Oklahoma

SFY15 Capacity Development Program Annual Progress Report to EPA

September 25, 2015

1. Introduction

With the Safe Drinking Water Act (SWDA) Amendments of 1996, Congress put in place a variety of initiatives designed to assist public water systems in providing safe drinking water and complying with the terms of the Act. One of these was the capacity development (CD) initiative, established with the intent of focusing on those systems most in need of assistance, primarily very small systems serving populations of 3,300 or less. CD is the process by which the State of Oklahoma assures that drinking water systems acquire and maintain the *technical*, *managerial*, and *financial* (*TMF*) capabilities to successfully operate.

All States are currently implementing state-specific CD programs tailored to meet water systems' needs. As required in Section 1420 of the Safe Drinking Water Act Amendments of 1996, the Department of Environmental Quality (DEQ) must submit an annual report of CD activities to the Environmental Protection Agency (EPA). This report reflects the efficacy of the State's CD Strategy by detailing improvements in the *TMF* capabilities of the State's public water systems. The annual CD progress report is available on the DEQ website at http://www.deq.state.ok.us.

A public water system (PWS) is defined as a system that provides water via piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year.

There are three types of PWSs:

1. Community Water Supplies ((CWS) such as towns and rural water districts);
2. Non-transient non-community (such as schools or factories); and
3. Non-community systems (such as rest stops or parks).

Of the 1,680 active PWSs in Oklahoma:

- 187 systems use surface water as their primary source;
- 781 use groundwater as their primary source;
- 565 purchase from surface water systems;
- 7 use groundwater under the direct influence of surface water as their primary source;
- 129 purchase from groundwater systems; and
- 11 purchase from groundwater under the direct influence of surface water systems.

Of the 1,680 PWSs in Oklahoma:

- 1,070 are community water systems;
- 103 are non-transient non-community; and
- 507 are non-community water systems.

DEQ has the statutory authority to ensure that all water supply systems have adequate *TMF* capabilities prior to the construction of a public water facility in Oklahoma.

These capabilities are partly assessed via two DEQ regulatory directives. One directive derives from OAC 252-626 Public Water Supply Construction Standards [http://www.deq.state.ok.us/rules/626.pdf], which states that a PWS must receive a "Permit-to-Construct" from DEQ prior to initiating construction. Another directive requires all operators of a PWS to be licensed by DEQ, according to OAC 252:710 Waterworks and Wastewater Works Operator Certification Regulations [http://www.deq.state.ok.us/rules/710.pdf].

DEQ's CD program relies on the success of its enforcement and compliance programs. These two programs are partially funded through the Drinking Water State Revolving Fund (DWSRF) Public Water System Supervision program 10% State Program Management Set-

Aside and the 15% Local Assistance and Other State Programs Set-Aside. Funding information is detailed in DEQ's *2015 DWSRF Intended Use Plan*. Note that State's fiscal year is from July 1st to June 30th the following calendar year.

2. Enforcement and Compliance Mechanisms

DEQ maintains a strong enforcement program that particularly addresses systems with multiple violations of SDWA requirements. Such systems are referred to DEQ enforcement staff for analysis of the circumstances of the violations. When it is determined that enforcement is needed, there are three main legal tools available to the agency to bring about system compliance: a Notice of Violation, a Consent Order, and an Administrative Compliance Order. Boil Advisories, while not official enforcement actions, also play a role in addressing SDWA violations.

A *Notice of Violation* (NOV) is the first formal enforcement document issued to facilities upon failure to comply with DEQ rules or regulations. Violations address matters such as monitoring failures, improper operating procedures, or construction deficiencies. An NOV typically has a short deadline for compliance, typically fifteen days from receipt of the document by the water system.

If it is determined that the system is not likely to regain compliance by the NOV's deadline, DEQ's PWS District Engineer (DE) prepares a *Consent Order* (CO). The CO is a mutual agreement between DEQ and the affected system that cites the system's responsibilities, establishes a longer deadline for returning to compliance (with milestones and deadlines for major steps towards compliance), and specifies fines that may be levied against the system as a result of non-compliance.

An *Administrative Compliance Order* (ACO) is issued when time is limited and there is a significant health hazard, or a water system refuses to agree to the terms of the CO. In an ACO, DEQ determines what tasks need to be completed and sets deadlines for the completion of these tasks. Both the CO and the ACO stipulate the penalties for failing to meet the required deadlines.

Boil Advisories, while not enforcement actions themselves, are an additional tool to achieve compliance. These notices are issued to systems that have "acute" or "fecal positive" bacteriological violations. Boil Advisories require immediate notice to all consumers in order to inform the public of how to produce water that is safe for human consumption.

In calendar year 2014, DEQ issued 2,143 enforcement actions, which consisted of:

- 1,554 informal enforcement letters;
- 576 NOVs and COs;
- 13 Boil Advisories.

A total of 1,815 enforcement actions were resolved to compliance during calendar year 2014.

3. Capacity Development Program Coordinator

The Capacity Development Coordinator (CDC) facilitates efforts of the CD program in Oklahoma. The CDC is responsible for fostering the relationship between the various DEQ drinking water programs in the directive to increase *TMF* capabilities, and between DEQ and other state agencies and organizations that are involved with supporting and assisting public water supplies.

Inside the agency, the CDC chairs the Capacity Development Team, consisting of members from the PWS Enforcement Section, PWS Compliance Tracking Section, Operator Certification Section and the DWSRF Section. The Team's main goal is to implement DEQ's Capacity Development Strategy and focus on

those systems that have made the Enforcement Targeting Tool (ETT) list and scored 11 points or greater.

Externally, the CDC coordinates with the Oklahoma Rural Water Association (ORWA), Communities Unlimited (CU), Southwest Environmental Finance Center (SWEFC), Oklahoma Municipal League (OML) and other agencies and organizations that provide *TMF* training and assistance to water systems. This ensures that open lines of communication exist between the entities and promotes cooperative and complimentary efforts towards achieving water system sustainability.

Table 1 lists the tools currently in use in Oklahoma to assess and enhance TMF capabilities.

Tool	*Technical*	*Managerial*	*Financial*
Construction Permitting	X		
PWS Enforcement	X	X	
Operator Certification	X		
SWAP	X	X	
AWOP	X	X	X
DWSRF	X	X	X
CD TMF Assistance	X	X	X
Sanitary Survey	X		
CUPSS		X	X
Regionalization	X	X	X
FACT		X	X
Rate Studies			X
Water Loss Auditing	X	X	X

Table 1 – Oklahoma's Capacity Development tools.

4. Water Quality Efforts and Participation

A. ***Regionalization/Consolidation*** - DEQ continued efforts to identify new and existing water systems that may benefit from regionalization and or consolidation into larger water systems in SFY 2015. Systems were considered for regionalization/consolidation that:

- Have source water capacity limitations (drought);
- Are undergoing DEQ enforcement proceedings;
- Are considering giving away, selling, or abandoning the system; or
- Have expressed interest in regionalization or consolidation.

In SFY15, 11 water systems consolidated into neighboring water systems. Several of these were non-community water systems that were incorporated into neighboring community water systems, including:

- Riverside RV Park – now purchasing water from Quartz Mountain Regional Water Authority;
- Cushing Country Club – now a part of Cushing CWS;
- Tribbey Bar – now a customer of Pottawatomie Rural Water District # 3;
- Macarena's Cafe – now a part of McCord CWS;
- AJ's Osage Ghost – now a part of Ponca City CWS;
- Jones Tavern – now a part of Jones CWS; and
- Oakdale Middle School – now a part of Oklahoma City CWS.

Incorporating non-community water supplies into CWSs enhances public health by providing the former non-community systems with water that is more thoroughly tested and often more

plentiful and reliable than they were able to produce on their own.

Also in SFY15, the DWSRF offered principal forgiveness for entities agreeing to regionalize or consolidate. This satisfies EPA's requirement that at least 20%, but no more than 30% of the capitalization grant must be utilized as additional subsidies. Subsidization will be given as principal forgiveness for projects that regionalize or consolidate water systems that meet specific requirements. In SFY 2015, one water system was offered principal forgiveness for consolidation or regionalization:

- Guthrie CWS extended its distribution system and connected to Coyle CWS, which discontinued use of its well due to contamination and has become a purchase system.

Regionalization/consolidation efforts will continue in the State, aimed at achieving the best and most reliable service at reasonable rates for the long-term benefit of the customers. There are at least nine water systems listed in the DWSRF priority list that might be eligible for consolidation/regionalization.

B. The ***Funding Agency Coordinating Team*** **(FACT)**, hosted by ORWA, is comprised of the following state and federal water and wastewater project funding agencies:

- DEQ;
- Oklahoma Department of Commerce;
- Oklahoma Water Resources Board (OWRB);
- Indian Health Service;
- U.S. Department of Agriculture – Rural Development;
- Oklahoma Association of Regional Councils;
- Communities Unlimited;
- EPA; and
- Cherokee Nation.

FACT meets quarterly to discuss the status of Oklahoma community water supplies identified in DEQ's enforcement list. Invitations are extended to water systems from across the state that are contending with the most urgent problems and have the greatest *financial* need, with the purpose of providing help to them as quickly and effectively as possible.

With every public financing agency present at FACT, communication barriers are reduced and application processes are streamlined, resulting in rapid assistance. FACT provides a single uniform method for requesting funding and regulatory approvals, and it offers guides, checklists, and forms that are accepted by all FACT-participating agencies. DEQ has been a member of FACT since its inception in the early 1990s and has been instrumental in crafting an organization that helps to correct some of Oklahoma's most difficult to solve public water supply issues.

The assistance provided by FACT has been universally praised by invited water systems, which provide feedback by voluntarily completing a brief survey immediately following the FACT meeting and a follow-up survey a few months later. Survey responses are used to fine-tune the assistance provided by FACT and help plan the direction of subsequent FACT meetings.

5. Water Quality Programs

A. The ***Construction Permitting Program*** assures *technical* adequacy by reviewing water system construction plans and specifications. This *technical* review helps determine the sufficiency of the source water and the water system infrastructure.

B. The ***PWS Enforcement Program*** also assures the *technical* capabilities of water systems by providing *technical* training to water systems on operation and security and addresses *managerial* capabilities by providing training to

water system managers. It is the role of the CDC to coordinate and document the efforts of all of DEQ's drinking water programs and ensure *TMF* capabilities statewide.

C. The ***Operator Certification Program*** is charged with training and licensing persons working in water and wastewater facilities in the State. Programmatic oversight helps to ensure that operators have the training to properly treat and monitor drinking water supplied to the public. With oversight from the DEQ Operator Certification section, ORWA provides study material and training for operators of all classifications of water facilities. The examinations for operators are administered by the ORWA by means of a DEQ contract, and during SFY15, 822 individual water operator exams and 114 water laboratory operator exams were given. Also during SFY15, all 1,680 public water supply systems had available an appropriately licensed operator in responsible charge.

In addition to the training offered by ORWA, training is available in classroom settings (taught by DEQ and other certified instructors/agencies) and via the internet several times during the year. On line classes and exams for operators and other environmental professionals are available at any place with an internet connection.

D. The ***Source Water Assessment Program (SWAP)*** provides a focus on water quality anti-degradation and protection of beneficial uses for both surface and ground waters.

The SDWA Amendments require development and implementation of a SWAP to analyze existing and potential threats to the quality of the public drinking water throughout the state. DEQ maintains approval from EPA to administer the SWAP program. The SWAP program in Oklahoma was developed utilizing EPA's *Source Water Assessment and Protection Programs Guidance*, and SWAP assessments include the following:

- Delineation of the source water protection area;
- Inventory of the potential contaminant sources within the area;
- Determination of the susceptibility of the PWS to contamination from the inventoried sources; and
- Release of the results of the assessments to the public.

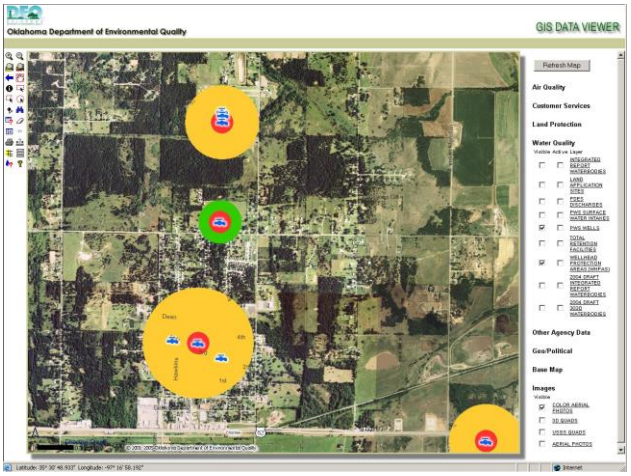

Figure 1 - Sample map indicating location of well and wellhead protection areas.

The data collected from a SWAP is summarized in the water system's annual Consumer Confidence Report, which identifies the system's vulnerability and susceptibility score. This report is available for public review.

Much of data found in a SWAP is also available via a geographic information system on the DEQ website. Most regulated discharges, wells, surface intakes, and other planning information can be found through an interactive mapping system that allows the user to view any combination of items on the map. A map may be viewed that includes the system's water source (ground or surface) and all known contaminants located within a defined distance from the proposed well site.

The state of Oklahoma is among at least 43 other states currently participating in the Source Water Protection Program (SWPP). SWPP is a joint project by the U.S. Department of Agriculture's Farm Service Agency and the nonprofit National Rural Water Association. It is designed to help prevent source water pollution through voluntary practices installed by producers at the local level. DEQ, as primacy agency for Source Water Protection in Oklahoma, participates in the *Source Water Protection Workshop* hosted by the ORWA. The primary objective of the workshop is to identify high priority Source Water Protection areas in the state and coordinate input from:

- DEQ
- OWRB
- Oklahoma Corporation Commission
- Oklahoma Department of Wildlife Conservation
- Rural Water Districts

E. The ***Area-Wide Optimization Program (AWOP)*** was piloted in April 1999 in Oklahoma by EPA Region 6. This program started as a multi-state effort to optimize particle removal and disinfection capabilities of filtration water treatment plants. The goal of AWOP is to maximize public health protection from disease-causing microbial contaminants by identifying performance problems in the water treatment and distribution system. Following the AWOP model is one of the most cost-effective, economical ways a CWS can improve their ability to produce safe drinking water. Water systems having the most trouble with their filtration treatment are identified and prioritized in terms of their need for assistance.

EPA Region 6 and Process Applications, Inc. in Fort Collins, CO, have assisted in the development of AWOP. The States of Arkansas, Iowa, Louisiana, Missouri, New Mexico, Oklahoma, and Texas are participants in the EPA Region 6 AWOP group. DEQ continues its involvement in AWOP by attending quarterly regional and biennial national meetings and by participating in and hosting multi-state comprehensive performance evaluations (CPEs).

Figure 2: Examining a filter during the Hugo CPE

Since 1997, DEQ has conducted 22 optimization and two mandatory CPEs of water systems in the state. The original scope of the CPE effort was and continues to be to assist the community and to train engineers in understanding the intricacies of water treatment. A CPE provides analysis of the facility's design capabilities and a system's administrative, operational, and maintenance practices, leading to a report that addresses the *TMF* aspects of the water system. Following the CPE, the participating water system receives a report within 60 days from DEQ that outlines factors that may influence the optimization of its treatment operations.

F. The ***Drinking Water State Revolving Fund Loan Program*** was established by the 1996 SDWA Amendments, which allowed EPA to make a capitalization grant to Oklahoma to fund the DWSRF loan program. This program, co-managed by DEQ and OWRB, is dedicated to providing low-interest loans to upgrade public water system infrastructures. It is designed to help those in greatest need based on a priority system that places a primary emphasis on drinking water quality. DWSRF Project

Engineers assure the *technical* capabilities of water systems by reviewing engineering reports on proposed construction projects.

Currently, 31 water systems are on the DWSRF Project Priority List for a total of over $227 Million in projects to be funded within the next few years. DWSRF applicants are assisted throughout the planning, design, bidding, contracting and construction phases of their project by DEQ engineers, environmental specialists, and the CDC. Applications for the DWSRF program are accepted at any time throughout the year.

From 1998 to the present, the program has entered into binding commitments totaling over $808,543,636 to fund a total of 157 water system upgrades. In addition to funding infrastructure improvements, the program funds the CD, Small System Technical Assistance, and SWAP programs, and partially funds the PWS Program.

G. The PWS ***Sanitary Survey Program*** is implemented by DEQ, in cooperation with EPA Region 6. The ECLS and WQD field staff is trained to properly conduct sanitary surveys, as they are responsible for conducting PWS inspections. Using the knowledge gained from the training, ECLS staff inspects surface water systems quarterly and ground water systems semiannually. A total of 2,816 PWS monitoring inspections were performed by ECLS in SFY15.

6. Challenges to Oklahoma's Capacity Development Strategy

Mile for mile, Oklahoma offers the nation's most diverse terrain. It is one of only four states with more than ten ecoregions, and has by far the most changes in ecoregions per mile in America. Oklahoma's ecoregions – or, terrains/subclimates – include everything from Rocky Mountain foothills to cypress swamps, tallgrass prairies, and hardwood forests to pine-covered mountains. Each is graced with wide blue lakes, rivers, and streams. Additionally, there is one man-made type of terrain: urban turf. This wide variety of ecoregions creates source waters with a correspondingly wide range of quality and conditions. This variability in source water quality creates a correspondingly wide variety of treatment challenges for public water supplies.

EPA sets national limits on contaminant levels in drinking water to ensure that the water is safe for human consumption; these limits are known as maximum contaminant levels (MCLs). For some regulations, EPA establishes treatment techniques (TTs) in lieu of an MCL to control unacceptable levels of contaminants.

Figure 3 shows the yearly trend in the percentage of systems in Oklahoma reporting no MCL or TT violations.

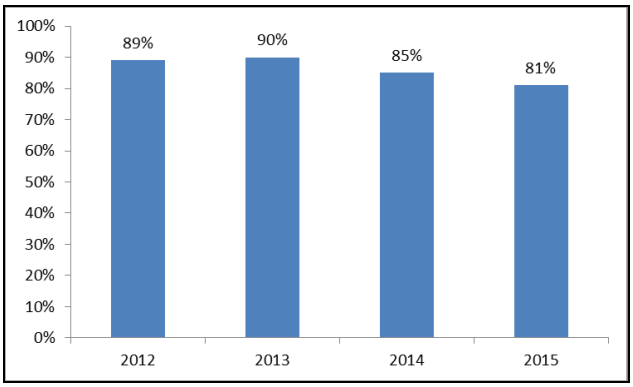

Figure 3 - Percent of Systems Reporting No Violations

The State of Oklahoma's PWS Program currently oversees 1,680 active entities that meet the federal definition of a PWS. Of these, 1,361, or approximately 81%, reported no MCL or TT violations.

Of the 1,680 PWSs in Oklahoma during the calendar year 2014:

- Seven systems had 24 violations for exceeding the MCL for arsenic;
- One system had one violation for arsenic monitoring;

- One system had 12 violations for exceeding the MCL of the Inorganic Chemical Contaminant (IOC) group;
- No system had a violation for IOC group monitoring;
- 22 systems had 61 violations for exceeding the nitrate MCL in at least one of their wells;
- 36 systems had 39 nitrate monitoring violations;
- No system had Synthetic Organic Contaminant (SOC) group MCL violations;
- Five systems had eight SOC group monitoring violations;
- Two systems had two violations of Volatile Organic Carbon (VOC) MCLs;
- 16 systems had 481 violations of VOC monitoring;
- 13 systems had 56 Radionuclide MCL violations;
- No system had violations for Radionuclides monitoring;
- 206 systems had 871 violations of the Disinfection Byproducts Rule (DBPR) MCL;
- 26 systems had 71 violations of the DBPR Treatment Technique requirement;
- 187 systems had 467 DBPR monitoring violations;
- Eight systems had eight Total Coliform Rule (TCR) acute MCL violations, leading to mandatory boil orders that were issued based on positive fecal coliform or E-coli test results;
- 82 systems had 95 TCR MCL violations that indicated a confirmed coliform positive sample;
- 382 systems had 650 routine monitoring violations for TCR;
- 57 systems had 71 repeat monitoring violations for TCR;
- None of the 792 groundwater PWS systems were in violation of the Groundwater Rule (GWR) Treatment Technique requirement;
- 73 groundwater PWS systems had 113 GWR monitoring violations;
- Two systems had 11 violations of the Surface Water Treatment Rule (SWTR) monitoring and reporting requirements;
- 13 surface water PWS systems had 42 Surface Water Treatment Rule (SWTR) Treatment Technique violations;
- 47 systems had 68 Lead and Copper Rule Monitoring violations; and
- 425 systems failed to submit their Consumer Confidence Report (CCR) and/or their CCR certification.

The grand total number of violations for the calendar year of 2015 was 3,576. Some public water systems may be counted more than once if they incurred multiple violations. The actual total number of public water systems in violation of an MCL was 311. There were 799 *public* water systems with violations (as opposed to privately owned).

Per Section I of The State of Oklahoma Capacity Development Strategy, DEQ ensures that new systems have *TMF* capabilities to provide safe and affordable drinking water. All new systems are referred to the CDC, who then assesses the system's *TMF* capabilities. The CDC then ensures that the system has an appropriately certified operator, notes the dates of sanitary surveys/inspections, determines if plans & specifications were submitted to and approved by DEQ, and makes TA referrals as indicated. A total of six new systems were identified by DEQ in SFY15.

7. ETT Implementation

At the direction of EPA, DEQ has implemented an Enforcement Response Policy (ERP) and Enforcement Target Tool (ETT) aimed to identify PWSs with health-based violations as opposed to the previous approach, where all the

significant non-compliance (SNC) were treated equally regardless of the severity of the violation.

This approach utilizes the ETT formula as a basis for determining a PWS's enforcement priority points. It will also be used to help identify and prioritize systems for enforcement response. In the formula, violations that pose a greater risk to public health are given greater importance. The formula calculates a score for each system based on open-ended violations and violations that have occurred over the past 5 years, but does not include violations that have returned to compliance or are on the "path to compliance'' through a specified enforcement action.

Under this policy, violation types are "weighted" with points being assigned for each violation type based on its threat to public health. Points for each "unaddressed" violation are added together to provide total score for each water system. Water systems whose scores exceed "11" are considered priority systems for enforcement unless the violations can be returned to compliance within six months.

ETT scores for PWS systems are available at https://echo.epa.gov.

Table 2 lists 7 community and non-transient non-community PWS systems that were created during the SFY 2012.

PWS ID Number	System Name
OK3005593	Red Cap MHP
OK3005594	Hand Up Ministries
OK3001687	M & W Water LLC
OK3006139	Pittsburg Co. RWD #20
OK3007251	Carriage Village
OK3001947	Hickory Hollow MHP
OK8005561	Choctaw Agricultural Education Facility

Table 2 – The seven community and non-transient non-community systems that became active during SFY 2012.

Of the seven PWS systems listed above, two were assessed ETT scores of greater than or equal to 11 during their first three years of operation**: Red Cap MHP** and **Hickory Hollow MHP**. Both of these facilities are mobile home parks that purchase water from adjoining PWS, and both have had sampling and monitoring challenges since inception. Since each mobile home park was an existing facility prior to discovery and classification as a public water supply, personnel at each have had difficulty staying in compliance with sampling/monitoring schedules. Local DEQ staff and staff from the central office have provided extensive technical, managerial, and financial capacity assistance to each system to help them resolve the issues, and will continue to do so.

8. Program Initiatives

For SFY15 and beyond, DEQ is complimenting EPA's efforts supporting sustainable infrastructure by promoting water loss auditing at water supplies across the state. Starting in the last half of SFY15, DEQ began developing a pilot project focused on conducting water loss audits at 40 volunteer CWS in Oklahoma. The audits, conducted according to the American Water Works Association M36 method, are part of an initiative where local DEQ inspectors both conduct the audit for the system free of charge and teach the water system operators how the process works so that they can conduct their own auditing in the future.

With the recent drought and ever tightening budgets significantly impacting the state's water systems, efficient use of water resources has come to the forefront of effective tools to promote sustainability. Water systems that begin and maintain a program of addressing water loss can enhance their sustainability by:

- *Delaying or eliminating the need to develop additional sources of water* – a water system may be able to delay the

costly development of new water sources and can serve additional customers with the water sources at hand.

- *Increasing Revenue Collections* - addressing water loss can help a system recover revenue lost through under-registering meters, theft, and by reducing operations and repair costs.
- *Improving System Operations* - reducing water loss can also improve system operations by helping to increase operator knowledge of the distribution system, reducing service outages and the potential for cross-contamination.
- *Improving System Integrity* – implementing a water loss program can improve system data accuracy and integrity by finding and correcting problems with metering, record keeping, and data management.

Currently, DEQ is nearing completion of the auditing phase of the pilot project, and will begin analyzing the data in November 2015. A report will be completed and the findings published by the end of SFY16.

9. Success

Colcord CWS is a small community water supply serving 819 customers in the far northeast corner of Oklahoma. The small system has had to cope with several significant issues over the past few years, including violations for exceeding the gross alpha and combined radium MCLs, having only a single source of raw water (a single well), and a midge fly larvae problem in 2013 that made national headlines. The system was under enforcement action from DEQ, and was in need of a solution that resolved the issues and provided *TMF* sustainability to help prevent future problems from occurring.

The solution that provided the most viability and sustainability to Colcord was to discontinue use of their well and treatment plant, and to begin purchasing water from Delaware County Rural Water, Sewer, Gas and Solid Waste Management District #11 (Delaware RWD #11). Through a blending of funding from the DWSRF and the Cherokee Tribe, Colcord obtained the necessary $1.27 million needed to construct 11 miles of water main to connect the two systems. Additionally, the funding from the DWSRF qualifies for principal forgiveness (due to this being a regionalization project) and will not be a burden to rate payers of either system.

Since being completed in mid-2015, the operators and customers of Colcord CWS have benefitted from the simplified operations, fewer avenues for violations, reduced sampling loads, and cost-savings by becoming a purchase system of Delaware RWD #11. In addition, the construction of 11 miles of line provided water service to 15 homes and a daycare that were previously on unregulated water from private wells and to one individual who had been hauling their potable water for over a year. Delaware RWD #11 benefited from the project by obtaining a significant new revenue stream that is helping enhance the system's financial sustainability.

The end results of this project are safer water for everyone and two water systems that are together better equipped to have the long term *TMF* capacity to protect public health and comply with the SWDA than either was alone. This project truly demonstrates how effective appropriate regionalization can be for small CWS.

Figure 4 – starting point for new line between Delaware RWD #11 and Colcord CWS.

Figure 5 – Master meters and connection between Delaware RWD #11 and Colcord CWS.

Figure 6 – Colcord CWS treatment plant (left, decommissioned) and tower (center, under rehabilitation)

10. Summary and Future Plans

Enhancing the technical, managerial, and financial capacities of Oklahoma's water supplies is a group effort. The continued success of DEQ CD program is dependent on the efforts of the PWS Enforcement Section the PWS Engineering Section, Operator Certification Section, DWSRF staff, and the various agencies that represent FACT.

During the coming year, DEQ will continue implementation of the water loss audit pilot project with volunteer water systems across the state. The results of the pilot project will be used to inform the agency's future work promoting water loss auditing. The experience with the design and set-up of the pilot will be used as a template for creating a rate study pilot, to be implemented in a similar fashion. Both water loss auditing and setting effective water rates represent significant means of promoting *TMF* capacity that DEQ will devote effort to over the coming year.

11. References

Oklahoma Capacity Development Strategy Document

2015 DWSRF Intended Use Plan

2014 State of Oklahoma Public Water Supply Program Annual Compliance Report