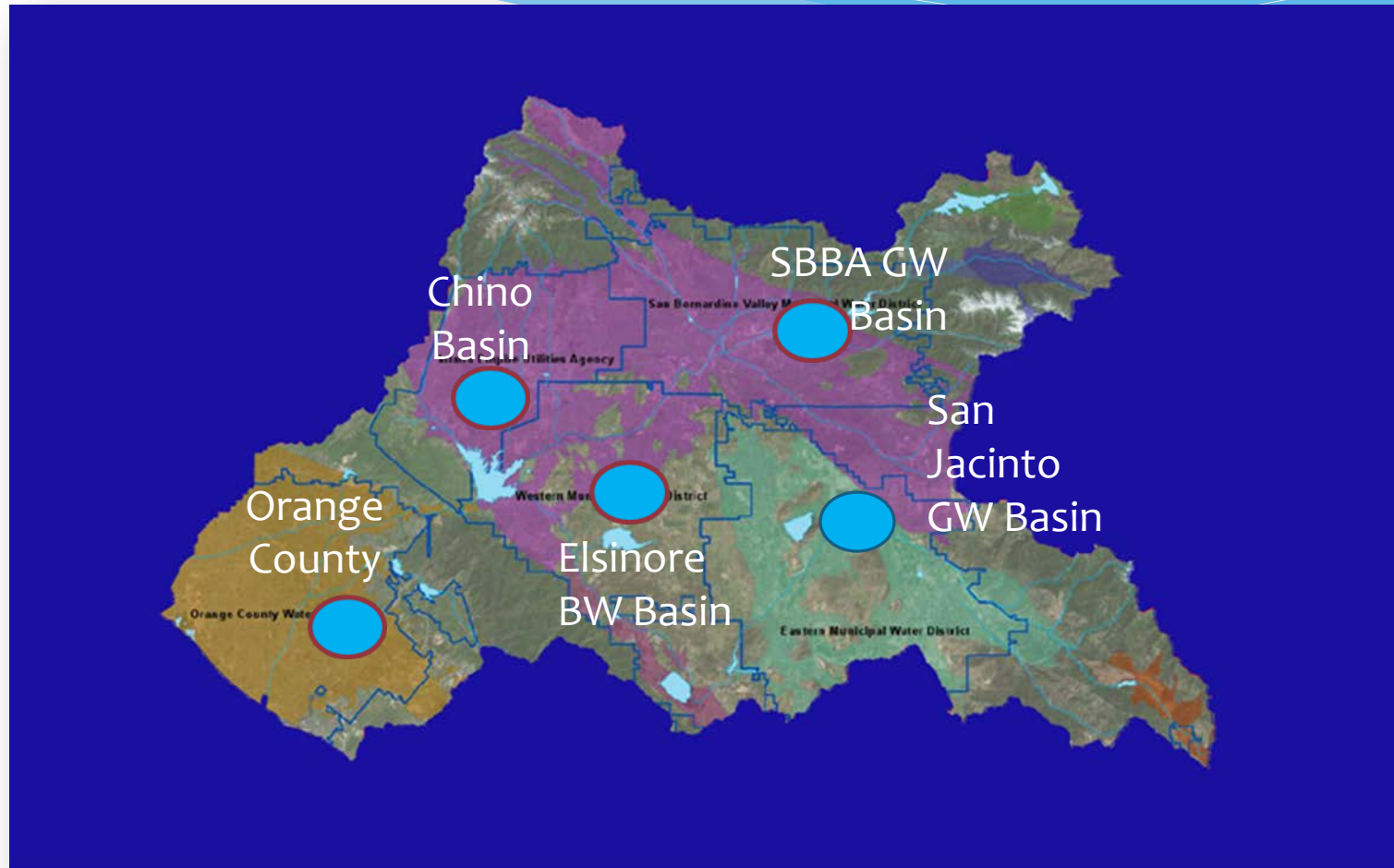
# Groundwater Bank Goals

- \* Lower overall water cost
  - \* Optimize Imported water supplies
  - \* Cheaper than the “spot market”
- \* Provide dry year yield during drought periods
  - \* Proactive approach
  - \* Reduce the impact of drought





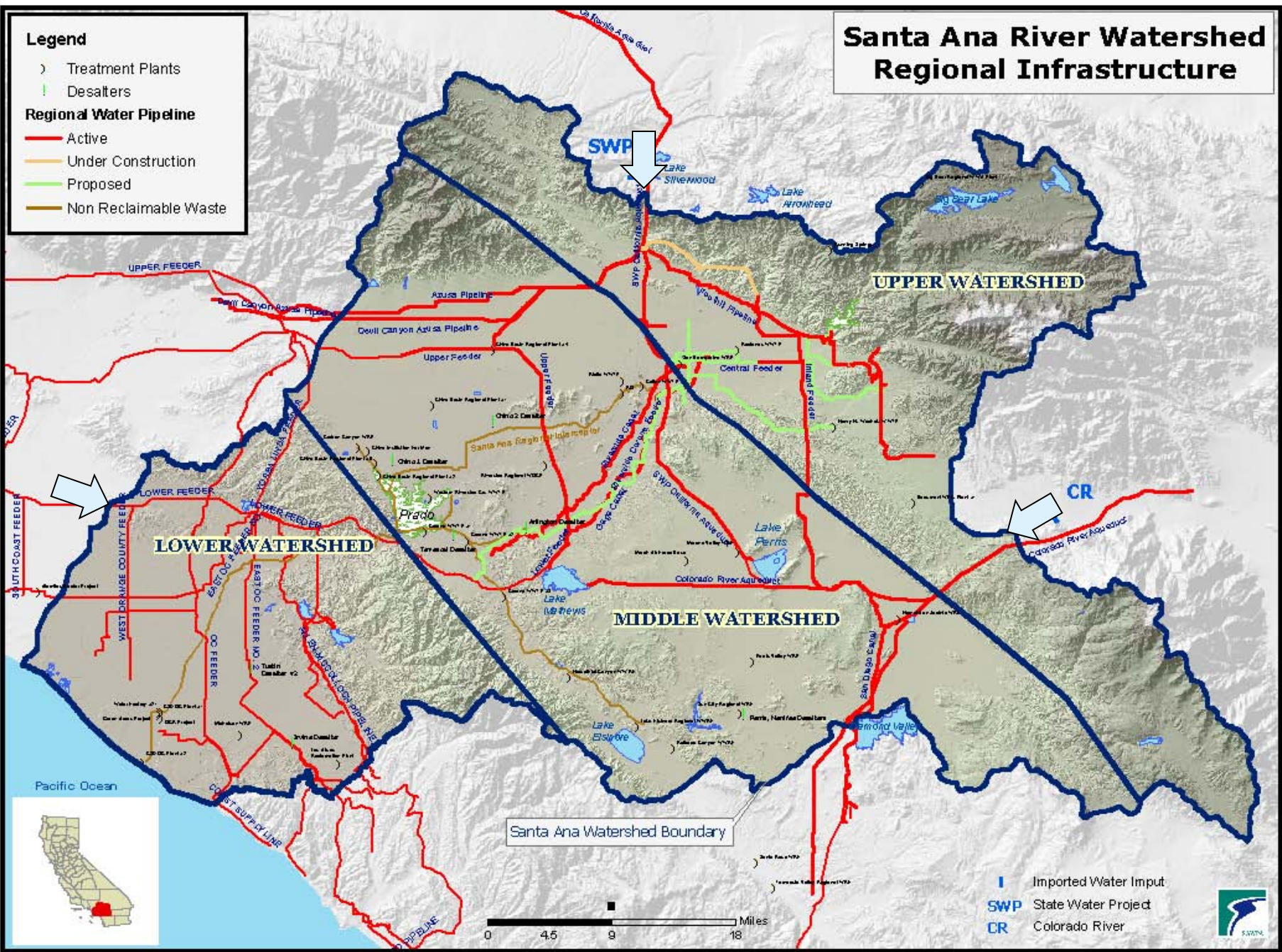
# SARCCUP Groundwater Banks

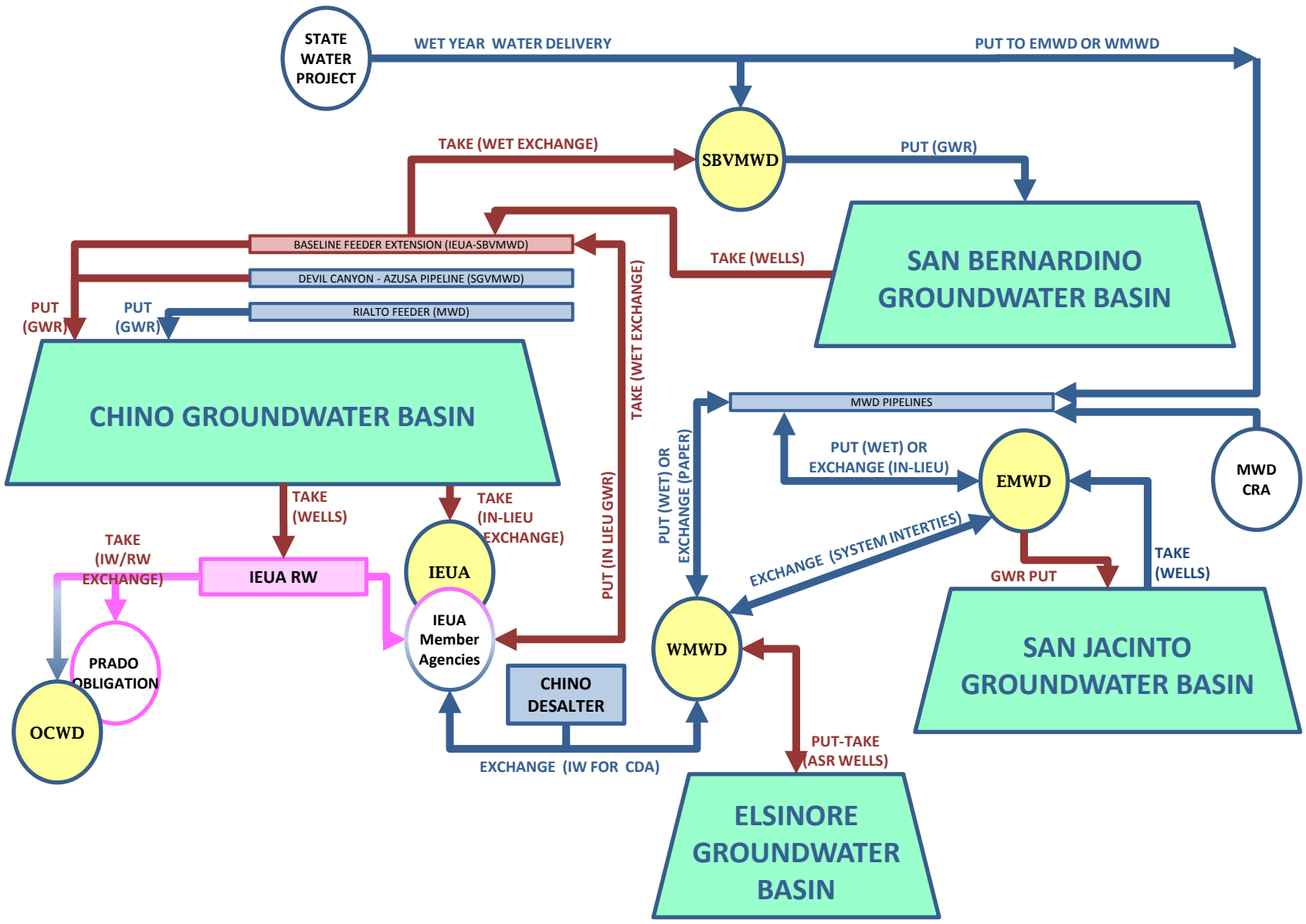


# Santa Ana River Watershed Regional Infrastructure

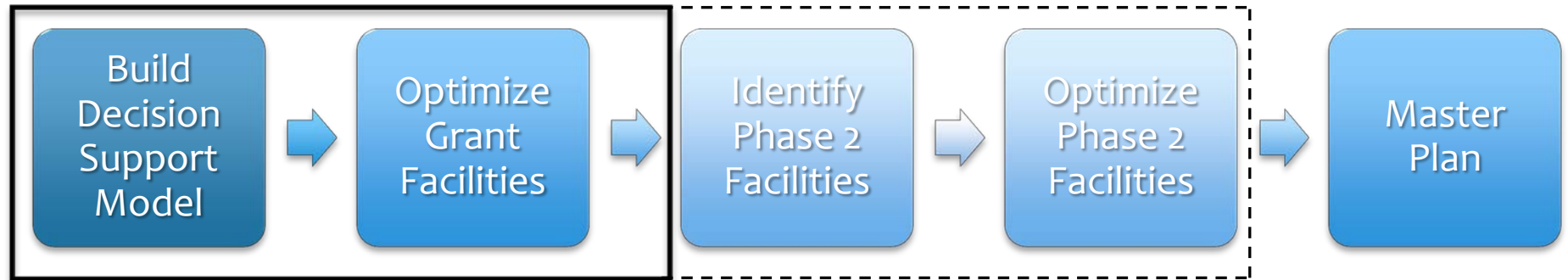
**Legend**

- ⌋ Treatment Plants
- ⌋ Desalters
- Regional Water Pipeline**
- Active
- Under Construction
- Proposed
- Non Reclaimable Waste





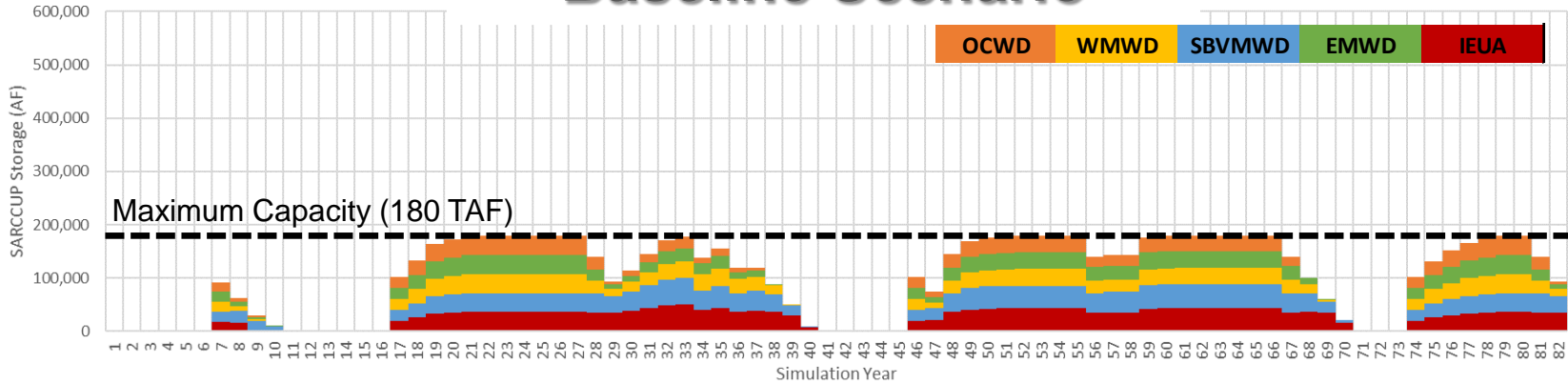
# SARCCUP Master Plan



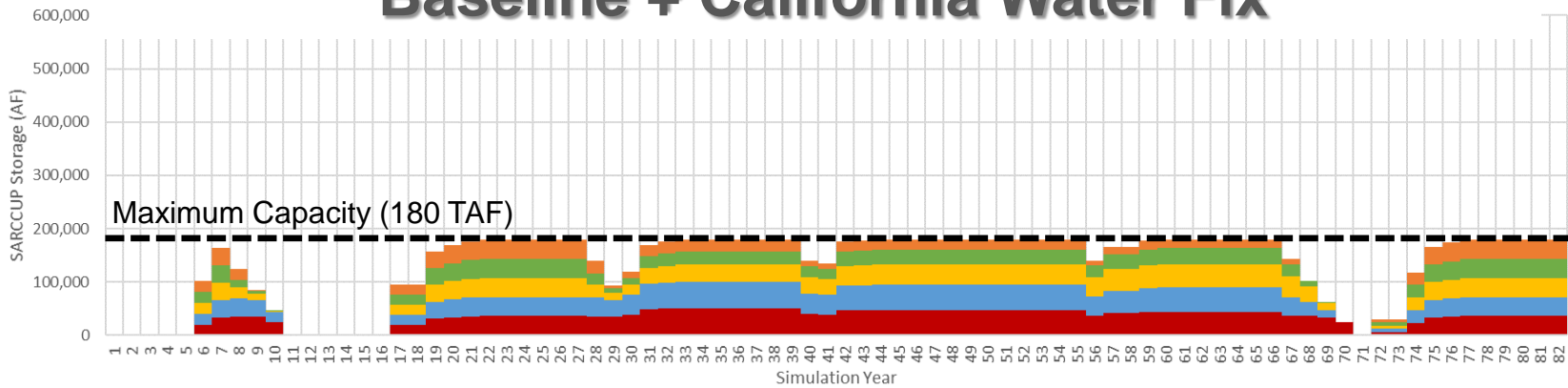
Santa Ana River Conservation and  
Conjunctive Use Program Optimization  
Using a Decision-Support Model Project

# Storage Benefits

## Baseline Scenario



## Baseline + California Water Fix



# Key Findings

- 1. Climate change has little impact on SARCCUP deliveries**
- 2. CA Water Fix reduces ultimate size of SARCCUP bank**
- 3. Optimum bank capacity appears to be around 300,000 AF**
- 4. SWP conveyance capacity could be main constraint**

# Current Tasks

- 1. Developing environmental documents**
- 2. SAWPA/Agency grant contracts**
- 3. Additional decision-support modelling**
  - \* Further Facility Refinement**