National Rural Water Association

EPA Training & Technical Assistance for Small and Rural Wastewater Systems Program
Audrey Whitefeather, 
EPA Programs Manager

Bio: Audrey is from the Comanche Nation of Oklahoma who attains 20 years of experience in tribal government, Indian gaming regulations, tribal educational programs, and the first Nation environmental interests. She has served as a tribal administrator for tribal governments with management oversight of tribal water utility, compliance departments, and tribal EPA programs. Since Audrey has joined the National Rural Water Association, she has developed and revised internal policies, provided her expertise in federal grants, and established working relationships with state offices. She has become the voice for tribal systems in NRWA with her first-hand knowledge.

Proud to be a Double Blue Star Mom and a wife of a Retired Army Combat Veteran.
EPA Training & Technical Assistance for Small and Rural Wastewater Systems

Background

- The Rural Water Association was established in 1970. First state association began with the Oklahoma Rural Water.
- National Rural Water Association was established on March 3, 1976.
- The first program in Rural Water was the training program.
- Rural Water provide assistances in 50 states and Puerto Rico. There are 50 State Associations NRWA is located in Duncan, Oklahoma.
- NRWA Legislative & Regulatory Office is located in Washington, DC.
“Oklahoma Rural Water Association (ORWA), desire was to provide information, guidance and hands-on training lead to the development of the first rural water system training programs in Oklahoma. The training and technical assistance pattern they started was later exported to other states through the National Rural Water Association.”
NRWA mission is to strengthen State Associations.

• Clean drinking water and safe wastewater treatment are vital to the health and safety of Americans. With the support of our State Associations, NRWA strives to protect the quality of life in America, while supporting the grassroots efforts required to help rural communities thrive.
NRWA EPA WW TTA Program

Program year: March 1, 2022 to February 28, 2023
The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the CWA, EPA has implemented pollution control programs such as setting wastewater standards for industry. EPA has also developed national water quality criteria recommendations for pollutants in surface waters.

The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972.

The EPA Training and Technical Assistance for Small and Rural Wastewater Systems program is established under the CWA. The objective of this program is to provide:

- **SMAP**: Sustainable Utility Management Plan (SMAP) assistance.
- **T/TA**: training and technical assistance (T/TA).

Assistance is available to rural, small, and tribal publicly owned treatment works and decentralized wastewater treatment systems and services are available nationally in rural and small communities and to all personnel of these systems, including personnel of tribally-owned and -operated systems. Assistance under this program will be provided to those systems that treat up to 1 million gallons per day (MGD) of wastewater or serve a population less than 10,000 person and may also serve operations such as, but limited to hospitals, schools, and restaurants.

- This EPA T/TA program must follow three components:
  - Component 1: Acquisition of Financing
  - Component 2: Protect Water Quality and Achieve Clean Water Act Compliance
  - Component 3: Disseminate Planning, Design, Construction, and Operation Information
• The State Affiliate will develop an Operating Plan within 45 days of Grant's award.

• The deadline for the complete Operating Plan was September 14, 2021. The Operating Plan is a collaborative document crafted by the State Affiliate. It will include input from State Primacies and EPA regional representatives to address the State's training and technical assistance needs for rural and small public wastewater systems with an emphasis on critical compliance issues.
Operating Plan

The Operating Plan must include the following:

• Identification of state-specific Clean Water Act (CWA) and America’s Water Infrastructure Act (AWIA) compliance needs and technical training priorities

• Identification of systems in greater need of assistance, including non-community wastewater systems, tribally owned systems, and overburdened systems

• Mutually agreed upon communication protocol to keep key agency contacts informed of T/TA provided by this grant

• Feedback/comments will be provided within 10 days.

• One follow-up meeting date will be scheduled for midway through the grant period (6-9 months).
Water Quality Action Specialists

Rural Water WQASs are accessible by the Rural Water State Affiliates throughout the country.

Rural Water WQASs are professional trainers who provide training and technical service to rural, small, and tribally owned treatment works operators, system personnel, board members, and government officials.

Training conducted includes hands-on, one-on-one training onsite and classroom room training.
WQASs provide assistances to small and rural wastewater systems through T/TA

Training and Technical Assistance (T/TA)

- WQASs provide dedicated classroom training for wastewater operators, wastewater system personnel, board members, and governing officials.
- Classroom trainings provided are in-person, virtual, and hybrid (in-person & virtual attendance).
  
  Training topics will include but not limited to, the following:
- Top training needs of the National Priority Area as identified in Components 1, 2, & 3
- Provide operator training and technical assistance on CWA compliance, with emphasis on National Pollutant Discharge Elimination System (NPDES) individual permit.
- Provide training for operator certification and continuing education units (CEUs).
- Provide training and technical assistance to publicly owned treatment works facing earthquake impacts, drought, flooding, and other weather-related challenges.
- Perform on-site trainings or technical assistance that focus on improving performance at local facilities (e.g., training on nutrient removal technologies, rate structures, energy efficiency opportunities, and assessments of sustainability and proper management of small publicly owned treatment works).
WQASs provide assistances to small and rural wastewater systems through SMAPs

**Sustainable Management Action Plans (SMAPs)**

- SMAPs promote Effective and Sustainable Utility Management and the link compliance with the Clean Water Act.
- State Affiliates effectively align with national priorities and defined components along with State and local level priorities, which are different between regions and localities, still share the same common challenges faced by rural, small, and tribal treatment works and to communities served by onsite/decentralized wastewater treatment systems.
- WQASs utilize the Rural and Small Systems Guidebook to Sustainable Water and Wastewater Utility Management (primary focusing on wastewater systems).
- Provide outreach and education on access to financial resources, could include Customer Assistance Programs (CAPs), Clean Water State Revolving Fund (CWSRF) programs, and Water Infrastructure Finance and Innovation Act (WIFIA) loan
Training Focus

Also include:

• NPDES Regulations
• Decentralized Systems
• Manufactured Housing Communities
• Improving Water Infrastructure related to the EPA Strategic Plan Objective 1.2
• Dedicated training to Tribal Communities and Overburdened Communities
Training for Tribal Systems

Applicable State Affiliates with tribal-owned POTW, (Include: indigenous peoples, Alaskan Native Villages, Hawaiian Native) and decentralized WW systems will host training sessions located at a tribally-owned system or nearby facilities.

WQASs conduct follow-up onsite technical assistance visits to address visits to identified challenges with tribal systems in attendance at classroom trainings.
Training Overburdened Systems

State Affiliates also provides assistance to POTW and decentralized WW systems located at an overburdened community or nearby. WQASs conduct follow-up onsite technical assistance visits to address identified challenges with overburdened system in attendance at classroom trainings.

Overburdened community — The term “overburdened community” means minority, low-income, tribal, or indigenous populations or geographic locations in the United States that potentially experience disproportionate environmental harms and risks.
Online Training Calendar

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<tbody>
<tr>
<td>9/12/2021</td>
<td>Digital with GIS: ArcGIS provides simple solutions to solve utility challenges. (Time: 12:00 PM - 1:00 PM)</td>
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Stay Up To Date!

Want to stay updated on upcoming training? Sign up for our weekly Training Tuesday newsletter! This newsletter contains information about each upcoming webinar and the link to register. Sign up below to receive these updates directly in your inbox.

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Ask For:
- Municipal Water/Wastewater Utility Director/Supervisor/Manager
- Municipal Water/Wastewater Utility Staff or Technician
- Water/Wastewater Association State Affiliate Staff (e.g., NRWA, SWWA)
- Other Industry Association Staff (e.g., AWWA, WSPA)
- Local City/State Government Staff (e.g., Mayor, City/County Engineer, State Magistrate, Police, Fire Department, Water Board Member)
- Federal Government/Agency Staff (e.g., FWS, USDA)
- Tribal Government Staff
- Water/Wastewater Equipment Technology or Service Provider/Manufacturer/Distributor
- Private Utilities/Utility System Owner/Operator/Staff
- Consulting Engineer
- Educator (e.g., Professor, Teacher, Instructor)

Your Water Industry Segment (check all that apply):
- Drinking Water
- Water/Wastewater
- Industrial/Process Water

NRWA
Case Studies are submitted to EPA in quarterly reports.

Example of Focus Story

NRWA November 13, 2021 Focus Story

Minimum Security, Maximum Contaminant

Kentucky Rural Water Association

Bell County Forestry Camp
Pineville, Kentucky

About: Bell County Forestry Camp (BCFC) is a minimum-security correctional facility near Pineville, Kentucky in Bell County. The facility has a capacity of up to 200 inmates and provides inmate labor for the Kentucky Division of Forestry. The prison operates both water treatment and wastewater treatment facilities, while some of the BCFC staff are certified operators, inmates also obtain certifications and do most of the day-to-day running of the treatment facilities.

In particular, the water treatment plant is a surface water conventional filtration package plant with a capacity of 5,000 gallons per day. The source for the WTP is Chenea Lake, a small lake created as a water supply for the prison. Wallace Evans, the superintendent, uses the plant to allow the inmates to obtain Well licenses with the objective of them finding employment at a utility after they are released. Randall Kelley, the Training Specialist with the Kentucky Rural Water Association, received word that the BCFC had received several notices of violation for disinfection by-products (DBP). He explained that BCFC was in particular, Randall had been in contact with Mr. Evans at training conducted by Kentucky Rural Water Association in the past. Mr. Evans and Mr. Kelley agreed on a date to meet and discuss the issues.

Issues: In December of 2020 BCFC had a HAAS sample that was 0.247 mg/L. This is over four times the Maximum Contaminant Level for HAAs (0.060 mg/L). BCFC determined that the issue was a lack of flushing at the sample point and retook the sample when the sample was collected by an untrained staff member. The second sample came back at 0.025 mg/L, a nearly 9-fold reduction. Those two samples averaged together at 137.5 mg/L. Since DBP compliance is based on a running average of four quarters, this large number was going to cause them problems for the next year. BCFC had already conducted sampling training, but they had also had high numbers in May and August of 2021 near or above the MCL, 0.54 mg/L, and 0.87 mg/L respectively.

There were other issues going on as well. Mr. Evans gave Mr. Kelley a tour of the facility including the water treatment plant and their source, Chenea Lake. Several issues were discovered. First, Chenea Lake has a problem with being inundated with lily pads, which indicate a source of nutrients getting to the lake, but also indicates that there is likely a problem with organics and potentially algae as well.

Further, the intake pumps are near the shore and in a shallow part of the lake. This means that the lake will likely be pulling water from about the thermocline in the summer, water that will be both warm and high in organics at that time. Another issue was the plant's disinfectant (bleach) was only injected in the flash mix, at the head of the plant's works. This means that all the chlorine was injected into a portion of the plant where all the organics were still in the water. This potentially increases DBP production.

Suggested Resolution: Mr. Kelley explained that traditionally most surface water water treatment plants inject chlorine at multiple locations along the treatment process, flash mix, top of the filter, then again just before water is pumped into the clearwell. Many surface water plants have stopped feeding chlorine at the flash mix altogether to reduce disinfection by-product production. This can be a very successful technique. However, injecting all the chlorine at once, into the flash mix could potentially make the problem even worse. Mr. Kelley suggested looking into installing multiple chlorine injection points in the plant. Mr. Kelley told Mr. Wallace that those changes would require permission from the Kentucky Division of Water and potentially an engineer's design and sign-off. It is possible that chlorine is injected at the head of the plant for a good reason.

The clearwell is not baffled, and this is a very small plant. It's possible the current injection point is placed where it is to allow chlorine sufficient time to achieve Log 4 removal without a baffled clearwell. This requires more investigation. Lake Chenea is a bigger challenge. Controlling lilly pads and potentially moving the intake structure would be a much bigger project. A copper-based chemical can be effective at reducing algae, but its impact on my pads was unknown to Mr. Kelley.
Non-Discrimination Policy

The NRWA EPA Training and Technical Assistance Program prohibits discrimination on the basis of:

- Race, color, or national origin (including on the basis of limited-English proficiency)
- religion
- sex
- age
- retaliation
- disability

Filing a Discrimination Complaint Against a Recipient of EPA Funds is available through the NRWA Civil Rights Coordinator.

For additional information please contact the NRWA Civil Rights Coordinator.

Access to services with limited English proficiency

- NRWA can provide policy/procedures and training materials to access of services for persons with limited English proficiency (40 C.F.R. Part 7, E.O. 13166). For additional information please contact the NRWA Civil Rights Coordinator.
NRWA Annual Events

In-Service Training
June 7-9, 2022
Anaheim, California
NRWA In-Service Training provides State Rural Water Association staff with the latest information on regulations, technology and resources.

WaterPro Conference
September 26-28, 2022
National Harbor, MD
The WaterPro Conference is the industry event for networking, technology and educational sessions.
NRWA EPA Grant Program

March 1, 2022 to February 28, 2023
12-month program year

1st Quarter: February – April
2nd Quarter: May – July
3rd Quarter: August – October
4th Quarter: November – January

EPA Training and Technical Assistance for Wastewater Treatment Works for the Prevention, Reduction, and Elimination of Pollution

- Amount fully proposed $12 million
- RFA deadline was May 17, 2021
- Notice of Award was on September 8, 2021
- Amount awarded was $4 million
- Ami Cobb was the previous EPA Project Officer for the AWIA grant