

Arizona Groundwater Management



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Arizona Department of Water Resources

April 5, 2022

Groundwater Management Act (1980)

Created Arizona Department of Water Resources

Goals of the Act

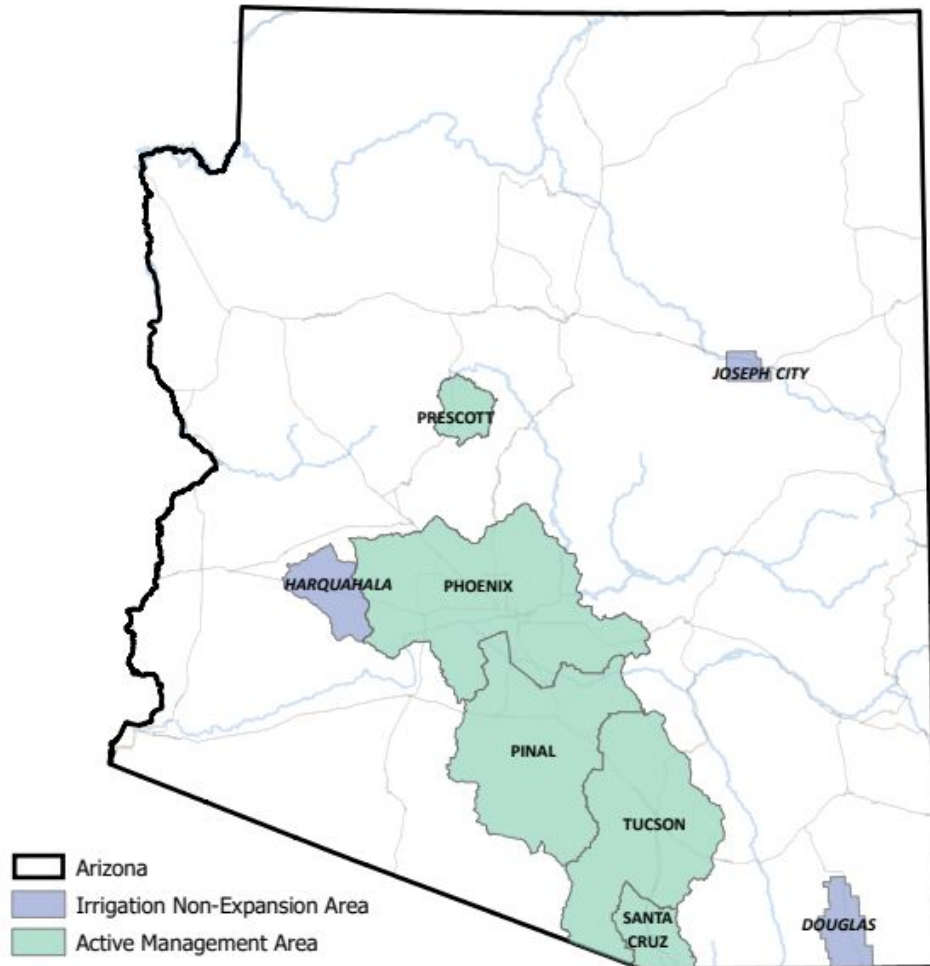
- Control severe groundwater depletion
- Provide the means for allocating Arizona's limited groundwater resources
- Improve Arizona's groundwater supplies through conservation and development of additional water supplies



Former Arizona Governor and Interior Secretary Bruce Babbitt signing the GMA



Active Management Areas (AMA) & Irrigation Non-Expansion Areas (INA)



Statewide

Three INAs

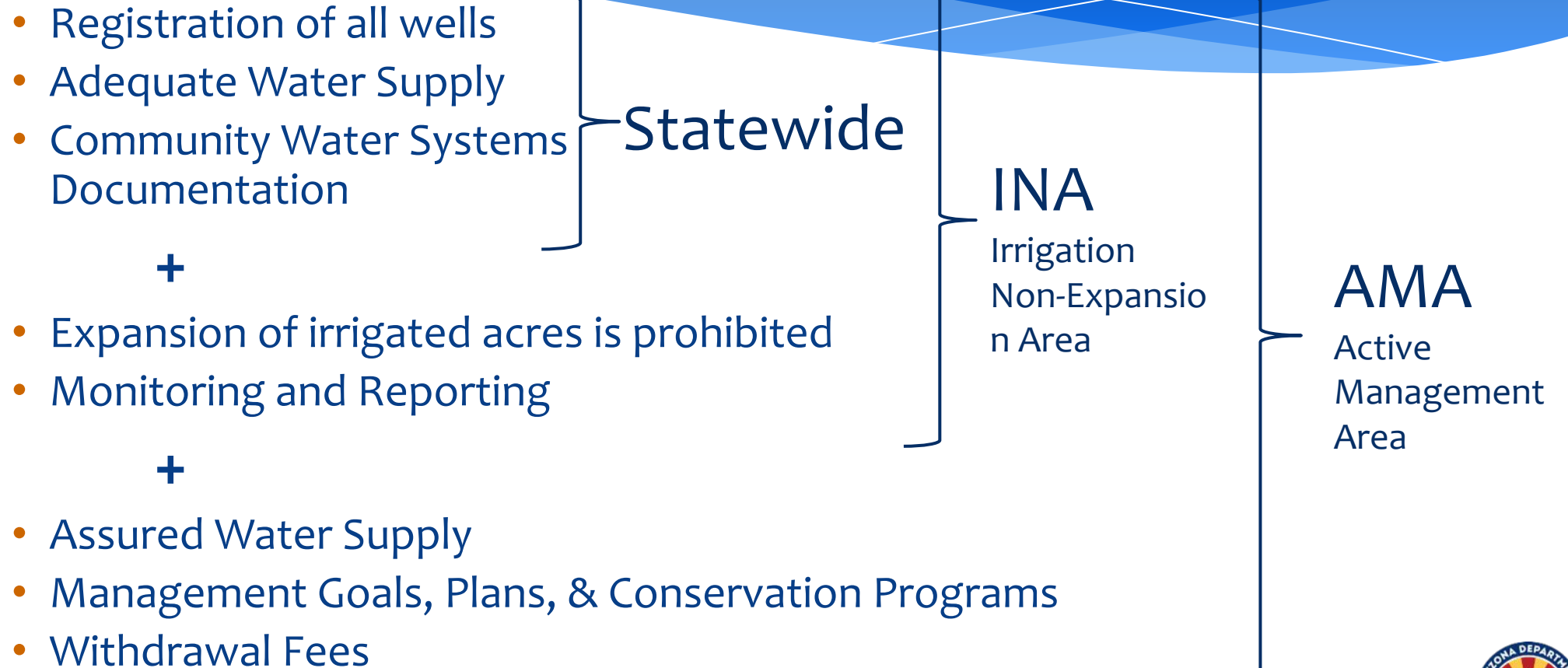
- Joseph City INA
- Harquahala INA
- Douglas INA

Five AMAs

- Prescott AMA
- Phoenix AMA
- Pinal AMA
- Tucson AMA
- Santa Cruz AMA



Groundwater Regulatory Structure



Management Plans

A.R.S. § 45-563 (A)

“The director shall develop a management plan for each initial active management area for each of five management periods... and shall adopt the plans only after public hearings...”

The plans shall include a continuing mandatory conservation program... designed to achieve reductions in withdrawals of groundwater.”



Management Plans

- * **General Contents:**

- * Regulatory Conservation Programs:
 - * Agricultural
 - * Municipal
 - * Industrial
 - * Storage and Recovery

- * **Supporting Information**

- * Background & History
- * Hydrology
- * Water Quality
- * Management Goal / Data & Analysis
- * Water Management Strategy



Statutory Requirements - Summary

A.R.S. § 45-564 et seq.	1MP	2MP	3MP	4MP	5MP
Calculate Water Duty	💧	💧	💧	💧	💧
Municipal GPCD Reduction	💧	💧	💧	💧	💧
Municipal Lost & Unaccounted for Water	💧	💧	💧	💧	💧
General Industrial Conservation	💧	💧	💧	💧	💧
Conservation for Untreated Providers		💧	💧	💧	💧
Conservation for Small Providers		💧	💧	💧	💧
Municipal Non-Per Capita Conservation		💧	💧	💧	💧
Incentives for Augmentation/Recharge		💧	💧	💧	💧
Assessment of Water Quality		💧	💧	💧	💧
Program for Conservation Assistance		💧	💧	💧	💧
Historical Natural Recharge		💧	💧	💧	💧
May Reduce Highest 25% of Water Duties			💧	💧	💧
Agricultural Historic Cropping Program			💧	💧	💧
Agricultural BMP Program			💧	💧	💧
Option for Alternative Agricultural Programs			💧	💧	💧
May Establish Cropped Acreage Program			💧	💧	💧
May Include Program for GFR Purchase & Retirement			💧	💧	💧
Recommendations to AWBA/for well locations			💧	💧	💧



Fifth Management Plans



Fifth Management Plan

2019-2021: Development

- 5th Management Plan Work Group, Subgroups, & Stakeholder Outreach
- Data analysis
- Develop and update Concepts to increase conservation

2021: Drafting

- Build out Concepts developed in previous phase
- Draft narrative & legal language
- Develop data tools

2022: Adoption

- Publication of initial drafts
- Groundwater Users Advisory Committee & stakeholder comment
- Promulgation processes



FIFTH MANAGEMENT PLAN

PRESCOTT ACTIVE MANAGEMENT AREA
2020-2025



FIFTH MANAGEMENT PLAN

PHOENIX ACTIVE MANAGEMENT AREA
2020-2025



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FIFTH MANAGEMENT PLAN

PINAL ACTIVE MANAGEMENT AREA
2020-2025



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FIFTH MANAGEMENT PLAN

TUCSON ACTIVE MANAGEMENT AREA
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FIFTH MANAGEMENT PLAN

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<https://new.azwater.gov/ama/management-plans>



GOVERNOR'S WATER AUGMENTATION, INNOVATION, AND CONSERVATION COUNCIL

- * Established in 2019, concurrent to the Drought Contingency Plan
- * Governor appointed members representing diverse interests
- * Forum for the discussion of complex water issues in Arizona to ensure a sustainable water future.
- * Four Committees:
 - * Long-Term Water Augmentation
 - * Non-AMA Groundwater
 - * Desalination
 - * Post-2025

Arizona Water Banking Authority



Arizona Water Banking Authority

- * 5 Member Commission established in 1996
- * Mission – Store Arizona’s unused Colorado River water underground for long-term storage credit (LTSC) accrual
 - * Stored as excess CAP water in the Phoenix, Pinal and Tucson AMAs
 - * LTSCs used to assist in mitigating future reductions in Colorado River supplies (i.e., firming)
- * Firming Responsibilities and Obligations
 - * CAP M&I Subcontractors
 - * Fourth priority on-River contractors
 - * Tribal Settlements
 - * Interstate banking

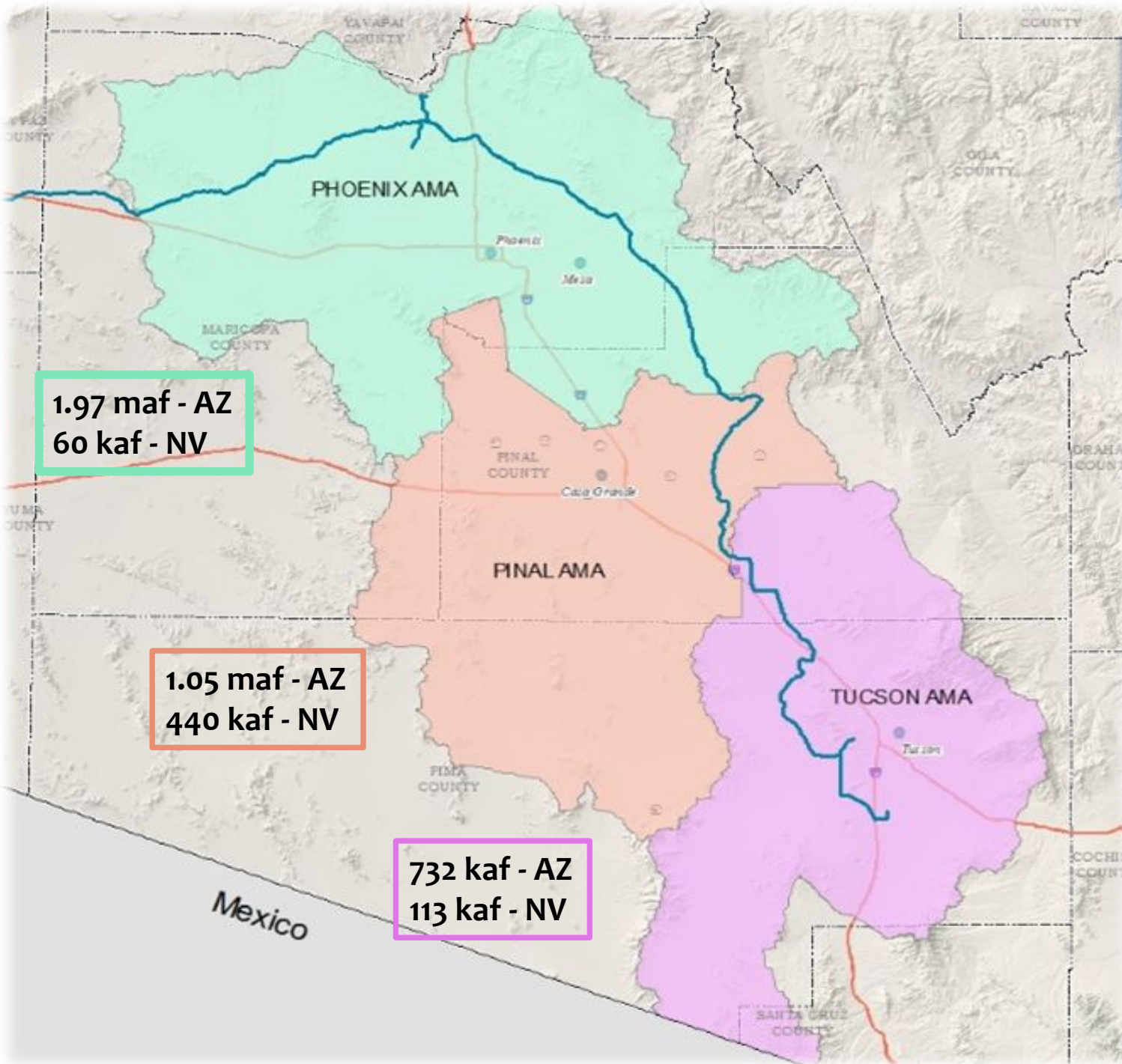


CAP Aqueduct – courtesy of USBOR

Tribal Firming Obligations under Arizona Water Settlements Act

- * Firm up to 23,724 AF/yr of NIA Priority CAP water (through 2107) when supplies are insufficient to meet demand
 - * 15,000 AF - Gila River Indian Community (GRIC)
 - * 8,724 AF - Future settlements (not yet enforceable or enacted)
- * AWBA firmed 6,429 AF for the GRIC in 2022 with first-ever Tier 1 Colorado River shortage declaration
- * Obligation satisfied by deducting credits earned for pre-delivered water – no recovery needed

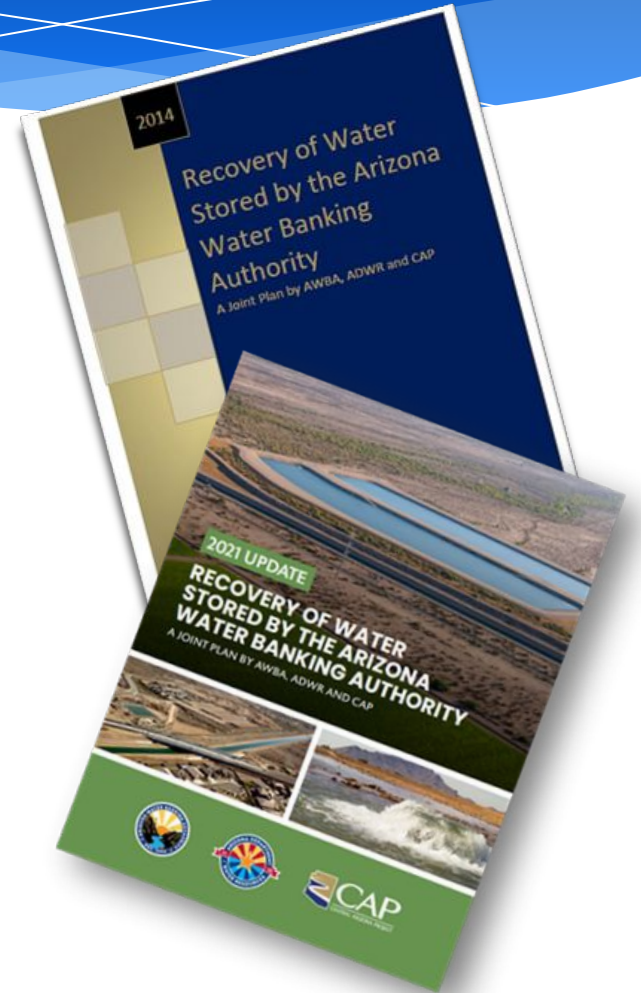




- * Accrued 4.36 MAF LTSCs through 2020
 - * 3.75 MAF Arizona
 - * 613 KAF Interstate - NV
- * Storage improved aquifer health
- * 230 kaf “cut to the aquifer” from AWBA storage

Transitioning to Next Phase

- * Shortage reductions are firmed by recovering “pumping” LTSCs from permitted wells and delivering water to end users
- * AWBA distributes LTSCs but does not perform recovery
- * Recovery Plans developed jointly among AWBA, CAWCD and ADWR in coordination with a recovery planning advisory group
 - * 2021 Update expands on recovery concepts in 2014 Joint Recovery Plan and identifies steps for implementation
 - * Recovery occurs through CAWCD, CAP subcontractors using their own infrastructure, or recovery partnerships
- * Requires coordination by all parties including, USBR, ADWR, CAWCD, Tribes and Stakeholders



Questions?

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