

Welcome to CAP University!

Class will begin shortly.

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CAP University:
Deeper Dive on the Central Arizona Groundwater Replenishment District

- Welcome – *President Goddard and Secretary Cesare*
- CAGRD Overview – *Viviane Baji*
  - History and Purpose of CAGRD
  - Membership Types
- Plan of Operation – *Viviane Baji*
- Water Supply: Plan of Operation and Beyond – *Chris Brooks*
- Finances – *Adam Tillard*
- Recent Operational Successes – *Cate Morenzoni*
- Q&A and Closing – *President Goddard and Secretary Cesare*

Send questions to CAPUniversity@cap-az.com



CAGRD Overview

Viviane Baji, *CAGRD Manager*

October 27, 2026

What is CAGRD?



- **CAGRD** was created in the mid-1990s to help water providers and landowners comply with Arizona's groundwater management laws
- CAGRD plays an important role in Central Arizona's groundwater management by replenishing groundwater pumped by its members
- Service area includes Phoenix, Pinal and Tucson AMAs
- Over 1,200 Member Lands (Subdivisions) and 26 Member Service Areas (Cities, Towns, or Private Water Providers) are enrolled

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CAGRD's Relationship to CAP

- Not a separate entity – a special function of CAP
- Governed by the CAWCD Board of Directors and serves members in Maricopa, Pima & Pinal counties
- Financially separate – funded solely by members



Superstition Mountains Recharge

Canal at Norterra Bridge

Send questions to CAPUniversity@cap-az.com

Assured Water Supply Rules

- Physical Availability
- Continuous Availability
- Legal Availability
- Water Quality
- Financial Capability
- Consistency with the Management Plan
- **Consistency with the Management Goal**

CAGRD was created to help landowners and water providers demonstrate the last criterion - **consistency with the AMA Management Goal**.

There are **Certificates** of AWS and **Designations** of AWS

Groundwater Recharge and Replenishment

- Aquifers are layers of sediment (silt, sand and gravel) beneath the ground that are saturated with water
- CAGRD replenishes aquifers through process of recharge
- It can also send water to farms who would have otherwise pumped groundwater



Hieroglyphic Mountains Recharge

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Groundwater Replenishment Methods

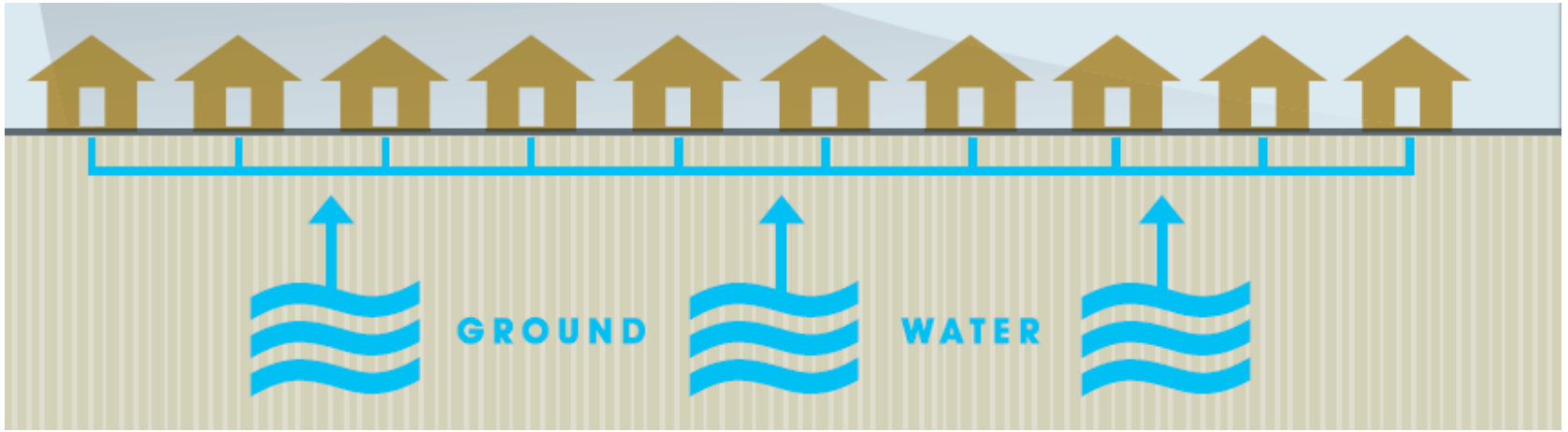


Superstition Mountains Recharge Project, located in the East Salt River Valley

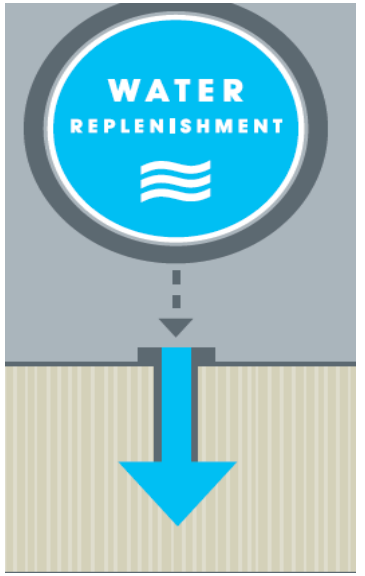


Maricopa-Stanfield Irrigation and Drainage District

CAGRD Replenishment

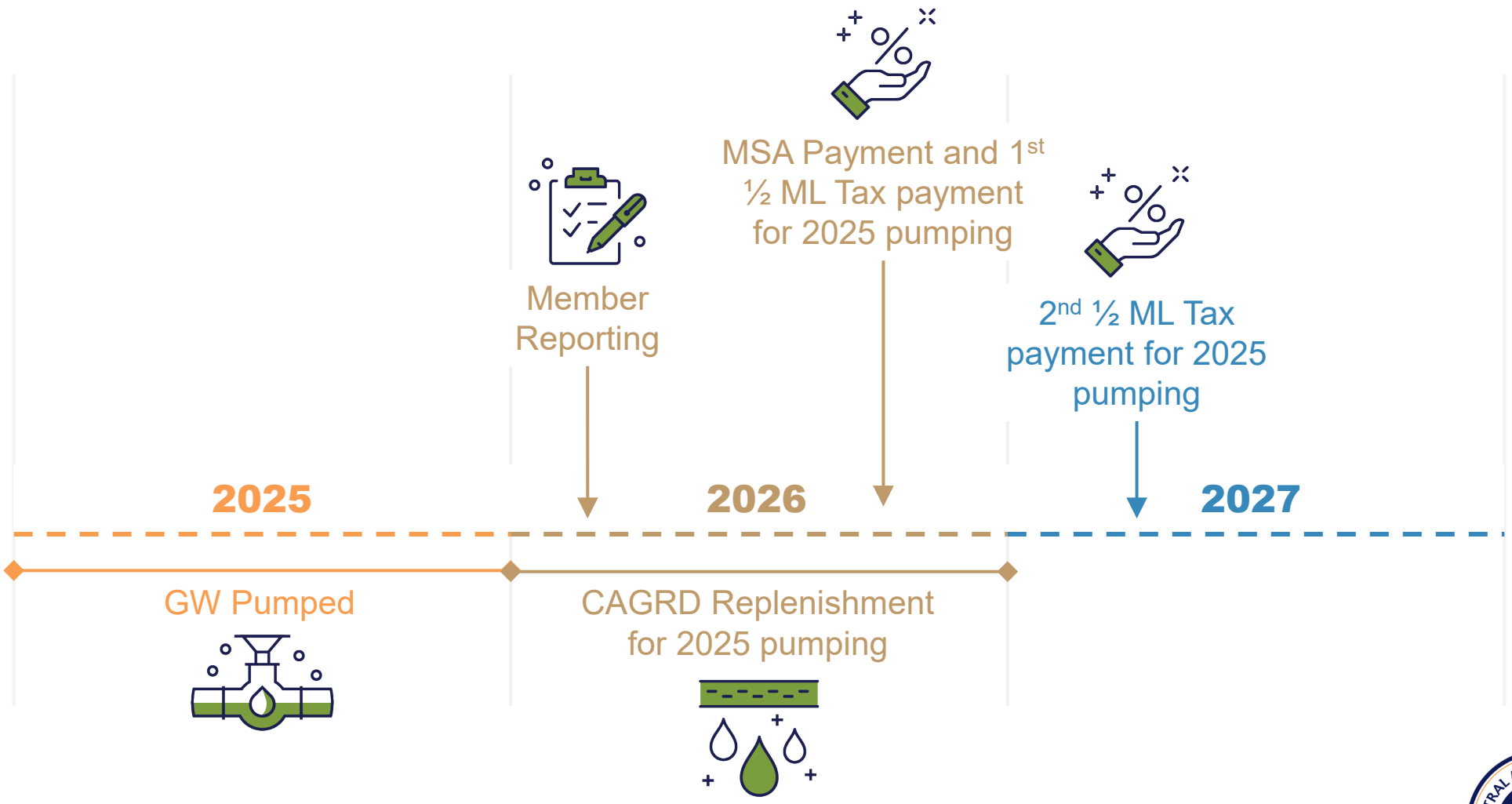


1) Water Providers serving CAGRD members report their groundwater deliveries to CAGRD



2) CAGRD has an obligation to replace, or replenish, groundwater used by homes located on lands or water service areas that have been enrolled in CAGRD.

CAGRD Rates and Dues



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CAGRD Membership Types

Member Land

Individual Subdivision

Developer obtains a **Certificate** of Assured Water Supply

Certificate uses groundwater and requires enrollment in the CAGRD

Currently over 1,200 MLs enrolled

Member Service Area

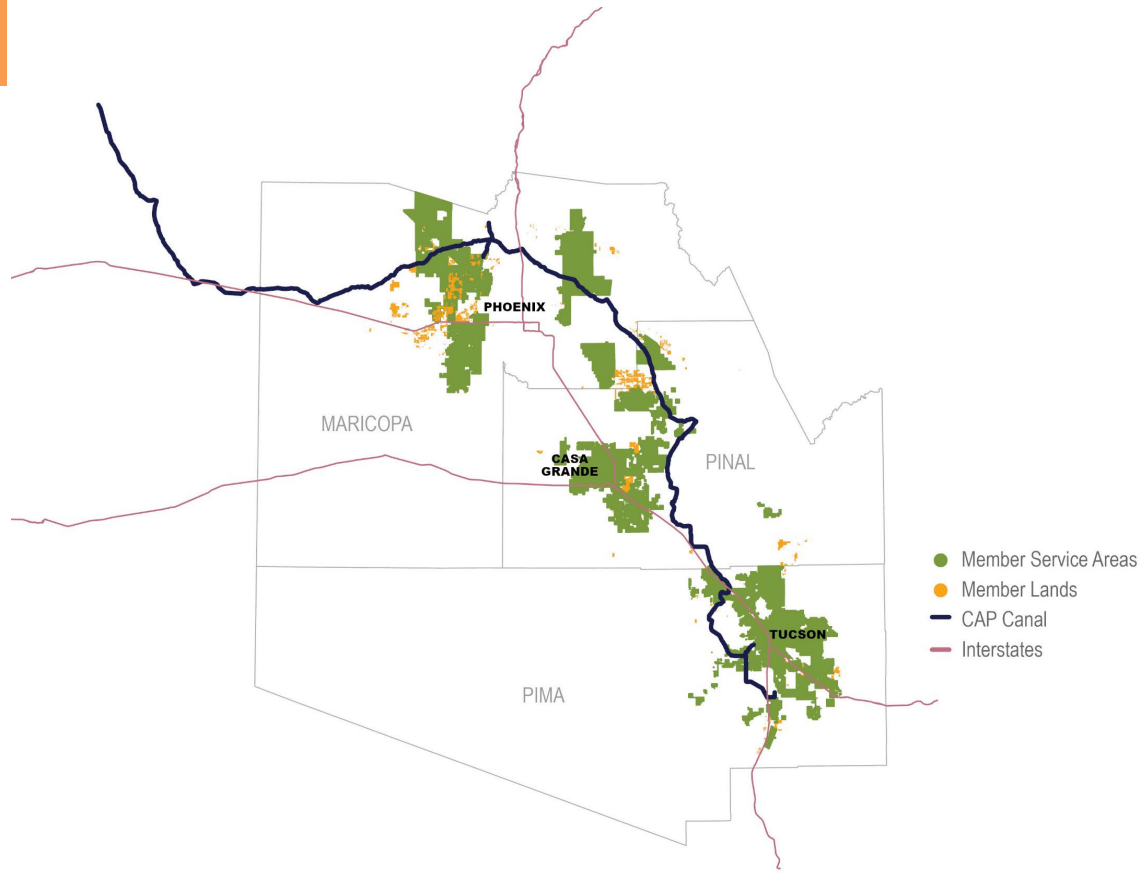
Entire Water Provider's Service Area

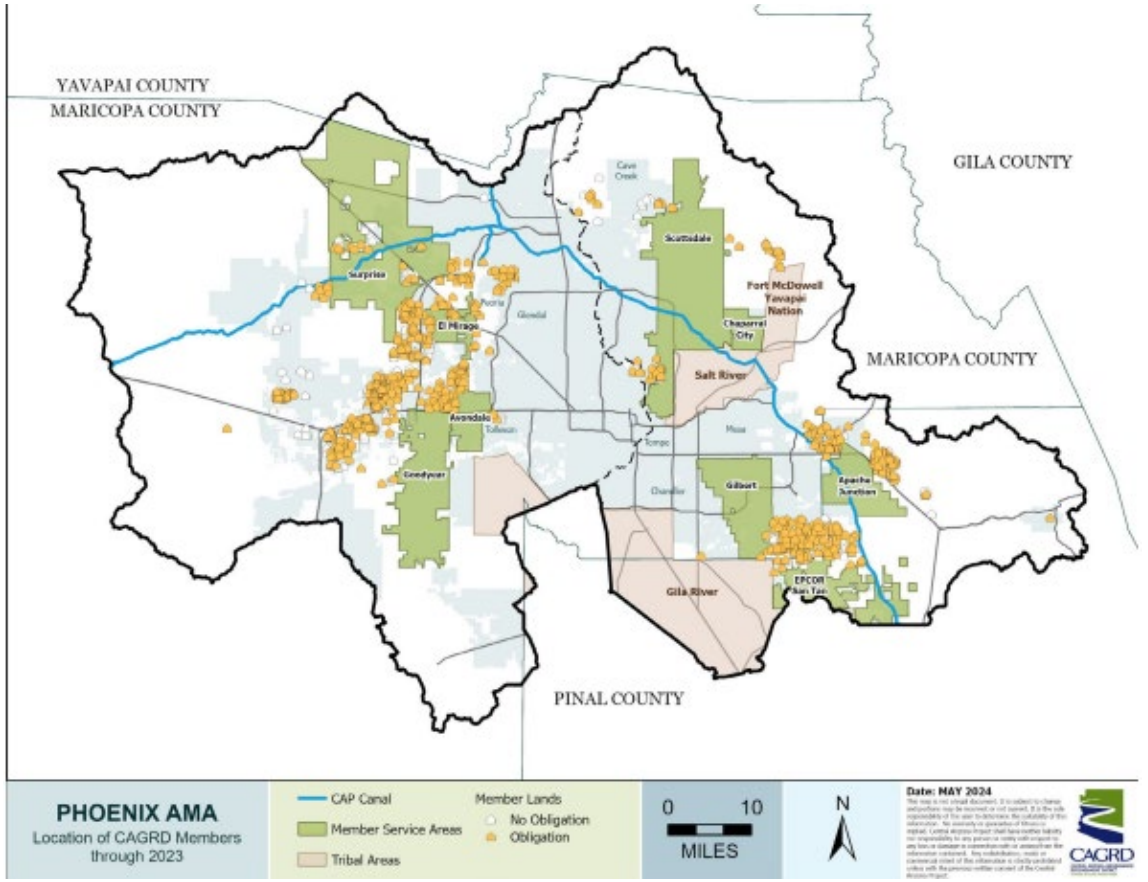
City, Town or private water provider obtains a **Designation** of Assured Water Supply

Designation uses groundwater and requires enrollment in the CAGRD

Currently 26 MSAs enrolled

CAGRD Members





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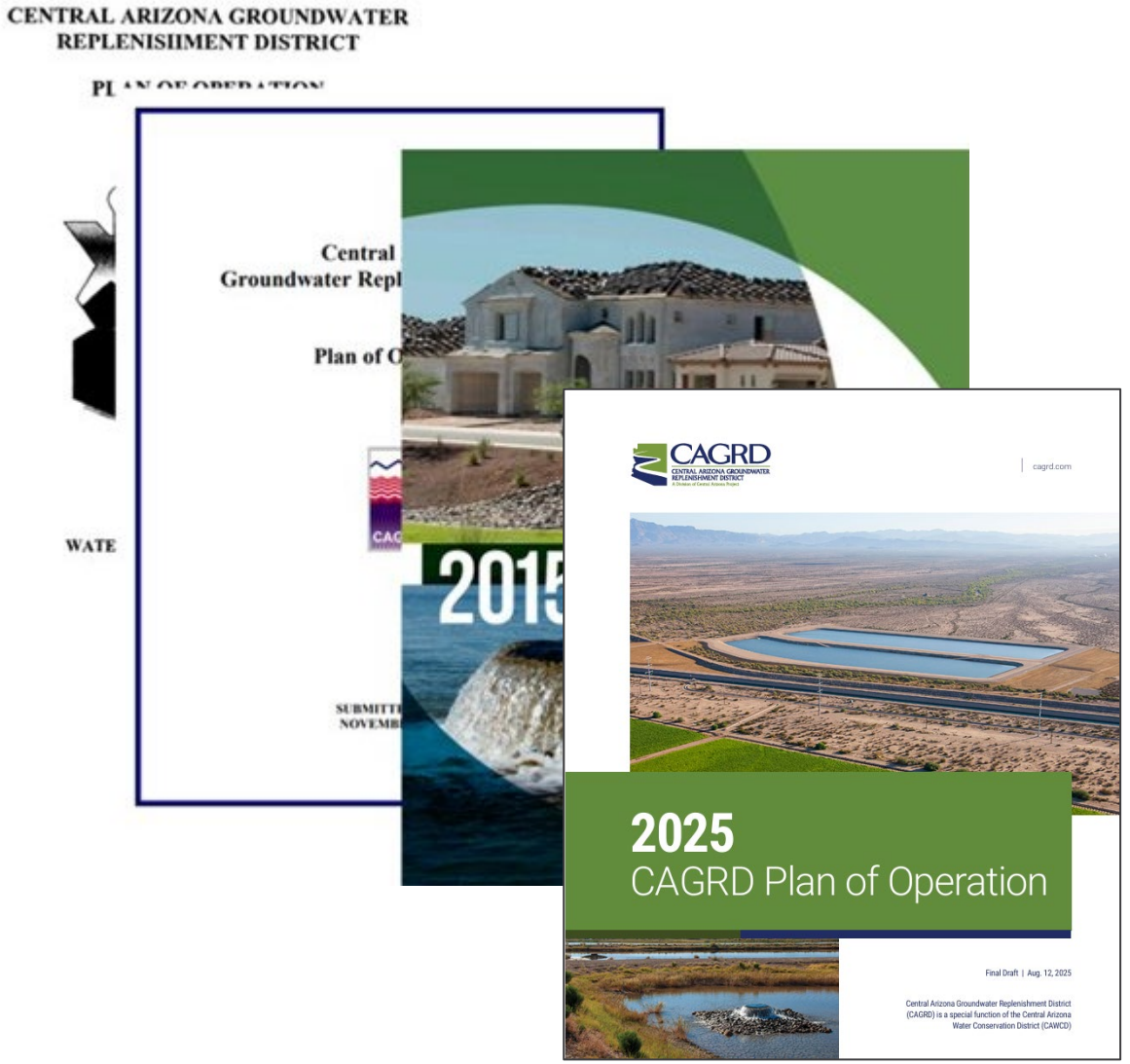
Plan of Operation

Viviane Baji, *CAGRD Manager*

October 27, 2026

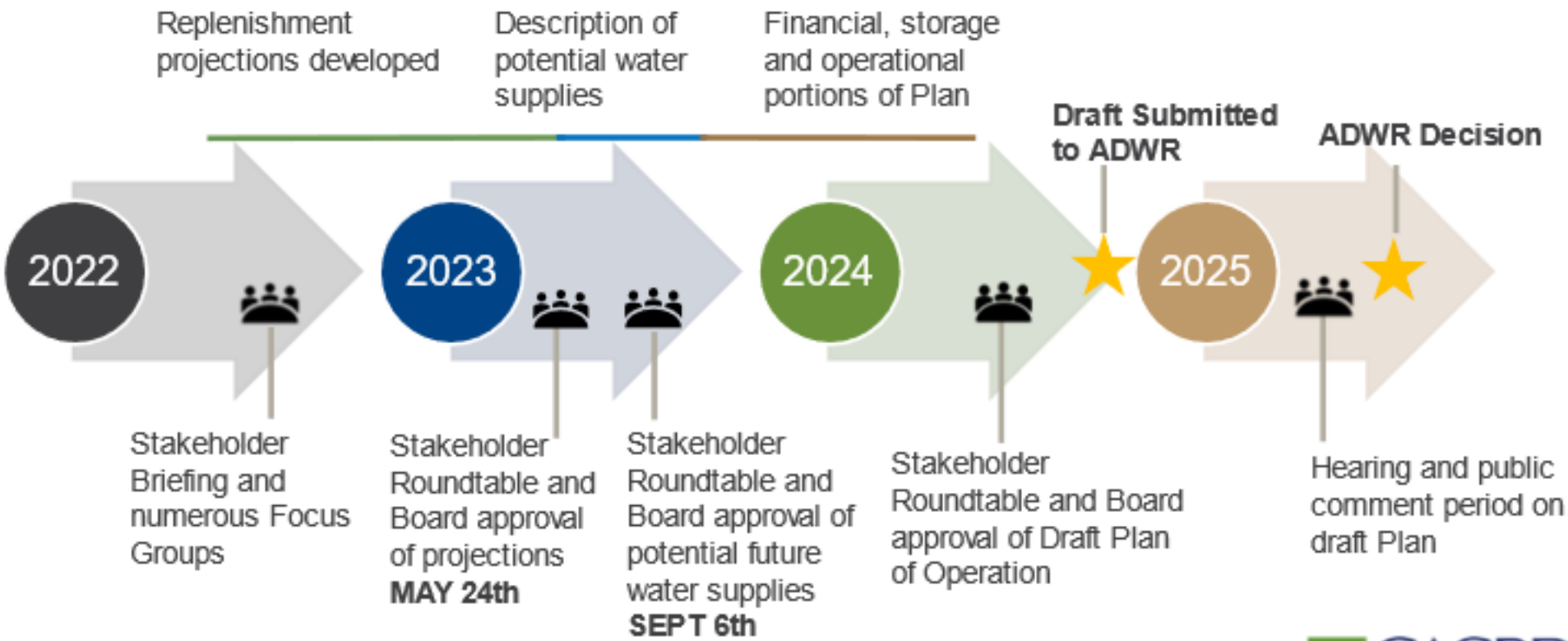
CAGRD Plan of Operation

- Every ten years CAGRD is required to submit to ADWR: “a plan describing the activities for each active management area that the conservation district proposes to undertake during the one hundred calendar years following submitting the plan.”
- Required elements include projected replenishment obligations and planned and potential water supplies to meet those obligations.
- Must demonstrate consistency with the management goal for each AMA.
- Four plans have been developed and approved to-date.



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2025 Plan of Operation Process Timeline



CAGRD
CENTRAL ARIZONA GROUNDWATER REPLENISHMENT DISTRICT
YOUR WATER. YOUR FUTURE.

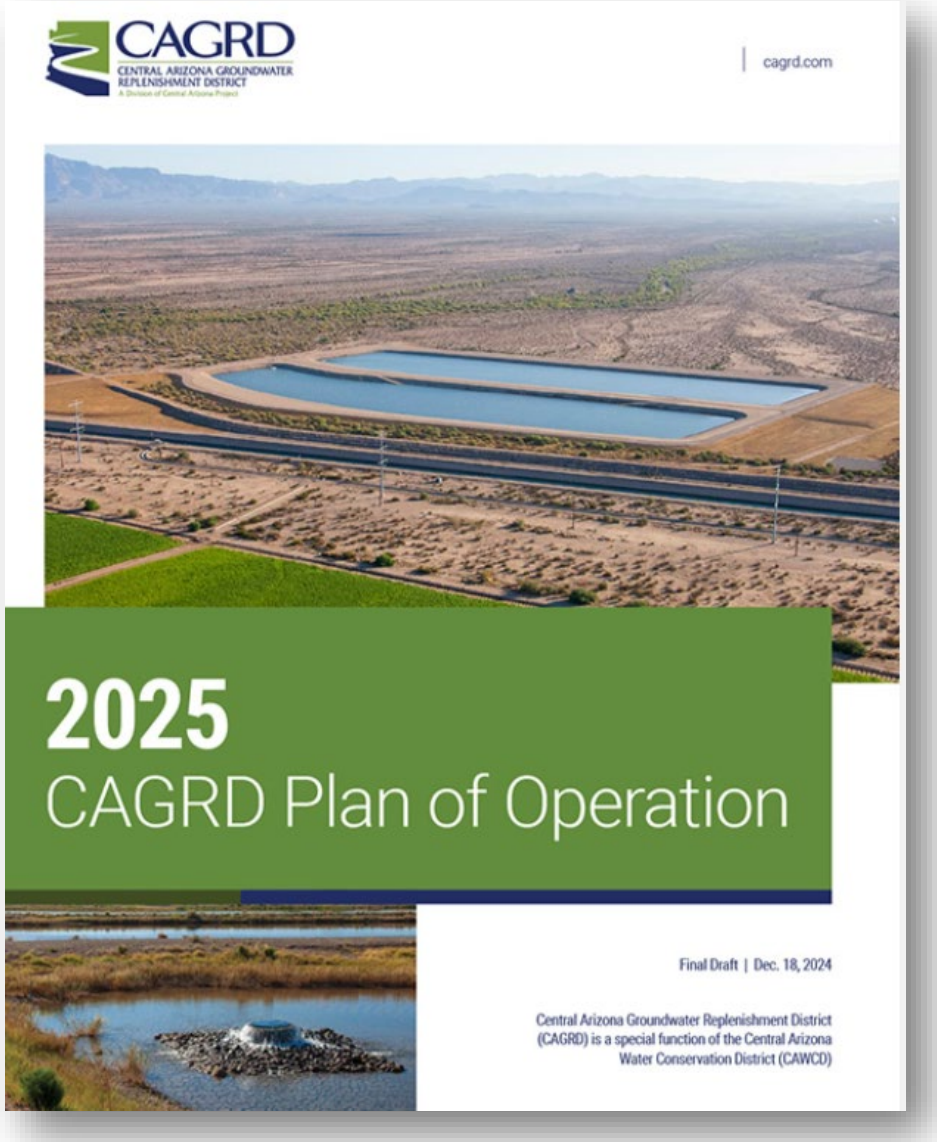
CAGRD Plan of Operation- Modeling and Projections



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Final Approval CAGRD Plan of Operation

- Last year, ADWR asked CAGRD staff to revise the submitted draft 2025 Plan two times to include changes in forecasted water availability and revise its projected replenishment obligations to include potential impacts from the newly approved Ag-To-Urban legislation.
- ADWR approved the 2025 Plan on Dec. 22, 2025.
  - Approval of the Plan indicates CAGRD has the capability and authority to meet its statutory obligations



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Final Approval CAGRD Plan of Operation



August 2025 CAGRD & Underground Storage Committee Meeting

CENTRAL ARIZONA PROJECT UNIVERSITY
EST. 2020

Plan of Operation- Replenishment Obligation Projections

Plan of Operation- Replenishment Obligation Projections

- The Plan must include an estimate of CAGRD's projected groundwater replenishment obligation for current members and potential members for the 100 calendar years following the submission of the Plan, based on reasonable projections of real property and service areas that could qualify for membership in the ten years following the submission of the Plan.



August 18, 2022 CAGRD & US Committee presentation

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ADAWS

- In 2023, Governor Hobbs paused the issuance of water Certificates for new subdivisions using groundwater in the Phoenix area.
- In November 2024, the Governor's Regulatory Review Council (GRRC) approved new rules, creating a pathway for undesignated cities like Queen Creek and Buckeye to continue to develop.
- These new rules, called the **Alternative Path to Designation of Assured Water Supply**, allow cities and water providers to continue developing on groundwater, but also require them to use new alternative water resources moving forward. **They must also enroll in CAGRD as a prerequisite.**



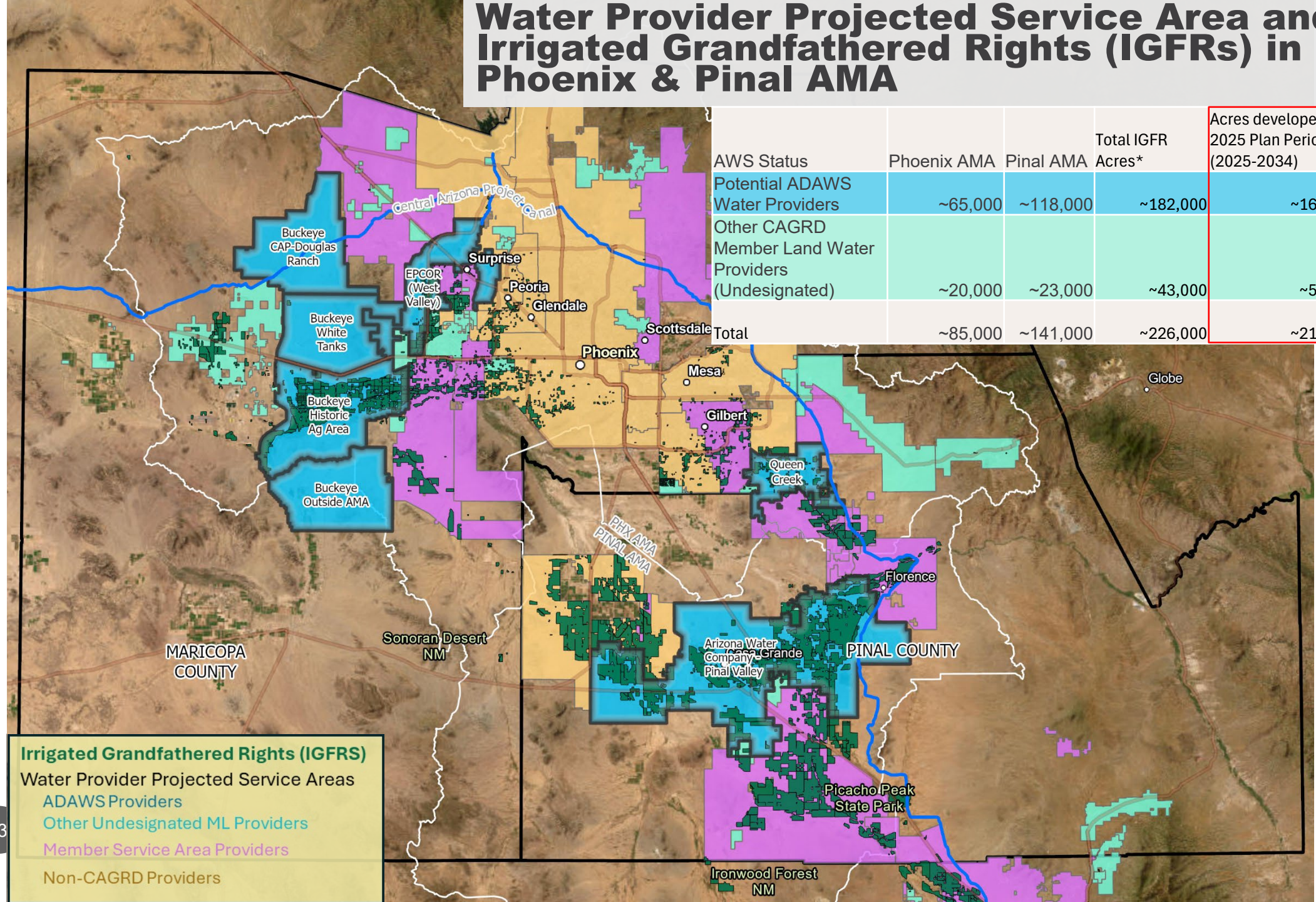
Ag-to-Urban

- In June of 2025, the Legislature and the Governor negotiated the passage of a bill known as “**Ag-To-Urban**” that incentivizes the conversion of agricultural land for new development.
- **Groundwater Savings Credits**, earned when owners relinquish their irrigation rights, can be pledged to new Certificates or to Designations.
- This law allows for new housing while upholding the state’s Assured Water Supply program objectives. **Groundwater used under this program must be replenished by CAGRD.**



Water Provider Projected Service Area and Irrigated Grandfathered Rights (IGFRs) in Phoenix & Pinal AMA

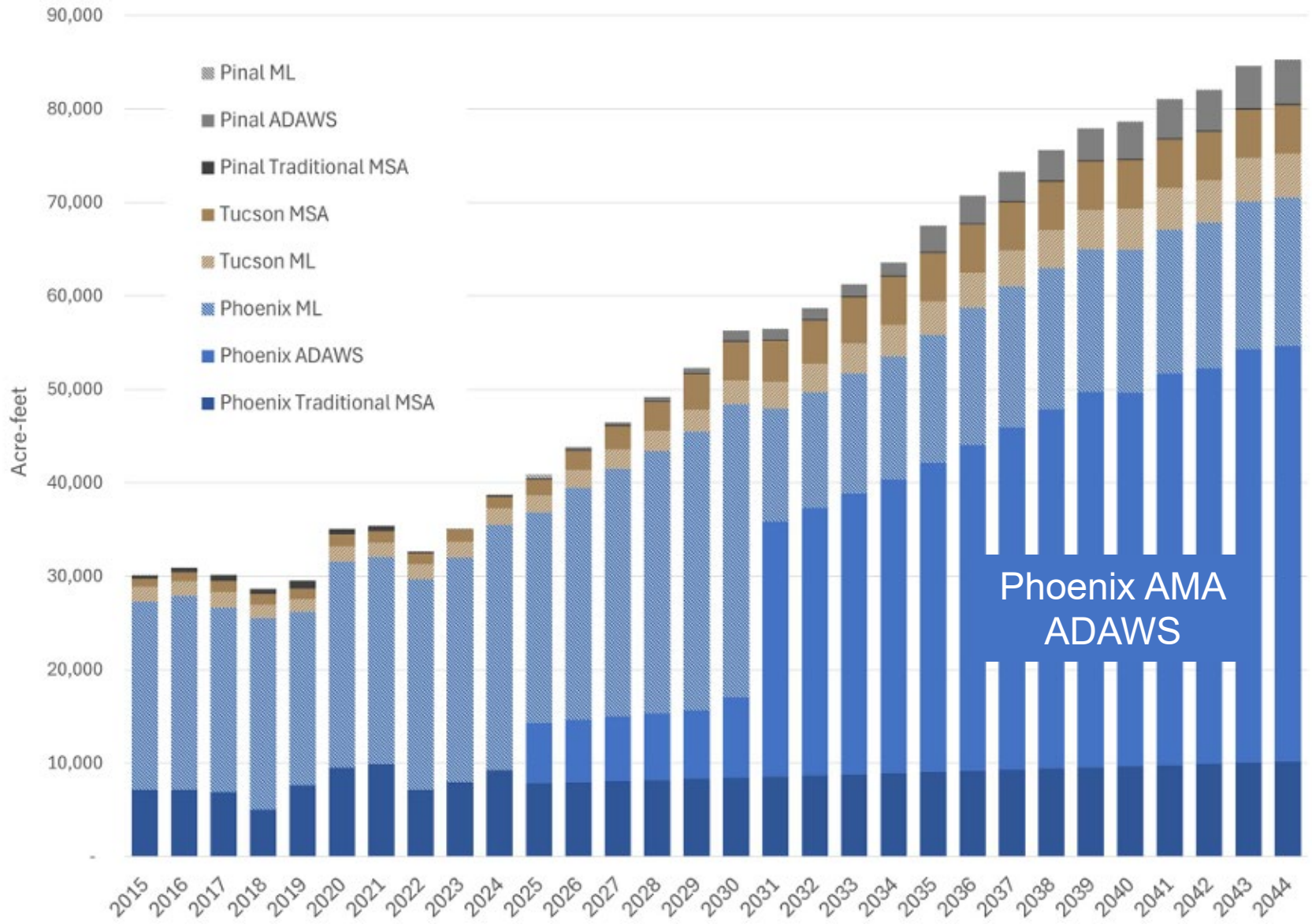
AWS Status	Phoenix AMA	Pinal AMA	Total IGFR Acres*	Acres developed in 2025 Plan Period (2025-2034)	Remaining Acres Post-Plan
Potential ADAWS Water Providers	~65,000	~118,000	~182,000	~16,000	~166,000
Other CAGRD Member Land Water Providers (Undesignated)	~20,000	~23,000	~43,000	~5,000	~38,000
Total	~85,000	~141,000	~226,000	~21,000	~204,000



2025 CAGRD Plan of Operation – Replenishment Obligation Projection

Figure 3.13

Projected 20-Year Annual Replenishment Obligation, MSA and ML



100-Year Replenishment Obligation

Table 3.3

Estimated 100-Year CAGRD Annual Replenishment Obligation (AF)

	Active Management Area	2025	2030	2035	2040	2044	2124
Current Members	Phoenix AMA	35,300	40,000	55,000	64,200	69,800	87,500
	Pinal AMA	250	1,200	2,900	4,100	4,900	4,200
	Tucson AMA	3,500	6,500	8,200	8,700	8,900	10,600
New Members	Phoenix AMA	1,600	8,400	700	700	700	700
	Pinal AMA	300	40	40	40	40	40
	Tucson AMA	-	200	500	800	1,000	1,400
	Total	**40,900**	**56,300**	**67,600**	**78,700**	**85,300**	**104,400**

Volumes have been rounded to whole numbers for this Plan, resulting in minor discrepancies in some cumulative totals.

Water Supply: Plan of Operation and Beyond

Chris Brooks, *Water Programs & Acquisitions Manager*

October 27, 2026

CAGRD Water Supplies

CAGRD has a portfolio of water supplies for use to meet replenishment obligations

CAGRD's water portfolio now includes:

- CAP allocations (M&I and NIA)
- Long-Term Effluent Lease
- Leased CAP water (GRIC)
- Stored water (Long-term Storage Credits issued by ADWR)
- Intentionally Created Surplus (Colorado River water)



Plan of Operation- Water Supply

- A.R.S. § 45-576.02.C.2 (c) - CAGRD Water Supply Plan:
  - A description of the water resources that CAGRD **plans to use** for replenishment purposes during the 20 years following submission of the Plan; and water resources **potentially available** to CAGRD for replenishment purposes during the subsequent 80 years.



August 18, 2022 CAGRD & US Committee presentation

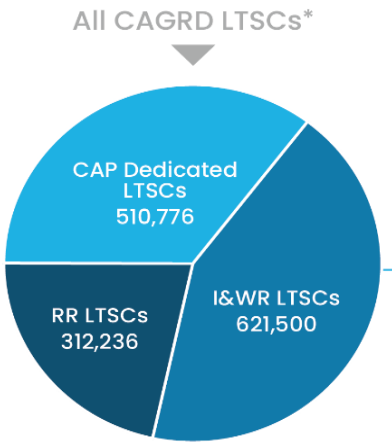
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Current CAGRD Water Supply Portfolio

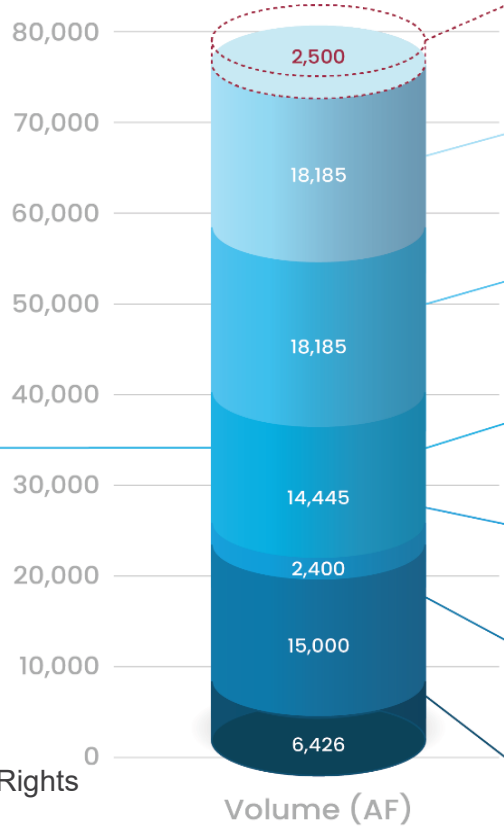
Water Supply	Annual Volume (AF/YR)	First Year Availability	Term of Acquisition
CAP NIA (White Mtn. Apache)	2,500	2028[1]	Annual Lease Volume[2]
CAP NIA (Reallocation)	18,185	2022	Permanent contract[2]
CAP NIA (GRIC Lease)	18,185	2020	Leased through 2044[2]
CAP M&I	6,426	2006	Permanent contract[3]
CAP Tribal (GRIC Exchange)	15,000	2020	Leased through 2044[3]
Long-Term Storage Credits	14,445[4]	2022	100 year
Effluent	2,400	2017	100-year lease
TOTAL	**77,141[5]**		

[1] Awaiting final authorization
[2] Shortage impacted; unlikely to be available
[3] Subject to shortage reduction under severe shortage conditions
[4] Total LTSCs annualized over 100 years; however, a volume greater than the 100-year amount could be used in a year if needed
[5] 38,271 AF likely maximum supply; 16,845 AF shortage-proof supply

Current CAGRD Water Supply Portfolio



I&WR = Infrastructure & Water Rights
RR = Replenishment Reserve



NIA WMAT (PENDING)
100 year lease, awaiting final authorization; subject to shortage

NIA REALLOCATION
Permanent allocation; subject to shortage reduction

GRIC LEASE NIA
25 year lease, subject to shortage reduction

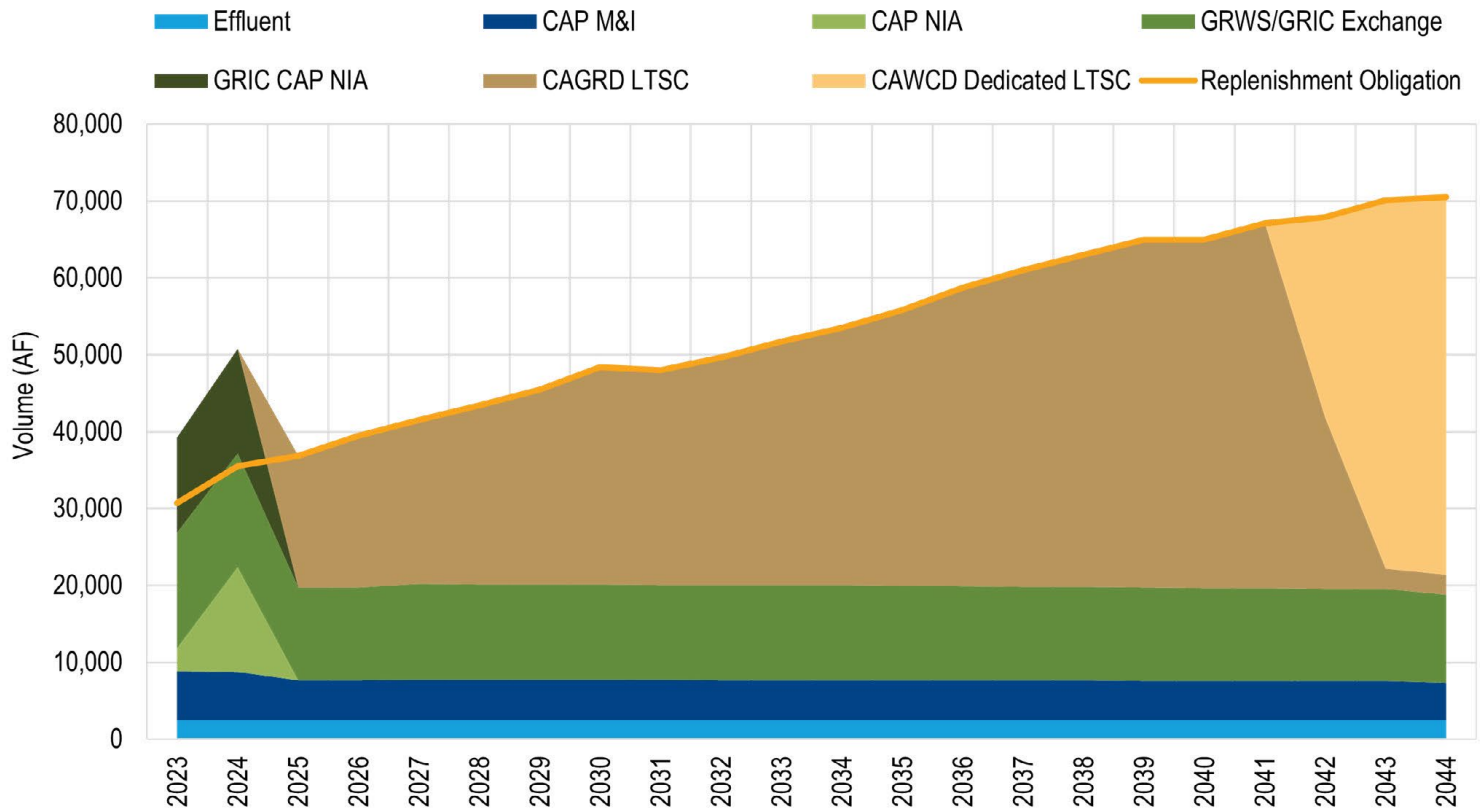
CAGRD & CAP LTSC
Long-term storage credits annualized over 100 years

EFFLUENT
100 year lease

GRIC EXCHANGE
25 year exchange; potential reduction under Tier 3 shortage

M&I CAP
Permanent entitlement; potential reduction under Tier 3 shortage

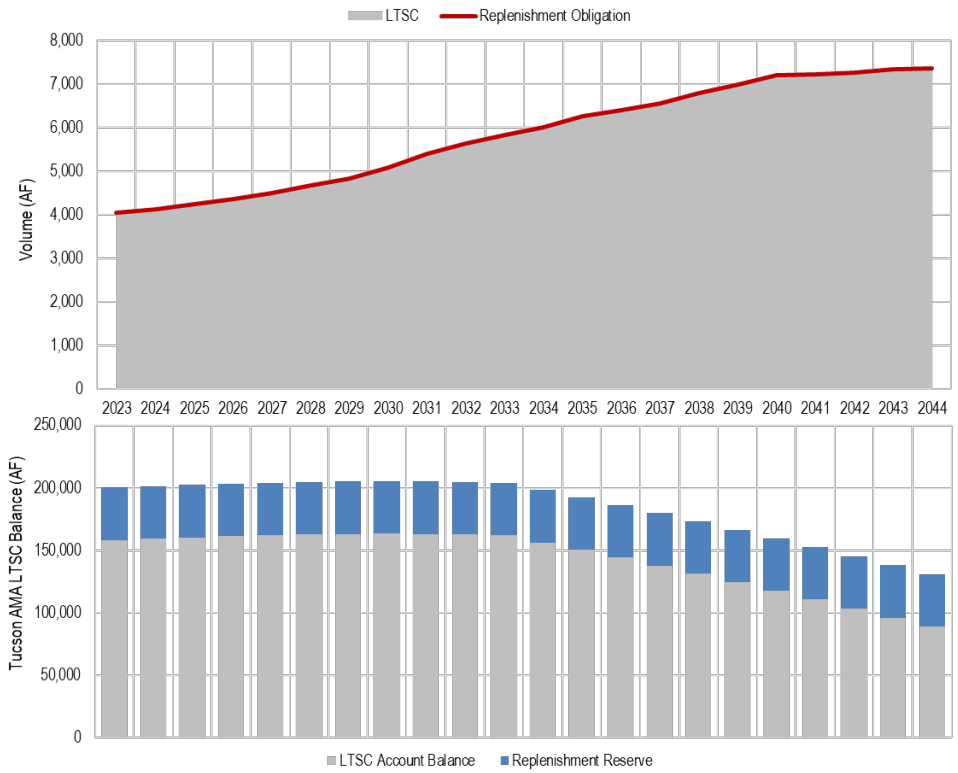
CAGRD Utilization of Existing Supplies – Phoenix AMA



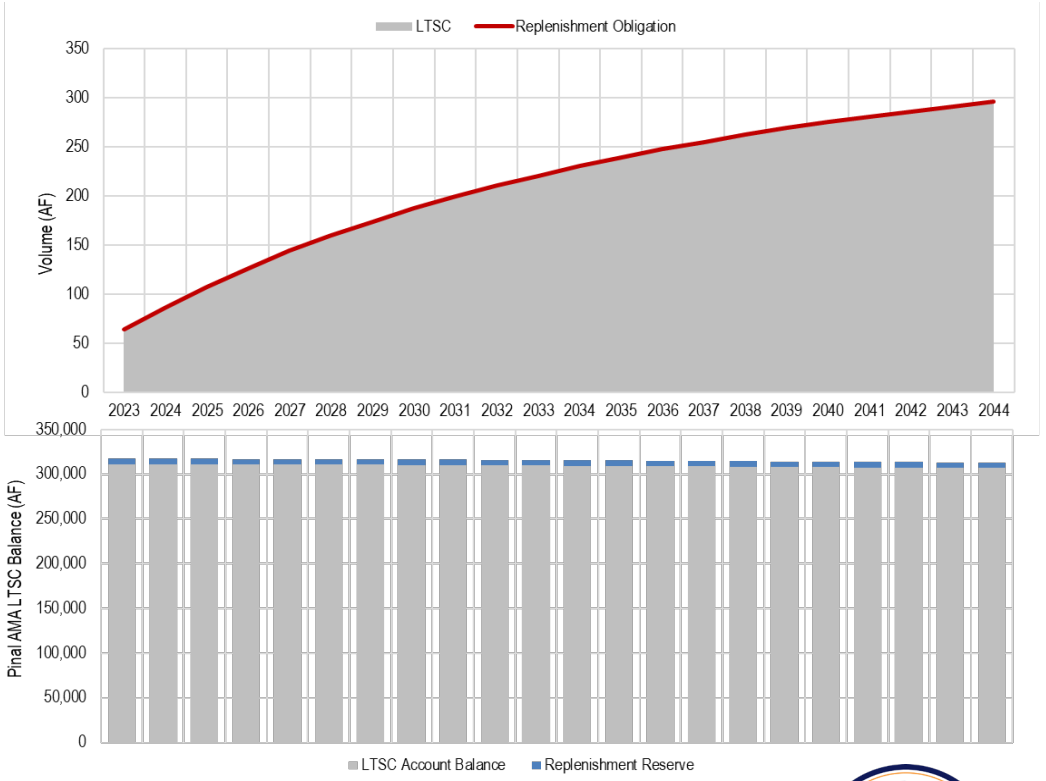
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CAGRD Utilization of Existing Supplies – Tucson/Pinal AMAs

Tucson AMA



Pinal AMA



Send questions to CAPUniversity@cap-az.com

Potentially Available Water Supplies

Supply Category	Supply Location	Total Current Volume	20-Year Potentially Available High	20-Year Potentially Available Low
Long-Term Storage Credits	Phoenix AMA	80,500	30,800	7,600
	Pinal AMA	31,400	9,500	4,400
	Tucson AMA	24,000	9,300	2,200
	Subtotal	135,900	49,600	14,200
Effluent	Phoenix AMA	381,700	92,800	30,600
	Pinal AMA	11,500	4,300	1,400
	Tucson AMA	61,600	19,300	6,400
	Subtotal	454,800	116,400	38,400
Central Arizona Project	Phoenix AMA, Pinal AMA, Tucson AMA	1,275,000	183,400	91,700
Colorado River	Arizona Entitlements Excluding CAP Supplies	997,400	199,500	99,700
Imported Groundwater	Harquahala and Butler Valleys	130,000	119,100	59,500
Desalinated Water	In-State, Binational Study	0	100,000	0
New Verde River Supply	Phoenix AMA	0	12,850	0
	Total	**2,993,100**	**780,850**	**303,500**

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CAGRD Water Acquisition

CAGRD Staff have been acquiring water supplies since 2000

- Over 600,000 long-term storage credits have been acquired to date
- Active multi-year agreements may add another 300,000 in the future.

Recent Additions to CAGRD Portfolio:

- 9,009 Intentionally Created Surplus credits
- 21,200 AF Long-term Storage Credits in Tucson and Phoenix AMAs
- 5,000 AF of imported groundwater (in-process)
- One year lease of Fort McDowell Yavapai Nation CAP water in 2027; approx. 6,740 AF (awaiting approval)



Send questions to CAPUniversity@cap-az.com

Finances

Adam Tillard, *Accounting Operations Supervisor*

October 27, 2026

CAGRD Revenue Stream

Paid with appl. to enroll

Enrollment Fees
- MSAs
- MLs

Paid prior to sale of home

Activation Fees
- MSAs & MLs

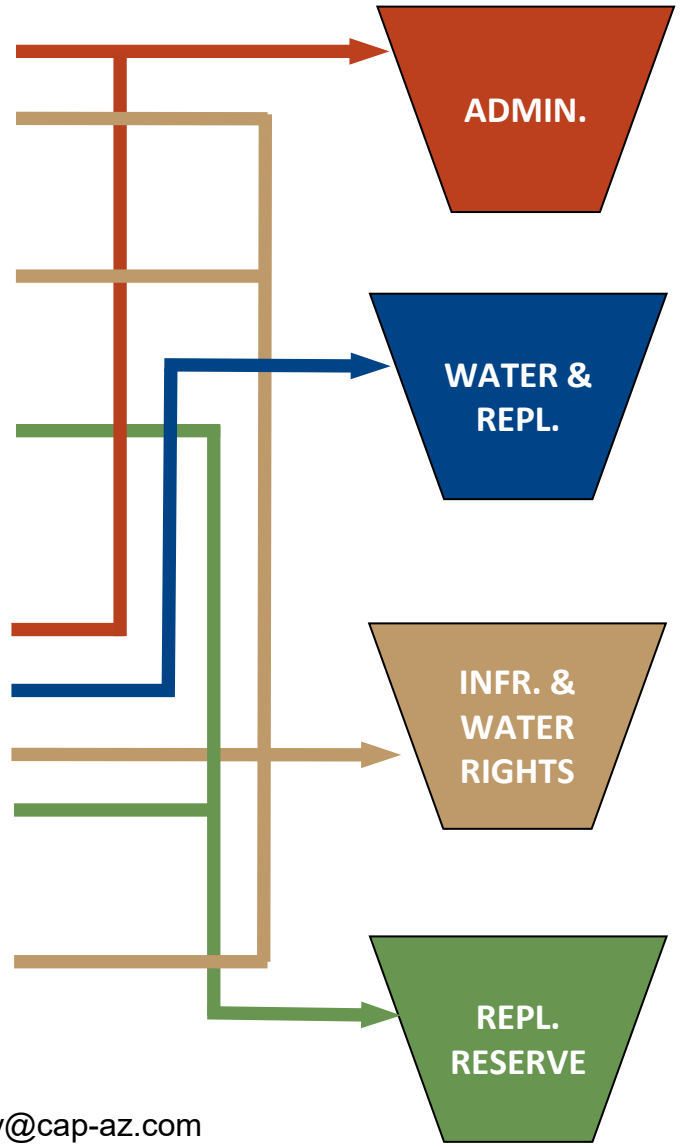
Repl. Reserve Fees
- MSAs & MLs

Paid annually based on excess groundwater use

Rates (MSAs & MLs)
- Admin
- Water & Repl.
- Infr. & Water Rights
- Repl. Reserve

To be paid annually regardless of gw use

Membership Dues
- MSAs
- MLs



Used to pay the administrative costs of CAGRD (including salaries, benefits, overhead, equipment, special services, implementation of CAGRD conservation program)

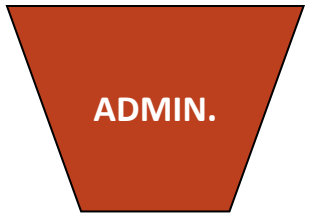
Used to pay the cost to deliver and replenish water to meet annual replenishment obligations

Used to pay the cost to acquire rights to water and develop infrastructure necessary for CAGRD to perform its replenishment obligations

Used to pay the cost of establishing and maintaining a replenishment reserve of long-term storage credits

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Administrative



Revenues cover administrative costs including salaries and related employee expenses, computer services, technical studies, legal costs, materials & supplies, conservation, and overhead (support costs from CAWCD)

- Excludes costs for Infrastructure & Water Rights (I&WR) staff, consultants, studies, legal, etc.

Funded by:

Enrollment Fees

- 10% of Enrollment Fees cover the Administrative costs of enrollment

Administrative Rate Component

Water & Replenishment



Revenues cover costs of meeting annual replenishment obligation

- Estimated on the cost to replenish the water over the next 1-2 years

Funded by:

Water & Replenishment Rate Component

- Based on CAWCD Standard Rate, which is the CAWCD delivery rate plus capital charge

Infrastructure & Water Rights



Revenues cover costs of acquiring water supplies and developing infrastructure to meet replenishment obligation

- Includes salaries and related costs, outside services, and technical studies related to these purposes

Funded by:

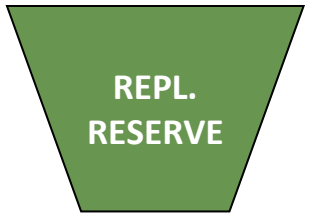
Enrollment Fees (excluding 10% that goes to Administrative costs)

Activation Fees

Infrastructure & Water Rights Rate Component

Annual Membership Dues

Replenishment Reserve



Revenues cover costs of acquiring or developing long-term storage credits (LTSC) for the Replenishment Reserve

ARS § 48-3772 *et seq.* was revised in 2025 and established the target as:

5 times the 20-year average annual projected replenishment obligation from the current Plan of Operation

At the end of 2025:

- CAGRD has 334,830 LTSC in the Replenishment Reserve
- CAWCD has dedicated approximately 489,396 LTSC to the CAGRD for Obligations or the Replenishment Reserve (Phoenix and Pinal AMAs)
- Phoenix and Tucson AMAs have met or exceed the revised targets

Funded by:

Replenishment Reserve Charge

- collected over first 23 years of water use
- Based on CAWCD Standard Rate

Replenishment Reserve Fee

- paid at the same time as the Activation Fee prior to getting a public report

CAGRD Fees

Enrollment Fees

- **Paid at time of enrollment**
- **Member Service Area (MSA)**
  - $5,000 per enrollment
- **ML – paid per residential lot**
  - excludes common areas and golf course parcels
  - commercial subdivisions have a separate rate
- **$2/Unit included for conservation program**

Activation Fee

- **MSA – Paid per residential lot in each new subdivision in the service area**
- **ML – Paid per residential lot**

CAGRD Rates

Administrative Component

- Currently, same for all AMAs and calculated on forecasted costs and obligations

Water & Replenishment Component

- Based on cost to replenish water to meet obligation by AMA

Infrastructure & Water Rights Component

- Based on Infrastructure & Water Rights needs

Replenishment Reserve Charge

- Based on targets by AMA
- Category 2 ML (golf courses) do not pay this rate

All the above rate components are paid based on reported usage of excess groundwater per water provider annual reports to ADWR and CAGRD

- Due March 31 for prior calendar year

CAGRD Dues

Annual Membership Dues (AMDs)

- Board must determine to collect AMDs each year
- Cannot be more than 1/3 of other I&WR rate revenue projections
  - *Equates to 25% of total I&WR collection projections can be collected though AMDs*
- Methodology is based on ARS § 48-3779, which was revised in 2025
  - 2025 Arizona Session Laws, ch. 148, § 2 established that for ML, the 2026/2027 dues could not be any more than the 2025/2026 dues
- MSA varies based on reliance for CAGRD replenishment (unchanged)
- ML is based on projected groundwater use multiplied by the total number of residential, commercial and common area lots included, or intended to be included, in each parcel of member land (revised in 2025)
- These revenues are available to pledge for bonding

Recent Operational Successes

Cate Morenzoni, *CAGRD Analyst*

October 27, 2026

ADAWS MSA Enrollments

- MSA enrollment is required to get Designated through the Alternative Path to Designation of Assured Water Supply (ADAWS)
- CAGRD prepared standard forms to expedite MSA enrollment for water providers seeking ADAWS
- Board approved four standard forms
    1. Transitional Reporting/Non-Transitional Reporting
    2. Phoenix AMA/Pinal AMA

ADAWS MSA Enrollments

- First provider to get Designated through ADAWS was EPCOR – West Valley on October 7, 2025
- Arizona Water Company – Pinal Valley followed shortly after
- CAGRD received commendation from Governor Hobbs for its role



CAWCD Board Member Karen Cesare and staff were on hand to celebrate Arizona's first-ever 100-year Designation of Assured Water Supply issued to EPCOR through the ADAWS Program.

Ag-to-Urban

- Ag-to-Urban program created during 2025 legislative session
- Amended the Replenishment Reserve Target calculation
- Support from legislature for CAGRD water supply acquisitions
- CAGRD incorporated impacts into Plan of Operation

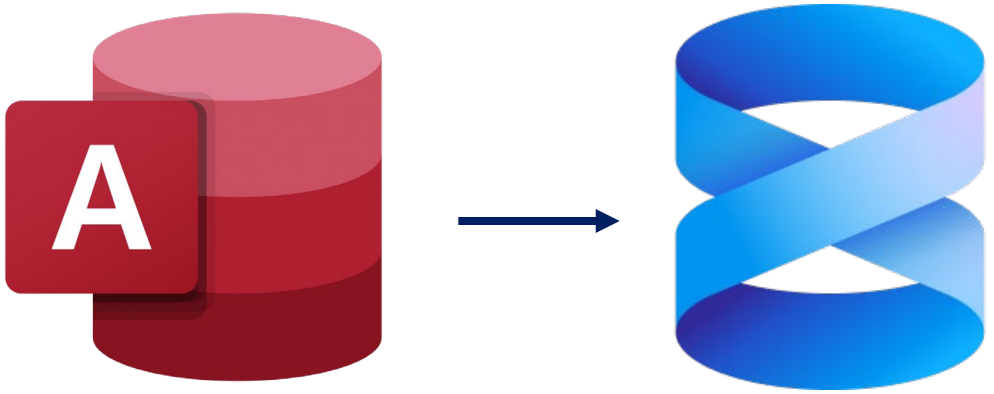


Annual Membership Dues Legislation

- Annual Membership Dues (AMDs) are collected from all members, regardless of a replenishment obligation
- Statute tied the calculation of AMDs to obligation projections from the Plan of Operation, causing instability under 2025 Plan
- CAGRD found a solution that required a minor technical fix in statute
- HB2691 received bipartisan support and was signed by Governor Hobbs on May 7, 2025, ensuring rate stability for members

CAGRD Database Upgrade

- CAGRD Application, Parcelization, Tracking, and Reporting Database (CAPTR)
- Current environment is a custom Access database, upgrading to a cloud database
- Go-live for internal functionality in winter 2026
- New external functionality for member reports expected in fall 2027



Colorado River Indian Tribes (CRIT) Partnership

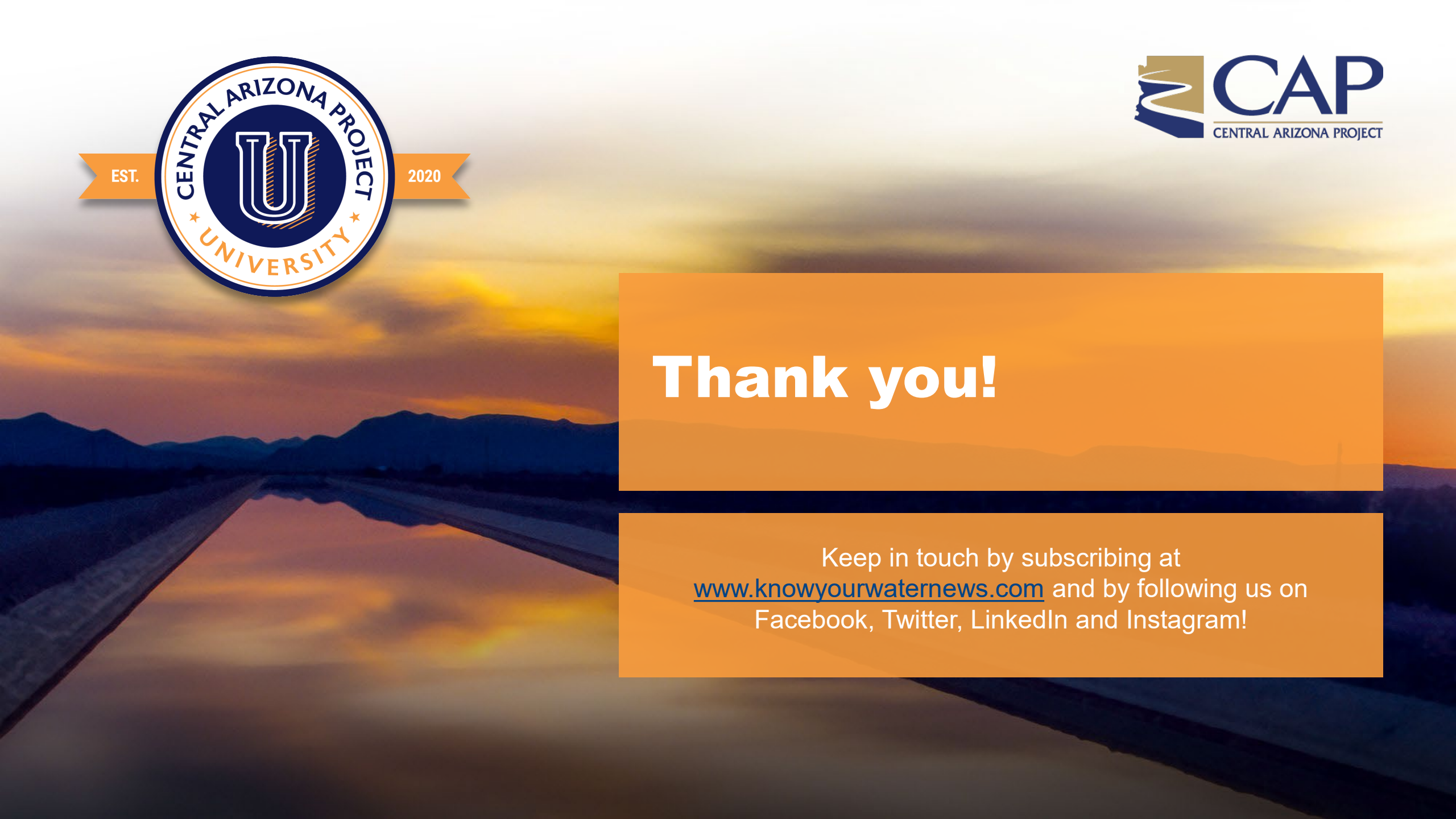
- CAWCD and CRIT have a longstanding relationship CRIT, having already partnered on various conservation projects to protect the Colorado River
- CAWCD acquired more than 9,000 Extraordinary Conservation Intentionally Created Surplus credits from CRIT in 2026
- CRIT is making these credits available to the Central Arizona Groundwater Replenishment District to meet its groundwater replenishment responsibilities.



Q&A and Closing

President Goddard

October 27, 2026


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