



YOUR WATER. YOUR FUTURE.

Anthem Community Council Town Hall Meeting

**Heather Macre
CAWCD Board of Directors
July 10, 2020**

Central Arizona Project

336-mile aqueduct stretches from Lake Havasu to Tucson

14 pumping plants lift water nearly 3,000 feet

10 siphons, 3 tunnels

Lake Pleasant/New Waddell Dam & Pump Generating Station

Delivers more than 500 billion gallons of water annually

Delivery began in 1985 in Maricopa County

Construction complete in 1993



[Watch CAP 101](#)



CAP Service Area

3 counties

23,790 square miles

< 8" annual rainfall

5 million people
(approx. 80% of Arizona's population)

350,000 acres of irrigated
agriculture

11 Native American tribes



Who Gets CAP Water?

Municipal & Industrial 33%



Agriculture 26%



Native American Communities 35%



Recharge 6%



Colorado River Basin

- Upper Basin States: Colorado, New Mexico, Utah, and Wyoming
- Lower Basin States: Arizona, California, and Nevada
- 7.5 million acre-feet (MAF) annual allocation of Colorado River water for the Upper Basin, 7.5 MAF for the Lower Basin and 1.5 MAF for Mexico
- Lower Basin allocations:
 - AZ (2.8 MAF)
 - CA (4.4 MAF)
 - NV (0.3 MAF)



Lower Basin Water Allocation

Lower Basin (AZ, CA, NV + Mex.)	9.6 MAF
Lake Mead evaporation losses	<u>0.6 MAF</u>
Average Inflow	9.0 MAF
Structural Deficit	<u>1.2 MAF</u>



Given basic apportionments in the Lower Basin, the allotment in Mexico, and an 8.23 MAF from Lake Powell, Lake Mead declines about 12 feet each year.

Colorado River Shortage

- Shortage is a reduction of Colorado River water, determined by the water elevation of Lake Mead, as defined in the Drought Contingency Plan and Law of the River.
- Shortage is declared in August by the Secretary of the Department of Interior based on projected January lake levels and takes force in January for the new year.
- In January 2020, the Colorado River Basin began in Tier Zero shortage.

Colorado River Basin Adaptation Strategies

Storage and Recovery

- 3.4 MAF underground storage in partnership with AWBA

Augmentation

- Weather modification projects in the Upper Basin
- Local and binational desalination

Lower Basin Pilot Drought Response Actions MOU

- Interstate plan to leave 740 KAF in Mead through 2017
- CAP's share is 345 KAF – completed in 2016

Innovative Conservation (“Pilot System Conservation”)

- Interstate funding to conserve >75 KAF in the River
- Conservation research grant program

Lower Basin Drought Contingency Plan (“DCP”)

- State legislation signed by Governor January 31
- Federal legislation passed April 8
- Final DCP document signing May 20

Drought Contingency Plan

- DCP is a set of agreements designed to protect the Colorado River system through voluntary reductions and increased conservation.
- The risks of Lake Mead falling below critically low reservoir elevations tripled in the past decade, increasing the risks of large scale reductions to Arizona's Colorado River supply and threatening the health of the river for all users.



Reconsultation Process: 3 Levels

Anticipate that the Reconsultation of the 2007 Guidelines process will operate at multiple levels:

1. Reclamation-led level: similar to the 2007 Guidelines NEPA process (multiple tracks and engagement)
2. Basin States level: with the goal to develop a Basin States alternative
3. Arizona level: similar to the Arizona LBDCP Steering Committee process to:
 - Frame Arizona's position in the Basin States and Reclamation processes
 - Build support for and develop a framework to implement the new operating rules within Arizona
 - Facilitate broad representation including Arizona tribes and NGOs

Arizona Reconsultation Committee (ARC)

- Continuation of the Arizona DCP Steering Committee – reconvening and renaming that committee as the Arizona Reconsultation Committee (ARC)

ARC Goals:

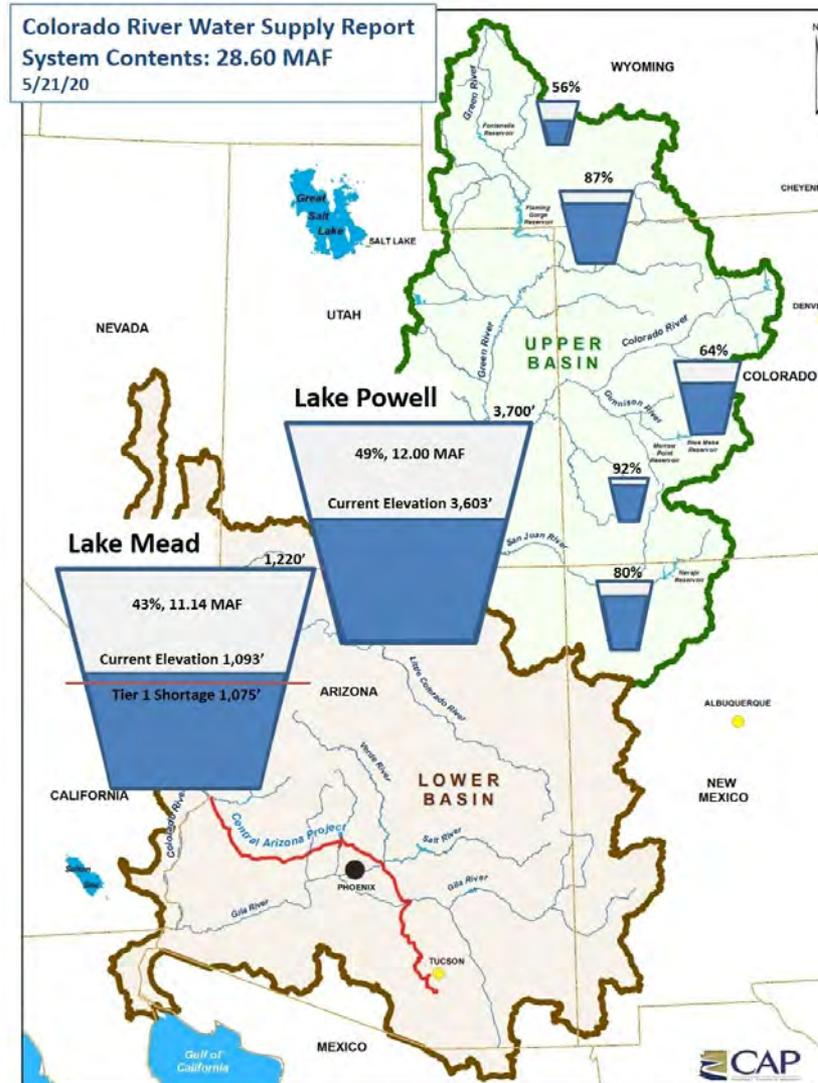
- Establish a process for continued engagement within Arizona throughout the Reconsultation process
- Provide a venue for developing and sharing stakeholder perspectives and values to guide Arizona's perspectives in the Reconsultation process
- Identify risks and benefits to inform Arizona's input to the Reconsultation process
- Continue the transparency that was established during the successful DCP Steering Committee effort



**ARIZONA
RECONSULTATION
COMMITTEE**

Colorado River Water Supply Report

Lake Mead
Elevation
1,093'



Lake Powell
Elevation
3,603'

What is the CAGRD

- Created by the Legislature in 1993 as a special function of CAWCD.
- Arizona law requires CAGRD to replenish excess groundwater pumped by its members in the Central Arizona Active Management Areas (Phoenix, Pinal County, and Tucson).
- CAGRD provides its members a mechanism to demonstrate compliance with the management goal under the ADWR's Assured Water Supply Rules.

Understanding the Central Arizona Groundwater Replenishment District

The Central Arizona Groundwater Replenishment District ("CAGRD") was established by the Arizona Legislature in 1993 to provide a way for certain landowners and water providers to demonstrate a 100-year Assured Water Supply ("AWS") as required under Arizona law. CAGRD recharges the aquifer with renewable water supplies to make groundwater use by its members consistent with the State's AWS Rules.

If a landowner or water provider does not have direct access to sufficient Central Arizona Project (CAP) water or other renewable supplies but does have access to sufficient groundwater, it may demonstrate a 100-year Assured Water Supply by becoming a member of CAGRD. As a member, the landowner or water provider must pay CAGRD to replenish any groundwater use that exceeds the limitations (referred to as "Excess Groundwater") imposed by the AWS Rules.

CAGRD is operated by the Central Arizona Water Conservation District ("CAWCD") and is governed by CAWCD's popularly-elected Board



of Directors. However, CAGRD's finances are completely separate from the rest of CAWCD's finances. All costs incurred by CAGRD in fulfilling its replenishment functions must be paid solely by CAGRD members through a combination of fees, dues, and assessments.

WHO ARE THE MEMBERS OF CAGRD?

Any city, town, water company, subdivision or homeowner's association located in the Phoenix, Pinal or Tucson Active Management Area with access to a 100-year physical supply of groundwater may voluntarily join CAGRD so long as it meets the State's requirements.

THERE ARE TWO TYPES OF CAGRD MEMBERS:

1 Member Service Areas (MSAs): The service area of a city, town or private water company. Water providers who become Member Service Areas pay a replenishment assessment directly to CAGRD according to the amount of excess groundwater they deliver within their service areas during a year.

• There are 24 CAGRD Member Service Areas – nine in the Phoenix AMA, four in the Pinal AMA and 11 in the Tucson AMA. Nearly 1 million Arizonans live in these service areas.

2 Member Lands (MLs): An individual subdivision or development. For Member Lands, an annual replenishment assessment is collected by the county treasurer from each individual parcel of land based on the amount of excess groundwater delivered to that parcel by its water provider.

• There are over 1,100 CAGRD Member Land subdivisions served by over 60 water providers. These ML subdivisions represent over 250,000 homes.

CAGRD's Relationship to CAP

CAGRD is not a separate entity

- CAGRD is a special function of CAP funded solely by its members

CAGRD and CAP both serve the same three-county service area – Maricopa, Pima and Pinal

CAGRD members pay CAP's 10-cent and 4-cent property taxes and fees set each year by the CAWCD Board through an open process

CAGRD members are a subset of CAP's constituents



CAGRD's Role in Water Management

Arizona law requires new development in Active Management Areas to demonstrate a 100-year assured water supply

- Entities that lack access to renewable water supplies, but have reliable access to groundwater, may join CAGRD
- CAGRD membership makes groundwater use consistent with Arizona water management goals
- CAGRD members pay CAGRD to replenish the aquifer and offset their excess groundwater pumping
- CAGRD cannot turn away applicants that meet membership criteria



CAP and the Economy



ECONOMIC IMPACT OF COLORADO RIVER
WATER DELIVERED BY CAP TO ARIZONA

\$2
TRILLION

The Colorado River water **CENTRAL ARIZONA PROJECT (CAP)** delivers has supported Arizona's gross state product (GSP) with \$2 trillion in economic benefits since water deliveries began. The GSP represents the dollar value of all goods and services produced in the region and is a measurement of the economic output of a state. This economic impact supports 22 sectors of the Arizona economy related to gross state product and job-years of employment.

CAP and the Economy

IN RECENT YEARS

Colorado River water delivered by CAP has supported an economic benefit exceeding

\$100 BILLION PER YEAR



ARIZONA'S GROSS STATE PRODUCT



CAP's supply of water to its customers in **2017** is estimated at annual employment of nearly **1.6 MILLION JOBS.**

THE TOP FIVE SECTORS estimated to be impacted the most in terms of contribution to GSP since water deliveries began are:



GOVERNMENT
\$335.2 billion



HEALTHCARE
\$302.1 billion



REAL ESTATE & TRAVEL
\$286.6 billion



RETAIL
\$187.9 billion



CONSTRUCTION
\$187.0 billion

KNOW YOUR WATER

Questions?

CentralArizonaProject.com ~ CAGRd.com

