

# **Arizona Association of Women in Water and Agriculture (AAWWA)**

**Leslie James, CREDA  
May 24, 2022 – PERA Club, Tempe**



# HISTORY

1902 and 1939 Reclamation Acts

1956 Colorado River Storage Project (CRSP) Act

1977 DOE Organization Act (WAPA)

1978 CREDA

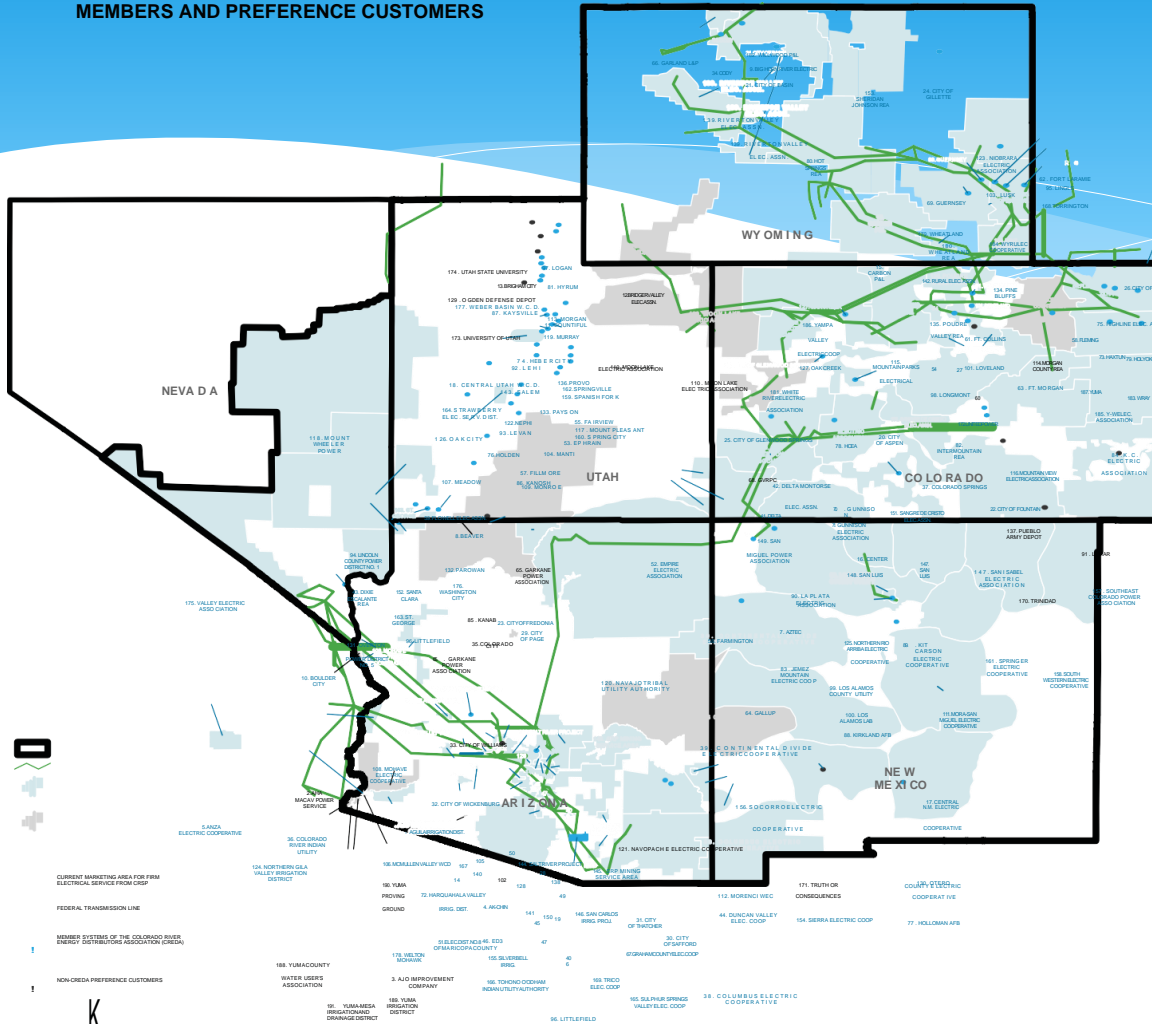


# CREDA's Mission

**“To preserve and enhance the **availability**, **affordability**, and **value** of Colorado River Storage Project (CRSP) facilities while promoting **responsible stewardship** of the Colorado River System.”**

# CREDA Members

COLORADO RIVER ENERGY DISTRIBUTORS ASSOCIATION  
MEMBERS AND PREFERENCE CUSTOMERS



NON-CREDA PREFERENCE CUSTOMERS

1	LOWLAND	107
2	LINE AIR FORCE	107
3	ADJ M PROVEN ENT COMPANY	107
4	WATER CONSERVATION DISTRICT	107
5	ANAL ELECTRIC COOP	107
6	ARIZONA VALLEY IRRIGATION & DRAINAGE DIST	107
7	ASTIC	107
8	BEAVER	107
9	BIG HORN RIVER ELECTRIC	107
10	BIG HORN RIVER ELECTRIC	107
11	BONNETTE	107
12	BROOKS VALLEY ELECTRIC ASSN	107
13	BROOKS VALLEY ELECTRIC COOP	107
14	BUCKEYE WATER CONC & DRN DIST	107
15	CA BROWL	107
16	CA BROWL	107
17	CENTRAL ILL. ELECTRIC COOP	107
18	CENTRAL ILL. ELECTRIC COOP	107
19	CHANDLER HEIGHTS CITY UTILITIES	107
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0 30 60 90 120 150 Miles

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DISCLAIMER: THE CONTENTS OF THIS MAP ARE DERIVED FROM A VARIETY OF SOURCES INCLUDING PAST CREDA MAPS MADE AT A VARIETY OF SCALES. K.R. BALINE & ASSOCIATES P.L.C. DOES NOT WARRANT THE ACCURACY OR LOCATION OF THE FACILITIES SHOWN.



# Who are CRSP Customers in Arizona?

- **Arizona Electric Power Coop**
- **ED 2, 3, 4, 5 Maricopa, 6, 7**
- **Ak-Chin Indian Community**
- **Chandler Heights ID**
- **Cocopah Indian Tribe**
- **Colorado River Agency (BIA)**
- **Colorado River Indian Tribes**
- **Fort Mojave Indian Tribe**
- **Fort McDowell Yavapai Nation**
- **Gila River Indian Community**
- **Havasupai Tribe**
- **Hualapai Tribe**
- **Luke Air Force Base**
- **Maricopa Co. Mun. Water Cons. District**
- **Navajo Tribal Utility Authority**
- **Ocotillo Irrigation District**

# Who are CRSP Customers in Arizona?

- [Pascua Yaqui Tribe](#)
- [Quechan Indian Tribe](#)
- [Queen Creek Irrigation District](#)
- [Roosevelt Irrigation District](#)
- [Roosevelt Water Conservation District](#)
- [Safford](#)
- [Salt River Pima-Maricopa Indian Community](#)
- [Salt River Project](#)
- [San Carlos Apache Tribe](#)
- [San Carlos IP \(BIA\)](#)
- [San Tan Irrigation District](#)
- [Thatcher](#)
- [Tohono O-Odham Utility Authority](#)
- [Tonto Apache Tribe](#)
- [Wellton-Mohawk Irrigation District](#)
- [Yavapai Apache Nation](#)
- [Yavapai Prescott Indian Tribe](#)

# Drought Update – Then



**1984 – Glen Canyon Dam**



# Current Conditions– Then and Now



**GCD 2011**

**GCD and Blue  
Mesa 2021**





# Current Conditions

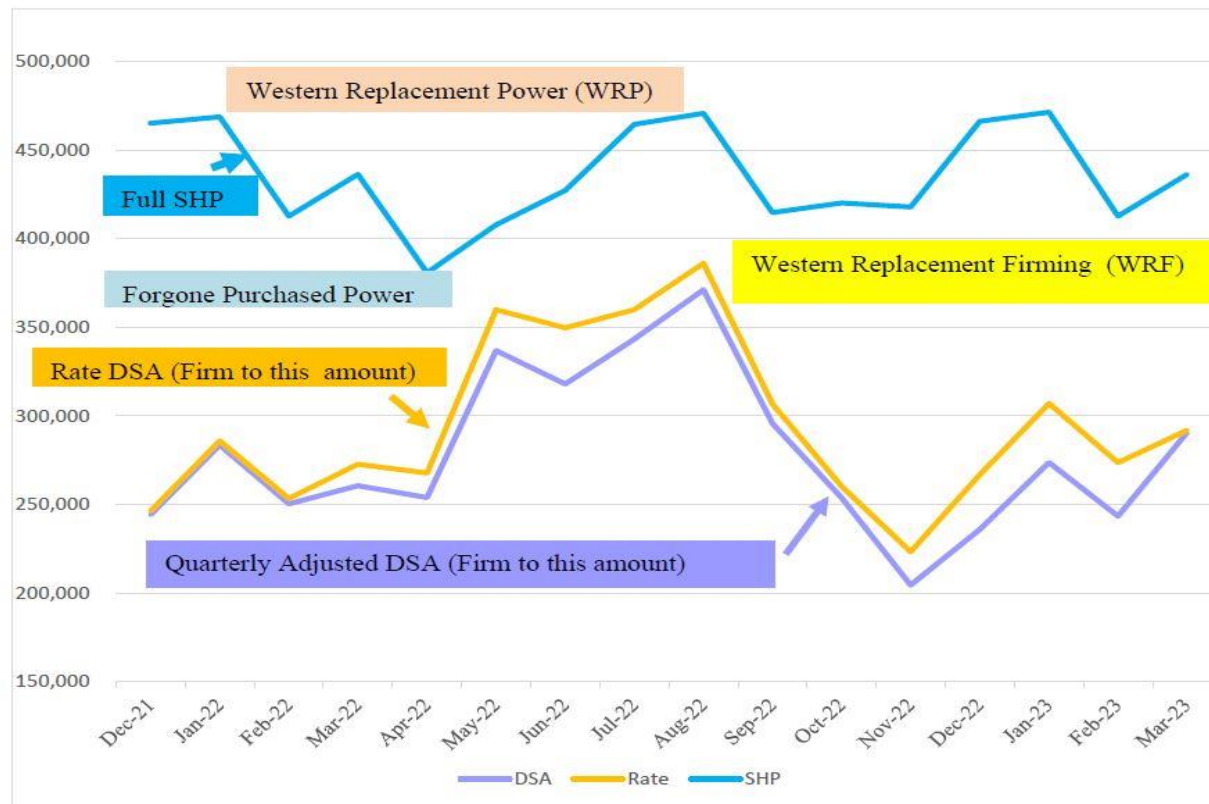


**2022 – Wahweap Marina**

# Impacts

## WAPA-199 Rate Case-- Less Energy/Higher Price/More Risk

Chart 1 – Deliverable Sales Amounts (DSA)  
Units - MWh



# Other Drought-Related *Impacts*

- \* Glen Canyon Dam provides black start capability to Palo Verde Nuclear Generating Station in an emergency
- \* Intermittent resources are expanding (but they are **STILL intermittent!**) and often need hydropower as backup
- \* Many CRSP customers are in some of the poorest communities in the Country.
- \* If carbon-free hydropower isn't available, a likely replacement is fossil-fuel
- \* Glen Canyon Dam capacity can and has been called on to stabilize the grid during emergencies (CAISO August and September 2020)
- \* **Summer 2022 experiments at CRSP facilities (water use/power bypass; low flows for bugs)**

# Ideas Begun in 2021 as *Solutions* and What Can Congress Do **NOW?**

- \* WAPA: Internal meetings discussing PPW, rates and contract challenges due to adverse conditions; use of Infrastructure \$500M ??
- \* CRSP Customers: 11%+ Rate Increase 12/1/2021
- \* WAPA and Reclamation: deferring O&M where prudent; structural improvements at Glen Canyon Dam??

## CREDA to Congress:

- \*During extreme drought conditions, please provide federal nonreimbursable appropriations to the Upper Colorado River Basin Fund to assist in funding CRSP OM&R activities (annual obligations).*
- \*Please provide funding to investigate supplemental resources to backstop CRSP and the Grid*
- \* **SUPPORT S. 4232**

**THANK CONGRESS FOR PROVIDING \$21.4M TO RECLAMATION FOR ENVIRONMENTAL PROGRAMS!!**



# Solutions?

## \* EDUCATION

- \* *Members, Congress*
- \* *APPA Resolution*

## \* COLLABORATION

- \* *Members, Agencies,*
- \* *States - MOA*

## \* MITIGATION

- \* *Rates, Contracts, Facilities/Ops, Federal Role, Markets (?)*
- \* *Supplemental Resources(?)*
- \* *Litigation*



THINK  
ABOUT  
THINGS  
DIFFERENTLY



**Thank you!**

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