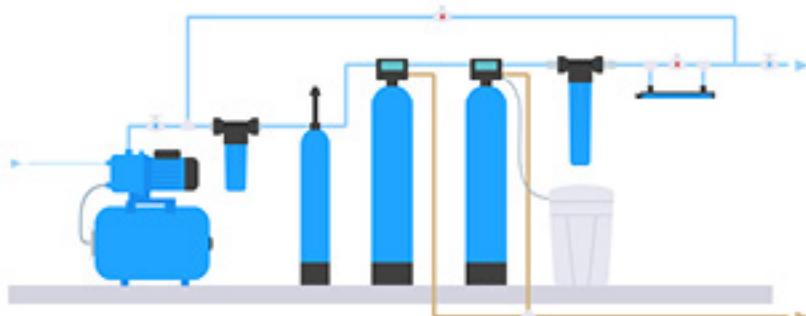




## Drinking Water Capacity Development Program

Enhancing the technical, managerial and financial  
capacity of Arizona's drinking water systems

2017 | Triennial Report to the Governor



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For translations or other communications aids, please email the Title VI Coordinator at [idb@azdeq.gov](mailto:idb@azdeq.gov) | Para traducciones u otras ayudas de comunicación, envíe un correo electrónico al Coordinador del Título VI al [idb@azdeq.gov](mailto:idb@azdeq.gov)

# EXECUTIVE SUMMARY

The Arizona Department of Environmental Quality (ADEQ) Water Quality Division (WQD) submits this 2017 triennial report to the Governor describing the efficacy of the Capacity Development Program, which is charged with improving Arizona's drinking water systems in the areas of:

- Technical Capacity
- Managerial Capacity
- Financial Capacity

The Capacity Development Program continues to implement strategies to assist public drinking water systems in improving financial, managerial and operational practices, infrastructure condition, and technical knowledge in order to consistently and sustainably provide healthy drinking water. In addition, this report fulfills Arizona's obligation, under section 1420(c)(3) of the Safe Drinking Water Act, to report the status of the Capacity Development Program to the Governor every three years.

The Capacity Development Program continues to focus on enhancing the department's role in providing assistance to drinking water systems, using third party technical assistance contractors, collaborating with other agencies, educating stakeholders about pending new regulations and increasing the awareness of the value of healthy and sustainable drinking water.

During 2015 to 2017, the agency continued its transformation with the rollout of the ADEQ Lean Management System, reinforcing the lasting cultural change the agency desired. Becoming Lean has helped ADEQ protect and enhance public health and the environment of Arizona more quickly and efficiently.

One of the most important changes is the reorganization of functions by "value stream". A value stream is all the processes associated with creating, producing and delivering a good or service to the customer including materials and information flow. Value streams have helped our programs better understand how their work is connected and how it impacts every other step in the overall process of delivering a product or service to our customers. To track our progress, the Drinking Water Value Stream is tracking several performance measures and setting aggressive targets.

Performance Measure	Baseline	FY17 Average	FY18 Target
Percent of small water systems in compliance	64.4%	84%	93%
Percent of water systems in compliance at the time of inspection	66%	70%	80%
Percent of population served healthy drinking water	74.5%	98%	99%

**Arizona's original Capacity Development strategy** has been in place for nearly two decades. While many of the issues facing small public water systems have not changed dramatically, the regulatory environment certainly has – many new rules & regulations have been implemented. To address these new challenges, in 2016, ADEQ developed a Small Water Systems Compliance Assistance Plan and Resource Toolbox to help concentrate the

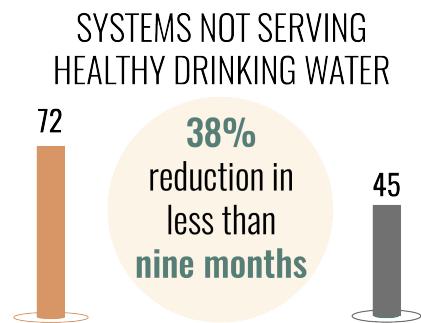
Drinking Water Value Stream's efforts on those small public water systems and schools that continue to have the most pressing compliances issues. Several of these tools are highlighted in this report.

# INNOVATIONS

The department has implemented some new ideas within the last three years to more effectively and efficiently ensure healthy drinking water for all Arizonans:

## Daily Focus on Water Systems Not Serving Healthy Drinking Water

Every day, the Drinking Water Value Stream comes together to determine what the programs can do to assist small water systems that are not serving healthy drinking water. Key areas of focus are monitoring and reporting, systems without certified operators, systems exceeding maximum contaminant levels (MCLs), systems exceeding lead and/or copper action levels (ALE) and those needing engineering review and approval.



## Management Training Track

To increase system knowledge of technical, managerial and financial capacity, ADEQ developed a management training track geared towards small water system owners and managers. Its focuses include modules on budgets and financing, rate setting, asset management, water audit/loss detection and emerging technologies for small water systems. ADEQ has plans to expand the track with workshops to assist small system owners and managers to create some of these tools.



## Pre-Inspection Consultation & Checklist

To increase the number of water systems in compliance, the drinking water inspections group piloted a program giving a water system the opportunity to conduct a self-inspection prior to the scheduled sanitary survey. The water system was emailed a checklist and strongly encouraged to walk through the system and complete the checklist just like they were conducting the inspection.

During the pilot, when water systems completed these pre-inspection checklists, they had significantly fewer violations identified during the official sanitary survey conducted by drinking water staff. The results of the pilot were encouraging and the program was implemented for all drinking water inspections in April 2017.

## New Approach to EPA Regulations

In FY17, to improve water system compliance rates, ADEQ reorganized its compliance assistance coordinators on a geographic basis rather than a rule-by-rule approach. This provides the water system with one point of contact for all the state and federal rule requirements. Staff get to know all the systems within their assigned counties and can provide more uniform customer service and foster collaboration between systems, as needed.

## Technical Assistance Program

In FY16, ADEQ transitioned the Capacity Development Program from a request-for-service to a pro-active compliance assistance approach. Staff reaches out to systems not serving healthy drinking water and offers technical assistance focusing primarily on addressing maximum contaminant level (MCL) exceedances and lead and/or copper action level exceedances (ALE).

Once the technical assistance is completed, ADEQ, the contractor and funding agencies meet with the system to develop a detailed plan to achieve compliance.

# CAPACITY DEVELOPMENT STRATEGY

## Definitions

**Public Water System:** a system with at least 15 service connections or a system serving at least 25 individuals daily for at least 60 days out of the year

**Community Water System:** a public water system which serves at least 15 service connections and is operated on a year-round basis or regularly serves at least 25 residents on a year-round basis

**Non-Transient/Non-Community Water System:** a public water system that is not a community water system and that regularly serves at least 25 of the same persons over six months per year

**Transient Non-Community Water System:** a public water system that is not a community water system, which has at least 15 service connections or regularly serves an average of at least 25 individuals daily at 60 days out of the year.

## Strategy Background

Providing healthy and reliable drinking water is an essential component to protecting human health, promoting social wellbeing and stimulating economic development.

Arizona's Capacity Development Strategy was prepared in 1999, with stakeholder input, and approved by the U. S. Environmental Protection Agency (EPA) in the early 2000s. Developing and implementing the strategy allows the state, through the Water Infrastructure Finance Authority of Arizona, to receive the full allotment of Drinking Water State Revolving Fund capitalization grant funds from EPA. The funds are used to provide low-interest capital improvement loans to drinking water systems and to fund public drinking water protection efforts in Arizona, including capacity development activities.

Capacity development activities include assistance with compliance related issues, training, developing tools such as asset management, budgets and finances, operator certification and other services.

These activities align with the department's core mission by providing measurable outcomes with respect to compliance assistance. As a result, Arizona's implementation activities have varied over the years in an effort to ensure our strategy remains effective and efficient.

## Technical Capacity

The water system meets standards of engineering and structural integrity necessary to serve customer needs. Technically capable water systems are constructed, operated, and maintained according to accepted quality standards.

## Managerial Capacity

The water system's management structure is capable of providing proper stewardship of the system. Governing boards or authorities are actively involved in oversight of system operations.

## Financial Capacity

The water system can raise and properly manage the money it needs to operate efficiently over the long term.

## CORE STRATEGY ELEMENTS

1. Educate Arizonans on the importance of healthy drinking water
2. Inform water systems of current and future rules and regulations
3. Expand owner/manager/board member trainings to address crucial TMF areas including budgets, financing, asset management and rate setting
4. Encourage agency partnerships and system partnerships
5. Improve inter- and intra-agency communication for TMF capacity related programs
6. Coordinate technical and financial assistance resources to help water systems meet TMF capacity and serve healthy drinking water to all customers
7. Continue collecting baseline data to measure the success of TMF capacity activities

## STRATEGY IMPLEMENTATION AND EFFICACY

Ending September 2017, Arizona had 1,515 public water systems: 748 community systems, 198 non-transient/non-community systems, and 569 transient non-community systems. Arizona's capacity development program is primarily focused on community and non-transient/non-community systems (A.A.C. R18-4-601). To assist public water systems in acquiring and maintaining TMF capacity, the department implemented the following activities during the reporting period - October 2014 through September 2017.

## AGENCY COLLABORATION

ADEQ is working collaboratively with other state and federal agencies to develop new solutions for problems faced by small water systems. This includes a system-by-system review of water systems with acute emergencies (e.g., fire damage, water outage) and chronic long term compliance issues (e.g., contamination of water source in excess of an MCL) that pose an imminent threat to public health and safety.

**April 2016** -- Representatives of state agencies and the water industry formed a Water Emergency Team (WET) to respond to emergency water situations that rise to the level of imminent human health and safety issues with primary focus on small water systems. WET is designed to provide greater coordination among state agencies and industry in case of water emergencies (e.g., water outage or contamination of water source in excess of an MCL).

As the regulatory authority over all non-tribal public water systems, ADEQ chairs WET and calls for meetings when a water emergency is reported. A lead agency is identified based on the facts of the situation and provides updates on actions and needs to the team.

**January 2017** -- WET was instrumental in helping resolve a significant water loss situation that also resulted in a transfer of ownership of that system to an adjacent system.

**June 2017** -- WET provided support to a small water system serving a community in southern Arizona that was impacted by forest fire and to a small water system in Yavapai County that was experiencing extremely high usage such that the wells couldn't keep up with demand in early summer.

Similar to the WET, ADEQ, co-regulators and technical and financial assistance partners meet as a Small Water Assistance Team (SWAT) as needed to discuss non-compliant water systems and determine possible options to put the water system on a path towards compliance. By examining the specific issues (e.g., MCL exceedances, insufficient rates, excessive water loss, infrastructure needs), SWAT can provide the system access to technical and financial assistance providers to evaluate and recommend solutions for specific areas of deficiencies. An initial SWAT meeting is followed by a meeting with the water system, usually at their location and includes relevant partners.

SWAT was instrumental in assisting Truxton Canyon Water Company in obtaining financing to install centralized arsenic treatment. Truxton is a privately-owned water company serving approximately 1000 residential and commercial customers 40 miles northwest of Kingman. SWAT is currently working with four other small water systems with either unusual water quality issues or complex solutions.

*Water Emergency Team is made up of: Arizona Corporation Commission, Arizona Department of Water Resources, Water Utilities Association of Arizona, Arizona Department of Emergency Management, County Supervisors Association, and the Water Infrastructure Finance Authority of Arizona among others.*

# COMPLIANCE ASSISTANCE & ENFORCEMENT

ADEQ has the primary responsibility in Arizona to enforce the requirements of the Safe Drinking Water Act. That responsibility requires identifying violations and helping to resolve them and return the system to compliance as quickly as possible. If compliance cannot be achieved through assistance efforts, a formal enforcement action may be necessary. Other enforcement tools are used in those few instances where significant violations persist or occur repeatedly despite efforts to resolve them.

The overall FY18 target for population percentage being served healthy drinking water is 99 percent, which is nearly a 25 percent increase over the baseline of 74.5 percent from two years ago. This increase is due to staff spending most of their time working closely with *small water systems* to achieve compliance. Many of these systems struggle with treatment needs, aging infrastructure and inadequate TMF resources.

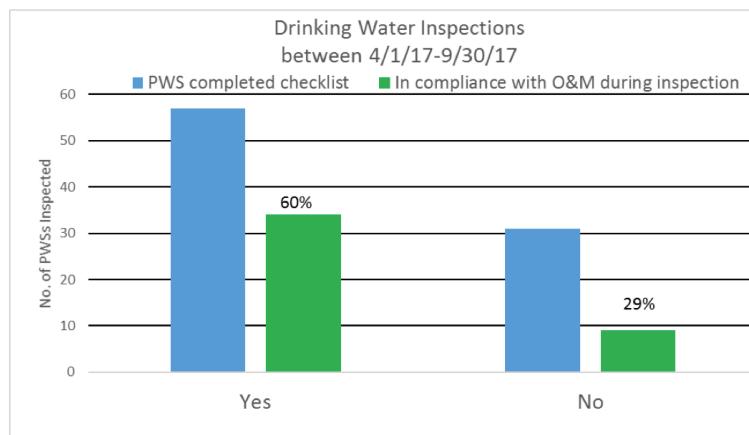
**The baseline for small water systems *in compliance* in FY16 was 64.4 percent.  
In FY17, it grew to 84 percent and is expected to hit the FY18 target of 93%.**

In FY17, drinking water field inspectors piloted a pre-inspection consultation program. When scheduling a sanitary survey, staff discussed with the owner/operator any open violations, previously issued notices and any problems the system was encountering. The system was emailed a checklist titled *Preparing for Your Drinking Water Sanitary Survey* (Appendix A) and was encouraged to walk through the system and complete the checklist just like they were conducting the inspection. The checklist focused on necessary paperwork, plans, forms and the condition of the physical infrastructure.

Armed with knowing what the field inspector would be looking for, and what records to have at the time of inspection, the water system took the opportunity to correct items before the inspector came. The system was encouraged to continue using the checklist to ensure continual compliance.

Based on the pilot's success, the program was implemented for all inspections starting in April 2017.

Water systems that did not complete the checklist were found with O&M violations twice as often as systems that completed it.

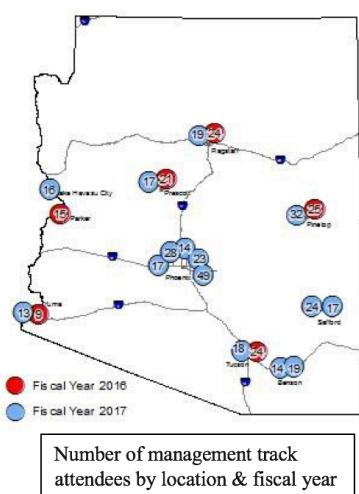


Of the 88 inspections conducted between April 1 and September 30, 2017, 57 of the water systems completed the checklist (65%). Of those systems that completed the checklist, 34 systems or 60% had no O&M violations at the time of inspection. 54% of these systems reported fixing a checklist item prior to the inspection. Of the 31 systems that did not complete the checklist, 9 systems (29%) had no O&M violations at the time of inspection.

# MANAGEMENT TRAINING PROGRAM

In FY16, ADEQ contracted with several of its technical assistance providers to help develop water management training workshops for water system decision makers, including owners, managers and board members. The workshops are designed to improve the decision-maker's knowledge and involvement in drinking water system management and operations. Workshop topics included water system regulations, budgets and financing, board member roles and responsibilities, asset management, rates setting, and emergency management. During the reporting period, ADEQ conducted 20 management training workshops. 14 of these were 2-day capacity development events that also included operator training topics. FY16, the initial year, 118 decision-makers attended. In FY17, attendance nearly tripled with 320 participating decision-makers.

ADEQ also partnered with the Environmental Center Network under the EPA Training & Technical Assistance for Small Systems Grant to coordinate a day-long Funding Forum on June 1, 2017 in Phoenix. The workshop had 49 attendees and featured presentations by all the major funding sources (e.g., Water Infrastructure Finance Authority, U.S. Department of Agriculture – Rural Development, Border Environment Cooperation Commission) as well as modules on how to prepare successful applications that show the funding agencies that they possess TMF capacity.



# OPERATOR CERTIFICATION PROGRAM

Arizona's Operator Certification Program is a pivotal partner in building technical capacity of small public water systems. The program provides training and issues certifications to ensure that individuals who operate drinking water systems are qualified and capable of performing their duties. The operator training program focusses primarily on the technical knowledge required to treat and deliver healthy drinking water and maintain compliance with the SDWA.

Arizona currently has 1,515 water systems that require a certified operator. Some water utilities, especially those in rural areas of the state, are experiencing difficulties in attracting and retaining qualified operators. During this reporting period, ADEQ's focus has been on expanding operator trainings and providing opportunities for pre-certification tests at any of ADEQ's offices and at the capacity development trainings throughout the year. As a result of these efforts, coupled with the daily focus on systems with staffing issues, the number of systems without properly certified operators has dropped significantly from 293 systems (18% of all systems) in fiscal year 2008, to 5 systems as of July 2017 (< 1 percent of all systems requiring a certified operator).

On July 1, 2016, ADEQ began charging fees for the drinking water and wastewater operator certification program. Fees were set in rule (A.A.C. Title 18, Chapter 5, Article 1) for new and renewal certificates and reciprocity reviews. ADEQ continues to partner with Gateway Community College (GWCC) to proctor Association of Boards of Certification operator certification exams for all operator classifications and grade levels. GWCC has monthly testing dates at its Phoenix campus and has scheduled dates and/or testing locations throughout the state.

In June, in anticipation of the Long-term 2 Enhanced Surface Water Treatment Rule (LT2) deadline for submitting LT2 plans by June 30, 2017, Drinking Water staff and a local engineering firm developed a 1 ½ day workshop for operators of surface water systems. The formation of disinfection by-products (DBPs) is complicated and specific to the characteristics of each raw water source, treatment plant configuration and overall water plant operational practices. Day 1 of the workshop covered applicable rules, plans, forms and reporting requirements; Day 2 started with a tour of

a well-run surface water treatment plant followed by a training in operational strategies and treatment techniques to address the formation and treatment of DBPs. Seventy-eight participants representing 35 surface water systems attended the trainings in Flagstaff, Phoenix and Quartzsite.

# PUBLIC SCHOOL DRINKING WATER LEAD SCREENING PROGRAM

In response to nationwide concern stemming from the Flint, Michigan situation and to protect Arizona's children, ADEQ initiated a six-month, statewide voluntary screening program for lead in public school drinking water. The intention was to find out whether lead contamination is present in public school's drinking water. While regulated public water systems are not a common source of lead in Arizona, lead can leach from fixtures, connections and piping, especially in piping systems with extended periods of non-use. Reducing children's exposure to lead in drinking water at school is an important step in reducing a child's overall exposure to lead in the environment. Potential drinking water impacts from lead leaching from fixtures and/or pipes was unknown at schools because neither federal nor Arizona state law requires that schools test drinking water.

ADEQ led a multi-agency effort to identify and take immediate action to reduce lead exposure at drinking water fixtures of concern and inform both short- and long-term corrective actions and solutions. The testing, which began in January, 2017 and concluded in late June, found that 96 percent of all public school district water fixtures screened for lead were within the conservative screening levels set for the study. State agencies and partners are actively working to address the small number of fixtures with elevated lead levels – many of which were from non-drinking water sources.

## What We Learned

Drinking water in public school districts is not a common source of lead in Arizona.

Fixtures and piping are the source of lead for the small number of confirmed elevated levels found in drinking water.



### Overview

**16,125** samples  
from **14,782** fixtures  
in **11,585** buildings  
in **1,427** schools



### Sampling

ADEQ and its partners collected 16,125 samples from 14,782 fixtures at all public school district schools, taking immediate corrective actions and retesting fixtures in buildings that tested higher than the screening level.



### Results

96% of all fixtures screened were found to be protective and required no action.

Program partners included the Arizona School Facilities Board, Arizona Department of Health Services, Arizona Department of Education, the County Health Departments, the cities of Glendale, Peoria, Phoenix, Scottsdale, Tempe and Tucson and public school districts.

Read Arizona's Public School Drinking Water Lead Screening Program 2017 report:

[http://static.azdeq.gov/dw/lead\\_screening.pdf](http://static.azdeq.gov/dw/lead_screening.pdf)

# SOURCE WATER PROTECTION

**Primary goal:** to protect the quality and availability of public drinking water supplies.

**How?** By implementing community-based protection plans that outline strategies and best management practices within defined source water protection (SWP) areas.

**Why?** SWP helps:

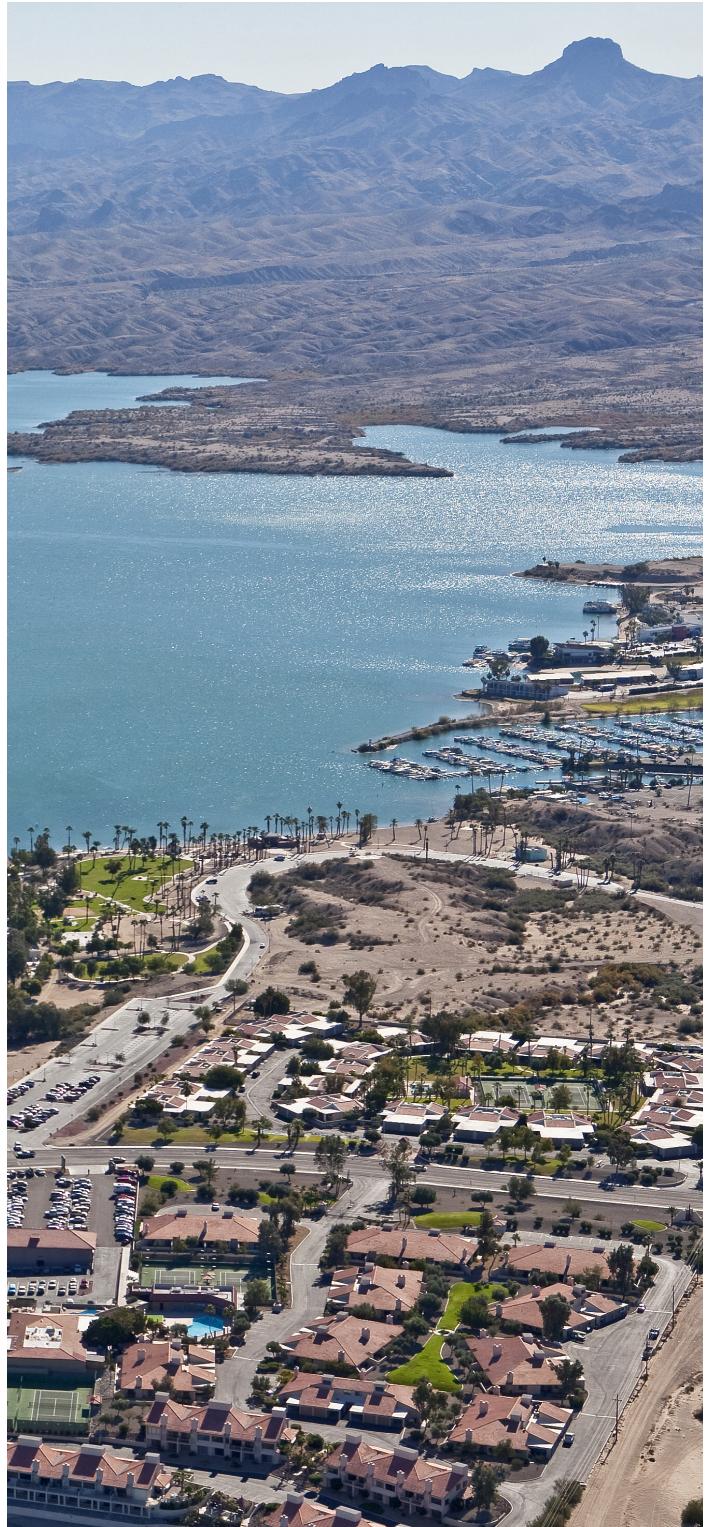
- reduce potential health risks
- preventing negative economic impact
- improve ecological health by actively managing potential contaminants

The program is a continuation of the original source water assessments that were conducted on all public water systems from 1999 through 2003. The current program focuses on developing plans for all schools with their own drinking water source and community water systems.

Statewide SWP efforts during the three-year period included:

- Providing technical assistance in planning and implementing local SWP for public water systems throughout Arizona
- Performing or assisting in the development of assessments for new individual sources or new systems which voluntarily choose to participate by delineating SWP areas, inventorying potential sources of contamination and performing vulnerability/susceptibility analysis
- Collecting locational data using GPS and/or GIS for potential sources of contamination (e.g., chemical use/storage within ½ mile radius of a new or existing drinking water source)
- Conducting groundwater under direct influence of surface water (GUDI) evaluations making sensitivity determinations for PWSs/sources through review of occurrence data, microscopic particulate analysis (MPA) and reviewing hydrological characteristics

The program completed 14 source water assessment plans during the FY15-FY17 period. It was put on hold in later 2016 when staff was re-assigned to the Public School Drinking Water Lead Screening Program. The SWP program resumed in July 2017.



# TECHNICAL ASSISTANCE TO SMALL WATER SYSTEMS

In FY16, the Technical Assistance Program went from request-for-service to a pro-active compliance assistance approach. In keeping with the daily focus on PWSs not serving healthy drinking water, Technical Assistance staff:

1. identifies systems with ongoing compliance issues
2. establishes contact with those systems
3. offers technical assistance focusing primarily on options for addressing MCLs and lead and/or copper action level exceedances (ALE) issues

ADEQ then meets with the system, the consultant and a funding agency to determine the best path forward, which usually involves engineering design and applying for construction funding.

While many small water systems understand they have an issue (e.g., arsenic, nitrates, uranium), they typically have no idea how to begin to address them, how to hire a consulting firm to do design and how to finance the needed improvements. In FY18, the Technical Assistance Program will begin offering treatment system design and work with the water system on identifying and applying for construction funding.

Technical Assistance Provided from FY15 through FY17						
Services Provided	FY15		FY16		FY17	
	#	\$	#	\$	#	\$
System Evaluation	3	\$16,808	4	\$48,140	3	\$21,500
Compliance Options Evaluations	1	\$7,440	10	\$110,918	8	\$146,751
Engineering Services (e.g., ATC/AOC, blending plans, O&M, zonal sampling)		-0-	4	\$18,160	4	\$26,260
Totals	4	\$24,248	18	\$177,218	15	\$194,511

## SYSTEM EVALUATION

When requested by a small water system or when ADEQ staff determine a system could benefit from a detailed system assessment, the technical assistance program will assign a 3rd party contractor to conduct a system evaluation. The system evaluation looks at the TMF capacity of the system and provides a roadmap to achieve and maintain compliance and make necessary infrastructure improvements. The plans typically contain a detailed description of the existing infrastructure, current condition and prioritized recommendations and cost estimates for infrastructure improvements. The management portion looks at staffing resources and organizational capabilities, quality assurance program and provides recommendations for improvement. Lastly, the financial section looks at the system's record keeping, management of cash flow, fiscal controls and recommendations for improving fiscal capacity.

If during the evaluation, it is discovered that the system is lacking required items like a system- specific Operations and Maintenance Manual or an Emergency Operations Plan, the technical assistance providers can be tasked with helping create those as well.

## COMPLIANCE OPTIONS EVALUATION

As noted, above, ADEQ has shifted its focus to proactively working with small systems with ongoing MCL/ALE issues in order to develop a clear plan to address the issue. Compliance alternatives can include items such as developing a new source; consolidation with a more viable system; point-of-use treatment; centralized treatment as well as operational solutions. These reports typically outline two or three options and the engineer's opinion of probable costs. Four to six weeks after the system has received the report, ADEQ schedules a meeting with the water system and brings the contractor and one or more funding agencies. The purpose of the meeting is to come to a consensus on what solution(s) makes the most sense for the water system given its population, contaminant of concern, level of operational sophistication and TMF capabilities. ADEQ has found that even with the compliance options report, many small systems lack the technical expertise or the financial resources to move to the next steps – hiring an engineer to design the solution and then finding funding for design, implementation and/or construction. In FY18, ADEQ's technical assistance program will task its 3rd party contractors with treatment design and possible construction management oversight.

## CONTINUED AND FUTURE STRATEGY IMPLEMENTATION

In accordance with section 1420(c) of the Safe Drinking Water Act, the department will continue to implement the state's capacity development strategy. Future implementation of the strategy will continue to focus on compliance assistance as it pertains to TMF capacity. In doing so, the department will enhance internal and external knowledge of drinking water regulations and capacity development assistance efforts.

ADEQ will continue to pursue mechanisms to enhance the state's implementation of the strategy, reduce compliance related issues, and improve customer satisfaction.



# APPENDIX A

## PREPARING FOR YOUR DRINKING WATER SANITARY SURVEY

## PREPARING FOR YOUR DRINKING WATER SANITARY SURVEY

Your public water system is due for a sanitary survey. This is a routine inspection conducted every 3 or 5 years depending on how your system is classified. Complete the steps listed below to prepare for the inspection.

PWS Name: \_\_\_\_\_

PWS ID Number: AZ04 - \_\_\_\_\_

Date: \_\_\_\_\_

Name and title of person completing form: \_\_\_\_\_

PWS Type:  Community Water System (CWS)

Non-Transient Non-Community Water System (NTNCWS)

Transient Non-Community Water System (TNCWS)

### General Paperwork Review

Do you have the following documents on-site and available at the time of inspection?

- |                              |                             |   |
|------------------------------|-----------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 1. Revised Total Coliform Rule Microbiological Sample Siting Plan A.A.C. R18-4-126  |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 2. Lead & copper monitoring plan ( <b>for CWS and NTNCWS only</b> ) A.A.C. R18-4-111  |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 3. Stage 2 Disinfection By-Products monitoring plan ( <b>for CWS and NTNCWS which add a primary or residual disinfectant other than UV light</b> ) A.A.C. R18-4-124 |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 4. Emergency Operations Plan ( <b>for CWS only</b> ) A.A.C. R18-4-204(A)  |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 5. Maintenance Records A.A.C. R18-4-203   |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 6. Backflow Prevention testing records A.A.C. R18-4-215   |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 7. Records of ADEQ approval (if necessary) for system components added in last 5 years  |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 8. Records of water quality analyses  |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 9. Records of turbidity and of continuous residual disinfectant concentration measurements ( <b>Surface water or GUDI* systems only</b> )                           |

\*GUDI – Ground water under the direct influence of surface water

### Physical Facilities A.A.C. R18-4-203

Perform a walk-through of your systems and verify that the following components are installed and in good condition.

◆ **Ground water systems:**

- |                              |                             |  |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 1. Well slabs are intact in good condition. Small cracks have been sealed.                   |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 2. Sample taps are installed at all wells.   |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 3. All wells have a vent turn down and terminates 2 ft. above the slab with #16 mesh screen. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 4. All openings into the well casings are sealed, including electrical conduits and holes.   |

◆ **Surface water or GUDI systems:**

- |                              |                             |  |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 1. Intake structure is physically intact; protected against tampering, aquatic nuisances and other potential damages; and accessible for inspections and cleaning. |
|------------------------------|-----------------------------|--|

◆ **Ground water, GUDI or surface water systems:**

- |                              |                             |  |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 1. Sample taps are installed at all Entry Points to the Distribution System (EPDS).  |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 2. All chemicals and disinfectants used in the system have an NSF logo on the packaging.   |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 3. All storage tank overflows pipes extend down to 12 inches above the ground and are protected with a securely fitting flapper gate or a #16 mesh screen. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 4. Hatches on storage tanks are secured and gaskets are in good condition and fittightly.  |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 5. Vegetation is maintained and controlled around system facilities.   |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 6. Area around storage tank(s) is graded to provide drainage away from tank.   |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | 7. All pressure tanks have a pressure gauge and a pressure relief valve.   |

If you have answered "No" to any of the above questions, please list the corrective action(s) taken to address the situation(s). Use additional paper if needed.

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If all deficiencies identified have not been addressed, please provide a brief explanation why.

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*NOTE: ADEQ inspectors are not allowed to climb standpipes or elevated storage tanks. If possible, please have recent photos of the hatches (opened to show gasket and closed to show cover) and a photo of the vent showing the height above tank roof and showing vent screen size. If you've had a tank inspection done, check the report for photos. Only climb a tank using proper safety gear.*

**Missing any forms, plans, or templates? Click on the links below**

- [Lead and copper monitoring plan](#)
- [Microbiological Sampling Siting Plan for PWSs serving 1000 or fewer people](#)
- [Microbiological Sampling Siting Plan for PWSs serving 1001 or more people](#)
- [Emergency Operations Plan and ADEQ Operation & Maintenance Manual Official Version](#)

**Don't get caught with a common violation**

1. Failure to comply with lead and copper specific recordkeeping requirements
2. RTCR sampling plan violations
3. Stage 2 Disinfection By Products compliance monitoring plan
4. Failure to develop an emergency operations plan
5. Operations & Maintenance



Well's sanitary seal  
in bad condition



Buried Foundation



Tree branches touching  
storage tank



Busted screen



Excessive vegetation  
around storage tank



Rust and possible leaks  
on storage tank



Hatch lacks a seal  
and a lock



Broken air vent