

WRRC Annual Conference - Drawing the Water Map

# Arizona Water Management



*Clint Chandler*

*Deputy Director*

*Arizona Department of Water Resources*

*June 18, 2020*



*Arizona's Water Success*

**If there's one thing  
Arizona is the best in the  
nation at – it's water.**

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GOVERNOR DOUG DUCEY  
THE STATE OF THE STATE ADDRESS (1.11.16)

# Arizona's Water Resource Challenges

## Driving Forces

- Arizona has had a drought declaration in place since 1996
- Population & economic growth will increase demand for water

## Short-term Challenges

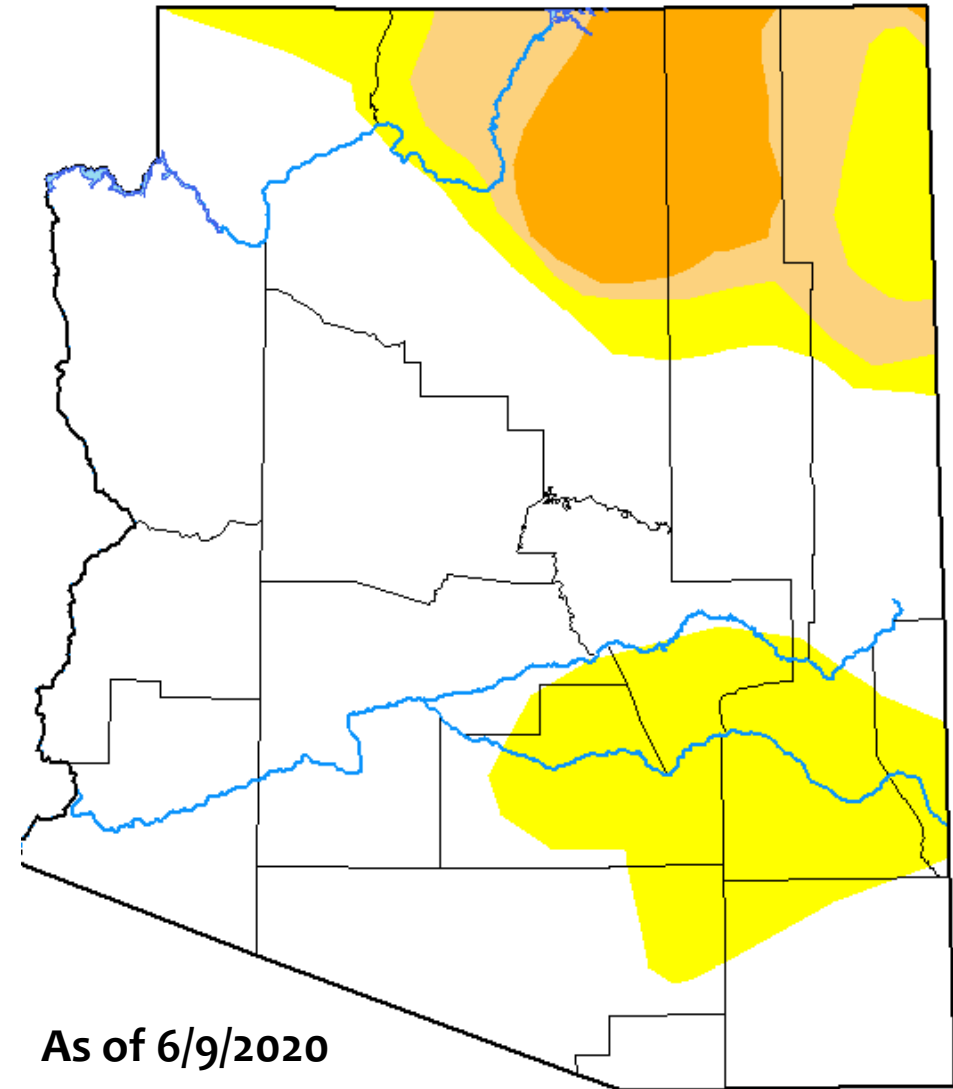
- Risks to Colorado River Supply
  - Shortage on the Colorado River System is likely at some point
  - Recurring Lower Basin Annual Deficit

## Medium-term Challenges

- Water resources in rural areas of the state are more stressed
  - Primary water source is groundwater
  - Lack of groundwater regulation
  - Lack of groundwater data
  - Rural areas lack the resources to address their issues

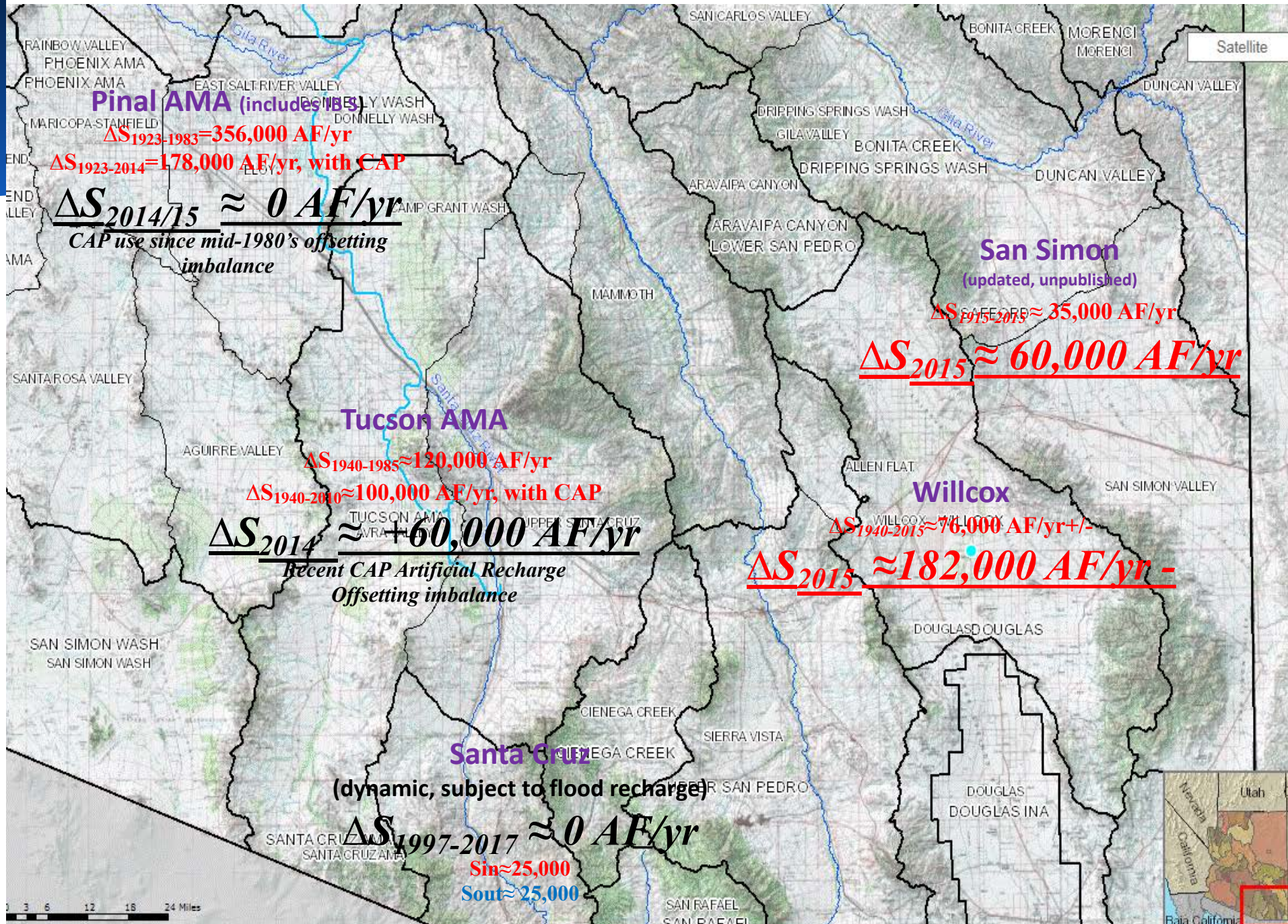
## Long-term Challenges

- Growing statewide imbalance between existing water supplies and demand projected in the next 25 years and 50 years





# DRAFT Transient Annualized $\Delta S$ Rates, ADWR Models





# Rural Arizona Groundwater Challenges

## La Paz County

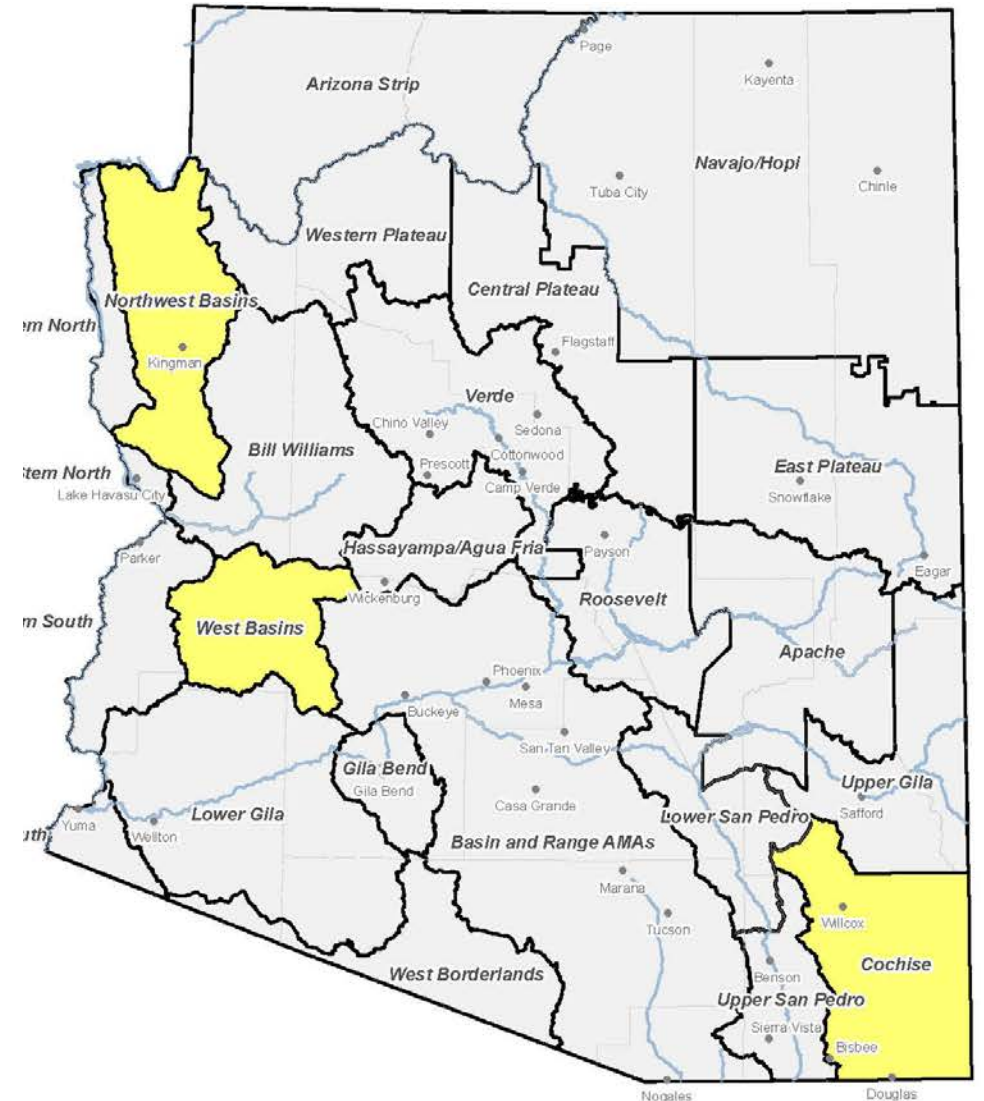
Water levels at numerous wells throughout the Ranegras Plain Basin have been identified as having a downward trend. Between 2015-2019, the average water level change at an index well was **-1.9 feet**

## Mohave County

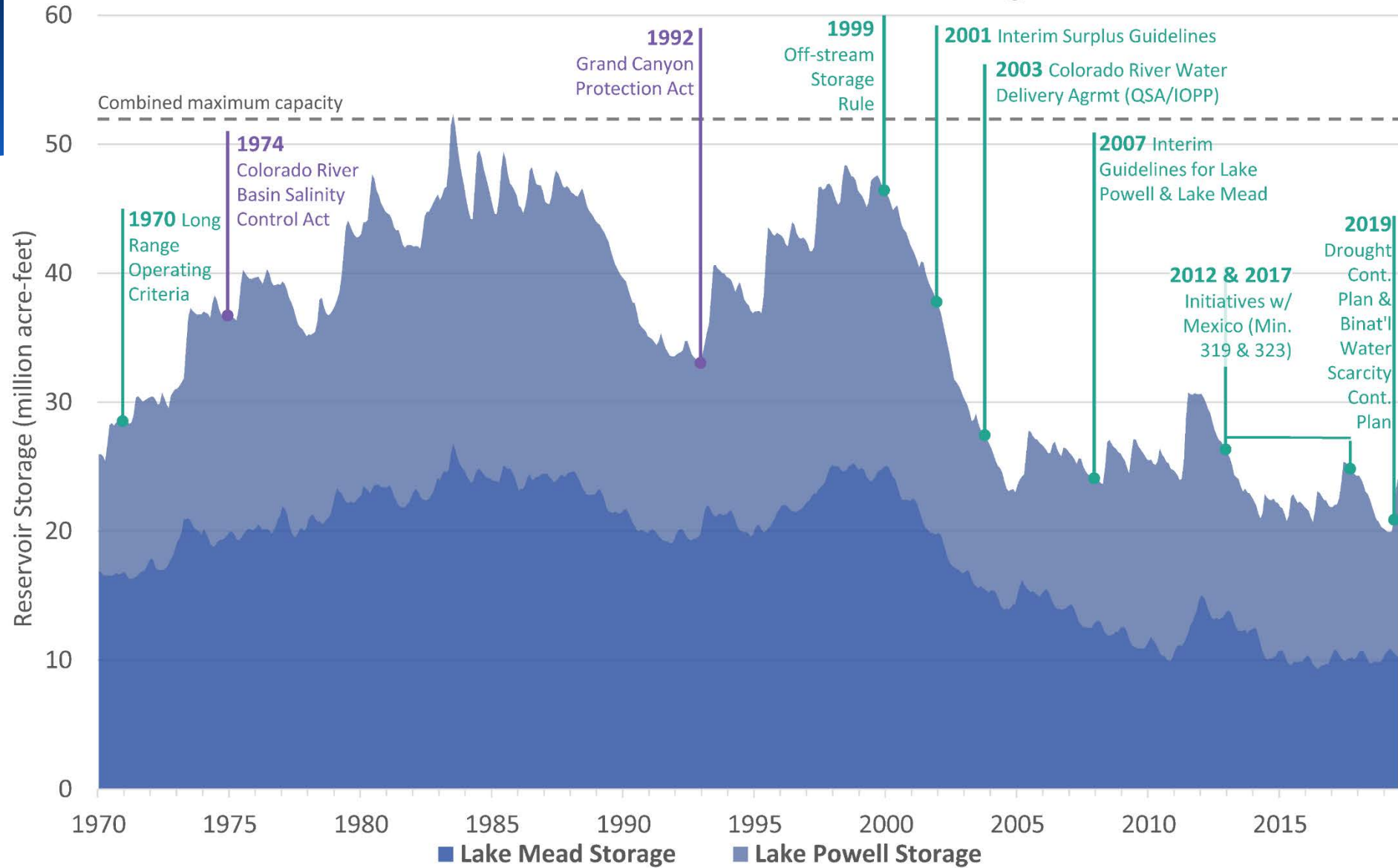
Water levels at numerous wells throughout the Hualapai Basin have been identified as having a downward trend. Between 2015-2019, the average water level change at an index well was **-5.4 feet**

## Cochise County

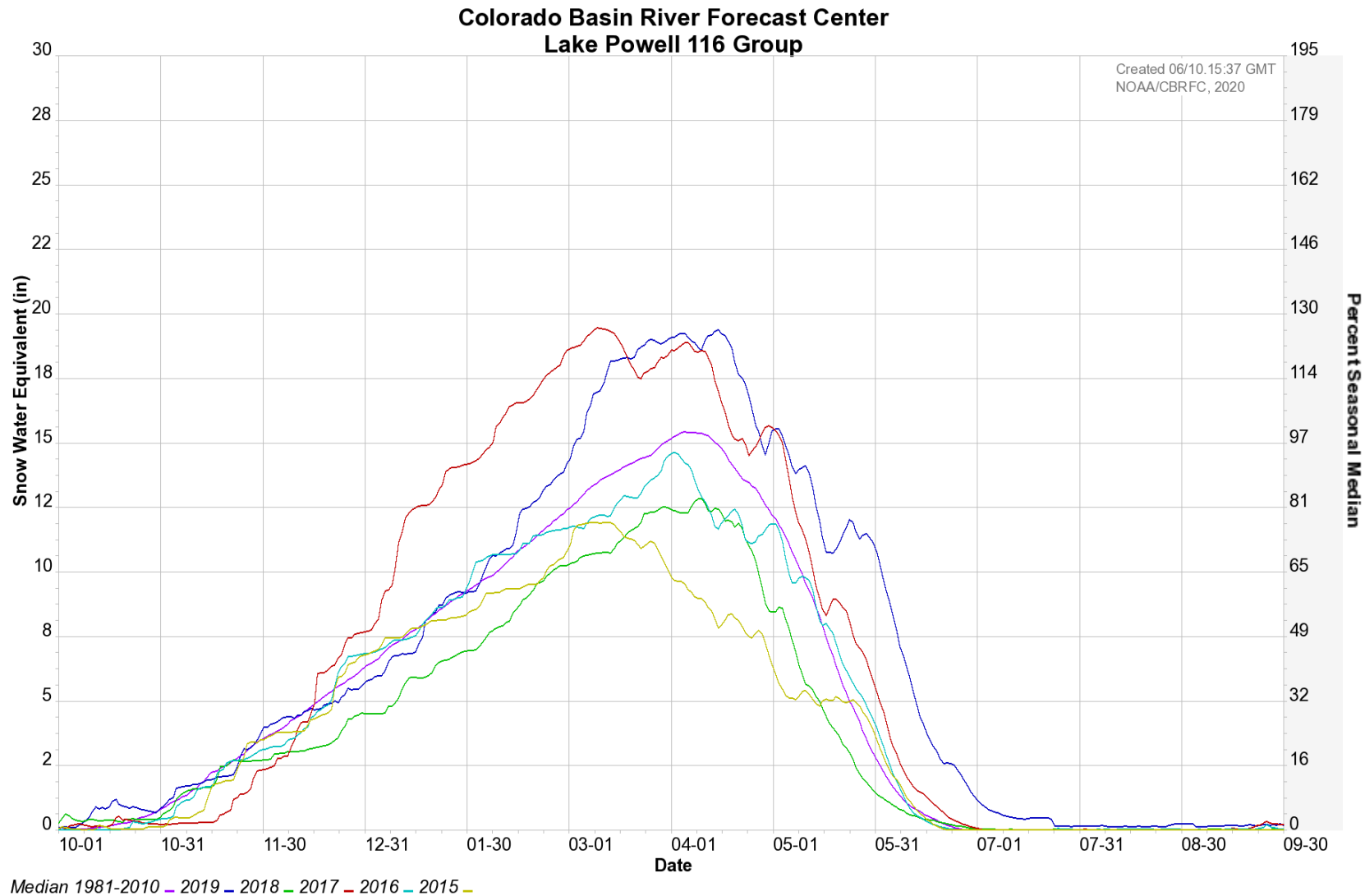
Water levels at numerous wells throughout the Wilcox Basin have been identified as having a downward trend. Between 2015-2019, the average water level change at an index well was **-15.9 feet**



# Lake Powell and Lake Mead Combined Storage



# Inconsistent Hydrology



GOVERNOR DOUGLAS A. DUCEY  
STATE OF ARIZONA  
EXECUTIVE ORDER

Executive Order 2019-02

Relating to the Creation of the Governor's Water Augmentation, Innovation, and Conservation Council (Supersedes and Rescinds Executive Order 2015-13)

Whereas, in January of 2014, the Arizona Department of Water Resources released "Arizona's Next Century: A Strategic Vision for Water Supply Sustainability" (Strategic Vision) that identified key priorities, timelines and action items to maintain sustainable water supplies for Arizona into its next century;

Whereas, the Strategic Vision divided the state into twenty-two planning areas and analyzed the water demands and supplies for each and identified strategies for meeting water demands into the future;

Whereas, Arizona Governor Janice K. Brewer established the Governor's Council on Water Supply Sustainability on November 4, 2014 that published an Initial Report on December 31, 2014;

Whereas, the Initial Report recommended that working groups be formed to develop, evaluate and prioritize recommendations and potential partnerships regarding water supply augmentation and water supply infrastructure needs;

Whereas, on October 5, 2015, I, Governor Douglas A. Ducey announced a Water Initiative to implement the Strategic Vision and address the recommendations of the Initial Report through two tracks to insure the certainty of Arizona's water supply into the future.

Whereas, sustainable water supplies are essential to the economic vitality and quality of life for Arizona and its citizens;

Whereas, the proactive measures taken by the State of Arizona have resulted in a current state of resiliency with respect to its water supplies;

Whereas, it is important for the work of the Governor's Water Initiative to be continued and expanded upon through the creation of a new Council with a long-term focus on water augmentation, innovation, and conservation; and

Whereas, given the importance of sustainable water supplies to Arizona and policy decisions that must be made, members of the Arizona Legislature should serve on the Council in addition to individuals appointed by the Governor.

NOW, THEREFORE, I, Douglas A. Ducey, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and laws of the State of Arizona, hereby order as follows:

1. The Governor's Water Augmentation Council is hereby dissolved and the Governor's Water Augmentation, Innovation, and Conservation Council (Council) shall be created to analyze and

recommend opportunities for water augmentation, innovation, and conservation.

2. The Council shall continue the work of the Governor's Water Initiative to investigate long-term water augmentation strategies for the state. In addition, the Council shall investigate strategies for water innovation and conservation.

3. The Council shall assess the long-term impacts of conservation projects funded with monies from the augmentation and conservation assistance fund established pursuant to A.R.S. § 45-615(1) and report on those impacts in its annual report required under paragraph 11 of this Executive Order.

4. The Council shall meet quarterly.

5. The Council shall consist of the Speaker of the House of Representatives, the President of the Senate, House Minority Leader and Senate Minority Leader or their legislative designees. The Council shall additionally consist of individuals appointed by the Governor who shall serve at the pleasure of the Governor. Organizations currently represented on the Governor's Water Augmentation Council shall continue to serve on the Council, and members representing those organizations may continue to serve without the need for new appointment.

6. The director of the Arizona Department of Water Resources shall serve as the Chair of the Council.

7. The Arizona Department of Water Resources shall provide staffing and technical support to the Council.

8. The Council shall consider the need to create additional working groups and, if formed, Council members shall serve on working groups that may also include non-Council members.

9. The Council shall consider a communication plan for the State to accurately convey the status of its water supply resiliency and its efforts to maintain that status moving forward.

10. The Council shall prepare an annual report and submit it to the Speaker of the House of Representatives, the President of the Senate, House Minority Leader and Senate Minority Leader and the Governor by July 1, 2020 and by July 1 every year thereafter.

11. The annual report shall describe the activities and the recommendations of the Council.

12. Executive Order 2015-13 is hereby superseded by this Order and Executive Order 2015-13 is rescinded.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona.

*Douglas A. Ducey*

GOVERNOR

DONE at the Capitol in Phoenix on this 31st day of January in the year Two Thousand and Nineteen and of the Independence of the United States of America the Two Hundred and Forty-Third.

ATTEST:

*[Signature]*  
Secretary of State



# Governor's Water Augmentation, Innovation & Conservation Council

Created by Executive Order on January 31, day of DCP signing

- Dissolves the Governor's Water Augmentation Council (GWAC) and replaces with the Governor's Water Augmentation, Innovation and Conservation Council (GWAICC)
- Investigates long-term augmentation to benefit Arizona, and strategies for conservation and innovation in pursuit of more sustainable water supplies
- Meets quarterly and has formed working groups. Inaugural meeting, March 8, 2019



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# Governor's Water Augmentation, Innovation & Conservation Council

Created by Executive Order on January 31, day of DCP signing

- Chaired by Director of ADWR
- Includes previous members of the GWAC, plus Speaker of the House, President of the Senate and House and Senate Minority Leaders, or their legislative designees, plus others as appointed by the Governor
- Shall consider a communication plan for Arizona to accurately convey Arizona's water resiliency and efforts to maintain resiliency going forward

# Governor's Water Augmentation, Innovation & Conservation Council Committees

## **Non-AMA Groundwater Committee**

- Working to achieve a baseline understanding of Arizona groundwater outside the AMAs.
- Working to identify and discuss potential options, including Best Management Practices, to address groundwater challenges in those areas.

## **Post 2025 AMA Committee**

- Focused on identifying water management challenges facing the AMAs and generating strategic solutions for 2025 and beyond.



# Governor's Water Augmentation, Innovation & Conservation Council Committees

## Desalination Committee

- Working to evaluate and overcome barriers to desalination projects.

## Long-term Water Augmentation Committee

- Long-Term Water Augmentation Opportunities for Arizona report was released August 2019.
- It identifies potential opportunities to augment the State's water supplies.
- It will continue to consider and potentially develop additional options for augmentation.



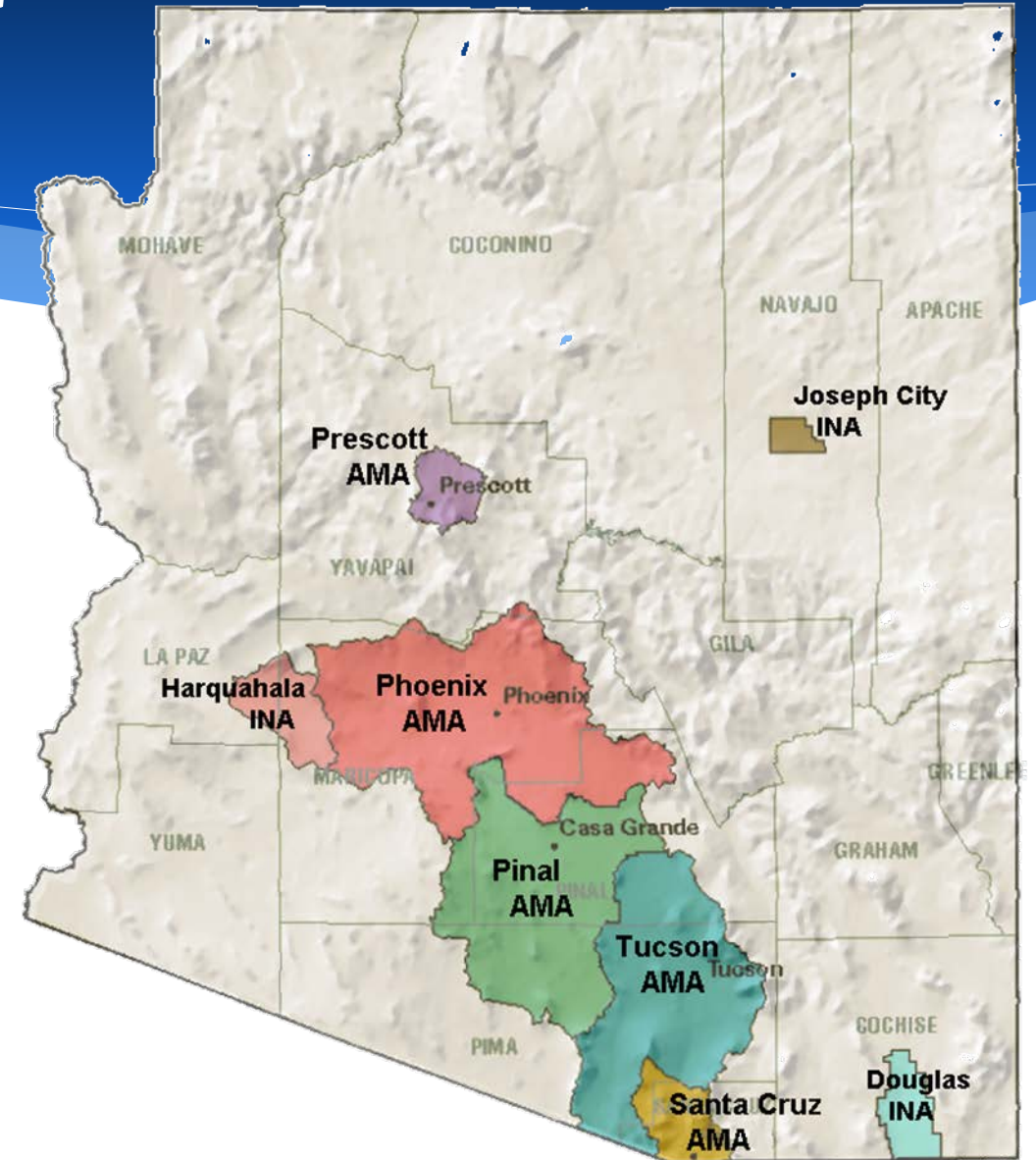
# Groundwater Management Active Management Areas

## Active Management Areas (AMAs)

- *Phoenix*
- *Pinal*
- *Prescott*
- *Santa Cruz*
- *Tucson*

## Irrigation Non-Expansion Areas (INAs)

- *Joseph City INA*
- *Harquahala INA*
- *Douglas INA*





# Regulatory Structure

- Registration of all wells
- Adequate Water Supply
- Community Water Systems Documentation

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- Expansion of irrigated acres is prohibited
- Monitoring and Reporting

+

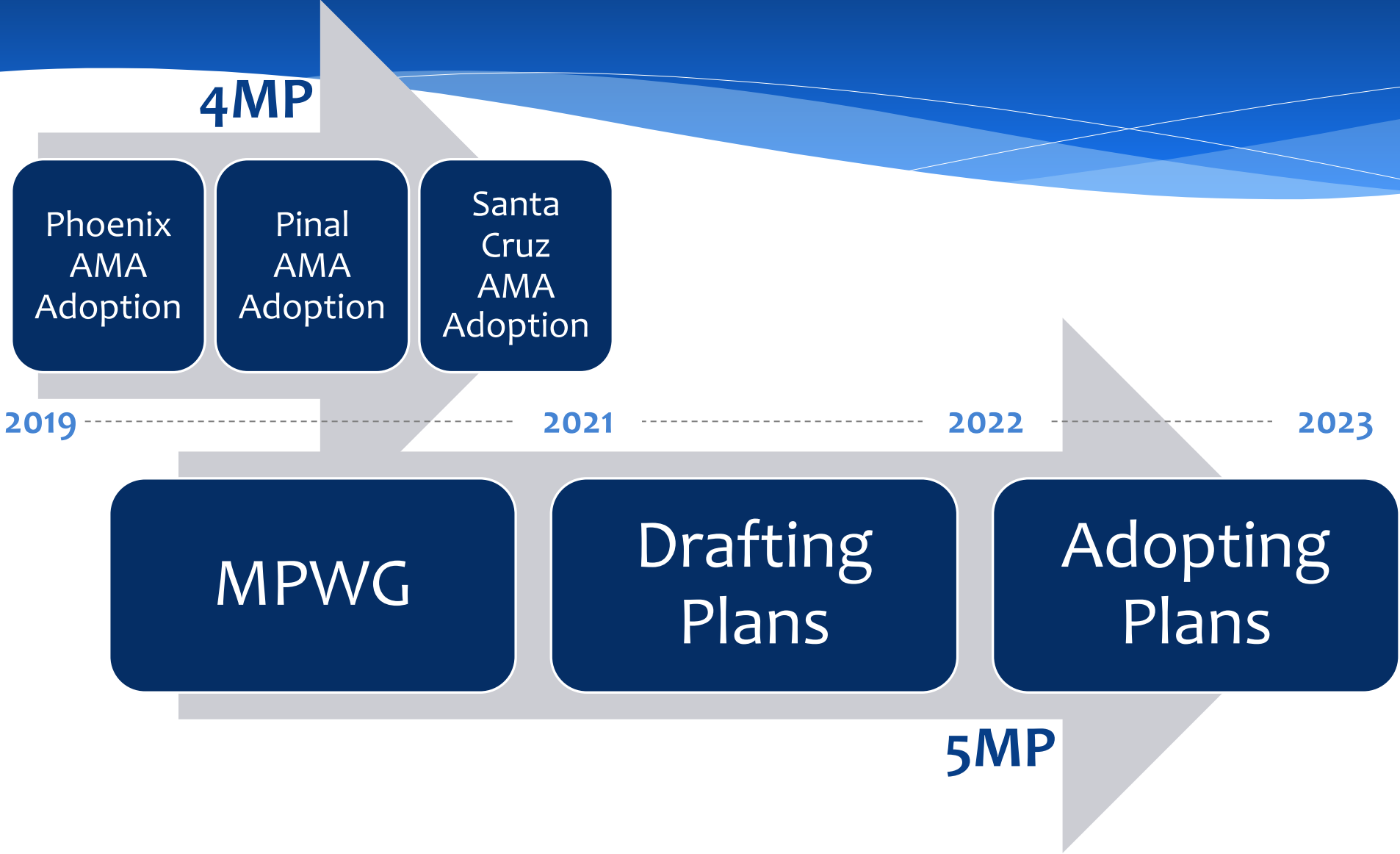
- Assured Water Supply
- Management Goals, Plans, & Conservation Programs
- Withdrawal Fees

**Statewide**

**INA**

**AMA**

# Timeline





# Estimated 4MP Adoption Timeline



## Phoenix AMA

- **Final Adoption: Summer 2020**
- **Programs Effective: January 2023**

## Pinal AMA

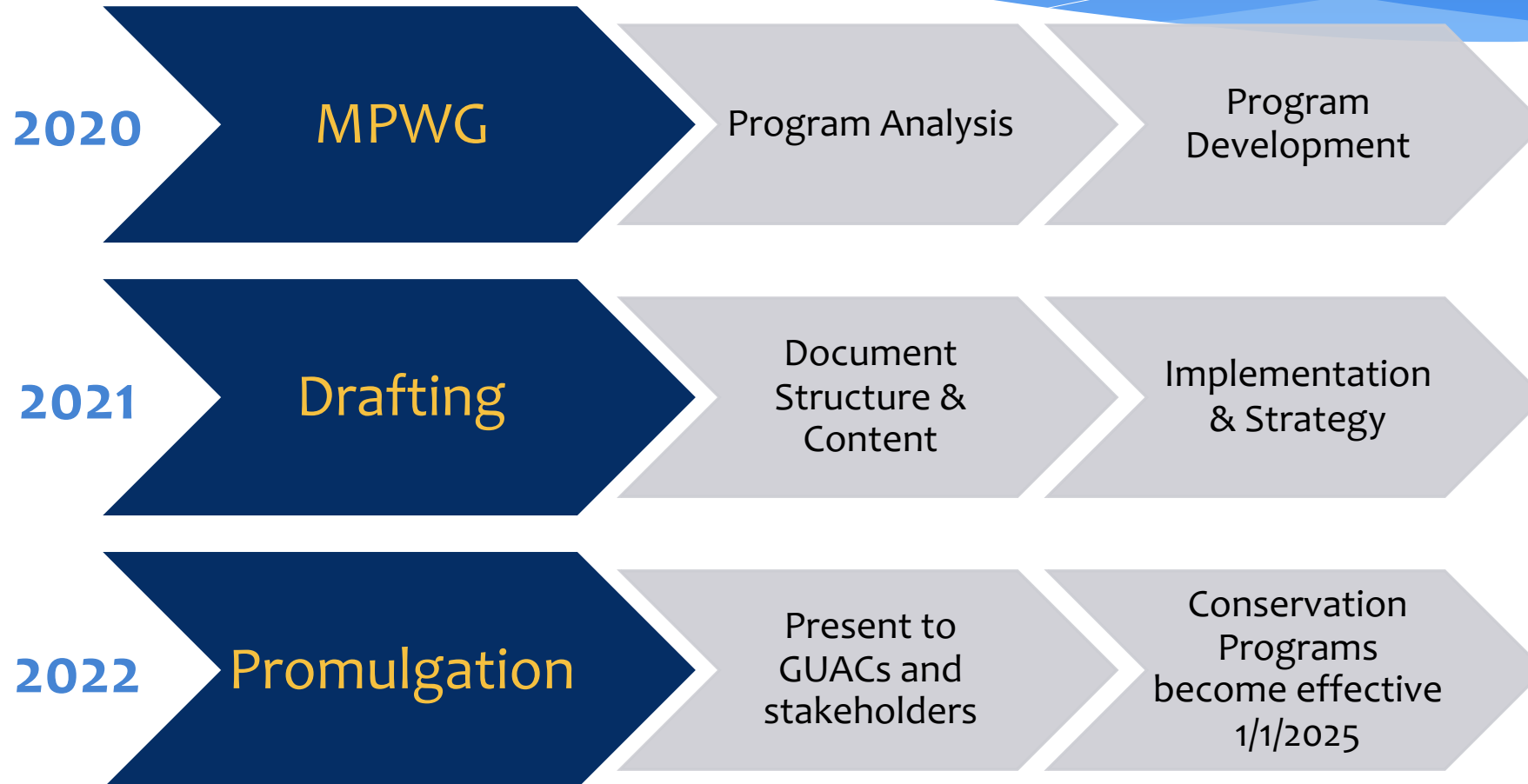
- **Final Adoption: Fall 2020**
- **Programs Effective: January 2023**

## Santa Cruz AMA

- **Final Adoption: Winter 2020**
- **Programs Effective: January 2023**

*Conservation Program Requirements go into effect at least 2 years after a plan is adopted. ADWR shifts the actual effective date past the 2-year mark to line up with Reporting Years.*

# Estimated 5MP Timeline





# Pinal Stakeholders Water Committee

- The stakeholder group is chaired by Pinal County Supervisor Stephen Miller.
- Bill Garfield of Arizona Water Company and Jake Lenderking of Global Water serve as co-vice chairs.
- Six meetings have been held:
  - December 9, 2019
  - January 6, 2020
  - February 3, 2020
  - February 10, 2020
  - March 2, 2020
  - June 1, 2020
- In support of this effort, the Department will continue providing technical support and input when requested.
- When evaluating proposals from the task force, the State's assessment will uphold Governor Ducey's commitment to consumer protection and water sustainability objectives of the Assured Water Supply Program

*Arizona's Water Future*

**The Drought Contingency Plan is the most significant water legislation passed in nearly 40 years .**

**It was a collaborative action that ensures that we continue to protect the river system while providing a reliable source of water to the 40 million people who rely on it.**

**COLORADO RIVER BASIN  
DROUGHT CONTINGENCY PLANS 2019**

Arizona Department of Water Resources

# DCP Timeline

- **Dec 2007** – Completion of the 2007 Guidelines
- **Fall 2012** – Completion of the Colorado River Basin Study
- **Fall 2014** – Execution of the Pilot Drought Response MOU
- **Summer 2015** – Bureau of Reclamation Commissioner Estevan Lopez assembles Lower Basin Principals (state reps)
- **Spring 2016** – LBDCP framework is completed and work begins at the intrastate level to develop implementation plans
- **Winter 2017** – “DCP Plus” fails to gain traction in Arizona
- **Spring 2018** – ADWR and CAWCD declare a “fresh conversation”
- **Winter/Spring 2019** – Arizona Legislature and U.S. Congress pass DCP legislation
- **2020** – DCP Implementation



# Drought Contingency Plan Recap

## Lower Basin Drought Contingency Plan

- ADWR & CAWCD jointly hosted 9 public Steering Committee meetings to discuss & recommend how to adopt and implement the LBDCP in a way that is acceptable to Arizona water users
- **January 31, 2019** – Arizona Legislature passed & Gov. Ducey signed SB 1227
  - The legislation authorized ADWR Director to sign the Interstate DCP Agreements on behalf of Arizona

## Colorado River Drought Contingency Plan

- **March 27 & 28, 2019** – Reclamation & Colorado River Basin representatives testified at U.S. subcommittee hearings at the Senate (subcommittee chaired by AZ Sen. McSally) & the House (subcommittee chaired by Rep. Huffman; full committee chaired by AZ Rep. Grijalva)
- **April 8, 2019** – Bill passed after announced by Sen. McSally & Rep. Grijalva
- **April 16, 2019** – Signed by President Trump
- **May 20, 2019** – Signed & finalized by Lower Basin States, Reclamation & Interior



# Motivation for DCP

- Ongoing drought, structural deficit and decline of major Colorado River Reservoirs (Lake Powell and Lake Mead) – risk of shortage is growing
- Concerns about “crash” in lake levels – i.e., “point of no return” if no action taken soon
- Basin States’ ability to determine outcomes vs. having them imposed by the United States
- Value proposition of leaving more water vs. taking full supplies

# DCP – Lessons Learned

- Having a schedule and deadlines
- Think “out of the box” and be willing to change course or start over despite time pressures
- Seek collaboration and partnerships
- Inclusion of concepts and proposals from all parties
- Arizona is stronger together



# DCP – Lessons Learned

- Recognizing the need for a “fresh conversation”
- Open and transparent dialogue, including work groups
  - Recorded sessions
  - Posted materials
- Involvement of all interested parties including Tribes that are necessary to achieve to be successful
- Inclusion of both AZ executive branch and AZ legislative branch participants directly in the conversation

# Next Steps

- Reclamation has initiated a review of the 2007 Guidelines consistent with Article G.7.D of the Guidelines which requires a review of the effectiveness of the Guidelines.
- The review is a retrospective, fact-based analysis of the operational performance of the rules.
- The review is not renegotiation of new rules
- The Basin States will participate in the 7.D review process
- Other stakeholders including Tribes and NGOs will participate in the process
- Negotiations for post-2026 rules will follow the completion of the 7.D review, likely starting in 2021

# Arizona's Reconsultation Process

- The success of the Arizona DCP Process forms a template for how Arizona can prepare for the reconsultation process
- As co-chairs of the DCP Steering Committee, ADWR & CAP have met with the DCP Steering Committee Delegates to gain their input on how Arizona should proceed to prepare for the next negotiation process.
- ADWR and CAP intend to jointly reconvene the DCP Steering Committee Delegates to outline a new process aimed to prepare Arizona for the development of new Colorado River operating rules.
- We continue to be stronger together.



# Arizona Reconsultation 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 Meeting

- ADWR & CAP will host a virtual meeting of the Arizona Reconsultation Committee on June 25, from 10:00 am to 12:00 pm to discuss the following items:
  - Update on Colorado River conditions
  - Status of the implementation of the Drought Contingency Plan
  - Process to prepare Arizona for the reconsultation of the 2007 Guidelines

*Arizona's Water Future*

**As Arizona transitions to a drier future, we must continue to promote a culture of conservation - one that enables the unbeatable quality of life and boundless opportunity we enjoy.**

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GOVERNOR DOUG DUCEY  
SIGNS ARIZONA DCP LEGISLATION (1.31.19)



# Questions?

**Clint Chandler**  
Deputy Director

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