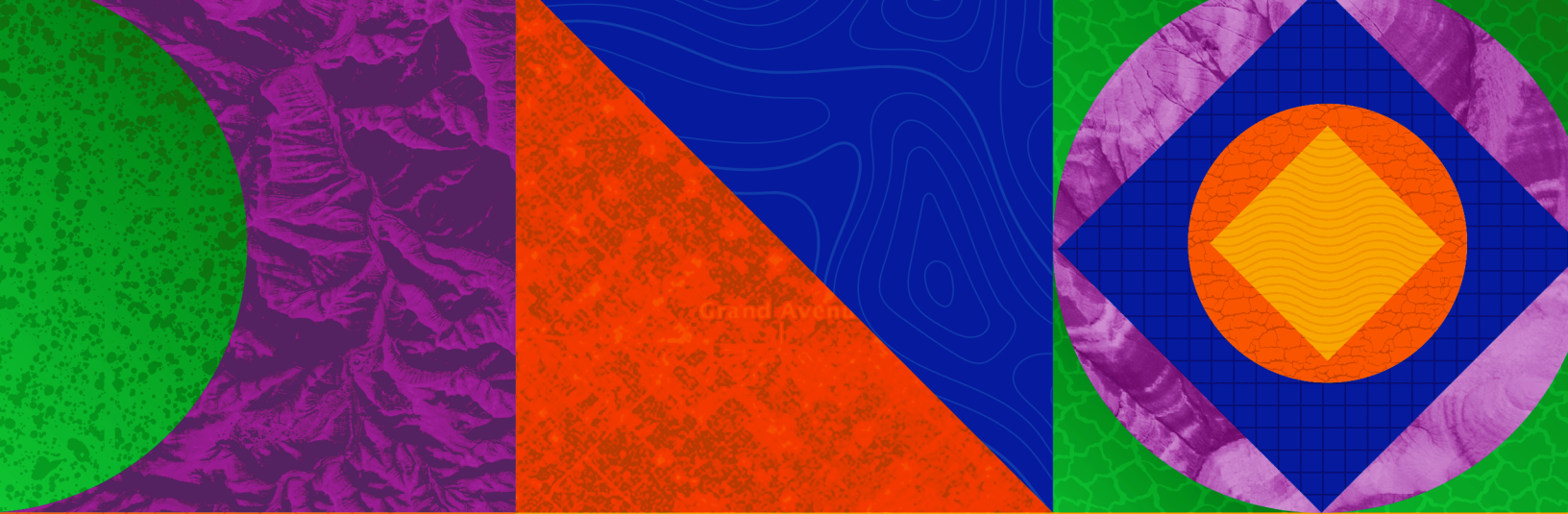
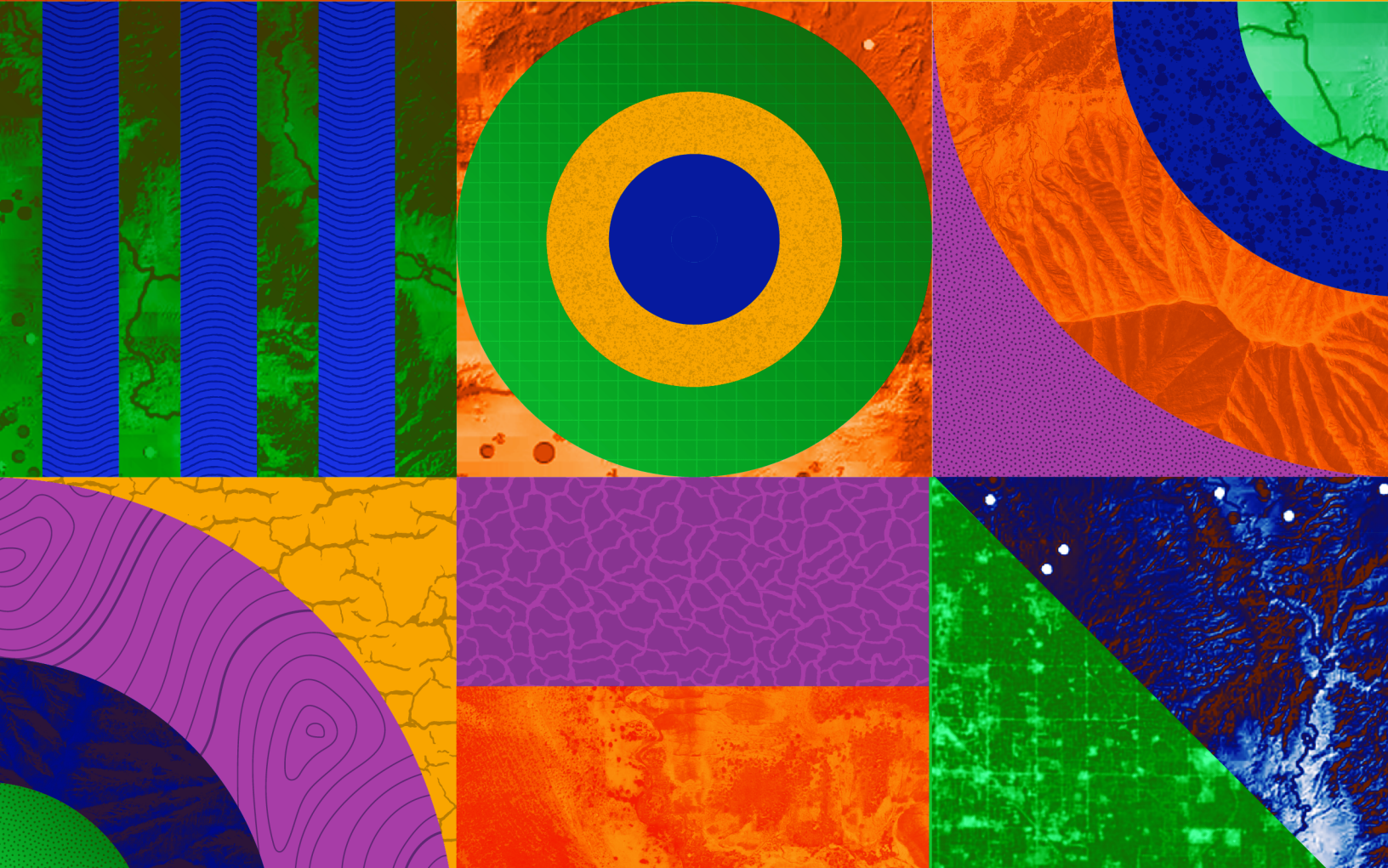




CONSERVATION PROGRAMS 2025 REPORT





AMA CONSERVATION PROGRAMS REPORT

December 2025

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Pursuant to Arizona Revised Statutes (A.R.S.) § 45-563(A), the Arizona Department of Water Resources (ADWR) is required to develop and administer mandatory conservation programs for all groundwater users—agricultural, municipal, and industrial—in the state’s Active Management Areas.

Pursuant to A.R.S. § 45-563.01, ADWR is required to issue a report at least once every three years on per-capita water use and efforts to promote water conservation by municipal providers in each AMA. Although statute only requires the inclusion of per capita water use of each municipal provider in each AMA and a brief description and evaluation of the efforts to promote water conservation by municipal providers subject to the Non-Per Capita Conservation Program, this report also addresses the agricultural and industrial sectors.

The report is divided by sector and describes the requirements of the conservation programs for each, along with data on the users regulated in each program.

Section 1: Introduction

The 1980 Groundwater Management Act established the framework for a long-term effort to achieve equilibrium between supply and demand. The Act established the Department of Water Resources and gave it extensive authority to regulate water use and consumption, establishing three levels of water management.

The lowest level of management includes general provisions that apply statewide. All wells must be registered and constructed in compliance with the Department’s well construction standards. Community water systems must file a system water plan (including a conservation plan), an annual water use plan, and a drought plan. Outside the Active Management Areas, developers must obtain a determination of water supply availability before marketing lots and must disclose the inadequacy of supply.

Within Irrigation Non-Expansion Areas (INAs), in addition to the statewide provisions, new irrigated acreage is prohibited, and all owners of irrigation groundwater withdrawal authorities must report their water use to the Department. The Act established two initial INAs: The Joseph City INA and the Douglas INA (now the Douglas AMA). The Harquahala INA was created in 1981. The Hualapai Valley INA was established by decision of the Director on December 19, 2022.

In the areas of the state where groundwater declines were most severe, in addition to the provisions that apply statewide, the Act established a timeline for reduction of groundwater pumping and designated Active Management Areas (AMAs) to facilitate this process. AMAs are groundwater basins within the state that are subject to certain statutory and administrative regulations regarding the withdrawal and use of groundwater, or in the case of the Santa Cruz

AMA, the withdrawal and use of any water, other than stored water, from a well. For the purposes of this report, “groundwater” is generally used to describe both groundwater and the withdrawal and use of water, other than stored water, from a well.

There are five initial AMAs—Pinal, Phoenix, Prescott, Santa Cruz, and Tucson. The Santa Cruz AMA was split from the Tucson AMA shortly after 1980 and is considered original. Two subsequent AMAs have recently been established. The Douglas AMA (formerly the Douglas INA) was designated on December 1, 2022—the only AMA to be established by voter initiative. The Willcox AMA was designated by decision of the Director on January 8, 2025.

The AMAs have the most extensive regulatory provisions and the highest level of management. Within AMAs, the Act:

- prohibits the expansion of agricultural irrigation,
- requires a permit to drill a new well,
- mandates a groundwater right or withdrawal permit to withdraw and use groundwater from a non-exempt well,
- requires groundwater users to measure their withdrawals and file annual reports with ADWR,
- and prohibits new residential growth without a proven 100-year assured water supply.

The Act necessitated water providers to acquire renewable, non-groundwater water supplies and invest in the facilities to treat and deliver surface water and reclaimed wastewater. It was also intended to drive new development to occur on retired agricultural lands, significantly reducing groundwater demands as areas urbanized. The establishment of the Central Arizona Groundwater Replenishment District in the mid-1990s allowed development with groundwater to occur on non-agricultural lands by replenishing the groundwater supplies used with renewable supplies, primarily excess Central Arizona Project supplies, anywhere within the AMA.

A critical aspect of the Act is its conservation requirements, implemented through management plans. To meet the statutory requirements of the Act, management goals were established for each initial AMA.

- In the Phoenix, Prescott, and Tucson AMAs, the goal is to attempt to achieve, and thereafter maintain, safe-yield—a long-term balance between the amount of groundwater that is replenished annually—by 2025. A.R.S. § 45-561(12)

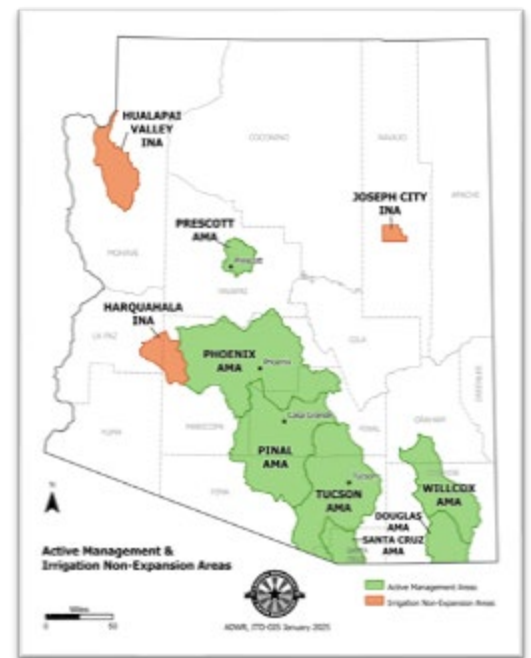


Figure 1.1: Map of Active Management Areas (AMAs) and Irrigation Non-Expansion Areas (INAs)

- The goal of the Santa Cruz AMA is to maintain safe-yield conditions and to prevent local water tables from experiencing long-term declines. A.R.S. § 45-562(C)
- The goal of the Pinal AMA is to allow development of non-irrigation use and to preserve existing agricultural economies for as long as feasible, consistent with the necessity to preserve future water supplies for non-irrigation uses. A.R.S. § 45-562(B)

Goals in subsequent AMAs are determined by the director of ADWR through a statutory process, with stakeholder input. Most of the initial five AMAs have not met their goals; however, the goals remain in place. Although there are no statutory penalties for not reaching the goals, the increasing risk to long-term water security is a substantial concern.

A series of management plans, corresponding to five management periods from 1980 through 2025, must be developed and implemented in each initial AMA. The management plans are designed to guide each individual AMA towards its goal. The plans must include progressively more rigorous conservation requirements over the course of the management periods for all water users—agricultural, municipal, and industrial—designed to reduce groundwater withdrawals (A.R.S. §45-563 (A)). The Fifth Management Plans (5MPs) became effective on January 1, 2025, and will remain in force until the Arizona Legislature determines otherwise.

Management plans are likewise required for the subsequent AMAs (A.R.S. §45-569 (B)). The first management plan for the Douglas AMA was adopted in late 2024 and becomes effective January 1, 2027. The first management plan for the Willcox AMA is currently under development.

The management plans are regulatory documents; they have the force of law, and the Department has enforcement authority. While the goal is always to bring users into compliance, fines can be up to \$10,000 a day for violations.

The Code’s authors left it to the Department, working with the regulated users, to construct the regulatory programs and requirements in each plan, ensuring those would be achievable, and enabling the plans to evolve and strengthen as technologies and experience improved, without returning to the legislature.

In 2022, the Alliance for Water Efficiency ranked Arizona third in the nation for its adoption of laws and policies driving water conservation, efficiency, sustainability, and affordability.

This report describes the conservation programs in the initial AMAs—Phoenix, Pinal, Prescott, Tucson, and Santa Cruz—for calendar year 2024, and the conservation requirements under the Fourth Management Plans (4MPs), effective through December 31, 2024. It does not address the two recently established subsequent AMAs, Douglas and Willcox. The conservation requirements for the Douglas AMA will become effective January 1, 2027, and requirements for the Willcox AMA have not yet been established.

Section 2: Annual Reporting Requirement

<https://www.azwater.gov/ama/online-annual-reporting>

2.1 Annual Reporting Overview

By March 31st of every year, grandfathered right and permit holders inside of an AMA or Irrigation Non-Expansion Area (INA) are required to submit an Annual Withdrawal and Use Report to ADWR reporting their water usage, or zero use, from January to December of the previous calendar year (A.R.S. § 45-611 (C)). These annual reports are vital in gathering data on water usage in the AMAs and INAs. To advance Management Plan efforts and move the AMAs toward their management goals, ADWR enforces annual reporting requirements.

Right holders in the initial AMAs must also submit a groundwater withdrawal fee and other applicable fees. Withdrawal fees are authorized in the initial AMAs by the 1980 Groundwater Code (Code) and are levied based on the acre-foot (AF) volume of groundwater withdrawn in the calendar year. The Director, with input from the AMA Groundwater Users Advisory Councils (GUACs), sets the groundwater withdrawal fee rates on October 1st of each year. The fee is limited to a maximum of five dollars per acre-foot per year.

Table 2.1: CY 2024 Groundwater Withdrawal Fees for each AMA (\$/AF)

AMA	Administration & Enforcement	AZ Water Bank Authority	Pinal Irrigation & Efficiency Fund	Water Management Assistance Program*	Total
Phoenix	\$0.50	\$2.50	-	\$0.30	\$3.30
Pinal	-	-	\$2.35	\$0.65	\$3.00
Prescott	\$0.75	-	-	\$1.25	\$2.00
Santa Cruz	\$1.00	-	-	\$2.00	\$3.00
Tucson	\$0.50	\$2.50	-	\$0.50	\$3.50

* Supports augmentation, conservation, monitoring & assessing water availability programs

2.2 Annual Reporting Metrics

ADWR regulates and tracks water use at the sector level (i.e., municipal, agricultural, industrial use) by sub sector-level programs, each with a unique program code. This allows for distinction between various types of water rights and permits beyond the broad categories of “Municipal”, “Agricultural”, “Industrial”, and “Recharge”.

Table 2.2: Program codes for water right types

Municipal	Agricultural	Industrial	Recharge
• Small and Large Municipal Providers (56)	• Irrigation Districts (57) • Irrigation Grandfathered Rights (58) • INA Irrigation Authority (60) • Best Management Practice Rights (88)	• Non-irrigation Grandfathered Rights (Type 1 and Type 2 – 58) • Withdrawal Permits (59) • Individual Users (62)	• Long-Term Storage Accounts (70) • Underground Storage Facility Permit (71) • Groundwater Savings Facility Permit (72) • Water Storage Permit (73) • Recovery Wells (74)

Table 2.3: Annual reports received for the 2024 calendar year

Sector and Filing Method	AMA					INA			Not within any AMA or INA	Total
	Phoenix	Pinal	Prescott	Santa Cruz	Tucson	Douglas	Harquahala	Joseph City		
Municipal	82	37	20	17	116	-	1	-	-	275
Online	1	4	-	3	9	-	1	-	-	18
Hard Copy	81	33	20	14	107	-	-	-	-	257
IGFRs (Agricultural)	1,567	901	27	59	175	213	159	13	-	3,114
Online	941	248	24	49	79	175	133	10	-	1,659
Hard Copy	626	653	3	10	96	38	26	3	-	1,455
BMPs (Agricultural)	26	151	-	-	-	-	-	-	-	177
Online	11	47	-	-	-	-	-	-	-	58
Hard Copy	15	104	-	-	-	-	-	-	-	119
Irrigation District (Agricultural)	31	9	1	-	1	-	1	-	-	43
Online	1	2	-	-	-	-	1	-	-	4
Hard Copy	30	7	1	-	1	-	-	-	-	39
Industrial	866	241	34	40	454	33	6	5	-	1,679
Online	653	158	27	35	360	29	6	5	-	1,273
Hard Copy	213	83	7	5	94	4	-	-	-	406
Recharge	474	118	20	-	181	-	1	-	17	811
Online	15	10	-	-	5	-	1	-	-	31
Hard Copy	459	108	20	-	176	-	-	-	17	780
Total	3,046	1,457	102	116	927	246	168	18	17	6,097

2.3 Total AMA Water Demands

In 2024, water-use patterns across the three water use sectors—agricultural, municipal, and industrial—largely continue long-standing trends. Agricultural use continues a long-term decline punctuated by short-term variability in response to climate and market conditions along with more recent impacts from Colorado River shortage, while municipal and industrial use continues to rise more uniformly.

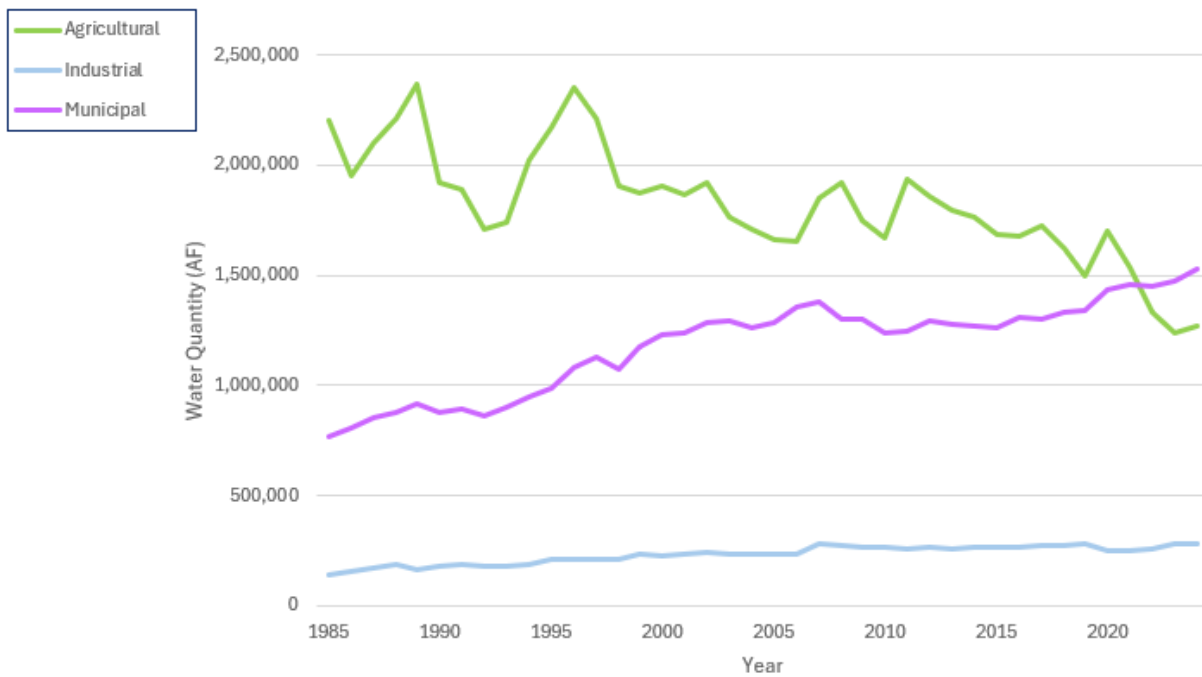


Figure 2.1: Total AMA water demand by sector, 1985-2024

Table 2.4: AMA water demand quantities (AF) from 1985 to 2024 (in five-year intervals) categorized by sector

AMA	Sector	1985	1990	1995	2000	2005	2010	2015	2020	2024
Phoenix	Agricultural	1,265,632	1,083,348	1,159,919	970,736	743,012	697,964	741,687	726,804	617,114
	Industrial	88,667	119,928	138,006	155,453	156,870	188,546	189,547	179,865	196,440
	Municipal	633,501	717,015	799,664	1,015,246	1,041,125	1,008,067	1,049,860	1,203,110	1,285,717
Pinal	Agricultural	792,092	732,494	885,900	810,109	809,891	868,995	834,977	864,831	588,958
	Industrial	4,955	4,875	5,647	9,653	18,696	21,565	20,986	19,660	20,558
	Municipal	13,159	15,216	18,200	22,039	28,758	35,757	37,183	39,625	49,279
Prescott	Agricultural	20,987	6,041	17,746	9,367	3,302	2,455	3,030	1,587	1,988
	Industrial	641	476	696	967	1,496	1,218	2,880	2,853	2,686
	Municipal	4,789	8,068	10,448	13,531	17,357	16,474	16,502	20,879	20,665
Santa Cruz	Agricultural	8,960	11,603	12,883	14,687	12,985	11,274	6,814	7,818	4,634
	Industrial	1,407	1,321	1,365	1,413	1,508	1,634	1,339	766	724
	Municipal	4,140	6,192	6,811	7,648	8,502	7,543	5,957	5,619	5,457
Tucson	Agricultural	114,879	86,218	96,943	100,006	95,848	88,586	99,785	97,918	58,251
	Industrial	46,616	50,121	60,589	61,269	51,628	55,376	52,862	49,095	56,993
	Municipal	113,080	127,936	154,287	169,864	187,881	174,332	151,956	162,949	165,308
All AMAs	Agricultural	2,202,550	1,919,704	2,173,391	1,904,905	1,665,038	1,669,274	1,686,293	1,698,958	1,270,945
	Industrial	142,286	176,721	206,303	228,755	230,198	268,339	267,614	252,239	277,401
	Municipal	768,669	874,427	989,410	1,228,328	1,283,623	1,242,173	1,261,458	1,432,182	1,526,426
TOTAL	All Sectors	3,113,505	2,970,852	3,369,104	3,361,988	3,178,859	3,179,786	3,215,365	3,383,379	3,074,772

The use of Colorado River water, which increased from 1985 to 2015, has decreased since 2020 due to voluntary and mandatory reductions in response to shortage. The use of in-state surface water supplies has declined as agricultural land has urbanized, leveling off since 2015. Groundwater use, which had declined significantly since 1985 in response to regulations designed

to reduce groundwater overdraft, began to increase in 2015, as Colorado River shortage impacts grew. Effluent supplies have continued a long-term upward trajectory, with the 2020-2024 period showing an increase over previous years.

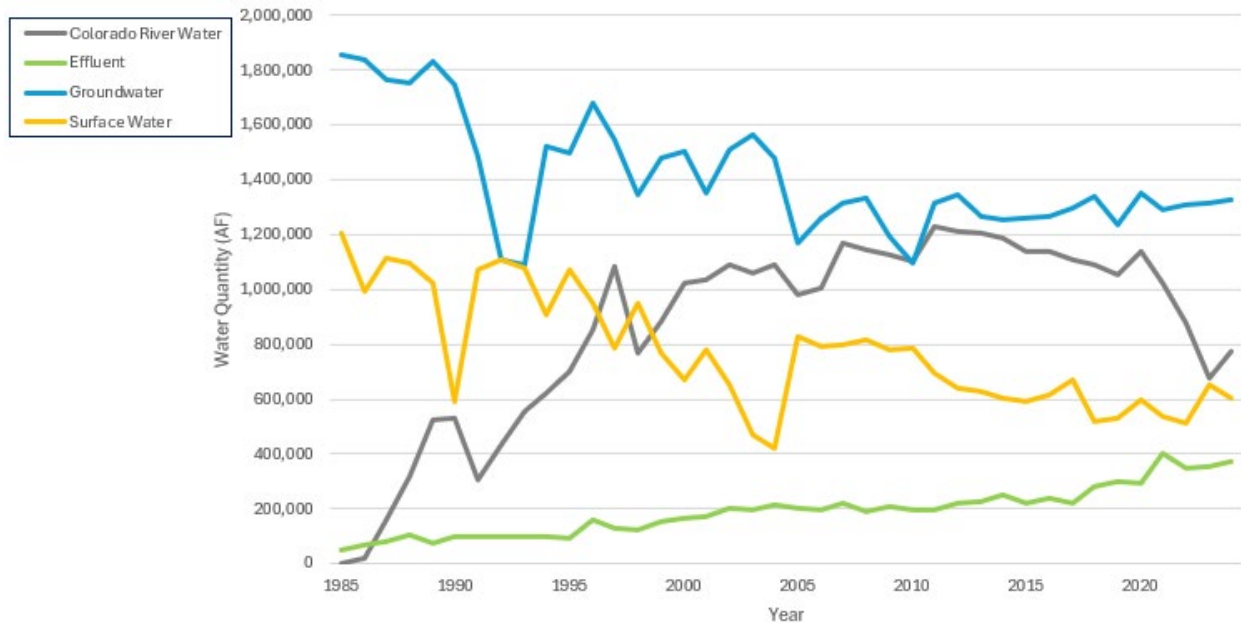


Figure 2.2: Total AMA water demand by water type, 1985 to 2024

Table 2.5: AMA water demand by water type (AF), 1985 to 2024 (in five-year intervals)

AMA	Water Type	Year									
		1985	1990	1995	2000	2005	2010	2015	2020	2023	2024
Phoenix	Colorado River Water	0	229,239	344,148	604,172	500,749	530,400	653,646	642,761	495,622	524,523
	Effluent	43,766	86,832	83,674	150,464	181,010	172,272	196,218	264,476	322,226	340,784
	Groundwater	942,042	1,037,214	790,152	741,205	554,751	534,282	630,404	718,097	649,218	686,873
	Surface Water	1,001,992	567,006	879,615	645,594	704,497	657,623	500,826	484,445	539,429	547,091
Pinal	Colorado River Water	0	303,989	346,675	382,956	379,862	429,830	344,779	352,376	26,252	118,555
	Effluent	1,848	5,163	1,802	2,102	3,968	2,571	4,967	3,682	6,070	5,928
	Groundwater	612,949	418,626	378,820	430,842	349,994	369,815	457,282	464,380	499,148	486,860
	Surface Water	195,409	24,807	182,450	25,901	123,521	124,101	86,118	103,678	99,114	47,452
Prescott	Colorado River Water	0	0	0	0	0	0	0	0	0	0
	Effluent	0	344	0	1134	2963	2735	4316	6223	5974	5822
	Groundwater	16,412	14,158	16,475	20,751	17,590	14,563	15,024	16,114	14,174	18,121
	Surface Water	10,005	83	12,415	1,980	1,602	2,849	3,072	2,982	4,215	1,396
Santa Cruz	Colorado River Water	0	0	0	0	0	0	0	0	0	0
	Effluent	0	0	0	0	82	67	74	14	18	19
	Groundwater	14,507	19,116	21,059	23,748	22,913	20,267	13,948	14,107	12,238	10,757
	Surface Water	0	0	0	0	0	117	88	82	101	39
Tucson	Colorado River Water	0	0	10137	34590	98350	144856	142782	146929	154063	129042
	Effluent	3,546	8,665	8,415	10,297	14,186	16,291	15,004	18,218	19,717	21,016
	Groundwater	270,309	255,610	293,267	286,252	222,084	156,611	144,954	140,420	143,425	125,151
	Surface Water	720	0	0	0	737	536	1863	4395	9324	5343
All AMAs	Colorado River Water	0	533,228	700,960	1,021,718	978,961	1,105,086	1,141,207	1,142,066	675,937	772,120
	Effluent	49,160	101,004	93,891	163,997	202,209	193,936	220,579	292,613	354,005	373,569
	Groundwater	1,856,219	1,744,724	1,499,773	1,502,798	1,167,332	1,095,538	1,261,612	1,353,118	1,318,203	1,327,762
	Surface Water	1,208,126	591,896	1,074,480	673,475	830,357	785,226	591,967	595,582	652,183	601,321
Total	All Water Types	3,113,505	2,970,852	3,369,104	3,361,988	3,178,859	3,179,786	3,215,365	3,383,379	3,000,328	3,074,772

Section 3: Municipal Program

<https://www.azwater.gov/ama/municipal-program>

3.1 Municipal Program Overview

The municipal sector consists of large and small municipal water providers that serve water for non-irrigation purposes¹ and large untreated providers that deliver untreated water for landscape irrigation. Municipal providers may include cities, towns, private water companies, irrigation districts, well cooperatives, mobile-home parks, or improvement districts. Providers that serve more than 250 AF per year are regulated as large providers, while providers that serve less than 250 AF per year are regulated as small providers. Providers that deliver 100 AF or more of untreated water annually for landscape/flood irrigation are regulated as large untreated providers. Providers that deliver less than 100 AF of untreated water are included in the small municipal provider category. Although not subject to reporting and regulatory requirements, domestic exempt wells² are categorized as municipal use.

Large providers are regulated under one of four municipal conservation programs: the Gallons Per Capita per Day (GPCD) Program, the Non-Per Capita Conservation Program (NPCCP), the Alternative Conservation Program (ACP), and the Institutional Provider Program (IPP). Refer to Table A1 in the Appendix for a listing of large providers and the program under which each is regulated.

¹ Irrigation is defined as the application of water to two or more acres of land to produce plants or parts of plants for sale or human consumption, or for use as feed for livestock, range livestock, or poultry.

² An exempt well is defined as a well having a pump capacity of not more than thirty-five gallons per minute which is used to withdraw groundwater pursuant to A.R.S. § 45-454.

Table 3.1: Number of municipal providers under each conservation program and domestic exempt wells for the 2024 calendar year

AMA	GPCD Gallons per Capita per Day Program	NPCCP Non-Per Capita Conservation Program	ACP Alternative Conservation Program	LUP Large Untreated Provider	IPP Institutional Provider Program	Total Large Providers	Small Providers	Domestic Exempt Wells
Phoenix	7 (7 )	33 (9 )	0	2	0	42 (16 )	48	20,302
Pinal	2	6 (3 )	1 (1 )	0	0	9 (4 )	30 (1 )	3,076
Prescott	1 (1 )	1	0	0	0	2 (1 )	21	14,714
Santa Cruz	1 (1 )	2	0	0	0	3 (1 )	15 (3 )	1,288
Tucson	5 (5 )	21 (5 )	0	1	0	27 (10 )	101 (2 )	8,073
All AMAs	16 (14 )	63 (14 )	1 (1 )	3	0	83 (32 )	215 (6 )	47,453

 = has a Designation of Assured Water Supply (DAWS)

3.2 Description of Conservation Programs

3.2.1 Gallons Per-Capita Per Day Conservation Program

The GPCD program was established in the Code and included in the First Management Plan (1MP) for each of the initial AMAs. All new large providers that are designated as having an Assured Water Supply will initially be assigned to the Total GPCD Program; however, they may subsequently elect to be in the NPCCP. Providers regulated under the 4MP GPCD program are assigned an annual total gallons per-capita per day target. Total GPCD includes all demands served by the municipal provider set at the provider's statistical median total GPCD for the period 2000-2009 minus one standard deviation. The GPCD target will not be set lower than a computed minimum target and will not be set higher than the provider's final conservation requirement in the year prior to the first effective date of the 4MP GPCD conservation requirement.³ Non-irrigation use⁴ is compared to the amount allowed by its total GPCD target to determine compliance. Under the 5MP, the Default, Minimum, and Maximum GPCD will be calculated differently, based on a rolling average. The Default GPCD will be calculated using a three-year rolling average of the provider's GPCD minus one percent. The Minimum GPCD will be calculated using the provider's previous year GPCD requirement minus one percent. The Maximum GPCD will be calculated using a five-year rolling average of provider's compliance GPCD. A flexibility account allows providers to use more water than their total GPCD target in some years, and less

³ Refer to Appendix 5A of the 4MP for the total GPCD requirements for large municipal providers that are designated as having an assured water supply on the date the 4MP was adopted.

⁴ Irrigation can be defined as: to apply water to two or more acres of land to produce plants or parts of plants for sale or human consumption, or as feed for livestock, range livestock, or poultry. A.R.S. § 45-402(23).

in others, subject to a maximum negative account balance limit. This allows for shifting water demands due to years that are cooler and wetter versus hotter and drier.

Currently, 16 large providers across all AMAs are enrolled in the GPCD program, and all were in compliance with their GPCD flexibility account requirements in 2024. This information is available on ADWR's Imaged Records page at <https://infoshare.azwater.gov/docushare/dsweb/HomePage>.

3.2.2 Non-Per Capita Conservation Program

The NPCCP was developed as an alternative to the Total GPCD program and was modified during the Third Management Plan (3MP) to better meet the needs and capabilities of both municipal water providers and ADWR. Between 2006 and 2008, ADWR conducted an evaluation and stakeholder engagement process to examine the regulatory programs for large municipal water providers contained in the 3MP. Modifications to the original NPCCP became effective in May 2008 and have been carried forward into the 4MP. With the implementation of the 4MP, the Modified NCCP (MNCCP) continued as the NPCCP, and the list of available Best Management Practices (BMPs) was updated.

The NPCCP is mandatory for all large municipal water providers that do not have a Designation of Assured Water Supply; it is optional for those that do. The NPCCP requires participating providers to implement a basic public education program and choose at least one additional water conservation BMP from a list of 52 for providers in the 4MP (see Appendix Table A3 for list of providers BMP selections). The number of BMPs that a provider must implement depends on a tiered system based on the size of the provider as defined by its combined total of residential and non-residential water service connections (see Table 3.2):

- Tier 1: Up to 5,000 service area connections: one additional BMP
- Tier 2: 5,001 - 30,000 service area connections: five additional BMPs
- Tier 3: More than 30,000 service area connections: ten additional BMPs

Table 3.2: Number of NPCCP municipal providers under each tier

AMA	Tier 1	Tier 2	Tier 3	Total
Phoenix	13	8	9	30
Pinal	3	2	1	6 (excluding 2 exempt providers)
Prescott	-	1	-	1
Santa Cruz	1	1	-	2
Tucson	14	5	-	19 (excluding 1 exempt provider)

The BMPs (see Appendix Table A2) are divided into the following seven categories:

1. Public Awareness (4 BMPs)
2. Education and Training (4 BMPs)
3. Outreach Services (6 BMPs)
4. Physical System Evaluation and Improvements (4 BMPs)
5. Ordinances, Conditions of Service, Tariffs (12 BMPs)
6. Rebates/Incentives (19 BMPs)
7. Research/Innovation (7 BMPs)

Appendix Table A3 lists the BMPs implemented by each provider in the NPCCP. Over 1,400 BMPs were implemented during the 2024 reporting year. The top BMPs that were implemented in 2024 included local or regional conservation campaigns, water waste investigations and information, and meter repair and/or replacement program. The Providers regulated under the NPCCP are required to submit a Conservation Efforts Report along with their Annual Water Withdrawal and Use Report, submit a current rate structure following any changes, and submit a new Provider Profile if their tier changes or within six months of implementation of a new Management Plan.

3.2.3. Alternative Conservation Program

In the Second Management Plan (2MP), the ACP was developed to give large providers with disproportionately increasing non-residential water use an alternative to the Total GPCD Program. This program has continued into the 3MP and 4MP. The ACP requirements include a limitation on groundwater use, as well as residential GPCD and non-residential requirements.⁵ Only one provider was enrolled in the ACP in 2024, and they were in compliance with the requirements of the program. The ACP is not included in the 5MP, as the overwhelming majority of providers the program was designed to address are enrolled in the NPCCP.

3.2.4 Lost and Unaccounted for Water for Municipal Providers

In addition to the requirements of each conservation program described above, each large provider is required to limit its Lost and Unaccounted for (L&U) water to no more than 10% of its total supply, calculated for the current reporting year and as an average of the last three years. In CY2024, 11 of the 83 large providers were not in compliance with their L&U requirements. Data is still pending for two large providers. To ensure providers are in compliance for their L&U, the Department sends out Notice of Violations yearly for those that are out of compliance. Remedial Action plans are requested from providers, detailing specific measures that will be implemented to address and rectify the existing non-compliant L&U. The Department has also

⁵ The Alternative Conservation Program will no longer exist in the Fifth Management Period.

conducted audits to follow up with providers that are consistently out of compliance, and work with these providers to try and reach compliance on the following year's reports.

Similar to large providers, each small provider is required to limit its L&U water to no more than 15% of its total supply, calculated for the current reporting year and as an average of the last three years. Twelve of the 220 small providers in the AMAs were out of compliance with the L&U requirement in 2024. Annually, the Department sends Notice of Violations to users that are not in compliance. Small providers often have fewer resources to address what can be significant losses in aging systems. A list of funding sources is provided to the small providers that are out of compliance in order to provide them with opportunities to reach compliance the following year (see Appendix Table A4).

Table 3.3: Large municipal providers out of compliance with L&U requirement, CY2024

AMA	Large Municipal Provider	PCC	L&U Percentage (%)	
			2024	2021-2024 average
Phoenix	Adaman Mutual Water Company	56-002150.0000	Pending*	20.55
	EPCOR-San Tan	56-002346.0000	10.61	14.97
	Luke Air Force Base (exempt)	56-002022.0000	Pending*	27.53
Pinal	Town of Florence	56-001204.0001	19.72	13.18
	EPCOR San Tan-Anthem	56-001538.0000	10.52	10.99
Prescott	-	-	-	-
Santa Cruz	EPCOR-Tubac	56-000042.0000	12.11	11.77
Tucson	Arizona Water Company-Oracle	56-000016.0000	12.36	12.19
	Vail Water Company	56-000060.0000	17.64	12.52
	Farmers Water Company	56-000080.0000	15.27	11.7
	Flowing Wells Irrigation District	56-000084.0000	11.08	11.34
	Global Water-Las Quintas	56-000128.0000	11.27	12.16
	Voyager Water Company	56-000221.0000	11.16	10.08
	Green Valley DWID	56-000302.0000	Pending*	12.25

**L&U percentage is pending finalization following confirmation of provider-reported information*

Table 3.4: Small municipal providers out of compliance with L&U requirement, CY2024

AMA	Small Municipal Provider	PCC	L&U Percentage (%)	
			2024	2021-2024 average
Phoenix	Olive Avenue Homeowners Assoc.	56-002194.0000	43.43	30.57
	Queen Valley Domestic Water Improvement District	56-002221.0000	27.63	21.78
	Chaparral Water Company	56-002283.0000	31.19	18.09
Pinal	Global Santa Cruz Water, Inc (CP Water)	56-001316.0002	19.43	20.85
	City Of Casa Grande	56-001356.0001	27.03	28.37
Prescott	Blue Hills	56-003005.0000	50	20.27
Santa Cruz	Baca Float Land Development	56-000020.0000	39.41	33.71
Tucson	Halcyon Acres Water Users Association	56-000098.0000	23.66	23.34
	Thim Utility	56-000209.0000	19.99	21.78
	Thim Water Corp.	56-000210.0000	24.42	18.59
	Global Water Tortolita Water Company, Inc.	56-000377.0000	27.99	29.04
	Tierra Linda Water Co.	56-000382.0000	29.76	32.25

3.2.5. Large Untreated Provider (LUP)

A provider under this classification must have served at least 500 persons or supplied at least 100 AF of untreated water during a calendar year prior to January 1, 1990. A large untreated water provider must limit its deliveries of untreated water during a year to an amount calculated by multiplying the number of gross acres of land to which it serves untreated water by an average annual application rate of 4 AF per acre. A gross acre is the entire acre, including associated structures, but not including any acres regulated as a turf-related facility. A large untreated water provider must also meet the individual user requirements, distribution system requirements and the monitoring and reporting requirements.

To limit distribution system losses, LUPs are required to either line all canals used to deliver untreated water to the provider's delivery points with a material that allows no more water loss than a well-maintained concrete lining or operate and maintain its distribution system. LUPs are required to report the number of acres they delivered water to and the quantity of water delivered in AF. If a large untreated water provider is out of compliance, they will receive a Notice of Violation and be required to get back into compliance in the following reporting year or further compliance measures may be taken.

3.3 Evaluation of Municipal Conservation Efforts and Water Use

A.R.S. § 45-563.01 requires a description and evaluation of the efforts to promote water conservation by each municipal provider regulated under NPCCP. To accomplish this, water conservation measures chosen by large providers were compiled and water demand trends were evaluated. Although GPCD is not used to determine compliance for providers in the NPCCP, it is a useful metric for evaluating demand trends and the impact of the program. GPCD is calculated by dividing total municipal demand, by the population served, and dividing that by 365 days.

$$\text{GPCD} = \left(\frac{\text{Municipal Demand}}{\text{Population Served}} \right) \div 365 \text{ Days}$$

3.3.1 Municipal Water Demand

As seen in Figure 3.2, municipal demand across Arizona’s AMAs has steadily increased since 1985, reflecting the dramatic population growth that has occurred over the last several decades; however, total water demand has increased at a significantly lesser rate than the population. There was an increase of 66% in municipal provider population in relation to overall municipal demand, indicating the increased efficiency in water use has supported a significant portion of the growth without the need for additional water supplies.

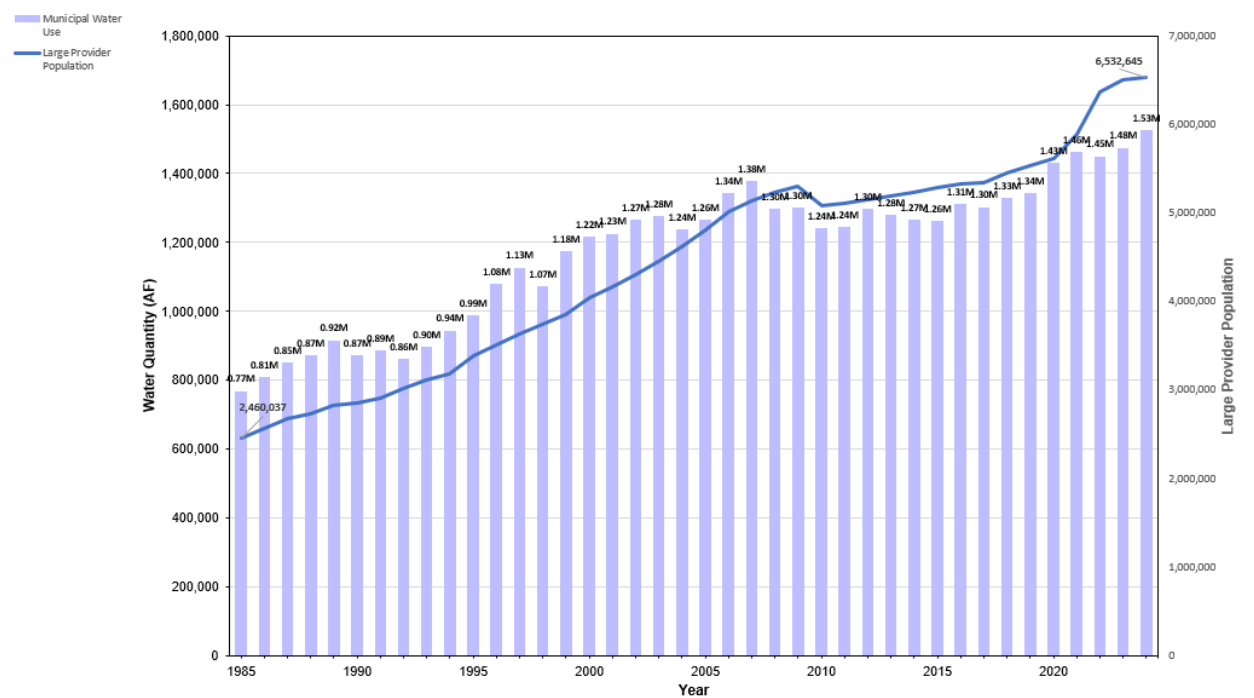


Figure 3.2: Total AMA municipal water use from 1985 to 2024

Figure 3.1 illustrates GPCD calculated for each AMA from 1985 through 2024. While GPCD was largely stable throughout the 1MP and 2MPs, it has fallen at a faster rate since the year 2000. As expected, this trend remains when GPCD is calculated as a sum of all AMAs. From 1985 through 2024, large provider municipal water demand has decreased by an average of 37 gallons per capita per day across the AMAs. In the past five years, demand has decreased by an average of 18 gallons per capita per day. This tracks with the increasing requirements for conservation over the course of the management periods, along with the increasing efficiency of new development.

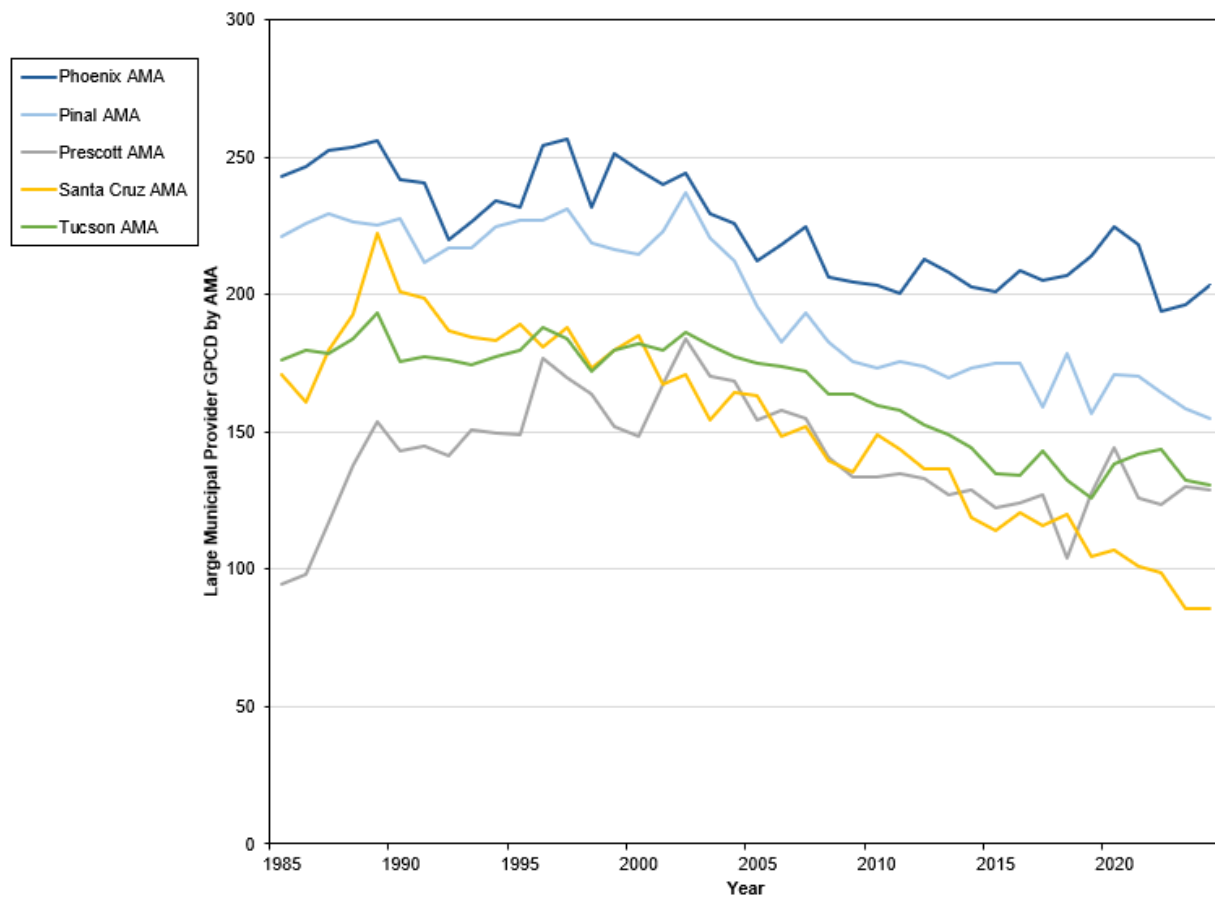


Figure 3.1: Municipal GPCD from 1985 to 2024 categorized by AMA

Table 3.5: Population and large municipal provider GPCD reported values from 1985 to 2024 (in 5-year intervals) categorized by AMA

AMA	Category	1985	1990	1995	2000	Year 2005	2010	2015	2020	2024
Phoenix	Large Provider Population	1,808,342	2,099,505	2,516,542	3,057,092	3,649,811	3,854,671	4,022,054	4,289,567	5,087,251
	Large Provider GPCD	242.93	241.62	232.02	245.12	212.36	203.26	200.96	224.91	203.15
Pinal	Large Provider Population	42,164	48,644	59,160	77,484	110,758	156,800	160,605	172,810	223,415
	Large Provider GPCD	221.11	227.48	226.76	214.52	195.74	173.20	174.79	170.88	154.80
Prescott	Large Provider Population	34,535	42,336	51,962	67,517	84,114	90,126	95,327	103,588	111,254
	Large Provider GPCD	94.61	142.84	149.01	148.54	154.20	133.36	122.41	144.29	128.57
Santa Cruz	Large Provider Population	18,146	24,433	28,446	33,017	43,025	42,110	42,913	42,635	48,204
	Large Provider GPCD	171.06	200.89	189.40	184.78	163.03	148.91	113.94	106.92	85.54
Tucson	Large Provider Population	556,850	635,076	735,893	808,959	923,938	931,627	962,880	1,006,384	1,062,521
	Large Provider GPCD	176.24	175.37	179.87	182.06	175.19	159.83	134.51	138.07	130.92
All AMAs	Large Provider Population	2,460,037	2,849,994	3,392,003	4,044,069	4,811,646	5,075,334	5,283,779	5,614,984	6,532,645
	Large Provider GPCD	224.85	224.80	218.98	229.81	203.38	192.67	185.93	205.30	187.61

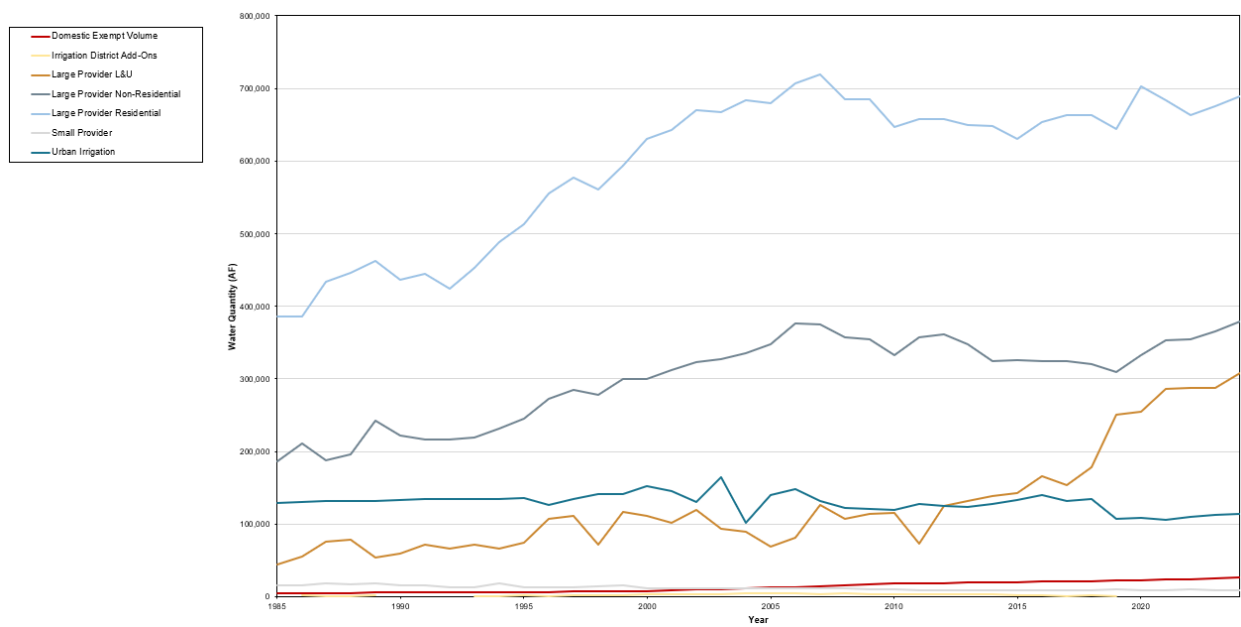


Figure 3.4: Total AMA municipal water demand from 1985 to 2024 categorized by use

Table 3.6: Total AMA municipal water demand values from 1985 to 2024 (in 5-year intervals) categorized by use

Use	1985	1990	1995	2000	Year 2005	2010	2015	2020	2024
Domestic Exempt Volume	4,847	5,560	6,417	7,625	12,509	17,763	19,977	22,777	26,175
Irrigation District Add-Ons	-	-	1,458	2,706	4,934	3,224	1,893	-	0
Large Provider L&U	43,731	59,059	74,053	110,746	69,233	115,299	142,811	254,978	308,569
Large Provider Non-Residential	186,350	222,513	244,516	299,182	347,422	332,790	326,441	333,130	379,253
Large Provider Residential	385,853	436,089	513,470	631,115	679,523	647,261	631,181	703,114	688,748
Small Provider	15,225	15,057	13,284	11,598	11,344	9,749	8,233	9,272	9,033
Urban Irrigation	129,004	133,350	136,213	152,702	139,325	119,286	132,815	108,911	114,646
Total	765,010	871,628	989,411	1,215,674	1,264,890	1,245,372	1,263,351	1,432,182	1,526,424

Figure 3.4 breaks total AMA municipal demand out by category. Several categories—including irrigation district add-ons, and small providers—remain stable over time, suggesting minimal

growth in these categories and increasing efficiency. Large provider non-residential and large provider residential use, in particular, show increases in demand that are reflective of the large growth in these categories. Efficiency and conservation requirements have helped maintain steady per-capita use even as populations grew (see Figure 3.3). Urban irrigation⁶ has declined as irrigated turf landscapes have phased out.

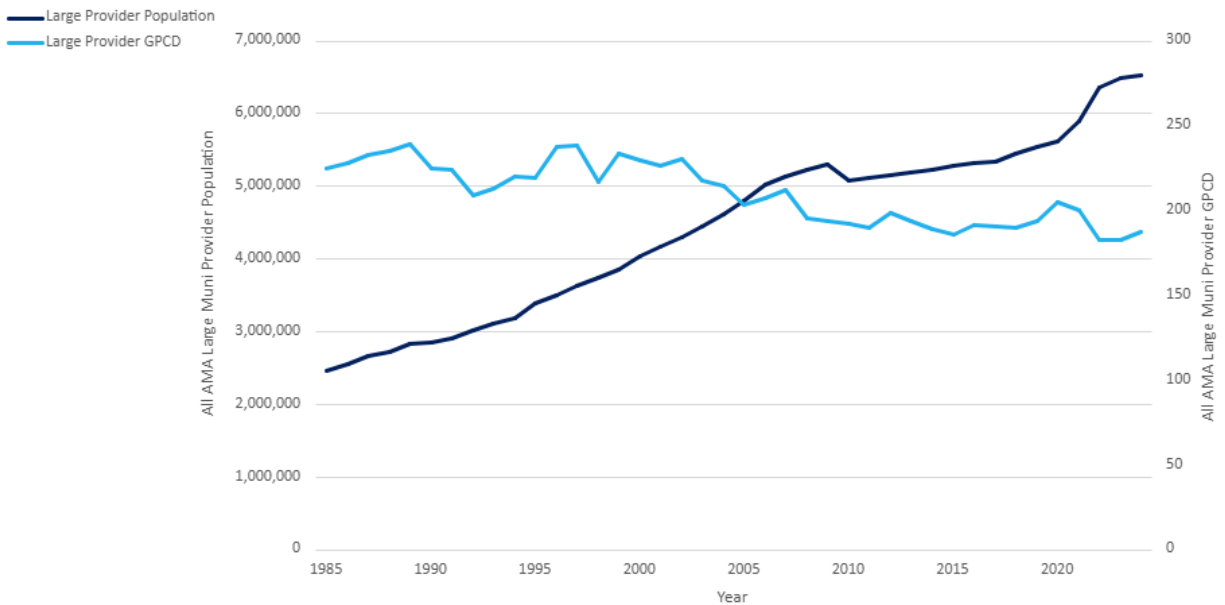


Figure 3.3: All Municipal Large Providers Population and GPCD

⁶ Urban irrigation is defined as untreated water supplied by a municipal provider through a distribution system other than a potable water distribution system.

Section 4: Agricultural Program

<https://www.azwater.gov/ama/agriculture-program>

4.1 Agricultural Program Overview

Within the AMAs, agricultural irrigation is acres associated with an Irrigation Grandfathered Right (IGFR), issued based on acres that were irrigated from 1975-1980. To irrigate means to apply water to two or more acres of land to produce plants or parts of plants for sale or human consumption, or for use as feed for livestock, range livestock or poultry (A.R.S. § 45-402 (18)). In Arizona's AMAs, all IGFRs are required to be enrolled in one of three conservation programs offered by ADWR: the Base Program, Best Management Practices (BMP) Program, and the Historic Cropping Program. The Historic Cropping Program has no active participants in any AMA.

Table 4.1: Number of agricultural water right holders under each conservation program for the 2024 calendar year

AMA/INA	Base Program		BMP Program		Irrigation Districts
	Count of IGFRs	Irrigation Acres	Count of IGFRs	Irrigation Acres	Count
Phoenix AMA	1,761	137,802	31	16,128	32
Pinal AMA	943	182,211	158	76,702	10
Prescott AMA	33	1,502	-	-	1
Santa Cruz AMA	67	5,041	-	-	-
Tucson AMA	188	34,702	-	-	1
Douglas INA	344	15,698	-	-	-
Harquahala INA	175	41,393	-	-	1
Joseph City INA	26	2,606	-	-	-
All AMAs/INAs	3,537	420,953	189	92,830	45

4.2 Agricultural Conservation Programs

4.2.1 Base Program

The Base Program is the default conservation program for all IGFR holders. It assigns each farm irrigation efficiencies, water duties, and annual allotments based on the irrigated acreage and crop types grown during the five years before the Groundwater Management Act of 1980. The irrigation water duty is the primary component of the agricultural conservation program. It is the total irrigation requirement per acre, divided by the assigned irrigation efficiency. The irrigation duty, multiplied by the water duty acres, establishes the maximum annual groundwater allotment for the irrigation acres in a farm. The maximum annual groundwater allotment for each IGFR is calculated as:

$$\text{Maximum Annual Allotment} = \text{Irrigation Water Duty} \times \text{Water Duty Acre}$$

$$\text{Irrigation Water Duty} = \frac{\text{Total Irrigation Requirement per acre}}{\text{Assigned Irrigation Efficiency}}$$

Pursuant to A.R.S. § 45-467(B), ADWR maintains a flexibility account for each IGFR in the Base Program. This allows IGFRs to borrow or bank groundwater from year to year to compensate for varying climatic and market conditions that may require greater or lesser water use year-to-year. Flexibility account credits can be used at any time in future years on the same farm unit and may be used to offset debits. An IGFR's flexibility account debit cannot exceed 50% of its annual allotment. To stay in compliance, IGFR owners regulated under the Base Program may purchase or convey flexibility credits, subject to A.R.S. § 45-467. There are approximately 3,600 IGFRs, 0.47% of these IGFRs are overflexed. Those 17 IGFRs are itemized in Table 4.2.

Table 4.2: Base Program IGFRs in violation of the flexibility account conservation requirement for the 2024 calendar year

IGFR PCC	Annual Allotment (AF)	Flexibility Account Balance (AF)	Quantity Out of Compliance (AF)
58-103979.0010	713.31	-1304.31	947.66
58-107287.0000	539	-1196.91	927.41
58-103947.0003	650.27	-889.87	564.74
58-103246.0001	818.5	-824.87	415.62
58-107312.0002	517.16	-778.58	520
58-102357.0001	1201.09	-729.38	128.84
58-108981.0002	88.84	-381.94	337.52
58-111747.0001	125.95	-372.11	309.14
58-111841.0002	115.06	-366.46	308.93
58-103245.0003	155.13	-262.37	184.81
58-102756.0001	63.25	-222.87	191.25
58-109251.0024	347.77	-208.07	34.19
58-109250.0013	128.23	-196.87	132.76
58-112886.0004	198.36	-192.49	93.31
58-101896.0001	181.6	-105.09	14.29
58-103780.0004	78.1	-41.85	2.8
58-112886.0007	43.8	-27.37	5.47

4.2.2 Best Management Practices Program

The Best Management Practices (BMP) Program was introduced as a modification in the 3MP, as an alternative to the Base Program that requires IGFR holders to implement best management practices instead of complying with a fixed water allotment. An advisory committee of agricultural stakeholders was established to guide the development of and to provide updates to the program to ensure it drives the greatest water efficiency.

Under the program, an IGFR must achieve a total number of points by implementing a range of BMPs. Each BMP is assigned a certain number of points, and BMPs are assigned to one of four categories: 1) Water Conveyance System Improvements; 2) Farm Irrigation Systems; 3) Irrigation Water Management; and 4) Agronomic Management (see Appendix Table A5). There is a minimum and maximum allowable number of points from each category that can contribute

towards the total point requirement. The approved BMPs, point values, and the minimum and maximum allowable points for each category can be found in Appendix 4B of the Fourth Management Plans. BMP farm units must submit a Schedule BMP along with their Annual Water Withdrawal and Use Report, detailing BMPs implemented by the farm for the reporting year and demonstrating that the farm is following program requirements.

4.2.3 Historic Cropping Program

The Historic Cropping Program (HCP) is a voluntary alternative conservation program first included in the 3MP, per A.R.S § 45-566.02. Similar to the Base Program, an IGFR regulated under the HCP must maintain compliance with a maximum annual irrigation allotment. In contrast to the Base Program, an IGFR's flexibility account is limited to credits of 75% and debits of 25% of the farm's maximum annual allotment. Flexibility account credits can be used at any time in future years and may be used to offset debits, but participants may not convey, sell, or acquire flexibility account credits. Because a higher level of farm management is required to comply with the more restrictive flexibility account, the IGFR's maximum annual allotment may be calculated with a lower irrigation efficiency. Currently, there are no active participants in this program.

4.2.4 Irrigation Districts

Irrigation districts are municipal corporations and political subdivisions established as a special taxing district for either agricultural improvement or irrigation and conservation purposes. Irrigation districts receive, pump, and distribute water to irrigated lands within their service area. There are currently 45 irrigation districts operating within the boundaries of the AMAs that serve IGFRs.

Irrigation districts are required to:

- Submit Annual Water Withdrawal and Use Reports
- Line all their canals or operate their delivery systems so that L&U for water is 10% or less of the total water withdrawn, diverted, or received during a year

The threshold for L&U water noncompliance for irrigation districts is 10%. In 2024, a total of three out of 45 (6.67%) irrigation districts were above the 10% threshold, four fewer than in 2023, due to increased compliance efforts. This is a total reduction of 4,023.50 acre-feet of L&U water from 2023 to 2024.

Table 4.3: Irrigation Districts in violation of the L&U conservation requirement for the 2024 calendar year

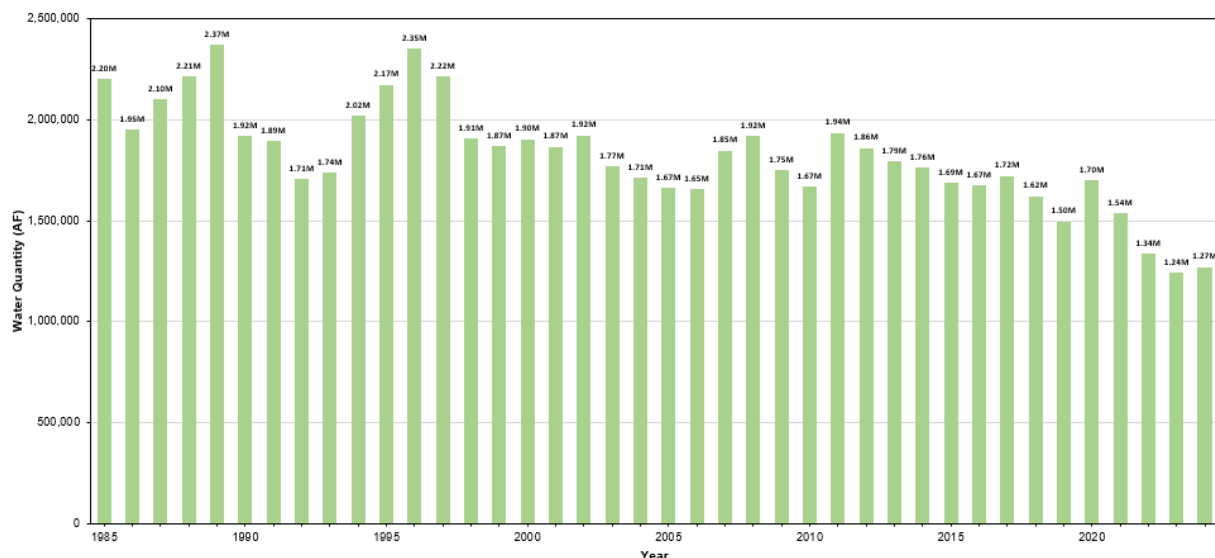
Irrigation District	PCC	L&U Percentage (%)		L&U Quantity (AF)	
		2024	2022-2024 average	2024	2022-2024 total
Thunderbird Farms North	57-001340.0000	38.09	30.98	12.77	28.89
Roosevelt Water Conservation District	57-002518.0000	17.33	17.22	7,467.53	22,592.07
Maricopa Water District	57-002508.0000	10.93	11.18	4,747.11	14,782.12

4.2.5 Groundwater Savings Facilities

A Groundwater Savings Facility (GSF) permit allows irrigation districts to deliver a renewable water supply to a recipient who agrees to use this water in-lieu (instead) of groundwater. These deliveries result in the accumulation of long-term storage credits for the GSF permit holder, which can be used to recover water as needed and when other sources of water are scarce. The permit holder will not accrue long-term storage credits for any in-lieu water deliveries which contribute to the recipient becoming out of compliance with their flexibility accounts or when the in-lieu water cannot be accounted for due to a lack of reported information.

4.3 Evaluation of Agricultural Water Use

In 2019, 72% of total water demand in the state was agricultural use. Prior to 1980, this percentage was as high as 90 percent; reductions have been the result of urbanization of agricultural lands, investment by the agricultural industry in efficiency measures and, in recent years, voluntary and mandatory reductions in response to Colorado River shortages.


Figure 4.1: Total AMA agricultural water use from 1985 to 2024

The impact of the Act, the management goals, and management plans—designed to reduce groundwater mining—is evident, as groundwater use declined and the use of renewable Colorado River supplies rapidly ramped up after Central Arizona Project deliveries began in 1986. Colorado River use in the AMAs peaked in 2000, then declined sharply from 2020 to 2024 from 610,890 AF to 251,869 AF, nearly 360,000 AF, due to voluntary and then mandatory Colorado River reductions. Total agricultural irrigation declined 415,348 AF from 2020 to 2024.

Effluent use by agriculture remained largely flat from 1985 through 2024, as municipal and industrial users put the majority of their effluent to other beneficial uses.

Agricultural demand for in-state surface water supplies also decreased sharply as agricultural lands urbanized and municipal water providers shifted from finite groundwater uses to renewable surface water supplies.

4.3.1 Agricultural Water Demand

Agricultural water demand in the Prescott, Santa Cruz, and Tucson AMAs has remained relatively stable since 1985, with Prescott and Santa Cruz recently leveling off at under 10,000 AF per year. In contrast, the Phoenix and Pinal AMAs have continued a long-term decline that began in 1985, with especially steep decreases occurring between 2020 and 2024 (see Figure 4.2).

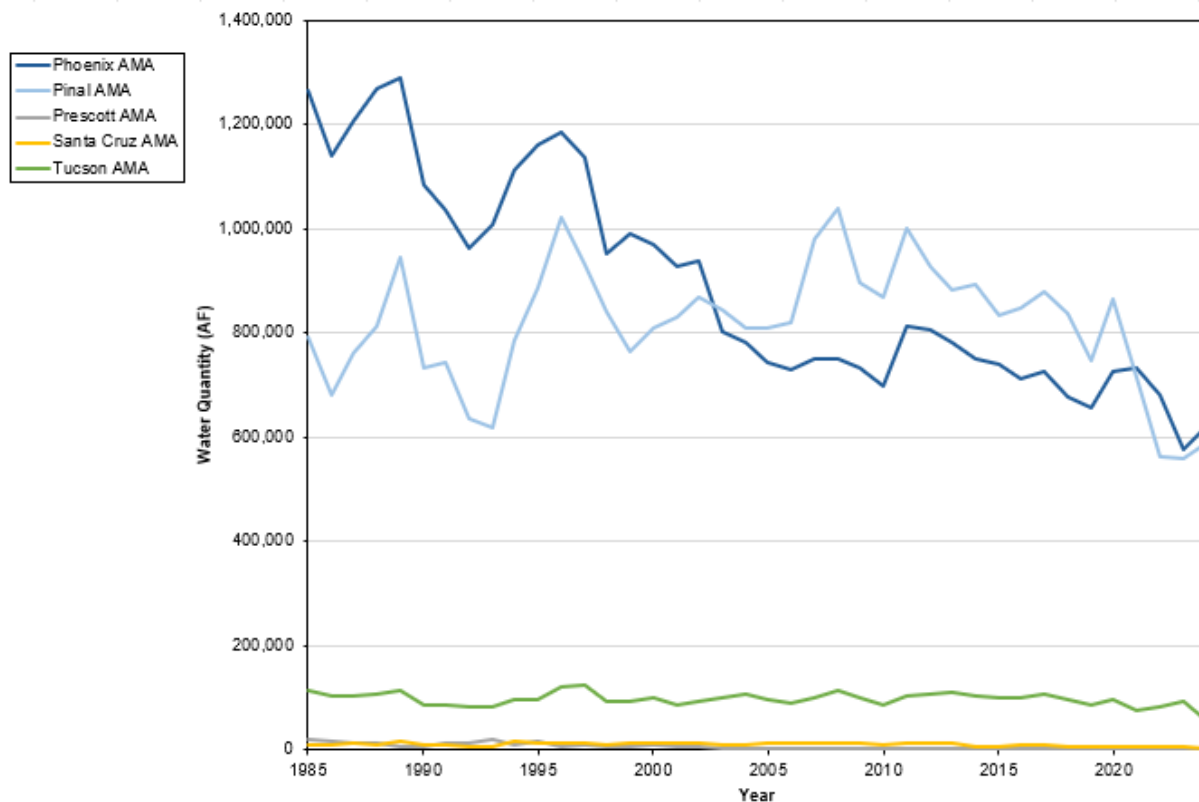


Figure 4.2: Total agricultural water use from 1985 to 2024 categorized by AMA

In 2024, agricultural demand was 29% of the Phoenix AMA’s total demand, dropping from 64% in 1985. The transition from agriculture to municipal use has been a significant part of the flattening of demand in the Phoenix AMA, even as the population boomed.

In the Pinal AMA, despite the prohibition on new irrigation acreage and efficiency gains, agricultural water demand grew between 1985 and 2010, likely due to double cropping, before beginning a decline in 2010. The decline accelerated sharply between 2020 and 2024, by 275,837 AF, a 31.9% reduction. Colorado River deliveries to the Pinal AMA, as high as 426,704 AF in 2010, dropped from 235,716 AF in 2020 to 107,304 AF, in 2024, accounting for much of the decline. Agricultural groundwater withdrawals in 2024 were 16,716 AF higher than in 2020, a 4% increase, partially backfilling the reductions. As the number of irrigated acres didn’t decline, this indicates substantial fallowing. Still, agricultural demand remains approximately 89% of the annual water demand in the Pinal AMA.

Total agricultural water demand across all AMAs from 1985 to 2024 has largely remained consistent for most subcategories of agricultural users, except for non-exempt irrigation grandfathered rights, as seen in Figure 4.3 and Table 4.4. From 2020 to 2024, there has been a steep decline of approximately 300,000 acre-feet in this subcategory.

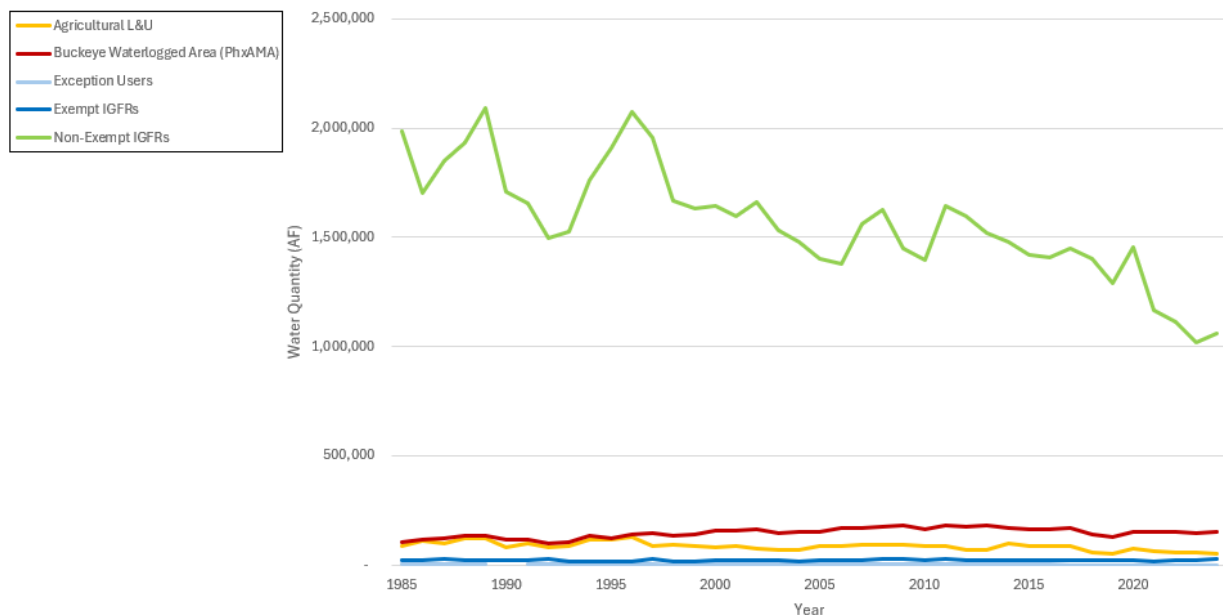


Figure 4.3: Total AMA agricultural water demand from 1985 to 2024 categorized by use

Table 4.4: Total AMA agricultural water demand quantities (AF) from 1985 to 2024
(in five-year intervals) categorized by use

Use	1985	1990	1995	2000	Year 2005	2010	2015	2020	2024
Agricultural L&U	88,852	77,925	118,064	80,475	86,054	85,983	83,483	72,573	48,670
Buckeye Waterlogged Area (PhxAMA)	102,296	114,066	124,231	155,722	153,092	161,894	162,927	150,937	148,097
Exception Users	3,290		4,247	862	1,063	490	684	282	116
Exempt IGFRs	23,393	21,167	16,828	21,743	20,776	22,578	20,632	21,397	24,404
Non-Exempt IGFRs	1,984,723	1,706,545	1,910,021	1,646,100	1,404,052	1,398,329	1,418,568	1,453,822	1,059,734
Total	2,202,554	1,919,703	2,173,391	1,904,902	1,665,037	1,669,274	1,686,294	1,699,011	1,281,021

Non-exempt IGFRs are the largest sub-category of agricultural water use by far, comprising 90% of the total agricultural water use across the AMAs in 1985 and 83% in 2024. Non-exempt IGFR water use declined by nearly 23% between 1985 and 2020, driven in large part by urbanization, as intended by the Groundwater Management Act. The steep decline since 2010 is largely attributable to voluntary and mandatory reductions of Colorado River water.

4.3.2 Changes in Irrigation Acres and Agricultural Water Use

As noted previously, agricultural water demand across all AMAs has generally continued a long-term decline since 1985, in large part due to the conversion of IGFRs to non-irrigation rights.

Approximately 200,000 irrigation acres associated with IGFRs have been converted to non-irrigation rights in the Phoenix AMA since 1985, many pursuant to the Assured Water Supply rules, tipping the balance from agriculture to municipal demand in 1999. According to 2024 data, in the Phoenix AMA, irrigation acres have declined by 56.2% and agricultural water use has decreased by 51.3% since 1985.

In the Pinal AMA, where the management goal is to preserve the agricultural economy for as long as feasible while considering the need to preserve groundwater for future non-irrigation uses, irrigation acreage has remained relatively stable, declining by only 8.9% since 1985, while total water use has decreased far more significantly, by 25.7%. As discussed in more detail in section 4.4.1, the significant gap between the decline in acreage and use is in large part due to reductions in Colorado River supply.

The Prescott AMA has experienced significant declines, with irrigation acres down 76.4% and water use down 90.5%. In the Santa Cruz AMA, irrigation acres have declined by 9.9% and agricultural water use has dropped 48.3%. The Tucson AMA irrigation acres have decreased by 25.7% and agricultural water use by 49.3% (see Table 4.5).

Table 4.5: Agricultural irrigation acres, water demand by type, and total water demand quantities (AF) from 1985 to 2024 (in five-year intervals) categorized by AMA

AMA	Category	1985	1990	1995	2000	2005	2010	2015	2020	2024
Phoenix	Irrigation Acres	353,109	320,612	302,322	266,004	204,562	174,770	161,237	153,001	154,827
	Groundwater	647,719	700,103	474,033	420,485	256,595	266,152	356,329	335,885	309,599
	Colorado River Water	0	77,574	185,519	318,462	182,644	170,960	219,898	94,949	131,467
	Effluent	30,138	30,000	30,000	28,200	70,930	33,773	29,174	30,001	30,974
	Surface Water	587,775	275,671	470,367	203,589	232,843	227,079	135,686	507,256	145,074
	Total Water Demand	1,265,632	1,083,348	1,159,919	970,736	743,012	697,964	741,687	726,804	617,114
Pinal	Irrigation Acres	281,962	280,917	277,901	276,676	270,992	255,719	256,207	253,731	256,799
	Groundwater	594,844	399,092	355,983	400,668	309,657	317,971	410,895	228,777	434,941
	Colorado River Water	0	303,989	346,399	382,009	375,098	426,704	336,763	235,716	107,304
	Effluent	1,839	5,014	1,626	1,625	2,126	736	1,842	3,186	0
	Surface Water	195,409	24,399	181,892	25,807	123,010	123,584	85,477	169,824	46,713
	Total Water Demand	792,092	732,494	885,900	810,109	809,891	868,995	834,977	864,831	588,958
Prescott	Irrigation Acres	6,364	6,297	6,079	5,374	1,546	1,231	1,183	1,182	1,502
	Groundwater	11,192	5,958	5,331	7,090	2,091	1,618	2,084	1,305	1,872
	Colorado River Water	0	0	0	0	0	0	0	0	0
	Effluent	0	0	0	1,122	1,211	837	946	0	116
	Surface Water	9,795	83	12,415	1,155	0	0	0	10,600	0
	Total Water Demand	20,987	8,041	17,746	9,367	3,302	2,455	3,030	1,587	1,988
Santa Cruz	Irrigation Acres	5,600	5,608	5,608	5,460	5,439	5,041	5,041	4,906	5,041
	Water Withdrawn from Wells	8,960	11,603	12,883	14,687	12,903	11,090	6,672	7,736	4,595
	Colorado River Water	0	0	0	0	0	0	0	0	0
	Effluent	0	0	0	0	82	67	54	0	0
	Surface Water	0	0	0	0	0	117	88	0	39
	Total Water Demand	8,960	11,603	12,883	14,687	12,985	11,274	6,814	7,818	4,634
Tucson	Irrigation Acres	46,689	46,215	38,395	36,677	37,056	35,082	35,058	34,488	34,702
	Groundwater	111,333	81,843	85,005	72,033	68,309	65,674	70,373	62,846	40,249
	Colorado River Water	0	0	10,137	27,973	27,390	22,137	27,376	0	13,098
	Effluent	3,546	4,375	1,801	0	0	251	187	2,629	0
	Surface Water	0	0	0	0	149	524	1,849	0	4,904
	Total Water Demand	114,879	86,218	96,343	100,006	95,848	88,586	99,785	97,918	58,251
All AMAs	Irrigation Acres	693,723	659,649	630,306	590,190	519,594	471,843	458,726	447,308	452,871
	Groundwater	1,374,048	1,198,599	933,235	914,963	649,555	662,505	846,953	636,549	791,256
	Colorado River Water	0	381,563	542,055	728,444	585,132	619,801	584,037	330,665	251,869
	Effluent	35,523	39,389	33,427	30,947	74,349	35,664	32,203	35,816	31,090
	Surface Water	792,979	300,153	664,674	230,551	356,002	351,304	223,100	687,880	196,730
	Total Water Demand	2,202,550	1,919,704	2,173,391	1,904,905	1,665,038	1,669,274	1,686,293	1,698,958	1,270,945

Section 5: Industrial Program

<https://www.azwater.gov/ama/industrial-program>

5.1 Introduction

Facilities that use water for non-irrigation purposes and meet specific minimum requirements of use, size, or capacity are subject to industrial conservation requirements. Water to supply these facilities may be withdrawn pursuant to an industrial right (such as a Type 1 or Type 2 non-irrigation grandfathered right (GFR)), a withdrawal permit for an industrial use, or by a municipal provider (see Table 5.1). There are nine industrial program subsectors that are regulated by conservation programs contained within the management plans: 1) turf-related facilities, 2) sand and gravel facilities, 3) large-scale power plants, 4) large-scale cooling facilities, 5) dairy operations, 6) cattle feedlot operations, 7) new large landscape users, 8) new large industrial users, and 9) mining facilities. Table 5.2 shows the active industrial facility types as of 2024.

Table 5.1: Number of industrial water right holders under each right type for the 2024 calendar year

AMA	Type 1/Type 2 GFR	Withdrawal Permits	Individual Users
Phoenix AMA	630	101	254
Pinal AMA	204	37	29
Prescott AMA	33	7	-
Santa Cruz AMA	46	3	1
Tucson AMA	391	30	84
All AMAs	1,304	178	368

Table 5.2: Number of industrial water right holders under each conservation program for the 2024 calendar year

Facility	Phoenix	Pinal	AMA Prescott	Tucson	Santa Cruz
Turf-Related Facility	590	50	6	116	3
Sand and Gravel	42	9	4	17	2
Large-Scale Power Plant (Power Generation/Cooling)	7	2	-	4	-
Dairy	54	25	-	-	-
Cattle Feedlot	6	8	-	-	-
Metal Mining	1	3	-	3	-
Industrial Use	10	103	-	36	-
Total	710	200	10	176	5

5.2 Industrial Conservation Programs

Industrial users within the AMAs that meet the minimum requirements must be enrolled in one of the industrial subsector conservation programs and must meet the following requirements: 1) avoid water waste; 2) make a diligent effort to recycle water; 3) avoid using water for non-residential single-pass cooling or heating purposes, unless the water is reused for other purposes; 4) install water-efficient plumbing fixtures; 5) limit landscape plant materials, to the maximum extent feasible, to those included in the respective AMA Low Water Use & Drought Tolerant Plants List, and irrigate with a water-efficient irrigation system (turf-related facilities and new large landscape users are exempt from this requirement); 6) limit plant materials in rights-of-way and medians, planted on or after January 1, 2002, and irrigated with any amount of groundwater, to landscaping plants in the respective AMA Low Water Use & Drought Tolerant Plants List, with certain outlined exceptions; and 7) avoid serving or using groundwater for the purpose of maintaining water features, including fountains, waterfalls, ponds, water courses, and other artificial water structures, installed after January 1, 2002, within any publicly owned right-of-way, with certain outlined exceptions. Industrial users are also subject to specific sub-sector requirements which are summarized below. For detailed information about the conservation requirements for each industrial subsector, please refer to Chapter 6 of each respective AMA's Fourth Management Plan.

5.2.1 Turf-Related Facilities

A turf-related facility is any facility, including schools, parks, cemeteries, golf courses, or common areas within a housing subdivision, with ten or more acres of water-intensive landscaped area. Water-intensive landscaping includes high-water using plants, including turf, and bodies of water. Irrigation of turf for recreational and purposes is subject to industrial, rather than agricultural, conservation program requirements.

A maximum annual water allotment is calculated for each turf facility based on its acreage of water-intensive landscaping and low-water-use landscaping. The annual allotment calculation for golf courses also considers the year the facility was established and the length of course. Water application rates and limits used in calculating the maximum annual allotments vary slightly among the AMAs due to evapotranspiration differences. To incentivize the use of effluent, effluent use is discounted (0.6 AF for each 1 AF) when evaluating the facility's compliance with the maximum annual allotment. Allotment additions related to newly landscaped areas, filling or refilling water bodies, and leaching may be requested.

A turf-related facility may not exceed the limits of its flexibility account balance, which determines the unused water (credits) or excess use (debits) that may be carried forward. A facility may retain a positive account balance of no more than 20% of its maximum annual water allotment. If the balance exceeds this limit, it must be reduced to the 20% cap. Likewise, after debits are applied, a facility may carry forward a negative balance of no more than 20% of its maximum annual allotment. Any deficit greater than this threshold must be adjusted to the allowable limit. In 2024, 68 of the 731 turf-related facilities were out of compliance, representing just 9.3% of all facilities (see Table 5.3). Of the facilities currently out of compliance, five are operating under executed stipulation and consent orders with the Department, and nine are in active negotiations to enter into stipulation and consent agreements. These stipulations provide a structured path for facilities to return to compliance, and the Department encourages continued coordination and communication with regulated facilities to support timely and effective compliance outcomes.

Table 5.3: Turf-related facilities in violation of the flexibility account conservation requirement for the 2024 calendar year

Facility Name	Facility PCC	Annual Allotment (AF)	Flexibility Account Balance (AF)	AF Out of Compliance
DALEY PARK	20-220129.0000	49	-433.88	-424.00
TREVOR BROWN HIGH SCHOOL	21-221210.0000	83	-640.24	-623.62
PHOENIX ZOO	20-220218.0000	109	-792.80	-771.10
GLENDALE LANDMARK ES	21-221149.0000	61	-392.77	-380.61
ROADRUNNER PARK	20-220177.0000	155	-676.00	-645.00

PEORIA SPORTS COMPLEX	20-220206.0000	79	-223.54	-207.67
COYOTE BASIN	20-220112.0000	66	-184.68	-171.46
GRAND CANYON UNIVERISTY	21-221150.0000	254	-644.49	-593.76
VCA ESTRELLA	24-401405.0000	307	-702.75	-641.35
CANYON DEL ORO HS	21-621004.0000	109	-229.75	-208.04
SUNDANCE PARK	20-220260.0000	55	-103.64	-92.55
VILLAGO LAKES AND PARK	20-400400.0000	104	-192.83	-172.10
CAMELBACK HIGH SCHOOL	21-221118.0000	66	-122.62	-109.39
SUN VILLAGE RESORT	25-225297.0000	210	-342.52	-300.56
PAPAGO PARK - TEMPE	20-220170.0000	49	-72.73	-62.85
ROYAL PALM PARK	20-220179.0000	121	-176.64	-152.42
RED MOUNTAIN PARK (SPOOK HILL)	20-220208.0000	310	-399.43	-337.45
TOWN OF SAHUARITA LAKE PARK	20-620028.0000	71	-83.05	-68.83
CROSSED ARROWS PARK	20-220113.0000	121	-119.38	-95.27
SUN LAKES HOA #3	24-224132.0000	82	-79.81	-63.34
SUNLAND MEMORIAL PARK	23-223111.0000	128	-121.82	-96.13
PIONEER PARK	20-220174.0000	65	-60.93	-47.91
HIGHLAND JHS	21-221240.0000	103	-92.48	-71.90
MOUNTAIN VIEW PARK - PHOENIX	20-220167.0000	77	-68.34	-52.89
MARLEY PARK HOA	24-224293.0000	195	-171.77	-132.81
PUEBLO EL MIRAGE CC	25-225243.0000	552	-454.75	-344.30
ANTHEM AT MERRIL RANCH COMMUNITY PARK	20-400404.0000	116	-87.15	-63.99
THE LAKES AT CASTLE ROCK HOA	24-600001.0000	103	-76.26	-55.69
PARADISE MEMORIAL GARDENS	23-223109.0000	85	-60.55	-43.62
COTTONFLOWER HOA	24-224310.0000	78	-55.04	-39.49
VENTANA LAKES	24-224122.0000	203	-139.88	-99.25
GENE AUTRY BALLPARK	20-220142.0000	112	-71.87	-49.54
CACTUS SHADOWS/DESERT ARROYO/BL MTN/DESERT SUN SCHOOLS	21-221216.0000	89	-52.18	-34.37
SUN LAKES COUNTRY CLUB & SUN LAKES HOA #1	25-225292.0000	413	-239.95	-157.34
TORTOSA HOA	24-400256.0000	208	-120.27	-78.73
CARRIAGE LANE PARK	20-220121.0000	102	-59.10	-38.63
VERRADO HOA	24-401473.0000	806	-459.60	-298.38
HOHOKAM PARK	20-220148.0000	155	-85.78	-54.71
HIGHLANDS @ ARROWHEAD	24-224127.0000	105	-57.37	-36.29
GLENNWILDE GROVES HOA	24-400242.0000	196	-100.63	-61.51
PROSPECTOR PARK	20-220207.0000	70	-35.66	-21.76
CORTEZ PARK	20-220128.0000	130	-66.64	-40.55
PHOENIX COLLEGE	21-221184.0000	95	-47.59	-28.58

NORTH CANYON HIGH SCHOOL	21-221179.0000	93	-46.47	-27.88
HOLY CROSS CEMETERY	23-223105.0000	77	-37.65	-22.25
THE 500 CLUB	25-225200.0000	438	-208.85	-121.19
ARIZONA BILTMORE CC	25-225306.0000	1,164	-535.69	-302.85
SAHUARO RANCH PARK	20-220180.0000	177	-80.26	-44.77
THE LAKES AT RANCHO EL DORADO HOA	24-400222.0000	349	-156.94	-87.06
GOODYEAR RECREATIONAL COMPLEX	20-220252.0000	285	-125.37	-68.34
PIMA COUNTY FAIRGROUNDS	20-620019.0000	170	-73.25	-39.21
SOUTH MTN COMM COLLEGE	21-221199.0000	104	-44.20	-23.40
GOODYEAR COMMUNITY PARK	20-220257.0000	79	-33.46	-17.57
GREENWOOD MEMORY LAWN	23-223106.0000	611	-250.45	-128.28
MARANA JHS	21-621021.0000	64	-24.68	-11.80
EAGLES NEST GOLF CLUB	25-225335.0000	533	-186.75	-80.13
PALO VERDE HS	21-621024.0000	71	-23.89	-9.63
GLENDALE AMERICAN ES	21-221147.0000	66	-21.42	-8.21
MOUNTAIN VIEW PARK - MESA	20-220166.0000	84	-23.63	-6.91
SURPRISE FARM II	24-224300.0000	96	-26.83	-7.71
ROYAL RANCH HOA	24-224294.0000	102	-28.16	-7.83
STARFIRE GOLF CLUB	25-225289.0000	778	-210.44	-54.75
BYRON A. BARRY ES	21-221116.0000	62	-15.32	-2.88
PALM VALLEY GOLF COURSE	25-225327.0000	533	-131.15	-24.53
PECOS RANCH COMMUNITY	24-224117.0000	112	-27.49	-5.07
AGUA FRIA HIGH SCHOOL	21-221227.0000	103	-25.18	-4.56
LAKEWOOD COMMUNITY ASSOCIATION	24-224111.0000	462	-112.76	-20.40
THE VILLAGES AT RANCHO EL DORADO HOA	24-400254.0000	199	-40.20	-0.36

5.2.2 Sand and Gravel Facilities

Sand and gravel facilities typically mine unconsolidated stream deposits to produce construction materials. Regulated sand and gravel facilities are those that use more than 100 AF of water from any source in a calendar year. Water at these facilities is primarily used for washing sand and gravel.

Sand and gravel facility operators must construct disposal ponds or install clarifiers to collect and reuse wash water runoff. Operators must also implement at least two additional conservation measures from an approved list of best management practices, one from each of the two BMP categories: 1) water used for dust control and 2) water used for cleanup activities. Sand and gravel facilities must also submit a conservation plan to improve the efficiency of water use at the facility, including an economic feasibility analysis. This analysis addresses potential costs and savings of

the following: 1) labor, 2) equipment, 3) land value, 4) water, 5) chemicals and raw materials, 6) fuel and energy, 7) industrial wastewater disposal, 8) revenue based on production rates, and 9) regulatory permitting.

5.2.3 Large Scale Power Plants

ADWR regulates power plants—steam electrical plants, combustion turbine plants, and combined-cycle plants — that produce or are designed to produce more than 25 megawatts of electricity. Regardless of the type of power plant, the major consumptive use of water at electrical plants is evaporation from cooling towers.

Depending on the year that the facility first produced electric power, large-scale power plants must achieve a specified number of “cycles of concentration,” a measure of the degree to which cooling water is recycled, before “blowing down” used water. Blowdown water must be continuously discharged, with composition continuously provided, and to the maximum extent possible be diverted to the cooling process. In addition to these requirements, combustion turbine plants with fully operational cooling tower(s), with greater than or equal to 250 tons of cooling capacity, are required to achieve for each tower a cycle of concentration level that results in blowdown water being discharged at an average annual minimum concentration of either 120 milligrams per liter (mg/L) silica, 1,200 mg/L total hardness, or 2,400 mg/L total dissolved solids, whichever is reached first.

5.2.4 Large Scale Cooling Facilities

Regulated large-scale cooling facilities are defined as facilities with an aggregate cooling capacity of at least 1,000 tons. Cooling towers cool water that has absorbed the heat load of a heat-generating process and are present at a variety of commercial, industrial, and institutional facilities. Like the power plant requirement stated above, large-scale cooling facilities must meet a specific cycle of concentration that results in blowdown water with a specified concentration of silica (120 mg/L), total hardness (1,200 mg/L), or total dissolved solids (2,400 mg/L).

5.2.5 Dairy Operations

Dairy operations that have a monthly average of 100 or more lactating cows a day are regulated. Dairies may participate in an allotment program or, pending the Director’s approval, the BMP Program. Maximum annual allotments are based on water use needs per cow and are calculated at the following rates:

- 105 gallons per animal per day (GAD) for lactating animals; and
- 20 GAD for non-lactating animals

Participation in the BMP Program is an alternative to the annual allotment requirement. Instead, it requires implementation of conservation and management practices to maximize efficiency in

certain water use categories, including the following: 1) animal drinking water delivery, 2) udder washing, 3) sanitization of milking equipment, 4) dust control, 5) animal cooling, 6) feed preparation, and 7) cleaning (see Appendix Table A6).

Additional water consumption may be approved by ADWR if one or more of the following conditions apply to the dairy operation: 1) milking is being done more than three times daily; 2) technologies that are designed to achieve industry health and sanitation objectives, such as the recommended pre-milking sanitation method, are being used; and/or 3) animal cooling technologies designed to increase milk production are being used.

5.2.6 Cattle Feedlot Operations

Regulated cattle feedlots are those that have a monthly average of 100 or more cattle per year. Water is primarily used for animal drinking and dust control. Cattle feedlot operations must comply with a maximum annual allotment, which is based on the reasonable water use needs per head of cattle per day, which is currently determined to be 30 GAD. This number accounts for drinking, dust control requirements, and other uses such as feed preparation.

5.2.7 New Large Landscape Users

New large landscape users are non-residential landscape facilities established after 1990 that have more than 10,000 sq ft of water-intensive landscaping. New large landscape users are required to limit the size of their water-intensive landscaped area. If the new large landscape facility is not a motel or hotel, the water-intensive landscaped area may not exceed 10,000 sq ft. If the new large landscape user is a hotel or motel, the water-intensive landscape area is limited to 20,000 sq ft.

5.2.8 New Large Industrial Users

New large industrial users are users established after January 1, 2000, using more than 100 AF of water per year for industrial purposes. Large industrial users must submit a conservation plan to improve the efficiency of water use by the facility to ADWR. This plan must identify how water is used at the facility and what can be done to conserve it in major water use areas. The plan must also detail an employee water conservation education program at the facility and describe when conservation measures will be implemented.

5.2.9 Metal Mining Facilities

ADWR regulates mining facilities that mine and process ores and use or have the potential to use more than 500 AF of water/year. Metal mining facilities are required to minimize amount of water used in tailings transport (48%-50% or greater solids), maximize tailings water reuse & minimize evaporation, and minimize water use for dust control. The 4MP requirements also includes the following requirements for in-situ mining: 1) establishing a long-range conservation plan; 2)

minimizing water use to the extent practicable; and 3) complying with monitoring and reporting requirements. In-situ or “in-place” mining requires only a fraction of the water needs as compared to conventional mining techniques.

5.3 Evaluation of Industrial Water Use

The industrial sector has historically been the smallest water use sector in the AMAs, but it is still very substantial. Since 1985, industrial water usage has almost doubled (see Figure 5.1), steadily rising since 1985, with a significant increase in 2007. The industrial sector’s demand will continue to increase in response to the rapid growth of chip manufacturing and data centers within the AMAs.

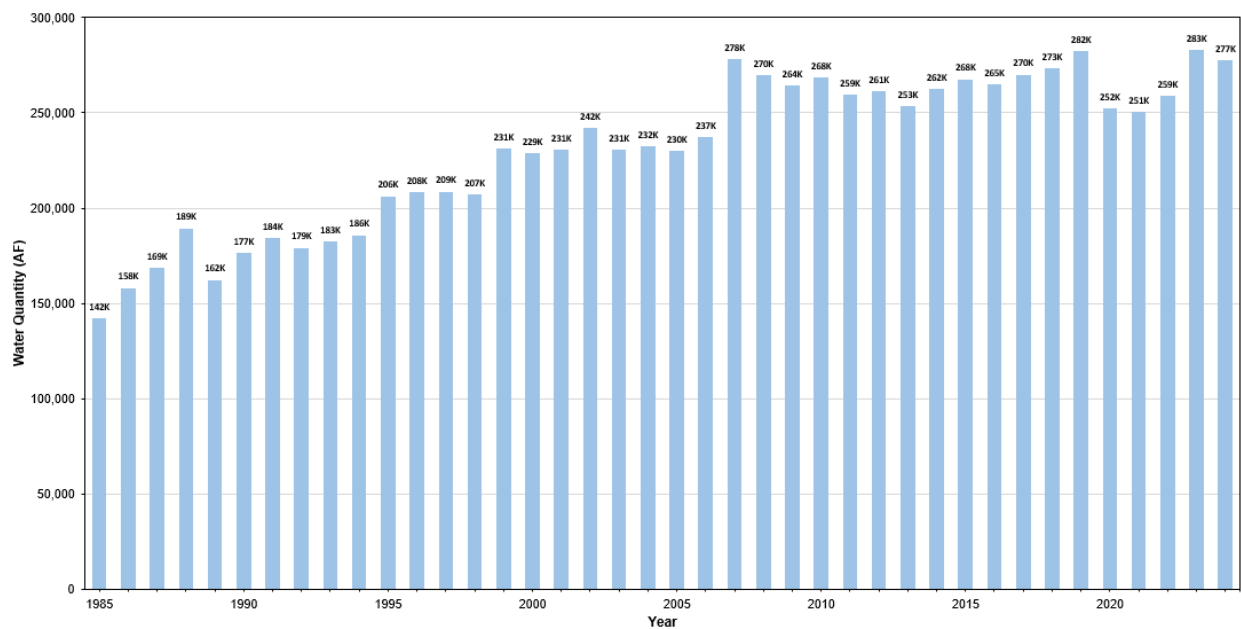


Figure 5.1: Total AMA industrial water use from 1985 to 2024

5.3.1 Industrial Water Demand

In Arizona, industrial water use is six percent of the state’s total water demand. Total industrial water demand across the AMAs has increased nearly 49% since 1985, with most of the growth in demand occurring in the Phoenix AMA, followed by more modest increases in the Pinal and Tucson AMAs, reflecting the growth of the population and industrial sector (see Figure 4.5).

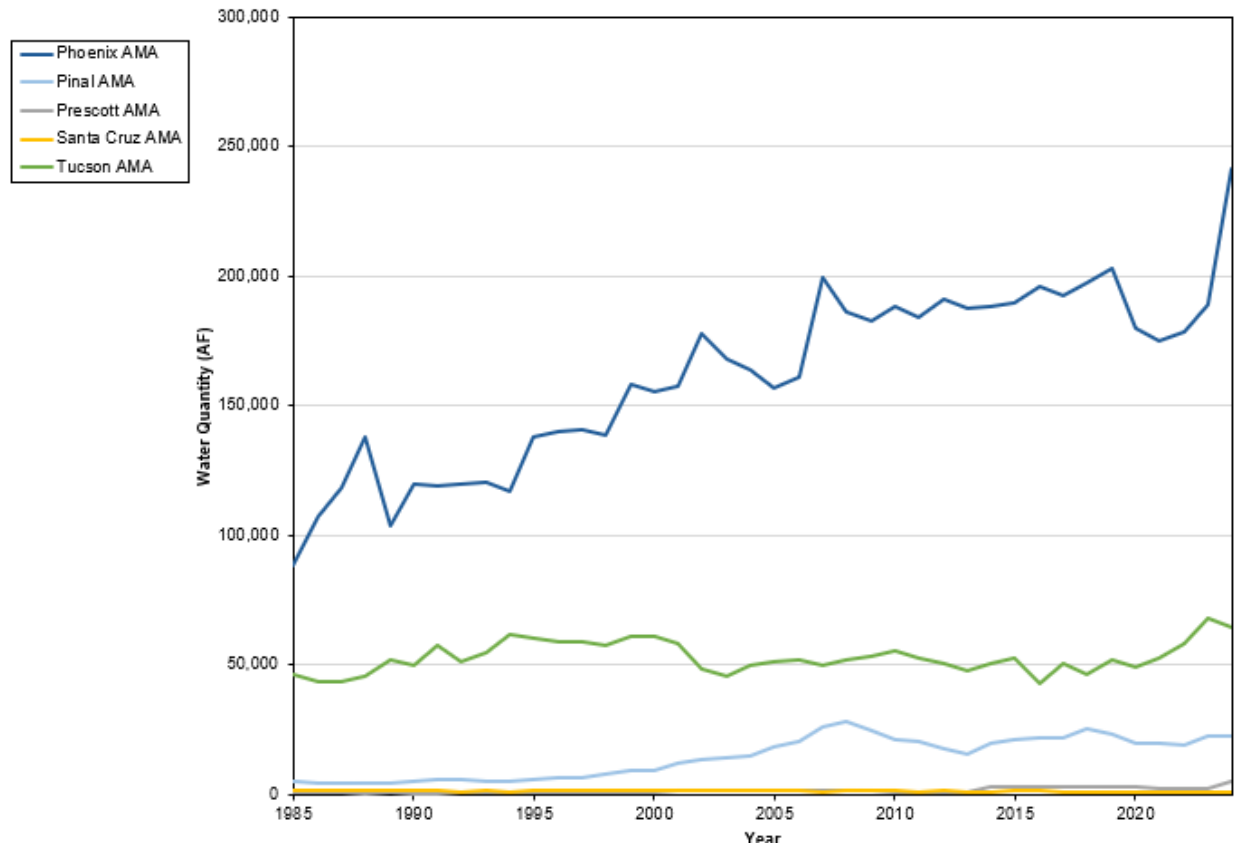


Figure 5.2: Total industrial water use from 1985 to 2024 by AMA

5.3.2 Changes in Industrial Water Use by Category

Industrial use has fluctuated over time, driven by market forces and variability, making it difficult to evaluate the impact of conservation requirements at the scale of the AMAs. The demand trends reveal some interesting points, all the same. In 1985, water demand for power generation was more than twice that of turf- related facilities. Although water demand from turf- related facilities has increased since 1985, growth has been constrained relative to the expansion of the AMAs, due in part to limitations on new turf and efficiency gains. Power generation demand grew from 18,166 AF until it flattened to approximately 90,000 AF, beginning in 2010. Sand and gravel production has fluctuated, likely in response to growth patterns. Cattle feedlots are a nominal water use, declining from a high of 5,278 AF in 1985 to 2,362 AF in 1990, and hovering around 2,000 AF annually since. Dairy use climbed from 6,552 AF to hover around 20,000 AF annually since 2005. Mining water demand has increased modestly, from 26,970 AF to 39,778 AF. Non-facility uses are defined as water uses pursuant to a Type 1 or Type 2 Grandfathered Right that are not associated with, or assigned to, a specific industrial subsector within the Industrial Program. Mineral extraction grandfathered rights and general industrial use withdraw permits are also classified as non- facility uses. Non- facility use has shown a fairly stable trend since 1985,

with variability largely driven by administrative changes such as water- right conveyances and the issuance or expirations of general industrial use permits.

Table 5.4: Total AMA industrial water demand (AF) from 1985 to 2024 (in five-year intervals)
by subcategory of industrial use

Use	Year								
	1985	1990	1995	2000	2005	2010	2015	2020	2024
Cattle Feedlots	5,278	2,362	1,918	2,787	2,417	1,587	1,204	2,124	1,716
Dairy Facilities	6,552	7,017	9,093	12,525	18,276	21,270	23,163	20,212	14,576
Mining Facilities	26,970	33,960	42,043	39,629	33,756	37,081	34,047	35,572	39,778
Non-Facility Use	16,717	16,729	19,344	21,555	15,035	33,645	21,867	20,882	43,798
Power Generation Facilities	18,166	53,378	54,342	67,524	72,428	92,290	95,240	90,972	88,214
Sand and Gravel Facilities	15,007	11,521	17,676	11,753	17,128	12,821	12,800	7,809	9,275
Turf-Related Facilities	8,901	51,753	61,887	72,981	71,157	69,644	78,921	81,165	80,047
Total	97,591	176,720	206,303	228,754	230,197	268,338	267,242	258,736	277,404

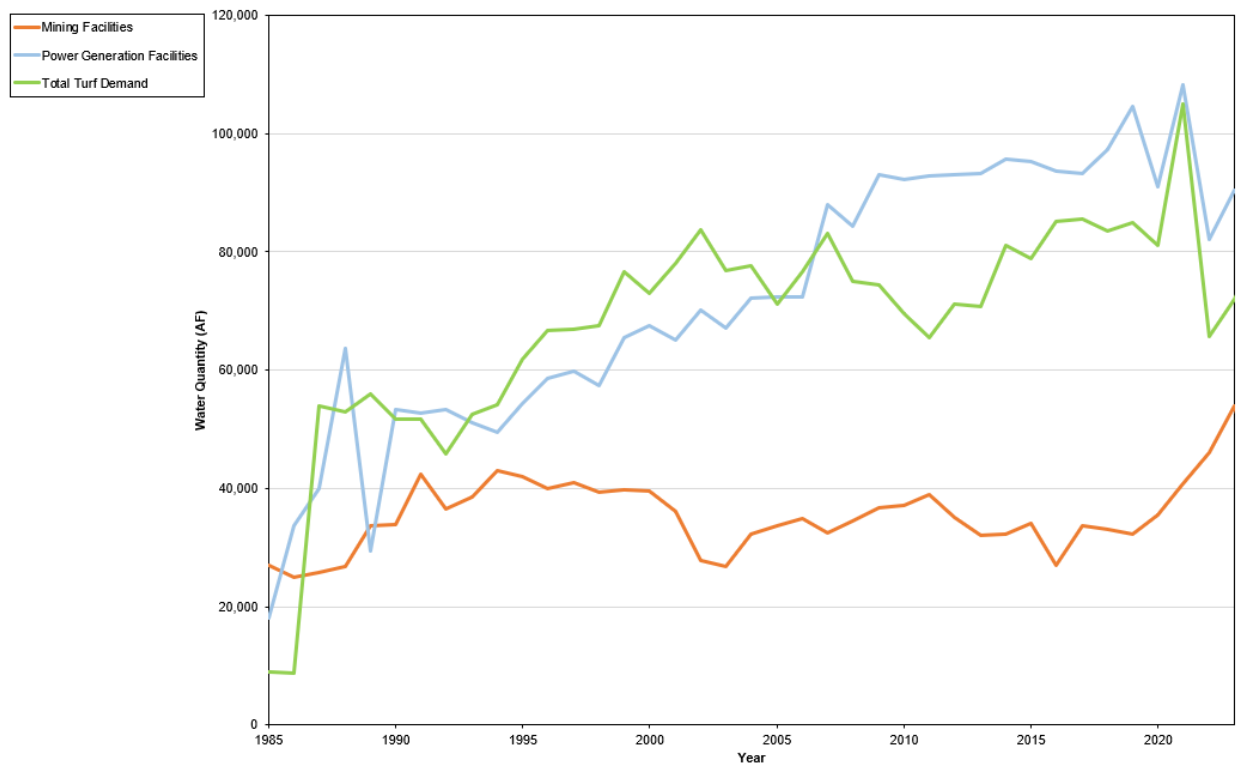


Figure 5.3a: Total AMA industrial water demand from 1985 to 2024 by industrial categories

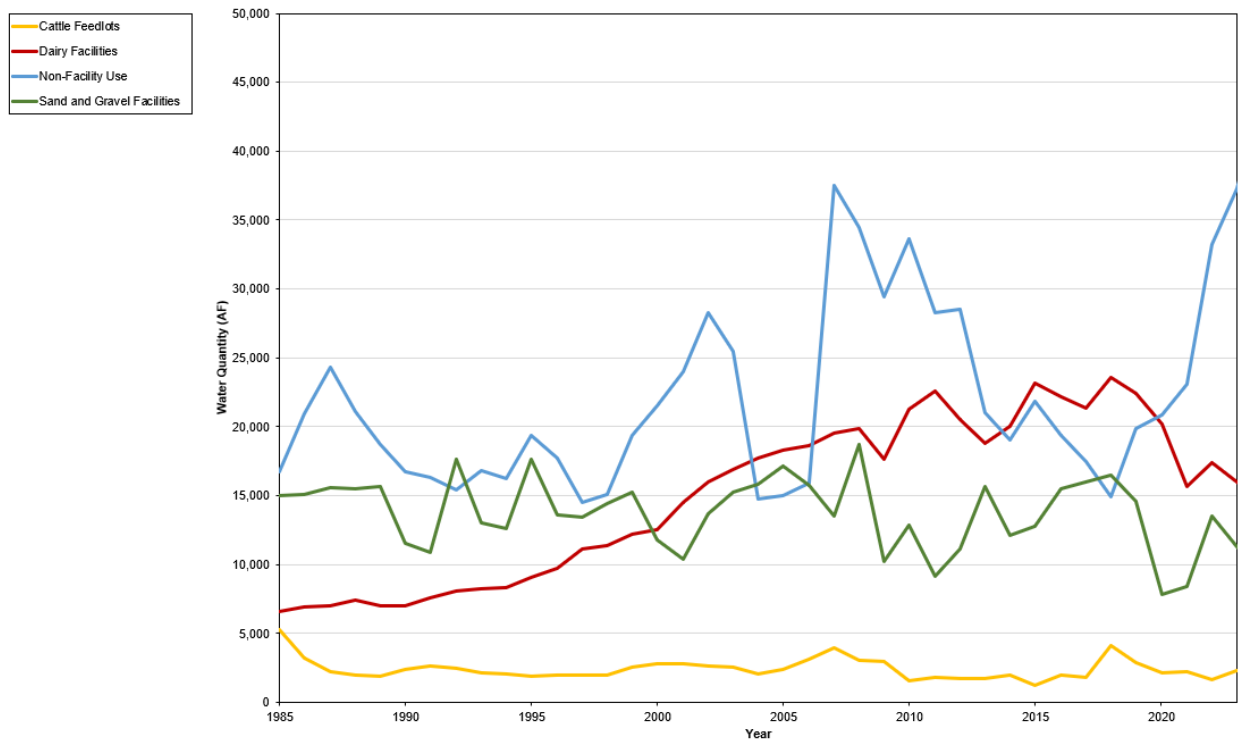


Figure 5.3b: Total AMA industrial water demand from 1985 to 2024 by industrial categories (continued)

In the Phoenix AMA, where the greatest growth is and where turf has historically played a prominent role in the regional economy, power generation facilities represent the industrial category with the greatest water demand. This is reflecting on the region's substantial energy infrastructure and cooling needs associated with serving a growing area. Turf-related facilities are the category with the greatest demand in the Prescott and Santa Cruz AMAs. In Pinal, where agriculture is the dominant industry, dairy facilities are the largest industrial use category. The Tucson AMA's largest industrial demand category is mining (see Table 5.5).

Table 5.5: Industrial categories with highest water demand (in 2024), groundwater demand, and total water demand quantities (AF) from 1985 to 2024 by AMA

AMA	Category	Year								
		1985	1990	1995	2000	2005	2010	2015	2020	2024
Phoenix	Power Generation Facilities	15,568	51,428	52,731	62,589	69,272	89,985	93,184	88,749	88,214
	Groundwater Demand	69,229	63,251	79,068	81,704	84,900	98,124	89,841	79,740	85,878
	Total Water Demand	88,668	119,926	138,007	155,452	156,870	188,546	189,548	180,280	196,439
Pinal	Dairy Facility Demand	245	395	806	1,700	3,259	9,794	8,165	9,116	9,038
	Groundwater Demand	4,946	4,726	5,471	9,373	15,836	19,133	18,378	16,135	16,455
	Total Water Demand	4,955	4,120	6,023	6,648	13,465	25,905	17,433	22,166	21,149
Prescott	Turf-Related Facility Demand	-	349	391	463	783	576	2,147	2,627	2,268
	Groundwater Demand	641	476	696	967	1,442	1,153	1,261	871	720
	Total Water Demand	641	477	696	967	1,496	1,218	2,878	3,042	2,686
Santa Cruz	Turf-Related Facility Demand	1,198	1,105	1,063	1,076	1,246	1,350	691	695	725
	Water Withdrawn from Wells	1,407	1,321	1,365	1,413	1,508	1,634	1,319	752	705
	Total Water Demand	1,407	1,322	1,365	1,413	1,507	1,634	1,339	1,043	725
Tucson	Mining Facility Demand	26,945	33,955	42,014	39,573	33,742	37,081	34,047	35,528	39,298
	Groundwater Demand	45,896	50,121	60,500	60,952	51,116	47,497	42,231	45,613	51,191
	Total Water Demand	46,626	50,170	60,827	61,431	51,753	56,829	52,491	52,284	56,992
All AMAs	Groundwater Demand	122,119	119,895	147,100	154,409	154,802	167,541	153,030	143,111	154,949
	Total Water Demand	142,297	176,015	206,918	225,911	225,091	274,132	263,689	258,815	277,991

Section 6: Future Considerations

6.1 Fifth Management Plan (5MP)

Development of the 5MPs began in mid-2019 through the Management Plans Workgroup, an ADWR-led stakeholder forum. The workgroup's primary goals were to evaluate existing conservation programs, refine current management strategies, and develop new approaches. Five subgroups were formed to focus on specific topic areas. The workgroup process continued through mid-2021, and the resulting discussions and recommendations were incorporated into the 5MPs. Information on the workgroup and subgroup meetings, including those for the municipal sector, is available on the ADWR website (<https://new.azwater.gov/5MP/meetings>). A 5MP Concepts page was also created during this process to summarize key ideas, tools, and stakeholder comments (<https://new.azwater.gov/5MP/plans-concepts>).

The 5MP for each initial AMA was adopted in 2022, and the conservation requirements in those plans became effective on January 1, 2025. Table 6.3 summarizes the revisions made to each sector's programs in transitioning from the 4MP to the 5MP. In addition, the Alternative Conservation Program (ACP) will not be carried over into the 5MP.

Table 6.3: A breakdown of chapters and descriptions associated with changes upon the implementation of the 5MP

Chapter	Conservation Program	Description
4	Agricultural – Base Program	• Top 25% of water duties in each area of similar farming conditions (ASFC) may be reduced by up to 5%
4	Agricultural – Integrated Farm Program	• New conservation program for the 5MP
4	Agricultural – BMP Program	• Added new and updated existing BMPs to better reflect current technologies and practices • Minimum points increased in most BMP categories
5	Municipal – BMP Program	• Added a new Planning category • Updated existing BMPs to better reflect current technologies and practices • Updated the BMP tiers for a more equal distribution of providers across tiers • Updated number of points required per tier • Added category requirements where points must be earned from a minimum number of categories to encourage a more diverse range of BMPs being implemented
5	Municipal – GPCD Program	• Updated the minimum, maximum, and default calculations to calculate the GPCD Requirement • Updated flexibility provisions to be consistent across AMAs
6	Industrial – Turf (Golf and Non-golf)	• Updated maximum annual allotment calculation • Updated Establishment of Newly Turfed Area and Revegetation allotment additions. • LWU density requirements changed from 50% to 30%
6	Industrial – Mining	• New alternative conservation program for the 5MP • BMP based program for mines

6.2 Newly Regulated Areas

The Douglas AMA was designated on December 1, 2022, and its first management plan (1MP) establishes mandatory conservation programs for all persons withdrawing, distributing, or receiving groundwater. These conservation requirements, however, will not take effect until January 1, 2027. The Hualapai Valley Irrigation Non-Expansion Area was established shortly thereafter on December 19, 2022. Although INAs do not impose specific conservation programs, they represent areas of increased groundwater regulation, requiring all persons withdrawing groundwater from non-exempt wells to submit an annual report of groundwater withdrawals by March 31st of each year. The Willcox AMA and its management plan remain under development, with adoption anticipated by January of 2027. Implementation of the conservation program requirements in the Willcox AMA is expected to begin on January 1, 2029, and the installation of an approved measuring device was required by March 31, 2025, in preparation for the annual reporting requirements.

Appendix

Table A1: Large municipal providers under each conservation program for the 2024 calendar year

AMA	Conservation Program	PCC	Large Municipal Provider ( = has a DAWs)	Tier
Phoenix	GPCD	56-002003.0000	1. City of Avondale 	-
		56-002011.0000	2. EPCOR - Chaparral City Water Co. 	-
		56-002016.0000	3. City Of El Mirage 	-
		56-002018.0000	4. City Of Glendale 	-
		56-002019.0000	5. City Of Goodyear 	-
		56-002023.0000	6. City Of Mesa 	-
		56-002025.0000	7. Apache Junction Water District 	-
		56-002030.0000	8. City Of Phoenix 	-
	NPCCP	56-002000.0000	1. Arizona Water Co. - Apache Junction	2
		56-002001.0000	2. Arizona Water Co. - White Tanks	2
		56-002002.0000	3. Arizona Water Co. - Superior	1
		56-002004.0000	4. Berneil Water Company	1
		56-002006.0001	5. City Of Buckeye	3
		56-002007.0000	6. Carefree Water Company	1
		56-002008.0000	7. Cave Creek Water Company	1
		56-002009.0000	8. City Of Chandler 	3
		56-002012.0000	9. EPCOR (Agua Fria) Water Arizona Inc.  *	3
		56-002017.0000	10. Town Of Gilbert 	3
		56-002021.0000	11. Litchfield Park Service Co DbA Liberty Water	2
		56-002022.0000	12. Luke Air Force Base	1
		56-002027.0000	13. EPCOR - Paradise Valley	2
		56-002029.0001	14. City Of Peoria 	3
		56-002031.0000	15. Pima Utilities Company	2
		56-002032.0002	16. Queen Creek Water Department	3
		56-002035.0000	17. Rio Verde Utilities	1
		56-002037.0000	18. City Of Scottsdale 	3
		56-002038.0000	19. EPCOR - Sun City  *	2
		56-002039.0000	20. EPCOR - Sun City West  *	2
		56-002041.0000	21. Sunrise Water Company	1
		56-002043.0000	22. City Of Tempe 	3
		56-002044.0000	23. City Of Tolleson	1
		56-002047.0000	24. Valley Utilities Water Company	1
		56-002150.0000	25. Adaman Mutual Water Company	1

AMA	Conservation Program	PCC	Large Municipal Provider (💧 = has a DAWS)	Tier
		56-002159.0000	26. Beardsley Water Company	1
		56-002165.0000	27. Clearwater Utilities Co. Inc.	1
		56-002169.0000	28. Desert Hills Water Company	1
		56-002263.0000	29. Rose Valley Water Company	1
		56-002344.0000	30. City Of Surprise 💧	2
		56-002346.0000	31. EPCOR - San Tan 🌵	3
		56-002504.0000	32. Chandler Heights Citrus Irrigation District	1
	LUP	56-002045.0000	1. Global Water Turner Ranches Irrigation, Inc.	-
		56-002250.0000	2. McDowell Water Co.	-
Pinal	ACP	56-001203.0000	1. City Of Eloy 💧	-
	NPCCP	56-001304.0000	1. Arizona Dept. Of Corrections - Florence	Exempt
		56-001352.0000	2. Arizona Dept. Of Corrections - Eyman	Exempt
		56-001204.0001	3. Town Of Florence 💧	1
		56-001307.0002	4. Arizona Water Co. - Pinal Valley System	3
		56-001342.0000	5. Thunderbird Farms Improvement District	1
		56-001353.0000	6. Picacho Water Company	1
		56-001355.0000	7. Global Water Santa Cruz Water Company, Inc. 💧	2
		56-001538.0000	8. EPCOR San Tan - Anthem 💧	2
Prescott	GPCD	56-003017.0000	1. City Of Prescott 💧	-
	NPCCP	56-003023.0000	1. Town Of Prescott Valley	2
Santa Cruz	GPCD	56-000002.0000	1. City Of Nogales 💧	-
	NPCCP	56-000041.0000	1. Rio Rico Utilities Inc.	2
		56-000042.0000	2. EPCOR - Tubac	1
Tucson	GPCD	56-000001.0000	1. City Of Tucson/Tucson Water 💧	-
		56-000060.0000	1. Vail Water Company 🌵	
		56-000068.0001	2. Metro Domestic Water Improvement District 💧	-
		56-000084.0000	3. Flowing Wells Irrigation District 💧	-
		56-000349.0000	4. Metro Domestic Water Improvement District 💧	-
		56-000368.0000	5. Town Of Oro Valley Water Utility 💧	-
		56-000016.0000	1. Arizona Water Company - Oracle	1
	NPCCP	56-000019.0000	2. Avra Water Co-op	1
		56-000046.0000	3. Community Water Co of Green Valley	2
		56-000058.0000	4. DMAFB Water System	1
		56-000060.0000	5. Vail Water Company 💧	2
		56-000080.0000	6. Global Water Resources (Farmers Water Co) 💧	1
		56-000107.0000	7. Town Of Marana 💧	2

AMA	Conservation Program	PCC	Large Municipal Provider (💧 = has a DAWS)	Tier
		56-000128.0000	8. Global Water - Las Quintas Serenas Water Company, Inc.	1
		56-000135.0000	9. Saguaro Water Company	1
		56-000138.0000	10. Los Cerros Water Co.	1
		56-000221.0000	11. Voyager Water Company	1
		56-000244.0000	12. MDWID Hub System 💧	1
		56-000245.0000	13. Lago Del Oro Water Co.	2
		56-000246.0000	14. Marana Domestic Water Improvement District	1
		56-000247.0000	15. Ray Water Company	1
		56-000268.0000	16. University Of Arizona Board of Regents	1
		56-000302.0000	17. Green Valley DWID	1
		56-000362.0000	18. Arizona Dept. Of Corrections - Tucson	Exempt
		56-000367.0000	19. Quail Creek Water Company	1
		56-000373.0000	20. Sahuarita Water Company 💧	2
		56-000375.0000	21. Ridgeview Utility Company	1
	LUP	56-000035.0000	22. Cortaro-Marana Irrigation District	-

Table A2: List of NPCCP BMP categories, BMPs, and point values

BMP Category	BMP	Point Value
1. Public Awareness/Public Relations	1.1: Local or regional messaging program	1
	1.2: Special events/programs/community presentations	1
	1.3: Market surveys	2
	1.4: Distribution plan for water conservation materials	1
2. Conservation Education and Training	2.1: Adult education or training program	1
	2.2: Youth education program	1
	2.3: New homeowner landscape information	1
	2.4: Xeriscape demonstration garden	1
3. Outreach Services	3.1: Residential audit program	1
	3.2: Landscape consultations (residential and/or non-res.)	1
	3.3: Water budgeting program	1
	3.4: Customer high water use inquiry resolution	1
	3.5: Customer high water use notification	1
	3.6: Water waste investigation and information	1
4. Physical System Evaluation and Improvement	4.1: Distribution system leak detection program	2
	4.2: Meter repair or replacement program	2
	4.3: Approved comprehensive water system audit program	3
	4.4: Installation of Advanced Metering Infrastructure (AMI)	2
5. Ordinances/Conditions of Service/Tariffs	5.1: Low water use landscaping requirements	1
	5.2: Water tampering/water waste ordinances	1
	5.3: Plumbing requirements stricter than current Arizona code	1
	5.4: Limitations on water features	1
	5.5: Requirements for water-efficient landscapes in model homes	1
	5.6: Requirements for graywater or rainwater systems	1
	5.7: Conservation requirements for car washes	1
	5.8: Landscape watering restrictions	1
	5.9: Requirements for water-efficient hot water devices or systems	1
	5.10: Retrofit on resale	1
	5.11: Landscape water use efficiency standards for non-res. customers	1
	5.12: Requiring a water use plan for non-residential users	1
6. Rebates/Incentives - Residential	6.1: Customer assistance program	1
	6.2: Toilet rebate or incentive program	1
	6.3: Smart irrigation technology rebate or incentive program	1
	6.4: Rebate for water-efficient hot water devices or systems	1
	6.5: Water-efficient appliance rebate or incentive program	2
	6.6: Graywater retrofit rebate or incentive program	1
	6.7: Rainwater harvesting retrofit rebate or incentive program	1
	6.8: Landscape conversion rebate or incentive program	2
	6.9: Installing xeriscapes in new landscapes rebate or incentive program	1

BMP Category	BMP	Point Value
6. Rebates/Incentives - Non-residential	6.10: Commercial and industrial rebate or incentive program	1
	6.11: Toilet rebate or incentive program	1
	6.12: Smart irrigation technology rebate or incentive program	1
	6.13: Water-efficient appliance rebate or incentive program	1
	6.14: Graywater retrofit rebate or incentive program	1
	6.15: Rainwater harvesting retrofit rebate or incentive program	1
	6.16: Landscape conversion rebate or incentive program	2
	6.17: Installing xeriscapes in new landscapes rebate or incentive program	1
	6.18: Large landscape conservation program	1
	6.19: No or low interest loans for implementing water conservation measures	1
7. Research/Innovation Program	7.1: Participation in industry or regional partnerships for water conservation	1
	7.2: Research of a new technology or technique	1
	7.3: Pilot plan development for new technology or technique	1
	7.4: Piloting a new technology or technique	1
	7.5: Evaluation of new or emerging technologies and practices	1
	7.6: Analyzing a BMP for actual water savings	1
	7.7: Implementation of Smart Irrigation Technology	1
<i>In addition to the BMPs listed above, all providers in the NPCCP must implement a basic public education program.</i>		

Table A3: NPCCP large municipal providers' BMP selections for the 2024 calendar year

AMA	PCC	Large Municipal Provider (💧 = has a DAWS)	Tier	BMPs Implemented in 2024
Phoenix	56-002000.0000	1. Arizona Water Co. - Apache Junction	2	1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.4, 3.5, 3.6, 4.1, 4.2, 5.2, 6.2, 7.1
	56-002001.0000	2. Arizona Water Co. - White Tanks	2	1.1, 2.3, 3.1, 3.2, 3.4, 3.5, 3.6, 4.1, 4.2, 6.2, 7.1
	56-002002.0000	3. Arizona Water Co. - Superior	1	1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 3.2, 3.4, 3.5, 3.6, 4.1, 4.2, 5.2, 6.2, 7.1
	56-002004.0000	4. Berneil Water Company	1	1.4, 3.1, 4.1, 4.2, 4.3, 4.4
	56-002006.0001	5. City Of Buckeye	3	1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.4, 3.5, 3.6, 4.1, 4.2, 4.3, 4.4, 5.1, 5.2, 5.4, 5.5, 5.7, 6.1, 6.3, 6.8, 6.9, 6.10, 6.16, 7.1, 7.7
	56-002007.0000	6. Carefree Water Company	1	1.1, 3.4, 3.5, 3.6, 4.2, 5.3
	56-002008.0000	7. Cave Creek Water Company	1	1.1, 1.4, 2.3, 3.4, 3.5, 3.6, 4.2, 5.2, 5.3, 5.4, 5.7, 5.12
	56-002009.0000	8. City Of Chandler 💧	3	1.1, 1.2, 1.4, 2.1, 2.2, 2.3, 3.1, 3.2, 3.5, 3.6, 4.2, 5.1, 5.2, 5.4, 5.5, 6.3, 6.8, 6.10, 6.12, 6.16, 6.18, 7.1, 7.6
	56-002012.0000	9. EPCOR (Agua Fria) Water AZ Inc 💧 *	3	1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 3.4, 3.5, 3.6, 4.2, 4.4

AMA	PCC	Large Municipal Provider (💧 = has a DAWS)	Tier	BMPs Implemented in 2024
	56-002017.0000	10. Town Of Gilbert 💧	3	1.1, 1.2, 1.4, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 4.1, 4.2, 4.4, 5.1, 5.3, 5.4, 5.11, 6.3, 6.8, 6.12, 6.16, 6.18, 7.1, 7.7
	56-002021.0000	11. Litchfield Park Service Co DbA Liberty Water	2	1.2, 2.1, 2.2,, 2.4, 3.1, 3.2, 3.4, 3.5, 3.6, 4.1, 4.2, 5.1, 5.2, 5.5, 5.11, 7.3
	56-002022.0000	12. Luke Air Force Base	1	1.1, 5.1, 5.4
	56-002027.0000	13. EPCOR - Paradise Valley	2	1.1, 2.3, 2.4, 3.1, 3.4, 3.5, 4.2, 4.4
	56-002029.0001	14. City Of Peoria 💧	3	1.1, 1.2, 1.4, 2.1, 2.2, 2.4, 3.1, 3.2, 3.3, 3.5, 3.6, 5.1, 5.2, 6.2, 6.3, 6.8, 6.12, 6.16, 7.1, 7.3
	56-002031.0000	15. Pima Utilities Company	2	1.1, 2.1, 3.4, 3.5, 3.6, 4.1, 4.2
	56-002032.0002	16. Queen Creek Water Department	3	1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 4.2, 5.1, 5.2, 7.3
	56-002035.0000	17. Rio Verde Utilities	1	1.1, 2.3, 3.4, 3.5, 4.2, 4.4
	56-002037.0000	18. City Of Scottsdale 💧	3	1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 4.2, 4.4, 5.1, 5.2, 5.4, 5.5, 5.11, 6.3, 6.8, 6.10, 6.11, 6.12, 6.16
	56-002038.0000	19. EPCOR - Sun City 💧 *	2	1.1, 1.2, 2.1, 2.3, 2.4, 3.1, 3.4, 3.5, 3.6, 4.1, 4.2, 4.4
	56-002039.0000	20. EPCOR - Sun City West 💧 *	2	1.1, 1.2, 2.1, 2.3, 2.4, 3.1, 3.6, 4.1, 4.2, 4.4
	56-002041.0000	21. Sunrise Water Company	1	1.1, 2.3, 3.1, 3.2, 3.6, 5.2
	56-002043.0000	22. City Of Tempe 💧	3	1.1, 1.2, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 5.1, 5.2, 5.12, 6.2, 6.3, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.16, 7.1, 7.7
	56-002044.0000	23. City Of Tolleson	1	3.4, 3.5, 4.2, 5.1, 5.2, 5.3, 6.1
	56-002047.0000	24. Valley Utilities Water Company	1	2.3, 3.4, 3.6, 4.2
	56-002150.0000	25. Adaman Mutual Water Company	1	5.7
	56-002159.0000	26. Beardsley Water Company	1	2.1, 3.1, 3.2, 3.4, 3.5, 3.6, 4.1, 4.2, 5.8, 6.1, 6.2
	56-002165.0000	27. Clearwater Utilities Co. Inc.	1	3.4, 3.5, 4.2
	56-002169.0000	28. Desert Hills Water Company	1	1.1, 1.4, 2.3, 3.4, 3.6, 4.2, 4.4, 5.2, 5.3, 5.4, 5.7, 5.12
	56-002263.0000	29. Rose Valley Water Company	1	1.1, 2.3, 3.2, 3.4, 3.5, 3.6
	56-002344.0000	30. City Of Surprise 💧	2	1.1, 1.2, 1.4, 2.1, 2.2, 2.3, 2.4, 3.3, 3.4, 3.5, 3.6, 4.2, 4.4, 5.2, 5.4, 5.5, 6.1, 6.3, 6.8, 6.9, 6.12, 6.16, 7.1, 7.3, 7.7
	56-002346.0000	31. EPCOR - San Tan 💧	3	1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 3.4, 3.5, 3.6, 4.1, 4.2, 4.4
	56-002504.0000	32. Chandler Heights Citrus Irrigation District	1	1.1, 2.3, 3.4, 3.5, 4.1, 4.2, 5.2

AMA	PCC	Large Municipal Provider (💧 = has a DAWS)	Tier	BMPs Implemented in 2024
Pinal	56-001304.0000	1. Arizona Dept. Of Corrections - Florence	Exempt	No Data
	56-001352.0000	2. Arizona Dept. Of Corrections - Eyman	Exempt	No Data
	56-001204.0001	3. Town Of Florence 💧	1	1.1, 1.2, 1.4, 2.2, 3.4, 3.5, 4.1, 4.2, 4.4, 5.1, 5.2, 5.5, 6.1, 7.2, 7.7
	56-001307.0002	4. Arizona Water Co. - Pinal Valley System	3	1.1, 1.2, 2.2, 2.3, 2.4, 3.1, 3.2, 3.4, 3.5, 3.6, 4.1, 4.2, 5.1, 5.2, 6.2, 7.1
	56-001342.0000	5. Thunderbird Farms Improvement District	1	3.1, 3.5, 4.4
	56-001353.0000	6. Picacho Water Company	1	3.4, 3.5, 3.6, 4.1, 4.2
	56-001355.0000	7. Global Water Santa Cruz Water Company, Inc. 💧	2	1.1, 1.2, 2.2, 2.3, 3.4, 3.5, 4.2, 5.2
	56-001538.0000	8. EPCOR San Tan - Anthem 💧	1	1.1, 1.2, 2.1, 2.2, 2.3, 3.1, 3.4, 3.5, 4.2, 4.4
Prescott	56-003023.0000	1. Town Of Prescott Valley	2	1.1, 1.2, 2.2, 2.4, 3.6, 3.7, 4.1, 4.2, 7.1, 7.5, 7.6
Santa Cruz	56-000041.0000	1. Rio Rico Utilities Inc.	2	2.1, 2.2, 3.1, 3.2, 3.4, 3.5, 3.6, 4.1, 4.2, 5.8, 6.1, 6.2, 6.3
	56-000042.0000	2. EPCOR - Tubac	1	1.1, 2.2, 3.1, 3.4, 3.5, 4.2
Tucson	56-000016.0000	1. Arizona Water Company - Oracle	1	1.1, 1.2, 2.1, 2.3, 3.1, 3.2, 3.6, 3.7, 3.8, 4.1, 4.2, 5.2, 6.2
	56-000019.0000	2. Avra Water Co-op	1	1.1, 2.3, 3.4, 3.6, 3.7, 5.2, 6.3, 6.6
	56-000046.0000	3. Community Water Co of Green Valley	2	2.1, 2.2, 3.6, 3.7, 4.2
	56-000058.0000	4. DMAFB Water System	1	1.1, 1.2, 2.3, 3.6, 3.7, 3.8, 4.1, 4.3, 5.1, 5.4, 7.6
	56-000060.0000	5. Vail Water Company 💧	2	1.4, 2.3, 2.4, 3.1, 3.6, 3.7, 3.8, 4.1, 4.2, 4.3
	56-000080.0000	6. Global Water Resources (Farmers Water Co) 💧	1	1.2, 3.6, 3.7, 4.2
	56-000107.0000	7. Town Of Marana 💧	2	1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 2.4, 3.1, 3.6, 3.7, 3.8, 4.2, 4.3, 5.2, 5.4, 6.1, 6.2, 6.6, 7.2, 7.3, 7.4, 7.6, 7.8
	56-000128.0000	8. Global Water - Las Quintas Serenas Water Company, Inc.	1	1.1, 3.6, 3.7
	56-000135.0000	9. Saguaro Water Company	1	3.6, 3.7, 3.8, 4.1, 4.2, 5.2
	56-000138.0000	10. Los Cerros Water Co.	1	1.1, 3.7, 4.1, 4.2, 7.3, 7.7, 7.8
	56-000221.0000	11. Voyager Water Company	1	3.6, 3.7, 3.8, 4.1, 4.2, 5.2
	56-000244.0000	12. MDWID Hub System 💧	1	1.1, 1.2, 2.4, 3.6, 3.7, 4.2, 6.2, 6.7, 6.8, 7.1
	56-000245.0000	13. Lago Del Oro Water Co.	2	3.6, 3.7, 3.8, 4.1, 4.2
	56-000246.0000*	14. Marana Domestic Water Improvement District	1	1.1, 3.6, 3.7, 4.1, 4.2

AMA	PCC	Large Municipal Provider (💧 = has a DAWS)	Tier	BMPs Implemented in 2024
	56-000247.0000	15. Ray Water Company	1	1.1, 1.2, 1.4, 2.3, 3.1, 3.6, 3.7, 3.8, 4.1, 4.2, 4.3, 5.2, 7.3, 7.4, 7.6
	56-000268.0000	16. University Of Arizona Board of Regents	1	2.4, 4.1
	56-000302.0000	17. Green Valley DWID	1	1.1, 1.2, 2.3, 2.4, 3.1, 3.6, 3.7, 4.2, 5.1, 7.1, 7.3, 7.6
	56-000362.0000	18. Arizona Dept. Of Corrections - Tucson	Exempt	No Data
	56-000367.0000	19. Quail Creek Water Company	1	3.6, 3.7, 3.8, 4.1, 4.2
	56-000373.0000	20. Sahuarita Water Company 💧	2	1.1, 2.4, 3.1, 3.6, 3.7, 4.1, 4.2
	56-000375.0000	21. Ridgeview Utility Company	1	3.6, 3.7, 3.8, 4.1, 4.2
*Data provided from this PCC is from 2023 due to the failure to file of their 2024 Annual Withdrawal and Use Report				

Table A4: Funding Sources for Small Municipal Providers

Funding Sources				
Source of Funding	Funding Entity	Program Name	Website Link	Contact Information
Internal	Arizona Department of Water Resources (ADWR)	Water Management Assistance Program (WMAF)	https://www.azwater.gov/ama/wmap	(602) 771-8585; earp@azwater.gov
External* (not affiliated with the Department)	Arizona Department of Environmental Quality (ADEQ)	ADEQ 604(b) Surface Water Improvement Grant	https://www.azwater.gov/adeq-604b-surface-water-improvement-grant	(520) 628-6721; rowe.julia@azdeq.gov
	Water Infrastructure Finance Authority of Arizona (WIFA)	Water Supply Development Revolving Fund (WSDRF)	https://azwifa.gov/programs/funding-type/wsdfr	(602) 364-1310; wsdrf@azwifa.gov
		Water Conservation Grant Fund (WCGF)	https://azwifa.gov/programs/funding-type/wcgf	(602) 364-1310
		Drinking Water State Revolving Fund (DWSRF)	https://www.azwifa.gov/programs/funding-type/dwsrf	(602) 364-1310
		Clean Water State Revolving Fund (CWSRF)	https://www.azwifa.gov/programs/funding-type/cwsrf	(602) 364-1310

	United States Department of Agriculture (USDA)	Water & Waste Disposal Loan & Grant Program	https://www.rd.usda.gov/programs-services/water-environmental-programs/water-waste-disposal-loan-grant-program	(928) 910-4471; michael.dean2@usda.gov
		Individual Water & Wastewater Grants in Arizona	https://www.rd.usda.gov/programs-services/single-family-housing-programs/individual-water-wastewater-grants/az	(602) 280-8765; az-rd-sfh-stateoffice@usda.gov
		Emergency Community Water Assistance Grants in Arizona	https://www.rd.usda.gov/programs-services/water-environmental-programs/emergency-community-water-assistance-grants/az	(928) 910-4471; michael.dean2@usda.gov
	Salt River Project (SRP)	Utilities Grant Funding Program (for Colonia)	https://www.srpnet.com/grid-water-management/grid-management/improvement-projects/coal-communities-transition/utility-grant-funding-program	CoalTransition@srpnet.com
	Bureau of Reclamation (BOR) WaterSMART	Water Conservation Field Services	https://www.grants.gov/search-results-detail/352901	dmblake@usbr.gov; cnasstrom@usbr.gov
		Cooperative Watershed Management Program	https://www.usbr.gov/watersmart/cwmp/index.html	(303) 445-2764; rgraber@usbr.gov
		Water and Energy Efficiency Grants	https://www.usbr.gov/watersmart/weeg/	(720) 812-0875; jgerman@usbr.gov
	Dig Deep	Water is Life Fund (Navajo Nation)	https://www.azwater.gov/water-life-fund	(424) 285-0773; waterislife@digdeepwater.org
	*Please note that the funding sources provided are not administered by the Arizona Department of Water Resources. These opportunities are available through external entities, and we cannot guarantee eligibility or availability of funding. We encourage you to contact the respective entities directly for additional information. This is not an exhaustive list.			

Table A5: List of Agricultural BMP Program categories, BMPs, and point values

BMP Category	BMP	Point Value
1. Water Conveyance System Improvements	1.1: Concrete-lined ditch 1.2: Pipelines 1.3: Drainback system	See Table A5.1
2. Farm Irrigation Systems	2.1: Slope systems without uniform grades with tailwater reuse 2.2: Uniform slop systems without tailwater reuse 2.3: Uniform slop systems with tailwater reuse 2.4: Uniform slope within an irrigation district that captures and redistributes return flows 2.5: Modified slope systems 2.6: High pressure sprinkler systems 2.7: Near level systems 2.8: Level systems 2.9: Low pressure sprinkler systems 2.10: Trickle irrigation systems	0.5 0.5 1.5 1 2 2 2.5 3 4 4
3. Irrigation Water Management	3.1: Laser touch-up 3.2: Alternate row irrigation 3.3: Furrow checks 3.4: Angled rows/contour farming 3.5: Surge irrigation 3.6: Temporary sprinklers 3.7: Participation in an education irrigation water management program 3.8: Participation in a consultant or irrigation district sponsored irrigation scheduling service 3.9: Participation in an irrigation district program to increase the flexibility of water deliveries 3.10: Measure flow rates to determine the amount of water applied 3.11: Soil moisture monitoring 3.12: Computer based model using meteorological data Substitute Practice: See Appendix 4B in 4MP	1 1 1 1 1 1 1 1 1 1 1 1 1
4. Agronomic Management	4.1: Crop rotation 4.2: Crop residue management 4.3: Soil and water quality testing 4.4: Pre-irrigation surface conditioning 4.5: Transplants 4.6: Mulching 4.7: Shaping furrow or bed 4.8: Planting in bottom of furrow Substitute Practice: See Appendix 4B in 4MP	1 1 1 1 1 1 1 1 1

Table A5.1: Category 1: Water Conveyance System – Point Table

Percentage of the farm's total irrigated acreage served by the approved BMPs	Point Value
60-64	1.0
65-69	1.3
70-74	1.8
75-79	2.3
80-84	2.8
85-89	3.3
90-94	3.8
95-100	4.0

Table A6: Dairy Operation Best Management Practices Program

BMP Category	BMP
1. Delivery of Drinking Water for Dairy Animals	1.1: Install and maintain valves and floats throughout the drinking water system to allow for the isolation of leaks in lines and tanks. 1.2: Inspect the drinking water system for leaks daily to ensure that leaks are promptly identified and repaired to prevent water loss. If a leak occurs, stop water flow by isolating the area of the leak and/or repair the leak within 72 hours.
2. Udder Washing and Milking Parlor Cleaning	2.1.1: Install and operate the udder washing system with automatic timers. When udder washing, use a maximum of one minute of water for the soak cycle followed by a minimum of two minutes off and a maximum of three minutes of water for the wash cycle followed by one minute off. Repeat with a second wash cycle if needed. 2.1.2: Install a grid no larger than six feet by five feet between sprinkler heads on wash pens installed or renovated after Jan. 1, 2002. 2.1.3: Install lock-out devices so that the wash system can be used only once per group of cows unless exceptional conditions require an override of the lock-out device. 2.1.4: Establish and implement an inspection schedule to properly maintain and replace spray heads and timing devices. Inspect all spray heads and timing devices daily to ensure that they are operating correctly. If a device is found to be malfunctioning, repair or replace the device within 72 hours.
3. Corral Design and Maintenance	3.1: Slope corrals to prevent standing water and to promote drainage to the wastewater system. 3.2: Scrape, harrow or drag corrals to eliminate holes and maintain corrals in a dry condition.
4. Cleaning and Sanitizing Milking Equipment	4.1.1: If the milk cooling and vacuum pump system is water-cooled and is not a closed system, reuse water from the system to wash cow udders or pens, or for any other uses, consistent with state and federal sanitary codes. 4.2.1: Install and operate the milk line washing system with an automatic or semi-automatic timing device. 4.3.1: Maintain and service all back-flush systems in accordance with the manufacturer's design specifications and maintenance schedule.
5. Dust Control, Calf Housing Cleaning and Feed Apron Flushing	5.1: If the dairy flushes the cow feed apron, design the systems to recycle water from the cow udder wash system or to pump wastewater and recycle it from the lagoon or wetland area. 5.2: If the calf housing utilizes a flush system to remove animal wastes, design and manage the system so that it uses only the minimum amount necessary and equip with a timer to minimize the duration of each flush.

	5.3: If dust control practices are used at the facility, the following dust control methods should be used: paving, aggregate, chemical binding agents or dairy wastewater if consistent with state and federal standards. If potable water is used for dust control it must be used as efficiently as possible.
6. Dairy Animal Cooling	6.1.1: Design and operate independent fan and spray systems to ensure that water is used efficiently under all weather conditions. 6.2.1: Use leaf gate, wand switch, electric eye or motion (proximity) indicators to automatically activate the water valve. 6.3.1: Locate the feed line cooling system to take advantage of prevailing winds in order to place water directly on the dairy animal. Equip the system with timers to control the duration of use. 6.4.1: Equip corral shade coolers with thermostats or timers to control operation time. 6.4.2: Establish an inspection schedule to ensure regular maintenance of nozzles and water filter systems.
7. Dairy Animal Feed Preparation	7.1: Install shut-off valves at each water source used for feed preparation to allow for the isolation of leaks. If a leak occurs, isolate the area of the leak and/or repair the leak within 72 hours.