



2024 ANNUAL OPERATIONS REPORT

SUPPLEMENT TO THE 2024 CONSERVATION
DISTRICT ANNUAL REPORT



CAGRD

CENTRAL ARIZONA GROUNDWATER
REPLENISHMENT DISTRICT
A Division of Central Arizona Project

www.cagrdr.com

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Abbreviations and Glossary

TERM	DEFINITION
ADWR	Arizona Department of Water Resources
AF	Acre-feet
AF/yr	Acre-feet per year
AFRP	Agua Fria Recharge Project
AMA	Active Management Area
A.R.S.	Arizona Revised Statutes
AWS	Assured Water Supply
Board	The Central Arizona Water Conservation District Board of Directors
BOR	The United States Bureau of Reclamation, a federal agency overseeing water resource management as it applies to western infrastructure projects
CAP	Central Arizona Project
CAGRD	Central Arizona Groundwater Replenishment District
CAWCD	Central Arizona Water Conservation District
CAWS	Certificate of Assured Water Supply
CDAR	Conservation District Annual Report
DAWS	Designation of Assured Water Supply
GRIC	Gila River Indian Community
GSF	Groundwater Savings Facility
HMRP	Hieroglyphic Mountains Recharge Project
HOA	Homeowners Association
LPSCO	Litchfield Park Service Company
LTSCs	Long-term Storage Credits
M&I	Municipal and Industrial
MDWID	Metropolitan Domestic Water Improvement District
ML	Member Land
MSA	Member Service Area
MWD	Maricopa Water District
NIA	Non-Indian Agricultural (CAP Priority Pool)
NMIDD	New Magma Irrigation and Drainage District
PSA	Purchase and Sale Agreement
QCIDD	Queen Creek Irrigation and Drainage District
Report Year	The year in which Excess Groundwater was delivered to each ML or withdrawn from each MSA, the year covered by the report as opposed to the year report was i
RID	Roosevelt Irrigation District
SEAP	Sustainable Effluent to Aquifer Project – former LARF site renamed following upgrades
TON	Tohono O'odham Nation
USF	Underground Storage Facility

Executive Summary

Each year, CAGRD releases its Annual Operations Report (AOR) to supplement the required Conservation District Annual Report (CDAR) submittal to the Arizona Department of Water Resources (ADWR). This report provides additional information on water supplies and administrative actions taken by CAGRD. Like the CDAR, it covers the activity from the previous calendar year. While released in 2025, the AOR represents CAGRD operation in 2024.

Enrollment and Activation

In 2024, enrollment numbers dropped significantly from previous years. This was a result of a pause in mid-2023 on the issuance of Certificates of Assured Water Supply (CAWS) based on groundwater in the Phoenix Active Management Area (AMA). The Pinal AMA has been experiencing a similar pause for several years.

On the other hand, activations have remained very steady over the last 5 years, with the exception of 2021, which had a significant jump in activations. Despite groundwater physical availability constraints, activations continue to be strong.

Replenishment

In 2024, CAGRD incurred a replenishment obligation of 37,097 AF. For over a decade, replenishment obligation has hovered around 35,000 AF, so 2024's obligation is slightly higher than recent history. It is still lower than the historical record of 41,313 AF in 2007. The slight increase from previous years can largely be in water provider reporting strategies and depletion of groundwater allowances. CAGRD continues to replenish excess groundwater in accordance with statutory requirements and typically completes most of its replenishment in the year after obligation is incurred.

Water Supply Program

2023's August 24-Month study confirmed Tier 1 operating conditions would be in place for Arizona in 2024 for the second year in a row. CAGRD continued their efforts on firming existing water supplies in preparation for deeper or longer-term shortage conditions.

Enrollment and Activation Since 2020

Year	Lots Enrolled	Lots Activated
2024	789	15,689
2023	3,518	14,397
2022	7,102	16,935
2021	7,823	25,506
2020	4,671	14,964

Replenishment Obligation Since 2020

Year	Obligation (AF)
2024	37,097
2023	33,893
2022	34,292
2021	35,433
2020	34,342

CAGRD acquired nearly 14,000 LTSCs in 2024 through multiple agreements, ending the year with nearly one million AF in its Long-Term Storage Subaccounts. Over 10,000 AF of LTSCs were added to the Replenishment Reserve accounts, ending the year with over 330,000 AF of LTSCs.

Brief Introduction to CAGRD

The Central Arizona Groundwater Replenishment District (CAGRD) was established in 1993 to provide a mechanism for landowners and water providers to demonstrate one of the requirements necessary to secure a 100-year Assured Water Supply (AWS) under Arizona law. CAGRD recharges Central Arizona Project (CAP) water and other water supplies to replenish groundwater used by its members in excess of the limits established by the Arizona Department of Water Resources (ADWR) AWS Rules.

The AWS Rules limit the quantity of mined groundwater that an applicant may use to demonstrate an AWS. This groundwater use limitation prevents new development from relying solely on mined groundwater to satisfy its water demands. If a landowner or water provider has access to sufficient groundwater to demonstrate an AWS, it must also demonstrate its groundwater use will be consistent with the groundwater management goals of that area. As a member, the landowner or water provider pays CAGRD to replenish any groundwater pumped for the member that exceeds the pumping limitations (referred to as “excess groundwater”) imposed by the AWS Rules.

CAGRD is operated by the Central Arizona Water Conservation District (CAWCD) throughout the portion of CAWCD’s three-county service area that is within an Active Management Area (AMA). It is governed by the CAWCD Board of Directors (the Board), but CAGRD’s finances are completely separate from the rest of CAWCD’s finances. All costs incurred by CAGRD must be paid by CAGRD members.

Membership

Enrollment in CAGRD is voluntary; however, if a landowner or water provider is relying on groundwater to serve a new development, it is often required to meet AWS Rules. Any city, town, private water company, or subdivision located in the Phoenix, Pinal, or Tucson AMA may join CAGRD so long as it meets the State’s requirements. CAGRD is comprised of two types of members: Member Service Areas (MSAs) and Member Lands (MLs).

MSA - The service area of a city, town, district or private water company, including any extensions of the service area. The water provider is required annually to submit a report to CAGRD identifying the volume of total water delivered and the volume of groundwater pumped within the service area and must pay CAGRD replenishment taxes on groundwater volumes pumped in excess of the pumping limitations imposed by the AWS rules. When applying to enroll as a service area in CAGRD, the applicant provides a projection of future population, water demands, and renewable supplies available to meet those demands. These projections serve as a basis for estimating CAGRD’s long-term replenishment obligation for the service area. Membership in CAGRD enables the water provider to receive a Designation of Assured Water Supply (DAWS) issued by ADWR for its service area.

ML – An individual subdivision with a defined legal description. The water provider agrees to annually submit water delivery information necessary to calculate the replenishment assessment for each parcel of land enrolled within the subdivision. A ML water provider does not have a DAWS. Instead, each individual subdivision must receive its own separate Certificate of Assured Water Supply (CAWS) from ADWR, and enrollment in CAGRD enables it to do so.

Replenishment Obligation

CAGRD must replenish in each AMA the amount of Excess Groundwater¹ that has been pumped by or delivered to its members in that AMA. The replenishment may be accomplished through; 1) the operation of underground storage facilities, where water is recharged underground into existing aquifers; 2) through groundwater savings facilities, where water is used directly by irrigation districts in lieu of pumping groundwater; or 3) through the use of long-term storage credits (LTSCs) held by CAGRD. Water used for replenishment may be CAP water or water from any other lawfully available source, except groundwater withdrawn from within an AMA.

A.R.S. § 48-3771.A requires CAGRD to “complete” the replenishment of its Replenishment Obligation within three calendar years after it is incurred. By statute, CAGRD Replenishment Obligation is fulfilled or “complete” when CAGRD’s conservation district account has been credited to reflect either the storage of replenishment water or the transfer of LTSCs in sufficient volume to meet the replenishment obligation.

Revenue Sources

All operations of CAGRD must be funded completely by its members. These costs are covered by a combination of up-front fees, annual membership dues, replenishment taxes, and assessments. Each type of revenue source is dedicated to specific purposes and helps cover costs associated with replenishment activities, such as development of infrastructure, recharge facility construction, water supply acquisition, operation and maintenance, replenishment reserve accruals and administration. CAGRD also has the authority to issue revenue bonds to develop infrastructure and acquire water rights necessary to perform its replenishment obligation.

MSAs pay CAGRD for replenishment services performed on behalf of their service area, as well as annual membership dues. Individual property owners in MLs each pay a special assessment to CAGRD based on their excess groundwater use, as well as annual membership dues, collected through the annual property tax assessment.

Planning

Plan of Operation – Every ten years, CAGRD is required to submit a Plan of Operation (Plan) to the Director of ADWR. The primary purpose of the Plan is to document the actions of CAGRD over the past ten years and describe the proposed activities of CAGRD in each AMA during the twenty-year and 100-year periods following the Plan submission. CAGRD’s 2015 Plan of Operation (2015 Plan) was approved by the Director of ADWR

¹ Excess Groundwater (defined in A.R.S. § 48-3701.7) is groundwater delivered to a member in excess of what is consistent with applicable Assured Water Supply rules.

(Director) on August 5, 2015, and covers the ten-year period from 2015-2024. CAGR D will continue to operate under the 2015 Plan until the 2025 Plan of Operation (2025 Plan) is approved in 2025. CAGR D submitted the 2025 Plan on December 30, 2024, and is awaiting its approval by ADWR.

Board Strategic Plan – On December 3, 2020, the CAWCD Board of Directors unanimously adopted the 2022 CAWCD Board Strategic Plan, following a series of planning meetings and collecting stakeholder feedback. The 2022 Strategic Plan carries over many of the strategic issues from the 2016 CAWCD Strategic Plan, albeit with additional emphasis on the relationship between CAGR D member pumping and replenishment as well as conservation messaging considering potential Colorado River shortages. CAGR D will continue the process of a five-year formal review of its operations, completing an annual operations report and quarterly updates to the CAGR D and Underground Storage Committee under the 2022 CAWCD Strategic Plan.

Mid-Plan Review - The Mid-Plan Review is a comprehensive assessment of the mid-term trends in CAGR D operations under the Plan of Operation. The Mid-Plan Review provides indications of where these trends may lead CAGR D over the remaining five years of the Plan. The first Mid-Plan Review was completed in 2011 during the 2005 Plan of Operation period. CAGR D published its second Mid-Plan review in 2020.

Annual Reporting - The Conservation District Annual Report (CDAR) is submitted to ADWR by August 31 of each year for the previous calendar year (A.R.S. § 48-3775.E). The CDAR details numerical information in a series of tables showing water storage amounts, credit transfers, account balances, groundwater replenishment obligations, contract replenishment obligations and contract replenishment credit accounting.

The Board has directed staff to develop an enhanced annual report, this document, referred to as the CAGR D Annual Operations Report, to supplement the CDAR with additional information about CAGR D operations. More specifically, this report provides further details in a narrative format on new enrollment, up-to-date replenishment obligations, water supply and replenishment reserve activities, and any new legislation and administrative activities that occurred in the report year.

The first CAGR D Annual Operations Report was completed in late 2015 for calendar year 2014, which was the final year covered under the 2005 Plan of Operation. This eleventh CAGR D Annual Operations Report was completed in fall 2025 for calendar year 2024, the tenth year covered under the 2015 Plan of Operation. Completion of the Annual Operations Report will always follow the submittal of the CDAR to ADWR. This report was posted on the CAGR D website (CAGR D.com) in November 2025.

1. Enrollment and Activation

A. Enrollment

Enrollment has declined substantially since the pause of the issuance of groundwater-based CAWS in the Phoenix AMA in 2023, which was preceded by a similar pause in the Pinal AMA in 2018. Only 1 Member Land enrolled in 2024 in the Tucson AMA, which is the only AMA in CAGRD's service area without groundwater physical availability issues.

Table 1.1
New Member Land Enrollment in 2024

AMA	ML Subdivisions	ML Lots*	Projected Demand (AF/Yr)
Phoenix	0	0	0
East Phoenix	0	0	0
West Phoenix	0	0	0
Pinal	0	0	0
Tucson	1	789	281
TOTAL	1	789	281

* ML Lots refers to the total number of lots or homes within all ML Subdivisions.

No enrollment occurred in the Phoenix or Pinal AMA due to ongoing issues with proving physical availability of groundwater.

In 2024, CAGRD collaborated with Global Water – Farmers Water Co. (Farmers) on their enrollment in the CAGRD as a Member Service Area. In June 2024, the CAWCD Board of Directors voted to approve the MSA Agreement between Farmers and GRD. The agreement is structured so that the MSA becomes effective on January 1, 2025.

Comparison of Actual ML Enrollment in 2024 to Projected ML Enrollment in 2024

Enrollment of Member Lands has consistently been lower than projected in the 2015 Plan of Operation. 2024 was no exception, as shown in the table below.

Table 1.2**Comparison of Actual ML Enrollment in 2024 to Projected 2024 Enrollment**

AMA	2024 Enrollment (Lots)	Projected 2024 ML Enrollment (Lots)*
Phoenix	0	6,980
Pinal	0	789
Tucson	789	634
TOTAL	789	8,402

* From 2015 Plan of Operation, projection methodology described in Section 3.2.2.

B. Activation

The Arizona Department of Real Estate issues a public report allowing the sale and lease of lots within subdivisions. Prior to the issuance of the public report for subdivisions within CAGR MLs and MSAs, an Activation Fee must be paid to CAGR for each residential unit offered for sale. In 2024, the number of lots activated totaled 15,689. This is approximately a 9% increase from 2023, although still very close to the average over the last 5 years. More lots were activated in MSAs versus Member Lands.

Table 1.3
Number of Lots Activated in 2024

AMA	MLs	MSAs	Combined
Phoenix	6,120	6,116	12,236
Pinal	0	764	764
Tucson	154	2,535	2,689
Total	6,274	9,415	15,689

2. Replenishment Obligation Incurred and Replenishment Obligation Completed

A municipal water provider serving MLs is required by statute to file an annual report with CAGRD for each ML subdivision that it serves; this report must indicate the volume of total water and the volume of groundwater delivered to each parcel in the subdivision, as well as a calculation of Excess Groundwater delivered. MSAs also are required by statute to file an annual report with CAGRD indicating the volume of total groundwater and the volume of Excess Groundwater pumped within their service areas. These reports must be submitted to CAGRD by March 31st of each year, and the volumes reported represent pumping or deliveries from the previous year ("the Report Year.") CAGRD must complete its Replenishment Obligation within three calendar years after it is incurred. Therefore, at any given point in time there may be one or more years of obligation unfulfilled.

Current CAGRD practice is to complete replenishment the calendar year after groundwater delivery. Depending on operational circumstances, it may be prudent for CAGRD to prioritize replenishment in certain areas or delay its replenishment. CAGRD replenishment has always been completed within statutory time frames.

The replenishment obligation reflects the volume of Excess Groundwater delivered by municipal water providers serving CAGRD ML subdivisions and withdrawn by MSA providers within their service areas. In 2024, CAGRD incurred a replenishment obligation of 37,097 AF. This was an increase from 2023's obligation, but still significantly lower than the 62,300 AF projected in the 2015 Plan of Operation. Table 2.1 shows the distribution of obligation between MLs and MSAs by AMA.

CDAR and Updated Data

Each year, CAGRD receives updated information from water providers, developers and homebuilders regarding activities from previous years, necessitating updates to CAGRD records. Corrections sometimes occur after the CDAR is submitted to ADWR or after yearly totals of enrollment and activation occur.

The 2024 CDAR reflects an increase in obligation in the Phoenix AMA for both 2023 and 2022 due to misreported groundwater that was used for Member Land construction. There was also a decrease in obligation in the Tucson AMA.

Additionally, after the initial submission of the 2024 CDAR, EPCOR Water, Inc. submitted revisions that impacted 54 subdivisions and over 18,000 parcels. This adjustment resulted in a decrease in obligation of 3,277.73 AF. These changes are reflected in this report and the amended CDAR signed and dated October 29th, 2025.

Table 2.1

Replenishment Obligation (AF) for MLs and MSAs in 2024 by AMA

AMA	MLs	MSAs	Combined
Phoenix	24,774	8,237	33,011
Pinal	25	669	694
Tucson	1,966	1,426	3,392
TOTAL	26,764	10,333	37,097

**All values rounded to the nearest AF. Totals may vary slightly from yearly component values. Non-rounded quantities available on <https://cagrd.com/operations/cagrd-reports-and-information/>*

Tables 2.2 through 2.4 list the volumes of Excess Groundwater reported from 2020 through 2023 along the top row. The tables also identify the year and extent to which the replenishment obligation resulting from those deliveries has been completed. Recent activity is shown in order to demonstrate CAGRD has met its obligation within the statutory replenishment time frame. In 2023, CAGRD fulfilled 35,685 AF of replenishment obligation as shown in Tables 2.2, 2.4 and 2.5 (refer to 2023 row).

The following explanation may assist in interpreting these tables: The top row (green) shows the year in which deliveries of Excess Groundwater occurred. In the Phoenix AMA, (Table 2.2), the 2021 column reflects 32,094 AF of excess groundwater reported for both MLs and MSAs. Fulfillment of this obligation occurred over a 3-year period; 52 AF of 2021's obligation was replenished in 2021; 30,673 AF was replenished in 2022; and 1,369 AF was replenished in 2023. This table illustrates that CAGRD continues to meet its statutory requirement of fulfilling obligation within 3 years of incurring it.

Table 2.2
Completion of Replenishment Obligation - Phoenix AMA

Phoenix AMA		Excess Ground Water Obligation by Report Year (AF)			
		2021	2022	2023	2024
		32,094	31,400	30,710	33,011
Year and Volume (AF) Obligation Completed	2021	52			
	2022	30,673			
	2023	1,369	31,334	2,982	
	2024		66	27,690	
Amount Unmet to Date		0	0	38	33,011

All values rounded to the nearest AF. Totals may vary slightly from yearly component values.

Non-rounded quantities available on <https://cagrd.com/operations/cagrd-reports-and-information/>.

East Phoenix AMA and West Phoenix AMA

A.R.S. §48-3772.I compels CAGRD to:

"In the Phoenix active management area, the district [CAGRD], to the extent reasonably feasible, shall replenish groundwater in the east portion of the active management area and in the west portion of the active management area in the approximate proportion that the groundwater replenishment obligation attributable in a particular year to member lands and member service areas located in the east portion of the active management area bears to the groundwater replenishment obligation attributable in that year to member lands and member service areas located in the west portion of the active management area."

Year-to-year operational decisions, contractual requirements, and availability of recharge locations dictate the amount of replenishment occurring in each portion of the Phoenix AMA. Table 2.3 provides a breakdown of replenishment activities in 2024 for 2023 obligation between the east and west portions of the Phoenix AMA.

Table 2.3
Replenishment of 2023 West Phoenix and East Phoenix Obligation (AF)

West Phoenix		East Phoenix	
Obligation	Replenishment	Obligation	Replenishment
16,283	16,240	14,427	14,432
2023 Remaining Obligation for 2025		38	

Table 2.4
Completion of Replenishment Obligation - Pinal AMA

Pinal AMA		Excess Ground Water Obligation by Report Year (AF)			
		2021	2022	2023	2024
		593	208	24	694
Year and Volume (AF) Obligation Completed	2022	5923			
	2023		208	3,427*	
	2024				3,403*
Amount Unmet to Date		0	0	0	0

All values rounded to the nearest AF. Totals may vary slightly from yearly component values. Non-rounded quantities available on <https://cagrd.com/operations/cagrd-reports-and-information/>.

*Per discussion with ADWR staff on 8/20/2024, an administrative credit of 3,426.99 AF in the Pinal AMA was made due to a revision of accounted groundwater allowance. 2024 Pinal AMA obligation was met using this administrative credit.

Table 2.5
Completion of Replenishment Obligation - Tucson AMA

Tucson AMA		Excess Ground Water Obligation by Report Year (AF)			
		2021	2022	2023	2024
		2,746	2,750	3,054	3,392
Year and Volume (AF) Obligation Completed	2021	240			
	2022	2,189			
	2023	18	2,730		
	2024		20	2,956	
Amount Unmet to Date		0	0	98	3,392

*All values rounded to the nearest AF. Totals may vary slightly from yearly component values.
 Non-rounded quantities available on <https://cagrd.com/operations/cagrd-reports-and-information/>.

Comparison of Actual Obligations in 2024 to Projected Obligations in 2024 (as projected in the 2015 Plan of Operation)

Much as described in the section on enrollment numbers, the 2015 Plan obligation projections are tied to housing unit growth; thus, actual obligation in 2024 (37,097 AF) is lower than the Plan projection of 62,330 AF (Table 2.6). Beyond a continued per capita drop in residential demand for water, other factors contributed to lower-than-anticipated obligation. Examples include obligation avoidance strategies by certain ML water providers through increased use of groundwater allowance along with the elimination of a contractual minimum reporting requirement for MLs enrolled before 2004.

Table 2.6
Actual vs. Projected Replenishment Obligation in 2024

AMA	Member Lands		Member Service Areas	
	Actual Obligation	Projected Obligation	Actual Obligation	Projected Obligation
Phoenix	24,774	38,194	8,237	12,021
Pinal	25	1,016	669	2,065
Tucson	1,966	4,908	1,426	4,127
TOTAL	26,764	44,117	10,333	18,213

All values rounded to the nearest AF. Totals may vary slightly from yearly component values.
 Non-rounded quantities available on <https://cagrd.com/operations/cagrd-reports-and-information/>.

3. Water Supply Program

A description of CAGRD's Water Supply Program for 2024 is provided under two headings: Section A - Water Supply Activity and Section B - Summary of Water Supplies. Section A describes both new and ongoing activity in the program for 2024. Discussion of new activity in 2024 will identify whether new physical supplies became available during the reporting year or will become available at some future date as specified in the associated contract or agreement. Section B shows an overall picture of CAGRD's water supplies for 2024, summarizing the volume of water supplies CAGRD had available going into the year, water accrued or acquired during the year and the total volume available at the end of the year.

A. Water Supply Activity

2024 Long-Term Storage Credit Acquisition Activities

In 2024, CAGRD acquired a total of 13,919 AF of long-term storage credits (LTSCs) through ongoing water leases and agreements and the Recovery and Exchange Agreement with the Gila River Indian Community (GRIC). Table 3.1 found below, details the LTSC transactions that CAGRD completed by the seller's name and AMA location in 2024.

Table 3.1
LTSCs Acquired in 2024

AMA	LTSCs (AF)
Phoenix AMA	
City of Peoria	7,182
GRIC	1,488
Vidler Water Company	47*
Phoenix AMA Subtotal	8,717
Tucson AMA	
City of Tucson	5,000
MDWID (Metro)	250
Tucson AMA Subtotal	5,250
AMAs Total	13,919

**These credits came from a credit swap that repositioned existing credits to accomplish regional water management goals.*

City of Peoria – LTSC PSA and 1,885 AF CAP M&I Transfer and Assignment

In 2020, CAGRD and the City of Peoria (Peoria) executed an LTSC Purchase and Sale

Agreement (PSA) under which CAGRD will acquire from Peoria 34,397 LTSCs over five consecutive years from 2022 through 2026 for an annualized total of 7,182.20 LTSCs from 2022 through 2025 and 5,668 LTSCs in 2026. The LTSC PSA was the result of extensive negotiations between CAGRD and was contingent upon the successful approval of a transfer and assignment of 1,885 acre-feet of CAP M&I Priority Water from CAGRD to Peoria. The transfer and assignment of up to 1,885 acre-feet of CAP M&I Priority Water is contractual under section 5.5 of CAGRD's Supplemental Contract and a result of Peoria's acquisition and successor in interest status of New River Utility Company (NRUC) since 2016. In December 2020, the parties filed a joint application to ADWR requesting a review of the transfer and assignment. ADWR determined that the proposed transfer was consistent with applicable "Water Management Objectives and Review Criteria of the CAP Subcontract Transfer Policy" and recommended the Bureau of Reclamation (BOR) initiate the process to assign the 1,885 acre-feet entitlement to Peoria. In April 2022, the parties received their amended M&I subcontracts from BOR and began implementation of the 5-year LTSC PSA.

Gila River Indian Community

In 2024, CAGRD acquired a total of 1,487 Phoenix AMA LTSCs from the GRIC in accordance with our 25-year (2020 through 2044) CAP NIA Lease Agreement. A majority of the CAGRD's 18,185 AF/year CAP NIA Lease water is delivered and stored annually at the GRIC-owned MAR-5 USF. The MAR-5 USF primarily discharges water into the Gila River just upstream of the Olberg Dam at the Phoenix and Pinal AMAs boundary. Due to the unique geographic location of the MAR-5 USF, each year a percentage of the water delivery is attributed to the Phoenix and Pinal AMAs, approximately 80% to 20%, respectively. Therefore, each year CAGRD performs a LTSC transfer whereby CAGRD transfers Pinal AMA LTSCs to GRIC for an equal amount of the GRIC's Phoenix AMA LTSCs.

In 2024, a Tier 1 Colorado River shortage year, CAGRD ordered and GRIC delivered a reduced subcontract volume of 13,638 AF or 75% of the 18,185 AF contracted volume due to NIA mitigation provided under the Arizona Drought Contingency Plan (DCP).

City of Tucson

In 2013, CAWCD and the City of Tucson ("Tucson") entered into an agreement where Tucson agreed to sell and transfer 100,000 AF of Tucson AMA LTSCs to CAGRD. CAGRD has committed to purchasing 4,000 AF of credits each year for 25 years and retains an option to purchase up to an additional 1,000 AF of LTSCs in any given year. Through 2024, CAGRD has acquired 55,000 AF of LTSCs through this agreement.

Metro Water

CAWCD and Metropolitan Domestic Water Improvement District (Metro) entered into a credit purchase agreement in 2015. Under this Agreement, Metro will sell to CAGRD a minimum of 250 LTSCs, up to a maximum of 1,000 LTSCs, each year. The Agreement was amended in 2017 to change the storage facility at which the credits would be accrued. This agreement will be effective until 2061 if the option for two additional 10-year terms

is exercised beyond the initial 25- year term. CAGR D has acquired 3,250 AF of LTSCs through 2024 under this agreement.

B. Summary of Water Supplies

In addition to the water supplies described in Section A, CAGR D utilizes the following water supplies to which it utilizes to fulfill its statutory annual replenishment obligations.

CAGR D CAP Entitlement

Since April 2022, CAWCD, for benefit of the CAGR D, holds an annual entitlement to 6,426 AF of CAP Municipal & Industrial (M&I) Priority water pursuant to the "Supplemental Contract between the U.S. and CAWCD for Delivery of CAP Water, Contract No. 14-06W-245, Exhibit A, Amendment No. 3, Supplement No. 1 as amended," ("Supplemental Contract"). The Supplemental Contract is for permanent water service for replenishment obligations incurred solely in the Phoenix AMA.

CAGR D Effluent Entitlement

CAWCD acquired 2,400 AF of effluent annually produced at the Palm Valley Water Reclamation Facility in Goodyear as part of the "Agreement for Development of Effluent Recharge Facility, Effluent Disposal and Purchase and Sale of Effluent" completed with Liberty Utilities in 2014. This 100-year lease of the effluent entitlement became effective in 2017 with the completion of the Sustainable Effluent to Aquifer Project (SEAP), where the leased effluent is recharged. Modifications to the facility implemented in 2020 have increased recharge rates. As a result of these improvements CAGR Ds entire entitlement of 2,400 AF of effluent was recharged at SEAP in 2024.

CAWCD NIA Allotment

In September 2021, CAWCD, for the benefit of CAGR D replenishment, received the fully executed Non-Indian Agricultural (NIA) subcontract from the Bureau of Reclamation. In 2024, a Tier 1 Colorado River shortage year, CAGR D ordered and delivered a reduced subcontract volume of 13,638 AF or 75% of 18,185 AF contracted volume due to NIA mitigation provided under the Arizona DCP.

C. CAGR D Long-Term Storage Subaccount

In 2024, CAGR D began the year with a cumulative AMA (Phoenix, Tucson and Pinal AMAs) LTSC balance of 977,702 AF in the Long-Term Storage Subaccount and ended the year with a balance of 992,906 AF.

Table 3.2
2024 CAGRD Long-Term Storage Subaccount

AMA	2023 Year End Balance	2024 LTSC Accrual/ Acquisitions	2024 LTSC Activities Storage/Recovery/RR (Net)	2024 Year End Balance
Phoenix	498,953	8,717	17,213	524,884
Pinal	316,488	1,579	-16,488	301,579
Tucson	162,261	5,250	-1,067	166,443
TOTAL	977,702	15,546	-342	992,906

**All values rounded to the nearest AF. Totals may vary slightly from yearly component values.*

Non-rounded quantities available on <https://cagrd.com/operations/cagrd-reports-and-information/>.

Phoenix AMA

As discussed in the previous section subtitled, “2024 Long-Term Storage Credit Acquisition Activities”, a total of 8,717 LTSCs were acquired in the Phoenix AMA in 2024. These LTSCs were acquired through LTSC PSAs, GRIC water supply agreements, and public and private entities. CAGRD’s Phoenix AMA LTSC Sub-Account was credited with an additional 17,213 LTSCs. This value represents the net total of LTSCs earned through water delivery and storage minus contributions to the Replenishment Reserve Sub-Account in the amount of 10,211 LTSCs.

Tucson AMA

A total of 5,250 LTSCs were acquired by CAGRD in the Tucson AMA in 2024 via LTSC PSAs. Additionally, in 2024, all LTSCs generated through water delivery and storage activities were applied to CAGRD’s annual obligation fulfillment. CAGRD’s LTSC Sub-Account was also debited 1,067 LTSCs for contributions to the Replenishment Reserve Sub-Account. A net total of 4,183 LTSCs was accrued in the Tucson AMA LTSC Sub-Account.

Pinal AMA

In 2024, CAGRD, pursuant to our Recovery and Exchange Agreement, recovered 15,000 AF of Pinal AMA LTSCs on behalf of GRIC for on-reservation irrigation activities. The water CAGRD recovered was then exchanged on a 1:1 acre-foot basis for Indian priority water deliveries to several Phoenix AMA GSFs; MWD, NMIDD and QCIDD. Additionally, CAGRD, pursuant to our GRIC NIA Lease, delivered 13,639 AF (reduced Tier 1 shortage volume) to the Community-owned MAR-5 USF. Deliveries to MAR-5 USF are subject to the ADWR calculations of cut-to-the-aquifer, evaporation losses and are split between the Phoenix and Pinal AMAs due to the USF’s proximity to the AMA boundary. In 2024, CAGRD and GRIC completed a LTSC transfer on a 1:1 basis (1,487 LTSCs) to reconcile the Phoenix

and Pinal AMA LTSC accrual split from 2023 storage which ensures all CAGRD LTSCs are ultimately acquired in the Phoenix AMA.

4. Replenishment Reserve

The Replenishment Reserve consists of LTSCs that CAGRD accrues in a Replenishment Reserve Subaccount established for each AMA in CAGRD's service area. The purpose of the Replenishment Reserve is to help ensure that CAGRD will be able to meet its replenishment obligation and to enhance rate stability. During periods of water supply shortage or infrastructure failure, CAGRD may use LTSCs from the Replenishment Reserve to offset its replenishment obligation rather than purchasing spot market water. Water purchased on the spot market is likely to be more costly during shortage or outage conditions.

CAWCD LTSCs Dedicated to CAGRD Replenishment Reserve

The Board has dedicated LTSCs held by CAWCD for exclusive use by CAGRD to meet its legal requirements to establish and maintain the CAGRD Replenishment Reserve Subaccounts for each AMA or to meet its annual replenishment obligations. CAGRD purchased over 10,000 AF of CAWCD LTSCs in 2024. Thus, 489,361 AF of CAWCD LTSCs remain reserved for CAGRD purchase and use under CAWCD Board policy. These credits are in the Pinal (311,058 AF) and Phoenix (178,303 AF) AMAs.

CAGRD Replenishment Reserve Subaccount

CAGRD accrues LTSCs through a combination of storage in constructed Underground Storage Facilities (USFs), storage at Groundwater Savings Facilities (GSFs), purchases of pre-existing LTSCs, and LTSC transfers from MSAs who wish to offset the replenishment reserve component of their Replenishment Tax. Table 4 provides the Replenishment Reserve balance at the end of 2023, the number of credits accrued during 2024, and the resulting balance of LTSCs in the Replenishment Reserve at year-end, by AMA. Also shown is the percentage of the Reserve Target goal achieved through the end of 2024. The volume of LTSCs to be accrued in the Replenishment Reserve is known as the "Reserve Target." A Reserve Target must be identified for each AMA based on that AMA's projected obligation and the water supplies planned to be used to meet that obligation as described in the Plan of Operation (refer to the 2015 Plan for additional explanation and calculation of the Reserve Target).

In 2024, CAGRD began the year with a balance of 323,466.47 AF in the Replenishment Reserve Subaccounts and accumulated an additional 11,328 AF through the year. CAWCD credits constituted all of the additions to the Replenishment Reserve in the Phoenix and Pinal AMAs while the Tucson AMA additions came from the CAGRD Long-Term Storage Account.

At the time this report was written in fall 2025, legislation became effective that changed the calculation of the Reserve Targets. Table 4 utilizes the Reserve Targets that were in place at the time the 2024 Replenishment Reserve activities were taking place. The 2025 Annual Operations Report will reflect the new Reserve Targets.

Table 4.1
Replenishment Reserve Balance and Target Achieved for 2024 (AF)

AMA	Replenishment Reserve Balance (12/31/23)	Replenishment Reserve Accruals During 2024	Replenishment Reserve Balance (12/31/24)	Reserve Target	% of Reserve Target Achieved (12/31/24)
Phoenix	274,479	10,211	284,691	603,866	47%
Pinal	6,142	50	6,192	48,036	13%
Tucson	42,845	1,067	43,912	112,600	39%
TOTAL	323,466	11,328	334,795	764,502	44%

5. Operational Efforts and Successes

In August 2023, the Bureau of Reclamation released the Colorado River Basin August 24-month study which indicated that the Basin would be in a Tier 1 Shortage in 2024. As described in the above Water Supply section above, CAGRD was well-prepared for potential reductions in water supplies. Efforts have been made to acquire new supplies and firm existing supplies.

Shortage conditions also framed CAGRD/CAWCD as one of the cost-share partners in a feasibility study regarding a potential modification to Bartlett Dam. This modification would increase the storage capacity at Bartlett Lake, potentially creating a larger supply of Verde River water. The CAGRD and Underground Storage Committee received regular updates on the feasibility study.

Perhaps one of the most significant operational successes in 2024 was the submission of the 2025 Plan of Operation. After a multi-year effort, including input from the CAP Board, stakeholders, and industry experts, the 2025 Plan of Operation was completed. The 2025 Plan outlines the replenishment activities proposed in the Phoenix, Pinal and Tucson Active Management Areas over the next 100 years, based on CAGRD membership activity through 2034. The CAWCD Board unanimously approved the Draft Plan of Operation on October 10, 2024. The draft 2025 Plan of Operation was submitted to ADWR on December 30, 2024 for their review and anticipated approval.

6. Conservation Activities

CAGRD created the Water Efficient Construction Incentive Program (WECIP) to encourage conservation efforts among new construction homes in parts of its service area. WECIP is a voluntary program that awards \$1,000 per home that is certified to WaterSense 2.0 standards. A WaterSense 2.0 certified home uses less water than its uncertified

counterpart. By using less water, CAGRD members pump less groundwater, resulting in a lower obligation volume. This reduces costs for CAGRD members and competition for water supplies to replenish obligation.

The second cycle of WECIP opened in June 2024. There was \$150,000 available (equal to 150 homes at \$1,000 per lot) that developers could apply for. The incentive is available to all homes in Member Lands, as well as those Member Service Areas expected to have a replenishment obligation. Just like 2023, the program was very popular among stakeholders, and all of the funds were distributed after just a few months.

Another aspect of CAGRD's conservation efforts is a continued partnership with Water Use It Wisely (WUIW). CAGRD allocated \$25,000 for WUIW's 2024-2025 Robust XL marketing campaign which includes targeted ads focused on water conservation.

7. Legislative Action

As discussed in other parts of this report, issues with physical availability of groundwater in the Phoenix and Pinal AMAs have limited some areas' ability to grow. Arizona governor Katie Hobbs' Water Policy Council was convened to develop creative solutions to several water-related issues, including the Assured Water Supply rules. The Council developed a concept called the "Alternative Path to Designation of Assured Water Supply" (ADAWS), which essentially helped entities that were affected by the moratorium of groundwater-based CAWS become Designated. One of the requirements of ADAWS is that the water provider must enroll in the CAGRD as an MSA. ADAWS went through a formal rulemaking process and was officially adopted in November 2024.

While ADAWS itself is outlined in the Arizona Administrative Code, there was also action in the legislature related to the program. SB1181 allows a Municipal Provider that receives a new Designation of Assured Water Supply in the Phoenix AMA to gradually transition the amount of total reported groundwater delivered to Member Lands in their service area onto the MSA over a 20-year period. This bill was signed by the Governor and will work in tandem with the ADAWS rules.

8. Other Activity

Third-Party Marketing of LTSCs to ML Homeowners Associations

First described in the 2015 Annual Operations Report, third-party entities began marketing LTSCs to homeowners associations (HOAs) within CAGRD MLs in 2015 as an alternative to receiving excess groundwater and paying CAGRD assessments. The concept involves individual ML property owners, such as an HOA, obtaining a recovery permit for one of their water provider's wells, purchasing LTSCs from a third-party, and entering into an agreement whereby the water provider would recover the LTSCs on behalf of the property owner and "wheel" the recovered water in lieu of groundwater that would otherwise be delivered to the property. The LTSCs may be used to reduce or eliminate the property's replenishment obligation and thereby reduce the CAGRD assessment for that year.

In 2024, the total amount of credits wheeled and recovered within Member Land

subdivisions, in order to reduce or eliminate a property's replenishment obligation, was 749 AF within the Phoenix AMA. No wheeled and recovered LTSCs were reported in the Pinal or Tucson AMAs.

Appendix I: 2024 ADWR Determination Letter

CAGRD received notification from ADWR on October 9, 2025 that the 2024 CDAR had been reviewed. CAGRD was determined to be in compliance with its groundwater replenishment obligations as required by statute.

A copy of the letter is included on the following page.

KATIE M. HOBBS
GOVERNOR



THOMAS BUSCHATZKE
DIRECTOR

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October 9, 2025

Via email to lgrignano@cap-az.com

Laura Grignano, Manager
Central Arizona Groundwater Replenishment District
P.O. Box 43020
Phoenix, AZ 85080-3020

Re: CAGRD Accounting Status 2024

Dear Ms. Grignano:

The Arizona Department of Water Resources (Department) has reviewed the Central Arizona Groundwater Replenishment District (CAGRD) 2024 Conservation District Annual Report, dated August 21, 2025. As prescribed by A.R.S. § 45-859.01(I), the Department determined in October of 2025 that the CAGRD completed the groundwater replenishment obligation, as specified in A.R.S. §48-3771, for each Active Management Area. This letter is to inform you of that determination.

If you have any questions regarding this determination, please feel free to contact Kym Luttermoser at (602) 771-8660 or by email at kluttermoser@azwater.gov.

Sincerely,

Carol M. Ward, Assistant Director
Water Planning and Permitting

cc via email: Tom Buschatzke, ADWR tbuschatzke@azwater.gov
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