



**Clean Air, Safe Water,
Healthy Land for Everyone**

Capacity Development Annual Report Fiscal Year 2024

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List of Acronyms

A.A.C.	Arizona Administrative Code
ACC	Arizona Corporation Commission
ADEQ	Arizona Department of Environmental Quality
ADOA	Arizona Department of Administration
AOC	Approval of Construction
ARS	Arizona Revised Statutes
ATC	Approval to Construct
CWS	Community Water System
DBP	Disinfection By-Products
DWID	Domestic Water Improvement District
DWSRF	Drinking Water State Revolving Fund
EC-SDC	Emerging Contaminants - Small, Disadvantaged Communities
ETT	Enforcement Tracking Tool
FY	Fiscal Year
GSD	General Services Division
IX	Ion Exchange
KOUI	Known On-going Unauthorized Impact
LCR	Lead and Copper Rule
MAP	Monitoring Assistance Program
MCL	Maximum Contaminant Level
MPL	Master Priority List
MSSP	Microbiological Site Sampling Plan
NTNCWS	Non-Transient Non-Community Water System
O&M	Operations & Maintenance
OCCT	Optimal Corrosion Control Treatment
PFAS	Per- and polyfluoroalkyl substances
PN	Public Notice
PWS	Public Water System
RCAC	Rural Community Assistance Corporation
RWAAZ	Rural Water Association of Arizona
RWIC	Rural Water Infrastructure Committee
SDWA	Safe Drinking Water Act
SDWSF	Small Drinking Water Systems Fund
SRF	State Revolving Fund
SUDC	Small, Underserved and Disadvantaged Communities
TA	Technical Assistance
TMF	Technical, Managerial, Financial Capacity
TNCWS	Transient Non-Community Water System
TTHM	Total Trihalomethanes
USBR	U.S. Bureau of Reclamation
USDA-RD	U.S. Department of Agriculture - Rural Development
USEPA	U.S. Environmental Protection Agency
WIFA	Water Infrastructure Finance Authority of Arizona
WIIN	Water Infrastructure Improvements for the Nation Act

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
CAPACITY DEVELOPMENT ANNUAL REPORT
JULY 1, 2023 – JUNE 30, 2024

1. INTRODUCTION

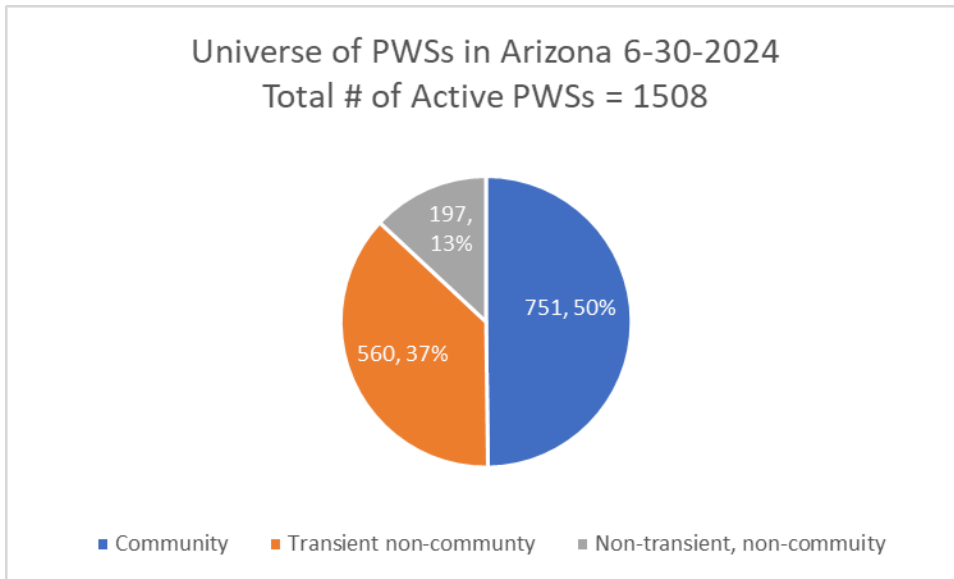
The objective of the 1996 amendments to the Safe Drinking Water Act (SDWA) is to ensure that public water systems (PWSs) have the ability to provide safe drinking water to the public. Water system capacity is the ability to plan for, achieve, and maintain compliance with all applicable state and federal drinking water standards and regulations. There are three components to capacity: technical, managerial and financial (TMF). States are to develop strategies and programs aimed at helping water systems acquire and maintain these capacities in order to properly operate, manage and finance their systems. Adequate capability in all three areas is necessary for the successful operation of a public water system. States are prohibited from providing Drinking Water State Revolving Fund (DWSRF) assistance to a PWS that lacks adequate capacity, unless that assistance is directly related to improving that system’s technical, managerial or financial capabilities.

The Arizona Department of Environmental Quality’s (ADEQ) Capacity Development Program works to ensure that new small community and non-transient, non-community public water systems possess the technical, managerial, and financial capabilities to operate in accordance with all federal and state drinking water rules and regulations. In addition, the program also targets both new and existing community and non-transient, non-community PWSs serving 10,000 or fewer people for technical assistance funded through set-aside monies from the U.S. Environmental Protection Agency (USEPA) Capitalization Grant of the DWSRF.

The 1996 SDWA amendments also require states to prepare an annual report documenting the ongoing implementation of the Capacity Development Program for addressing capacity determinations for new systems and the application of the approved strategy for existing public water systems. This report reviews the activities conducted by ADEQ from July 1, 2023 through June 30, 2024 and provides responses to the memorandum from Cynthia C. Dougherty, Director, Office of Groundwater and Drinking Water, USEPA, Washington, D.C., dated June 1, 2005 and the questions highlighted in the “Reporting Criteria for Annual State Capacity Development Program Implementation Reports”.

2. ARIZONA’S WATER SYSTEM DEMOGRAPHICS

As of June 30, 2024, there are 1,508 regulated PWSs currently operating in Arizona: 751 are classified as community water systems (CWS) (50%), 197 are non-transient, non-community water systems (NTNCWS) (13%) and 560 are transient non-community water systems (TNCWS) (37%). Over 95% of Arizona’s public water systems are classified as “small water systems” serving less than 10,000 persons, based on USEPA’s classification of drinking water systems by population served. ADEQ’s Capacity Development Program is designed to help address the needs of these small water systems.



3. NEW SYSTEMS PROGRAM ANNUAL REPORTING CRITERIA

3.1 *Has the state’s legal authority to implement the program changed in the previous year?*

The legal authority to implement ADEQ’s Capacity Development Program has not changed since the adoption of the capacity development rule in 1999. The Department’s regulations are codified in the Arizona Administrative Code (A.A.C.) Title 18, Chapter 4, Article 6 – Capacity Development Requirements for a New Public Drinking Water System.

3.2 *Have there been any modifications to the state’s control points? If so, describe the modifications and any impacts these modifications have had on implementation of the new systems program. If not, no additional information on control points is necessary.*

In its updated Capacity Development Strategy, finalized in April 2022, ADEQ clarified the state’s control points as: 1) an Elementary Business Plan must be approved prior to the issuance of an “approval of construction” (AOC) of a new public water system; and 2) the submittal of the AOC application must include a complete Operations & Maintenance (O&M) Manual if treatment is being installed and all required sampling plans (e.g., microbiological site sampling plan (MSSP), lead and copper sampling plan, Stage 2 disinfection by-products monitoring plan).

However, in August 2024, the myDEQ online portal will be expanded to accept ATC/AOC applications electronically. Submitting through the portal will require the applicant to provide their public water system ID number (AZ04XXXXX). A new community or non-transient, non-community water system that has not submitted their Elementary Business Plan and had it approved, will not be able to submit their ATC application until doing so. We anticipate this will reduce the number of water systems making capital investments in water infrastructure before satisfying the capacity development requirements for new public water systems.

3.3 List new systems (PWSID & Name) in the state within the past three years, and indicate whether those systems have been on USEPA’s Enforcement Targeting Tool (ETT) list.

Table 1 lists the 37 PWSs that were activated as new public water systems between July 1, 2021 and June 30, 2024. Thirteen of these systems were reactivated during this period and therefore are not “new”. They are denoted with an asterisk next to the PWS number.

Table 1: List of PWSs Activated from July 1, 2021 through June 30, 2024

PWS Number	PWS Name	Type	County	Population	Activity Date
AZ0412012 *	Santa Cruz Water Co	NTNC	Santa Cruz	30	7/7/2021
AZ0403087	A1 Ranch Homeowners Association Inc.	C	Coconino	45	7/20/2021
AZ0403175	Lockett Estates	C	Coconino	30	12/2/2021
AZ0408160 *	Beaver Dam Ranch LLC	NC	Mohave	60	12/2/2021
AZ0409101	Rocky Rim Resort Cabins	NC	Navajo	200	1/4/2022
AZ0401704 *	USFS Petrified Forest National Park	C	Apache	1742	2/17/2022
AZ0408177	Beaver Dam WC System 3	C	Mohave	35	2/24/2022
AZ0402396 *	Dairy Queen	NC	Cochise	50	6/6/2022
AZ0411565	Scotts Miracle Gro	NTNC	Pinal	25	7/18/2022
AZ0403150	Moose Ranch	NC	Coconino	30	8/31/2022
AZ0408805	White Hills Carl's Jr	NC	Mohave	500	12/5/2022
AZ0408322 *	Tri State Petroleum	NC	Mohave	35	1/5/2023
AZ0411038 *	Picacho Peak Water Company	C	Pinal	55	2/13/2023
AZ0407916	Sheraton Phoenix Downtown	NTNC	Maricopa	1804	3/6/2023
AZ0407552	The Willow Wedding Venue	NC	Maricopa	150	3/9/2023
AZ0411460	GW – SCWC -Twin Hawks Water Company	C	Pinal	50	5/5/2023
AZ0403025 *	Mustang River Grill	NC	Coconino	250	5/19/2023
AZ0411570	Town of Florence – Rodeo Well	NC	Pinal	500	7/21/2023
AZ0408145 *	Lake Juniper County Improvement District	C	Mohave	63	8/21/2023
AZ0410271	USFWS Buenos Aires National Wildlife Refuge	NTNC	Pima	54	8/27/2023
AZ0411557 *	New Saddleback Vista DWID	C	Pinal	100	9/11/2023
AZ0413485	Ventura Ranch Water System	C	Yavapai	300	9/15/2023
AZ0410501	Marana Municipal – Silverbell Gateway	C	Pima	50	9/26/2023
AZ0407549	White Tank Well, Inc	C	Maricopa	87	10/18/2023
AZ0407554	Carioca Shell #99	NC	Maricopa	500	10/31/2023

AZ0403047 *	Fort Valley Lodge	NC	Coconino	31	12/16/2023
AZ0408200	Grand Canyon Glamping Resort	NC	Mohave	60	12/18/2023
AZ0407364 *	Desert Oasis RV Park	NC	Maricopa	40	1/29/2024
AZ0404247	Whispering Hope	NC	Gila	160	2/1/2024
AZ0407553	White Tank Water	NC	Maricopa	200	2/12/2024
AZ0411560	Pinal County Justice Complex	C	Pinal	820	3/7/2024
AZ0411575	GW – SCWC – Maricopa Southwest	C	Pinal	596	3/11/2024
AZ0415060 *	La Paz County Parks -Centennial Park	NC	La Paz	100	3/12/2024
AZ0410250	Thim Utility Co – Parkin	C	Pima	69	4/9/2024
AZ0408195	Silver Creek Water Co	NC	Mohave	25	6/1/2024
AZ0405010 *	Naturesweet USA	NTNC	Graham	200	6/19/2024

Table 2 shows the new or reactivated PWSs with an ETT score and the number of violations, as of June 30, 2024, and an explanation of efforts to resolve the violations. Ten of the thirty-seven had an ETT score or violation points. Of those, five were new systems in the last three years; five were reactivated systems. ADEQ’s Compliance Assistance Coordinators are working with all of these systems in order to return them to compliance.

Table 2: List of PWSs with ETT Score

PWS Number / PWS Name	ETT Score	Violations	Explanation of Violation	Status of Assistance
AZ0403175 Lockett Estates	12	8	Failure to complete CCR; failure to distribute to customer and submit CCR to ADEQ; GWR failure to address deficiency; Pb & Cu initial tap sampling (x2); lead consumer notice; PN linked to violation (x2)	PWS needs to complete proper LCR sampling in 2 consecutive 6-month windows; working with operator to resolve GWR deficiency, complete CCR and post PN
AZ0411038 * Picacho Peak Water Co.	11	2	Nitrate MCL exceedance, single sample; PN linked to violation	Operator re-sampled, result 5.6 mg/L; notice provided
AZ0410271 USFWS Buenos Aires National Wildlife Refuge	11	2	Pb & Cu routine tap sampling; nitrate MCL, average	PWS needs to complete proper LCR sampling in 2 consecutive 6-month windows. ADEQ has provided LCR guidance. ADEQ drafting consent order requiring RP to address nitrate exceedances.
AZ0411557 * New Saddleback Vista DWID	10	1	Nitrate MCL exceedance, average	Approval to construct application and plans submitted to engineering review to install nitrate treatment
AZ0415060 * La Paz County – Centennial Park	10	1	Nitrate MCL exceedance, single sample	Sample was taken at the well rather than after nitrate treatment. Operator resampled, result was 2.5 mg/L
AZ0403087 A1 Ranch Homeowners Assoc	6	6	Pb & Cu initial tap sampling; lead consumer notice; PN linked to violation (x4)	PWS needs to complete proper LCR sampling in 2 consecutive 6-month windows. Working with the operator to post notices.

AZ0408177 Beaver Dam WC System 3	6	10	Pb & Cu initial tap sampling; chlorine monitoring routine (DBP), major (x3); HAA5 monitoring routine (DBP), major (x3); TTHM monitoring routine (DBP), major (x3); PN linked to violation	PWS needs to complete proper LCR sampling in 2 consecutive 6-month windows. PWS has not yet completed DBP2 monitoring since activation. They have been reminded to take their annual samples prior to September 30.
AZ0409101 Rocky Rim Resort Cabins	5	1	GWR failure to address deficiency	Working with the operator to resolve violations
AZ0401704 * USFS Petrified Forest National Park	2	2	Failure to complete CCR; failure to distribute to customers and submit CCR to ADEQ	Working with operator to complete CCR
AZ0408160 * Beaver Dam Ranch LLC	1	1	PN linked to violation	Working with operator to post notice

In FY24, ADEQ approved three new public water systems which required the submission of an Elementary Business Plan, in accordance with A.A.C. R18-4-602.

- Escudilla Mountain DWID (AZ0401349), community water system, not yet activated
- Pinyon Plains Mine (AZ0403275), non-transient, non-community water system, will be activated once they hire more than 25 employees
- Ventura Ranch DWID (AZ0413485), community water system, activated 9/15/2023

White Tank Well (AZ0407549) was approved as a new PWS in FY21 but was not activated until FY24. Several other new systems, activated in FY24, were not required to submit Elementary Business Plans because they were owned and/or operated by either a federal, state or local government entity, or a large private, for profit water company with adequate technical, managerial and financial capacity.

Two additional public water systems requested a PWS number and were working on their Elementary Business Plans, when it was determined that they had been in operation prior to October 1, 1999, so they were not subject to the capacity development requirements for new water systems.

Garchen Institute (AZ0413216) - will activate after an ADEQ inspector does a new system site inspection

UHaul International – Tempe (AZ0407917) working with Maricopa County Environmental Services Department who will activate the system once all the permitting is completed

For the systems discovered to be providing potable water to their customers and where no alternative sources are available, system inactivation is often not in the public interest. ADEQ drinking water staff has conducted sanitary surveys and is working closely to get these systems permitted and verify their capacity to be a sustainable provider. These systems include: Show Low Pines Well 3, Vicksburg Farm, Canyon Vista Estates, Whispering Winds Apartments, and Beaver Dam WC System 3.

4. EXISTING SYSTEM STRATEGY

4.1 *In referencing the state's approved existing systems strategy, which programs, tools, and/or activities were used, and how did each assist existing PWSs in acquiring and maintaining TMF capacity? Discuss the target audience these activities have been directed towards.*

The major focus of the Capacity Development Program is on small community and non-profit, non-transient, non-community systems. Costs for water system operations and maintenance can be significant and have a major impact on the ability of small system operators, often with volunteer or part-time staff, to maintain the systems in compliance with the ever increasing and more complex federal and state regulatory requirements.

Therefore, the program is focused primarily on those small water systems most in need of assistance, which tend to be small rural communities and schools that are also public water systems. Primary tools used to help them acquire and maintain capacity include the Monitoring Assistance Program (MAP); the Technical Assistance Program; training workshops for water system representatives including owners, managers, or operators; TMF assessment tool, utilizing federal infrastructure grant programs; the predictive analytics program; and coordination with other technical & financial assistance partners primarily through the Rural Water Infrastructure Committee (RWIC).

In addition, in FY24, ADEQ:

- explored how to improve the TMF 1.0 questionnaire and the process to better our understanding of a water system's capacity as discussed in section 4.1.4;
- utilized funding from the Water Infrastructure Improvements for the Nation Act (WIIN) grant (WIIN 2) to assist five small public water systems as discussed in section 4.1.5;
- contracted with four consulting firms to assist nearly 700 small water systems compile their lead service line inventory information that is due to EPA by October 16, 2024 as discussed in section 4.1.6;
- continued our asset management planning initiative and helped nine small water systems prepare asset management plans and examined their rate structure and budgeting to ensure both are sufficient to support a short- and long-term asset replacement program. Five of these are systems with PFAS compounds exceeding the new MCLs so the asset planning is to help them determine costs should they stay in the water business and installing treatment versus looking to interconnect with a larger system that has capacity to serve them.

4.1.1 *Monitoring Assistance Program*

All community and non-transient, non-community public water systems, that are not federally or state-owned, and that serve 10,000 or less people are required to participate in ADEQ's Monitoring Assistance Program (MAP). Currently, for a base fee of \$250 per year and an additional \$2.57 charge per meter or service connection, MAP conducts all baseline monitoring for regulated inorganic contaminants, volatile organic contaminants, synthetic organic contaminants, nitrate, nitrite, asbestos, nickel and radionuclides. This cost-effective program has dramatically reduced the number of PWSs that would otherwise be in noncompliance with monitoring and reporting requirements for the various rules, which increases their technical and managerial capacity.

However, presently, the MAP is projected to reach insolvency by FY26 at the earliest and FY27 at the latest, owing to both cost increases due to inflation of nearly 79% since the program’s last fee increase in 2001, and the expected upcoming mandatory testing for PFAS. The Legislature approved a statutory amendment to also allow ADEQ to create a fee and regulatory structure to perform triggered increased monitoring for small systems.

The program has undertaken a rulemaking to adjust the MAP fees to expand the program adding soon-to-be regulated PFAS monitoring, as well as continuing to support small systems by sampling for triggered increased monitoring when a potential issue is identified by sample results. This reassessment and adjustment of fees will keep the program solvent and able to continue assisting the small water systems to remain in compliance with monitoring regulations and serve healthy drinking water.

4.1.2 Technical Assistance Program

Funded primarily by set-asides from the DWSRF capitalization grant, the Technical Assistance (TA) program continues to assist small PWSs. The program provides a variety of assistance including: design and preparation of permitting applications in order to make necessary system improvements or to install treatment; funding assistance; asset management plans and water system optimization. Table 3 provides the program results for the last three years. In FY24, the TA program was able to provide technical assistance to 40 small PWSs.

While the overall number of projects appears to be going down over the past couple of years, some of the projects are subsequent phases of prior projects. For example, ADEQ may have funded a feasibility study in one year, the next year commissioned design and permitting, and the third year provided construction administration in order to prepare the approval of construction application and record drawings. In addition, the revamped Technical Assistance program (circa 2017) has generated requests for larger scale projects than were done in the early days of the program.

Table 3: Technical Assistance Program Results FY22-FY24

	FY22	FY23	FY24
Total number of projects completed	80	64	57
Number of individual PWSs assisted	58	50	40
Number of projects completed for PWSs*	72	54	50
Projects not specific to a PWS	4	2	0

*additional phases or efforts at one or more PWSs in the same fiscal year

Table 4: PWSs Receiving Technical Assistance in FY24

System Name	PWS No	Technical Assistance Provided
August Hills MHP	AZ0404332	System evaluation & asset management plan
Beaver Creek School	AZ0413084	Construction plans for decentralized treatment
Beaver Creek School	AZ0413084	Video, pump test & sample 2 wells
Bradshaw Mountain Water Co.	AZ0413062	ATC for storage tank
Camp Verde Main	AZ0413015	Design & ATC for arsenic treatment system
Cibola Mutual Water Co.	AZ0415123	ATC for aeration & blower system

Cienega Springs Water Co.	AZ0415126	Design, permits & cost estimate for 2600 lf 6-in waterline
Clay Springs DWID	AZ0409009	System evaluation & asset management plan
Desert Gardens RVP	AZ0411129	Preparation of an Environmental Information Document
Desert Hills Water (Town of Cave Creek)	AZ0407026	System evaluation & asset management plan
Desert Oasis MHP	AZ0407364	ATC/AOC for water system infrastructure for mobile home park
Desert Star Community School	AZ0413277	AOC for arsenic treatment installation
Greenehaven Water Co	AZ0403037	System evaluation & asset management plan
HAV Properties	AZ0404356	System evaluation & asset management plan
Heber DWID	AZ0409014	ATC & AOC for storage tank
Jackson Acres DWID	AZ0413036	Design, permits & cost estimate for 2600 lf 6-in waterline
Kelvin Simmons	AZ0411035	Land appraisal
La Paz County - Centennial Park	AZ0415060	AOC for nitrate treatment and finished water tank
Lake Mead Community Coop	AZ0408043	AOC, bidding, & construction administration for installation of storage tank
Lil W Ranch	AZ0404141	System evaluation & asset management plan
Maricopa Mountain DWID	AZ0411087	30% design for 6.8 miles of pipeline
Maricopa Mountain DWID	AZ0411087	Water balance technical memorandum to include Antelope Peak DWID; amending PER/EID to include Antelope Peak DWID
Maricopa Mountain DWID	AZ0411087	Well investigation as a redundant source
Mayer DWID	AZ0413039	ATC for 8,600 lf of 6-inch PVC transmission main and waterline
Michael's Ranch Water Users	AZ0413109	Land survey for treatment placement
Michael's Ranch Water Users	AZ0413109	Design, permits and bid docs for arsenic treatment system
Morristown Water Co	AZ0407111	Design, permits and bid docs for arsenic treatment system
Mt. Tipton Water	AZ0408059	ATC & bid documents for well, fill station, & storage tank
New Saddleback Vista	AZ0411557	ATC for nitrate treatment, transmission line & bid docs
Pinedale Estates DWID	AZ0409040	ATC for new well & transmission line
Rillito Water Users Assoc	AZ0410098	System evaluation & asset management plan
Rim Trails DWID	AZ0404035	AOC for 2 storage tanks

San Simon WID	AZ0402027	Amend PER/EID for replacement well
ShangriLa Ranch Resort	AZ0407660	Preparation of Environmental Information Document
Sierra Vista RVP	AZ0411383	Bid docs, cost estimate and construction administration for installation of arsenic treatment system
Town of Chino Valley	AZ0413137	Feasibility study of water system consolidation
Town of Duncan - Hunter Estates	AZ0406009	Design & ATC for well, storage tank & pipeline
Verde Glen	AZ0404040	System evaluation & asset management plan
Verde River Estates	AZ0413072	Design of arsenic treatment system
Via Verde MHP	AZ0420420	AOC for chlorinator installation
Voyager @ White Mountain Lakes	AZ0409034	System evaluation & asset management plan
Voyager @ White Mountain Lakes	AZ0409034	ATC/AOC for 2 chlorinators
Whispering Winds Apartments	AZ0413487	ATC for well, storage tank & arsenic treatment system
Whispering Winds Apartments	AZ0413487	Preparing construction plans
Worden Water Co.	AZ0410132	ATC/AOC new well, storage tank & booster pumps

Due to the number of ongoing projects in the Drinking Water Section including lead service line inventories, PFAS sampling and WIIN and EC-SDC grant programs, in FY24, the TA program did not pursue any specialized capacity building projects such as the TMF assessment tool created in FY22.

In FY25, the TA program will continue focusing its efforts on those PWSs needing technical assistance to resolve public health related issues; continue the asset management initiative for small PWSs; and help small PWSs with capacity needs especially in the areas of fiscal sufficiency by examining their rate structure and forming an appropriate corporate structure.

4.1.3 Capacity Development Training

ADEQ conducts technical workshops statewide, both independently and in partnership with private consulting firms and nonprofit organizations, to improve the technical, managerial, and financial capacity of existing PWSs. In FY24, ADEQ held the following trainings:

Date	Location	Topic	Format	Type
7/20-21/2023	Phoenix	Distribution grade 1-2, 3-4 math	In person	Operator
7/27/2023		Record keeping Understanding construction drawings Chemical safety & management	Webinar	Operator
9/21-22/2023	Flagstaff	Treatment grade 1-2, 3-4 math	In person	Operator
9/28/2023		Storage tanks O&M	Webinar	Operator

		Groundwater well O&M		
11/2/2023		PFAS Treatment: Technical Training for Engineers	Webinar	Operator
11/6/2023		PFAS 101 Workshop	Webinar	Operator
1/18-19/2024	Yuma	Distribution grade 1-2, 3-4 math	In person	Operator
1/25/2024	Tempe	Leadership training	In person	Capacity development
2/2/2024	Phoenix	Arizona PFAS Forum: Industry Perspectives on Solutions	In person	Operator
2/22-23/2024	Tucson	Treatment grade 1-2, 3-4 math	In person	Operator
2/29-3/1/2024	Scottsdale	Distribution workshop	In person	Operator
3/21-22/2024	Pinetop	Capacity Development/Operator Certification workshop	In person	Capacity development /operator
3/28-29/2024	Scottsdale	Capacity Development/Operator Certification workshop	In person	Capacity development /operator
4/12/2024	Tucson	Resilience & Emergency Management Workshop	In person	Operator
4/19/2024	Tempe	Resilience & Emergency Management Workshop	In person	Operator
5/23-24/2024	Pinetop	Treatment grade 1-2, 3-4 math	In person	Operator

In FY25, the program will continue to focus on training for: basic and intermediate asset management; budgets, rates and finances; creating the appropriate corporate structure; and PFAS treatment.

4.1.4 Technical, Managerial, Financial Capacity Assessment Tool

One outcome of the capacity development strategy discussion with stakeholders was the development of a TMF assessment and query tool that ADEQ deployed in FY22. ADEQ completed all of the baseline assessments by July 2022, and the results were used in determining areas to focus on for improving water system capacity in FY24.

For FY25, the TMF tool will be revamped for improved accessibility and regular usage. Both historical and new results will be used in continuing to offer asset management planning support, rate analysis and support and board training. It is ADEQ’s intent to utilize the TMF tool in a variety of ways to assess water system TMF capacity for all new systems, existing systems, recently discovered systems, and during complaint investigations.

4.1.5 Utilizing Grant Funding for Infrastructure Improvements

Water Infrastructure Improvements for the Nation Act (WIIN)

In September 2022, Arizona was awarded an additional \$665,000 in WIIN Act federal grant dollars to assist in building capacity for small and disadvantaged PWSs. EPA again waived the match on this allocation. Using WIIN funds to help small systems with construction costs can improve their TMF

capacity. ADEQ wants to ensure these systems have adequate capacity in all three areas to maintain these capital improvements over time.

The TA team originally identified five small PWS construction projects to utilize the additional funding. To date, two of the five projects have been completed:

- o Green Valley MHP (AZ0413348) (\$66,557.83) – optimization of an arsenic treatment system including installation of a chlorinator and pH adjustment system in Camp Verde
- o Desert Star Community School (AZ0413277) (\$99,451.98) – installation of a point-of-entry arsenic treatment system for a Title 1 charter school in Cornville

Three others are still in process:

- o Desert Gardens RV Resort (AZ0411129) (\$147,180.68) – installation of a 30,000 gallon storage tank which is needed as part of a larger project to install arsenic treatment using WIFA funding – the project was paused for a redesign but now purchase orders have been issued and all parts are on order. Estimated completion date: the WIIN funded storage tank should be complete in February 2025 but the arsenic treatment system will be complete by June 2025.
- o Shangrila Ranch Resort (AZ0407660) (\$119,784.71) – installation of radium and arsenic treatment systems and stub-out plumbing for eventual installation of two PFAS treatment vessels. Construction was 80% complete in March, 2024 but supply chain delays on key electrical components paused the project. The parts will be received in August and construction will resume in the 3rd week of August. Estimated completion date: October 2024. Because of the very challenging water quality, this water system was selected by USEPA to be part of its PFAS pilot testing program to determine the best technology for PFAS treatment at this site.
- o Whispering Winds Apartments (AZ0413487) (\$197,686.37) – installation of lead-lag arsenic treatment system – purchase orders have been issued, waiting on vendor drawings to order all parts. Estimated completion date: December 2024.

For FY25, USEPA has informed Arizona that there is \$929,000 in grant funding available under the newly established Small, Underserved, and Disadvantaged Communities Grant (SUDC) under the WIIN program. As with the earlier rounds of WIIN funding, WIFA will be the grant recipient, ADEQ will select and manage the projects and Arizona Department of Administration, General Services Division, will oversee construction through its Job Order Contracting program.

Small Drinking Water Systems Fund (SDWSF)

Established under A.R.S. § 49-355, the Small Drinking Water Systems Fund provides grants, including emergency grants, to small public water systems to repair, replace or upgrade water infrastructure required for compliance with ADEQ and ACC requirements. It is the only fund that can provide emergency funding to small water systems in an expedited manner.

In FY22, the Legislature appropriated \$1,000,000 for the Fund. ADEQ, with concurrence from the ACC, recommended 20 small public water systems to WIFA for Small Drinking Water Systems funding in FY22-FY23. With the remaining monies in the fund and interest earned, in FY24, ADEQ was able to recommend 4 small water systems to WIFA for SDWSF grants. The remaining balance after these awards is less than \$300.

Table 5: Small Drinking Water System Fund Awards FY24

PWS No	PWS Name	Issue	Award
AZ0402043	Monte Vista Water Co.	Arsenic treatment media has failed prematurely 3 times since installation in 2020; grant paid for replacing titanium dioxide media with iron based media	\$18,000
AZ0410188	Desert Water Co-op	Pump failure	\$40,000
AZ0410132	Worden Water Co.	Pump failure and well collapse – drilled new well	\$42,000
AZ0411035	Kelvin Simmons Co-op	Purchase parcel to drill new well	\$11,000

For FY24, the Legislature did not allocate additional funding to the SDWSF. The Fund needs a permanent, dedicated funding source in order to help small public water systems in emergencies.

Since July 1, 2024 four water systems have had pumps or motors fail. While there are well suppliers willing to assist these communities, assurance of payment is needed for them to extend services. Many of these small water systems do not have \$20,000-\$40,000 in savings to pay for installing a new pump or drilling a new well to provide water to their customers. These systems, and others, could benefit from the SDWSF, if funds were available.

4.1.6 Analytics Program for Systems Predicted to Exceed the Arsenic MCL

Small water systems often lack the TMF resources to address an unexpected MCL exceedance. To assist public water systems in filling this gap, ADEQ created a program that predicts when a water system may exceed the arsenic safe drinking water standard and takes steps to prevent the exceedance. This proactive program features several key elements — forecasting model, compliance consultations and roadmap to compliance — allowing public water systems to be better financially prepared, react faster, and create smarter, long-term solutions for safe drinking water. This voluntary consultation program is free to water systems and may provide insight into how they can avoid future arsenic MCL violations.

To better leverage staff knowledge and experience, the predictive analytics (PA) program includes staff from each of our Safe Drinking Water teams: technical assistance, source water protection, engineering review, monitoring and protection, and inspections and enforcement.

Since the start of the project in August 2019:

- o 176 systems have been contacted
- o 89 systems have implemented a solution/countermeasure (media change, operation/maintenance adjustments and updates to standard operating procedures)
- o 18 systems are in the process of implementing a solution (treatment optimization, starting discussions with decision makers based on site visit results, etc.)
- o 22 systems have worked or are in the process of working with Technical Assistance staff on determining a solution (zonal sampling, consolidation, treatment, etc.)
- o 16 systems have prevented arsenic MCL exceedances

At the beginning of this project, arsenic was selected as the first contaminant targeted by the PA program as it was the most common MCL exceedance at the time. Now, as the arsenic PA program has progressed, arsenic is no longer the most common MCL exceedance, which demonstrates the success of the proactive approach of the PA program.

For FY25, we are looking to expand the PA program to include nitrate which previously had been the second most common MCL exceedance. With the success of the arsenic PA program, nitrate is now the most common MCL exceedance. The arsenic PA program will continue to work to prevent arsenic MCL exceedances, while a nitrate PA program is developed and implemented to work to prevent nitrate MCL exceedances.

4.1.7 Lead Service Line Inventory Project

The 2021 Lead and Copper Rule Revisions (LCRR) impact more than 900 of Arizona's public water systems by adding new regulatory and compliance requirements. All community and non-transient, non-community PWSs are required to create an initial inventory to identify the materials for every service line in their service area.

In FY24, ADEQ contracted with four third-party consulting firms to assist nearly 700 small PWS in preparing their service line inventories and entering the data in the ADEQ provided 120Water online portal. In addition to assisting small PWSs, ADEQ has been communicating to all applicable systems the need and requirements for the inventory, guidance on developing the inventory and offered office hours where systems can attend to discuss their questions and concerns. It is the responsibility of the PWS to submit their inventory via the 120Water portal, which will upload the information to EPA, by the deadline of October 16, 2024.

4.1.8 Rural Water Infrastructure Committee

The Rural Water Infrastructure Committee (RWIC) is a partnership of various federal and state agencies who provide loans, grants and technical assistance to Arizona's rural communities. RWIC serves as a one-stop shop providing resources to small drinking water and wastewater systems with a population of less than 10,000 people. The RWIC meets quarterly to hear requests from small water and wastewater systems for technical and financial assistance.

RWIC Partners:

- AZ Corporation Commission (ACC)
- AZ Department of Environmental Quality (ADEQ)
- AZ Department of Housing (ADOH)
- AZ Department of Water Resources (ADWR)
- Greater Arizona Development Authority (GADA) - joined RWIC in 2024
- North American Development Bank (NADBank)
- Rural Community Assistance Corporation (RCAC)
- Rural Water Association of Arizona (RWAA)
- U.S. Department of Agriculture - Rural Development (USDA-RD)
- U.S. Department of Housing and Urban Development (HUD)

- U.S. Department of the Interior, Bureau of Reclamation (BOR)
- U.S. Environmental Protection Agency (USEPA)
- Water Infrastructure Finance Authority of Arizona (WIFA)

In FY23, the RWIC website was transitioned from WIFA to ADEQ’s website, and ADEQ will continue to schedule and chair the meetings. In FY24, the RWIC website (<https://azdeq.gov/RWIC>) and informational flier were updated and approved during a quarterly meeting, along with updates to the RWIC project list. The RWIC project list is a non-public facing list of projects by RWIC partners to improve communication and promote shared resources. The RWIC project list was moved from an excel sheet to a google sheet so that partners can update in real time. Additionally, a RWIC-sponsored virtual Funding Forum is planned for September 24, 2024. The 2024 RWIC Funding Forum will include an introduction to the RWIC followed by short presentations from each RWIC partners.

4.2 *Based on the existing system strategy, how has the state continued to identify systems in need of capacity development assistance?*

In rule, public water systems are initially identified for technical assistance based on the Master Priority List (MPL) outlined in A.A.C. R18-4-803. The criteria used to determine need are similar to the criteria used in determining existing PWS capacity. In previous years, the criteria included initial monitoring year, source water type, population served, system classification type, owner type, presence of a certified operator, USEPA’s ETT score, system classification type, population served, and violation history (MCL and O&M). In addition to ADEQ’s use, WIFA uses the MPL to identify possible candidates for additional financial assistance (e.g., low interest loans, principal forgiveness). Once the MPL is final, ADEQ contacts the public water systems with the most points to offer technical assistance.

The FY25 MPL was updated and published on May 10, 2024 for a 30-day comment period. There were several updates to the scoring criteria used in FY25 MPL.

FY25 MPL Scoring Criteria Changes:

- Initial Monitoring Year has been changed to **Activity Date** to better recognize the age of the system and the date the PWS began serving water. The point breakdown remains the same.
- The way the **ETT** score is calculated was changed to better address the disparity of the highest points of ETT resulting in an over-representation of the ETT score within the total MPL score. Now, instead of using the ETT score given by the EPA, the score given is 0 points for an ETT score less than or equal to 10, 5 points for an ETT score between 11 and 25, 10 points for an ETT score between 26 and 50, and 15 points for an ETT score greater than or equal to 51.
- The way the **MCL Violations** score is calculated was changed to increase the MCL violation percentage represented within the total MPL score. The change in calculation included decreasing the points for acute violations (Nitrate, E. coli) from 25 points to 10 points; however, instead of 25 points for *each type* of violation, it will now be 10 points *per occurrence*. For example, previously if there were three nitrate violations, the score for the acute violation would be 25 points. Now, if there were three nitrate violations, the score would be 30 points. This would then be added to any chronic violation (arsenic, fluoride, radionuclides, lead/copper, disinfection byproducts) points that are calculated the same way as before, 5 points *per occurrence*. Additionally, a clarification on the violation category codes was included. The violation category code for MCL is used to calculate MCL Violations score. Although the

violation category code Reporting (RPT) is linked with the MCL violation, it reflects more on administration violations and will not be used in the scoring.

- The way the **Operation & Maintenance (O&M) Violations** score is calculated was changed to better address the disparity of the highest points of O&M resulting in an over-representation of the O&M score within the total MPL score. Previously, it was 25 points *per each open* major violation and 5 points *per each open* minor violation. The change in calculation included breaking out the violation category codes used to calculate the score, Missed Monitoring (MON) and Public Notice (PN). The average number of the MON violations and the average number of the PN violations were then found. The MON score given for each system was 0 points for the number of MON violations below the average, 5 points if at or above the average, and 10 points if twice the average and above. PN violations were calculated in the same fashion. The MON and PN points for each system are then summed for the total O&M Violations score.
- A new scoring criterion was introduced, **Monitoring Assistance Program (MAP)** score. According to A.A.C R18-4-803(B)(5), the participation in the monitoring assistance program is listed as a possible criterion to be considered in the MPL. However, this has not been included in the past as non-participation in MAP on its own does not indicate a need for improved capacity development. PWS that are at or above 10,000 in population are allowed, but not required to participate in MAP. Systems with a population of less than 10,000 must participate, with an exception for federal and state systems. Systems at or above 10,000 in population that are not participating in MAP should not be given MAP points in the MPL as these systems could very well have the capacity needed to do their own sampling. Therefore, instead of looking at whether or not a system participates in MAP, the MPL MAP score looks at PWS with past due MAP fees. Past due MAP fees may indicate a system struggling to keep up with the financial demands of operating a water system. If a system is current with their MAP fees or the system is over 10,000 in population, then 0 points are awarded. Past due MAP fees will result in 5 points for *each year* overdue. This added criterion brings the MPL more into alignment with the suggested MPL criteria listed in A.A.C R18-4-803(B); while the use of past due MAP fees instead of participation alone more accurately indicates the need for additional capacity development.
- Lastly, a new scoring criterion was introduced, **TMF** score. According to A.A.C R18-4-803(B)(11), the state may consider any or other measurable objective criteria related to the technical, managerial, or financial capacity of a public water system. ADEQ completed a TMF survey of all PWS in September of 2022, which resulted in a measurable objective TMF score for each system. The TMF score is a range of percentages with higher percentages representing a system with good TMF capacity and lower percentages representing systems at risk. A point scale was created for the TMF criteria. If the TMF score is greater than 95%, the system is awarded 0 points; if the TMF score is between 76% and 95%, the system is awarded 5 points; if the TMF score is between 50% and 75%, the system is awarded 10 points; and if the TMF score is less than 50%, the system is awarded 15 points. This added criterion brings the MPL more into alignment with the suggested MPL criteria listed in A.A.C R18-4-803(B).

As required by rule, an oral proceeding was held on June 10, 2024 to accept comments from the public. There were eight attendees at the oral proceedings with a few clarifying questions on the FY25 MPL and non-MPL related comments (e.g., lead service line inventory). No actionable comments were made on the record so the FY25 MPL was finalized following the close of the proceeding and posted on the ADEQ website.

In FY24, ADEQ began planning to automate the MPL so that it can be run at any time throughout the year. This would help both the Capacity Development program and the Technical Assistance program identify water systems in need of assistance. In FY25, the MPL was automated and checked against manual calculation of scores. There were some discrepancies in automating the scoring, however, ADEQ plans to evaluate and troubleshoot how to fix the automation for future use.

In addition to the MPL, ADEQ has created a unique process for targeting water systems in need: KOUI (pronounced COO-EE). KOUI is an acronym that stands for “Known, On-going, Unauthorized Impact” to public health and/or the environment. In the Drinking Water Section, KOUI sites are those water systems serving water above a federal national drinking water standard, including sites that have a treatment technique violation or exceed an action level. These KOUIs are a high priority for problem solving to determine the root cause of the impact so that a remedy can be devised and implemented. KOUI sites have created visibility, transparency, and accountability throughout the agency. From staff to the director, all known environmental or public health problems are captured into one metric or one universe and are worked on daily. Other units in the Section can refer current KOUIs to the TA program to determine the need for assistance.

4.3 *During the reporting period, if statewide PWS capacity concerns or capacity development needs (TMF) have been identified, what was the state’s approach in offering and/or providing assistance?*

When capacity needs and/or concerns are identified that may affect several water systems regionally or statewide, ADEQ offers support and assistance primarily through training, compliance assistance and the technical assistance program. For FY25, two identified areas of need are: 1) the lead service line inventory deadline of October 16, 2024 where all community and non-transient, non-community public water systems must develop and submit an inventory of the service lines to EPA; and 2) the emerging issue of PFAS detections in small water systems and determining remedies to address them.

4.4 *If the state performed a review of implementation of the existing systems strategy during the previous year, discuss the review and how findings have been or may be addressed.*

ADEQ has not performed a formal review since the adoption of the new Capacity Development Strategy in 2022.

4.5 *Did the state make any modifications to the existing system strategy? If so, describe.*

ADEQ has not made any modification to the existing system strategy since the adoption of the new Capacity Development Strategy in 2022.