

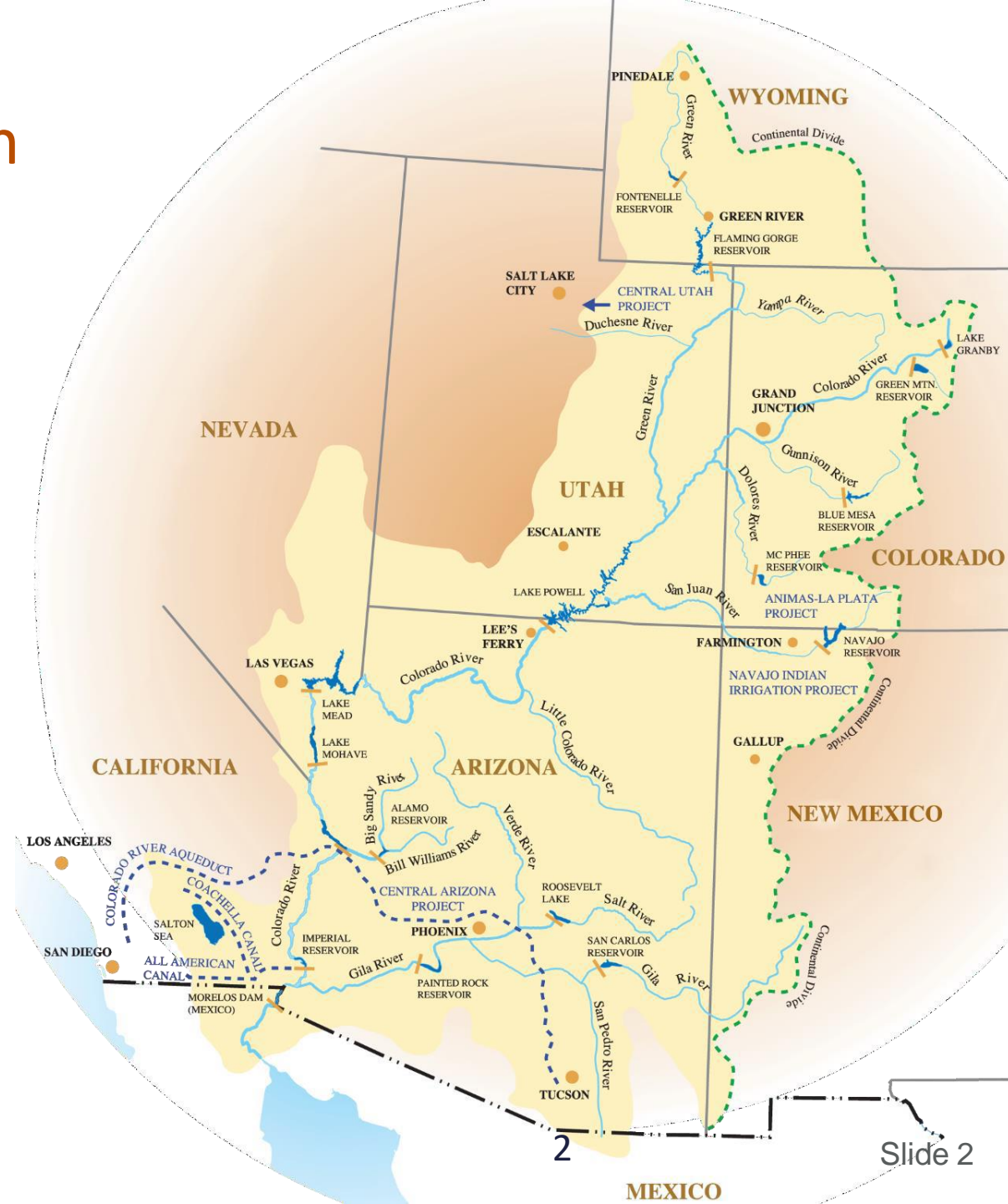
# Colorado River: Shortage Implications for Agriculture



**Bart Fisher, President  
Palo Verde Irrigation District**

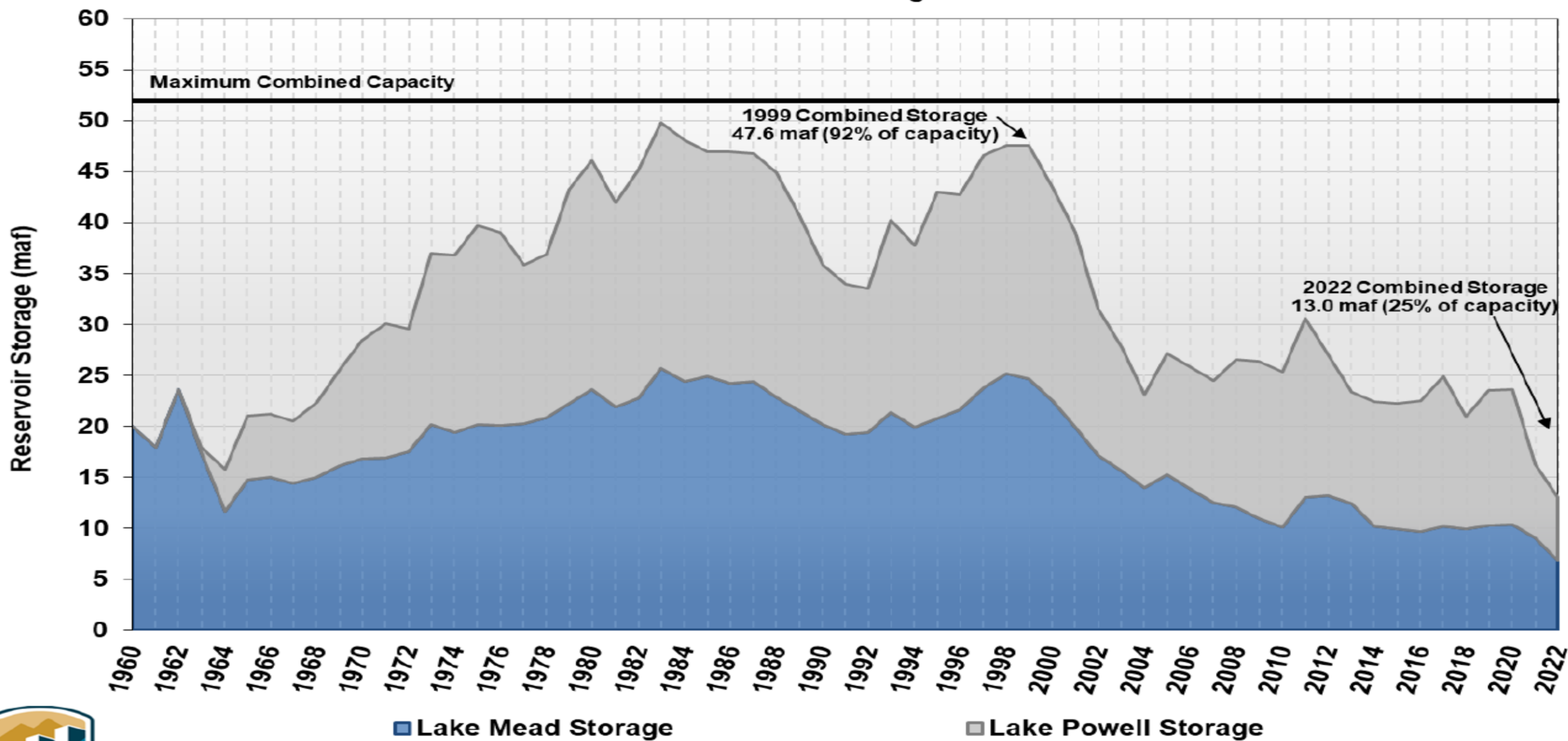
# The Colorado River Basin

- “Law of the River” guides management
- Apportionments to Upper Basin (CO, NM, UT, WY), Lower Basin (AZ, CA, NV), and Mexico
- The River supports:
  - 40 million people (50% in California)
  - 30 federally recognized Native American tribes
  - 5.5 million acres of irrigated agriculture
  - 4,200 megawatts of hydropower
  - 11 national parks & 4 national recreation areas



# Lake Powell and Lake Mead End of Water Year Storage

Water Years 1960 through 2022



\* Projected end of water year 2022 storage based on the May 2022 24-Month Study



# California Colorado River **Agriculture**

*Senior priority agricultural water rights collectively total up to 3,850,000 acre-feet*



**Palo Verde Irrigation District** – Unquantified water rights serving approximately 105,000 acres of forage, vegetable and fruit crops.

- Implements a large-scale MWD following program.



**Bard Water District** – Unquantified water rights serving about 7,100 acres of forage and vegetable crops.

- Implements a MWD seasonal following program.



**Coachella Valley Water District** – 330,000 AF of priority 3b water rights (plus 123,000 of transfer water) serving about 63,000 acres of dates, vegetables, fruits and grass crops.

- Implemented a Coachella Canal concrete lining project for SDCWA.



**Imperial Irrigation District** – 3,100,000 AF of priority 3a water rights serving about 472,000 acres of forage, vegetable and fruit crops.

- Implements the nation's largest ag-to-urban conservation program for MWD/SDCWA/CVWD.

# California's Management of its Colorado River Supplies

- Basic Apportionment of 4.4 MAF annually, including some of most senior water rights in the Basin
- 2003 Quantification Settlement Agreement (QSA)
  - Nation's largest ag-urban conservation and transfer program
  - Allowed California to permanently reduce water use by about 0.800 MAFY
- In 2019, CA voluntarily agreed to participate in Drought Contingency Plan to bolster storage in Lake Mead



# 2003 QSA Conservation Programs

Construction of capital improvement infrastructure projects that conserve water and increase operational flexibility and implementation of on-farm efficiency conservation programs that provide funding for verified conservation measures.

- Seepage recovery systems, lateral interties, operational reservoirs, canal concrete lining, automation, and technology improvements.
- \$500+ million in direct payments to growers/landowners to implement field-level irrigation improvements (tailwater return systems, drip irrigation, sprinklers, precision land-leveling, etc.)



# Palo Verde/MWD Rotational Land Fallowing Program



# ASPECTS OF THE PVID/MWD PROGRAM

**Voluntary Participation**

**Rotational Fallow**

**6,000 to 26,500 acres of Priority 1 lands  
fallowed every year District wide**

**7% minimum fallowing**

**28% District (35% individual landowner)  
maximum fallowing**

**Depends on participation level and MWD call**





# KEY ELEMENTS OF THE PVID/MWD PROGRAM

**Market-based business deal created by a negotiated outcome**

**Voluntary Participation**

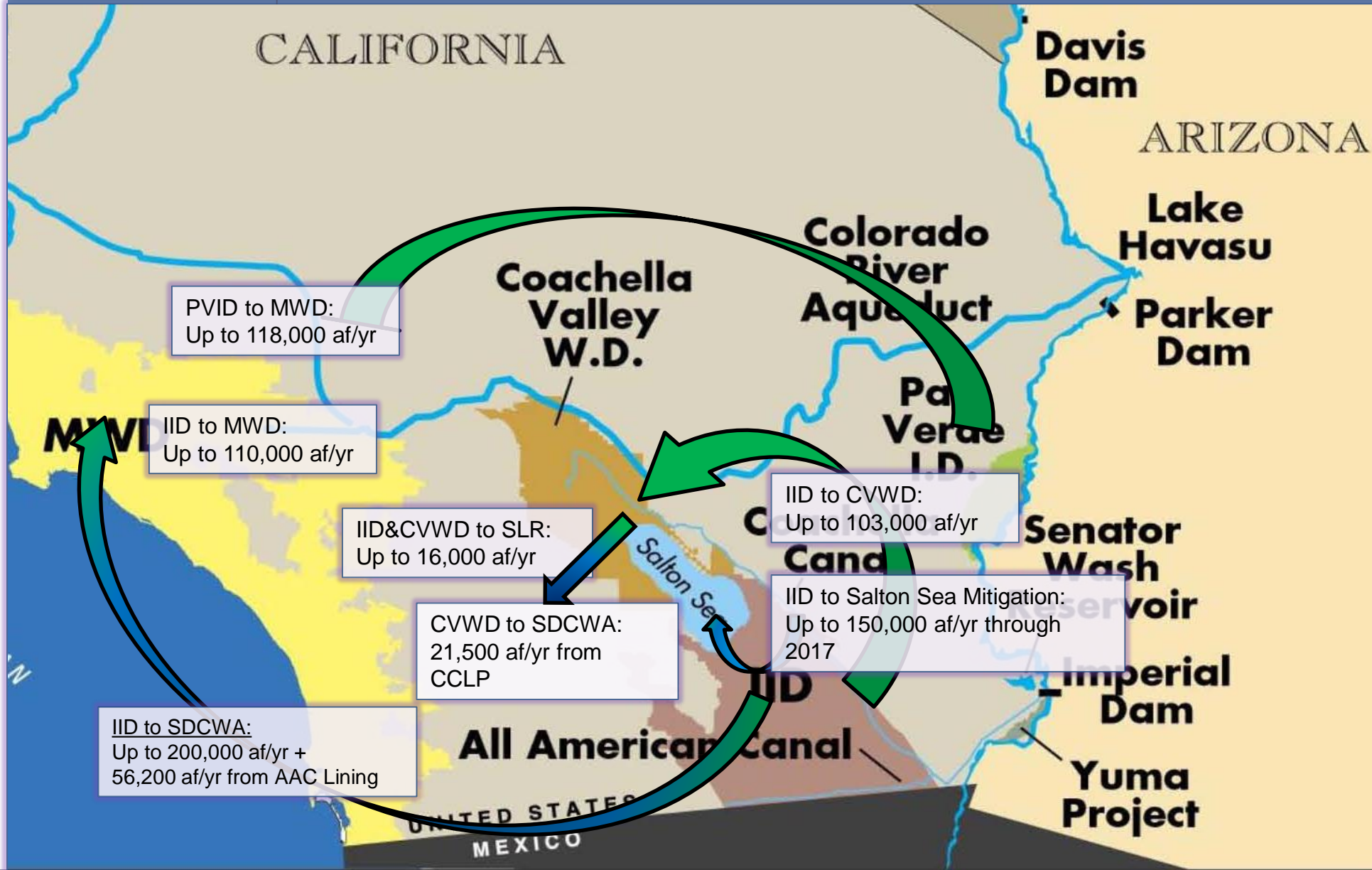
**No Water Right Transfer**

**3 Party Agreement-PVID, MWD, Landowner**

**Community Improvement Program**

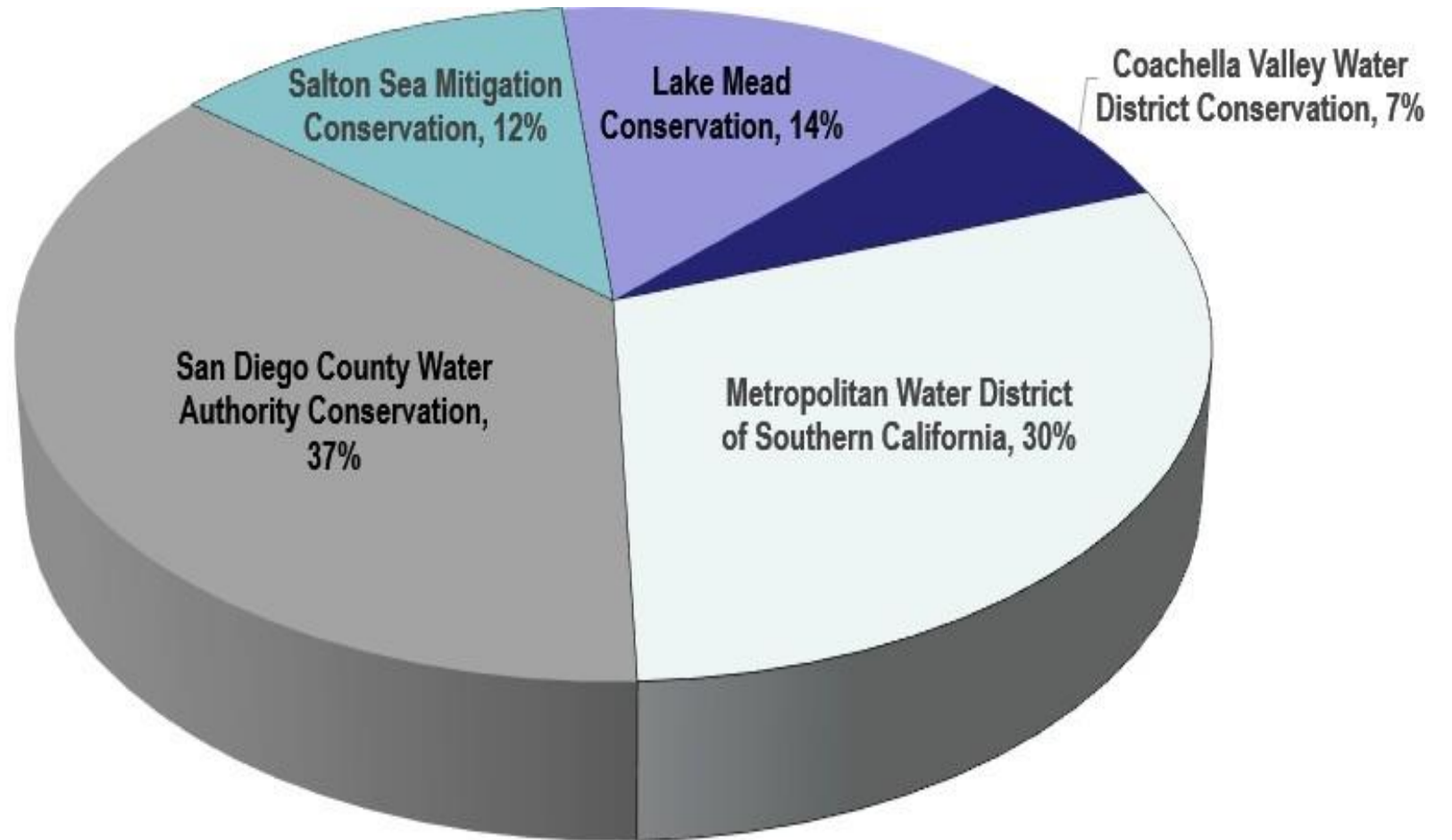


# INTRA-CALIFORNIA TRANSFERS



# IID's QSA Water Conservation & Transfer Summary

Conserved Volume from 2003-2022 Greater than 7.2 million acre-feet



\* 2022 conservation yield estimated