



# Sacramento River Funding Area Disadvantaged Community Involvement Program

*Phase 2, Year 3 Technical Assistance Summary and Recommendations*

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## Introduction

Rural Community Assistance Corporation (RCAC) began the second year of Phase 2 technical assistance work with outreach to tribal communities. Using RCAC's current connections with many tribes and other resources, the staff engaged with as many contacts as possible and kept a Tribal Contact Log to document their efforts (See Appendix A). Staff also reached out to communities identified in Phase 1 that needed additional assistance or training.

The COVID-19 pandemic restricted the staff's ability to make in-person contact with communities, but staff were able to provide technical assistance by phone, email and via online training platforms. Despite the challenges, RCAC provided ten web-based virtual trainings. The following documents a summary of each training and provides recommendations for future technical assistance. Please see Appendix B for training materials, attendee rosters and evaluations.

## Activity 2. Technical Assistance (TA), Needs Assessment Follow-up, and On-going Outreach

### 2.2 Technical Workshops - Training Summaries and Recommendations

#### COVID-19 Pandemic in CA; A Tribal Response, 6/10/2020

Facilitators: David Hossli and Zane Mortensen

Registered/ Attendees: 12/12

Learning Objectives: The COVID-19 Pandemic in CA Tribal Response Workshop focused on providing tribal communities within the Sacramento River Integrated Regional Water Management (IRWM) funding area with information on how to prepare, respond, and recover in the event of a pandemic. Information provided in this workshop included preparation of an Emergency Response Plan, Continuity of Operations Plan, and a memorandum of essential staff, as well as how to protect employee health and maintain essential operations. In addition, this workshop provided a thorough review of available resources to assist tribal communities in maintaining essential utilities during current and future pandemics.

Outcome/Recommended follow-up: Attendees participated in polls and quizzes throughout the training. Most attendees reported that they fully achieved or exceeded their goals in attending the training. The most common feedback was that attendees were reminded to update their standard operating procedures and gained information about resources available to their systems. Additional information was requested to be shared when more is known about the spread of different viruses through drinking water and wastewater.

#### Elements of a Sampling Plan for Tribal Water Systems, 9/16/2020

Facilitators: David Hossli and Sarah Bixler

Registered/ Attendees: 3/3

Learning Objectives: This workshop focused on how to read and understand a public water system monitoring schedule so that water sampling can be completed on time and in compliance. Sampling methods and procedures will be reviewed along with updates to bacteriological sample siting plans and other sampling plans.

Outcome/Recommended follow-up: Attendees participated in polls and quizzes throughout the training. Tribal examples were used to instruct participants from real examples of sampling plans and monitoring schedules. Due to the small number of attendees, each participant was able to review their own documents and get individually tailored advice and recommendations from the trainers. With high turnover in small system management, it is critical to continue to offer sampling plan and monitoring schedule training for new staff.

#### Drinking Water Math for Tribal Systems, 7/8/2020

Facilitators: John Hamner and Katrina Hiott Registered/ Attendees: 16/12

Learning Objectives: This online workshop will help the distribution operator master these

formulas while utilizing the conversion sheet that is provided for the exam. Participants attending this workshop will learn: Volumes, Pressure, Chlorine dosage, and Pipe velocity.

Outcome/ Recommended follow-up: All attendees reported that their goals for the training were fully achieved or exceeded. Feedback in the evaluation indicated attendees would like additional courses on advanced math, water treatment and wastewater treatment. This training attracted many tribal water operators. Drinking water math is especially valuable in the weeks before the operator certification exams.

### **Wastewater Math for Tribal Systems, 7/8/2020**

Facilitators: John Hamner and Katrina Hiott

Registered/Attendees: 8/4

Learning Objectives: This module will cover the basics of wastewater treatment math. This treatment math workshop will focus on the formulas provided in the math conversion sheets that are provided with the certification exams. In this workshop, we will cover preliminary treatment, primary treatment, secondary treatment, wastewater pond math, sludge handling, and disinfection math processes.

Outcome/ Recommended follow-up: Feedback reported that the training was useful in performing their everyday activities at their wastewater treatment plants. The Wastewater topic was not as well attended as the drinking water math.

### **Private Well and Septic Maintenance, 10/7/2020**

Facilitators: Katrina Hiott and Phillip Rice

Registered/ Attendees: 13/7

Learning Objectives: Attendees will understand the connection between groundwater and the water cycle. We will review the components of a well system, both above and below ground surface.

Contaminants will be identified as well as how they can be introduced into a well system. Water quality and treatment methods will be reviewed. The functions and operations of a septic system will be explained in conjunction with common mistakes septic system owners make.

Attendee Engagement: The pre-test for the well systems section had an average score of 60% correct, while the post-test average increased to 80% correct. The pretest for the septic portion of the class had an average score of 87% correct with the post-test average increasing to 98% correct. These average score improvements show significant learning and engagement during the two-hour workshop.

Outcome/ Recommended Follow-up: More outreach for private well and septic system owners would be valuable to this region. Advertising and marketing of this course is difficult because the contacts for private well and septic system owners are not readily available. This course is also useful for very small water systems or those wishing to understand how groundwater is used as drinking water and how on-site wastewater disposal systems operate and how to perform proper maintenance.

## Operations Basics and Operations Plans, 10/13/2020

Facilitators: Rodney Page and Kevin Baughman

Registered/ Attendees: 26/22

Learning Objectives: This training will provide the water system operator with a working knowledge of the content and development of an operations plan to improve compliance with CA state and federal regulations and provide safer drinking water to customers. Pandemic planning will also be discussed to assist operators in preparing for a pandemic situation through development of emergency procedure plans.

Outcome/ Recommended Follow-up: Participants were engaged via the chat box and polls and quizzes throughout the training. The pre-test score average was 64% correct and the posttest average score was 97%, indicating the attendees accomplished the learning objectives. Evaluations revealed that many operators felt they needed the reminder to update their operations plans. This course was the most highly attended that we offered this year, indicating there may be a high need for this type of training.

## Water Treatment in Northern California: Part 1 – Treatment Techniques, 5/18/2021 & 5/25/2021

Facilitators: John Hamner and Jim McVeigh

Registered/Attendees: 93/70

Learning Objectives: There are multiple techniques used by public water systems to provide safe, aesthetically pleasing water to their customers. The techniques used will be determined by law and by the water source quality. This workshop will cover the primary treatment processes utilized by public water systems to ensure safe, aesthetically pleasing water is delivered to their customers. Participants attending this workshop will learn about water sources and water quality, primary chemicals used for drinking water treatment, conventional treatment process (media filtration), Zeolite treatment basics, and membrane filtration.

Outcome/Recommended Follow-up: This foundational information on treatment techniques benefits small water system operators while still being basic enough for managers and board members to understand. The course is necessary for small water system operators who need contact hours and continuing education on the operation and maintenance of their system and providing this valuable information at no cost is invaluable to small systems. Attendees reported that the course was extremely useful, and their expectations were met or exceeded.

## Water Treatment in Northern California: Part 2 – Treatment Math, 5/18/2021 & 5/25/2021

Facilitators: John Hamner and Jim McVeigh

Registered/Attendees: 83/58

Learning Objectives: One of many skills needed by water treatment operators includes the ability to perform water math problems. This includes volume, chemical dosage, filtration math, sedimentation basin detention times and pipe velocity. This workshop will help the treatment operator master these formulas while utilizing a math conversion sheet typically provided to applicants sitting for the state exams. Participants attending this workshop will learn math

related to chemical dosage, sedimentation and filtration, water softening and membrane filtration.

Outcome/Recommended Follow-up: Participants stated that they needed this course as a refresher on math for the state operator exam. This type of basic review of math related to water treatment was well received and appreciated by attendees according to their evaluations. With the ongoing need for new operators in the field and recertification of existing operators, this topic is highly recommended for any future workshops. Between the two duplicate course sets, approximately 60 attendees joined the classes in total.

## 2.3 Targeted TA and Phase 1 Follow-up – Project Summaries and Outcomes

### **Robinson Rancheria - Water Quality Sampling Training**

TA Providers: David Hossli and Sarah Bixler

Robinson Rancheria's staff requested training on how to update their water system's sample siting plan for bacteriological water quality samples and how to understand and schedule their required monitoring for other contaminants. The tribe was able to successfully update their bacteriological sample siting plan and comply with their monitoring schedule.

### **Paskenta Community Service District - Billing Software Assistance**

TA Providers: Tatiana Garcia and Phillip Rice

Paskenta's water system bookkeeper reached out with a request for a low-cost billing software that would cut out some of the extensive time and effort of their bookkeeper who was using excel spreadsheets to manually produce water bills. Staff researched various water billing programs and provided the system with detailed information and a tutorial on three different software programs. The Paskenta board decided that they would be better served by waiting for their new meter project to be completed and to use a software that was compatible with their new meters.

### **City of Redding Utility District - Technical Assistance Request for State Revolving Fund Application**

TA Provider: Katrina Hiott

The City of Redding requested assistance to complete a technical assistance request for further assistance on an application for funding of their proposed septic to sewer project. The TA request was completed and submitted to the CA State Waterboards' Division of Financial Assistance.

### **Callayomi County Water District - Develop Operations and Maintenance Manual**

TA Provider: John Hamner

The Callayomi County Water District recently lost their long-time manager and operator and did not have a written operations and maintenance manual. The system requested a manual to

document their routine operations and maintenance at the water treatment plant. The TA provider met with the current operator and recorded detailed instructions for daily, weekly, monthly, and annual maintenance activities to be performed on water system. The manual was completed and provided to the water district.

#### **Fort Bidwell - Cross Connection Control Plan**

TA Provider: Loch Dreizler

Upon RCAC's completion of a sanitary survey for Fort Bidwell, it was realized by the system that a cross connection control plan would be needed before the next survey should occur. TA provider Loch Dreizler completed and provided this plan to the system with more than enough time before their next survey.

#### **Colusa Indian Community - CCR Assistance North and South Reservation Summary**

TA Provider: Randy Vessels

The Colusa Indian Tribe was in need of a definitive cross connection control plan to further the tribe's technical and managerial capacity, as well as to enhance their compliance with SDWA CCR. On May 17, 2021, technician Randall Vessels provided this plan to them, ensuring compliance.

#### **Colusa Casino - ERP and AWIA Risk and Resiliency Assessment**

TA Provider: Tatiana Garcia

The Colusa Indian Community Council needed an updated ERP and AWIA Risk and Resiliency Assessment to be in compliance with SDWA regulations. These updates were provided, and the council was able to send the State a signed certificate in May of 2021, bringing them into compliance.

#### **Konocti Shores Mobile Home Park - Rate Study**

TA Provider: Katrina Hiott/Phillip Rice/Mary Fleming-Leslie

The Konocti Shores Water System needed a rate study prior to a metering installation project, in order to accurately assess rates and make sure the system is recovering costs moving forward. The rate study was provided in June of 2021, which allowed the system to have an accurate model to achieve full cost recovery.

#### **Pit River Tribe – Operator Training**

TA Provider: Randy Vessels

Pit River has only one SWRCB CA certified distribution operator. This operator oversees three public water systems, with about 90 travel minutes between them. The hope of this assistance is



to provide the need-to-know operation and maintenance information to prepare the operator in training (OIT) to gain a D1 certification through the state of CA. This would allow redundancy and support for the certified operators, and provide an operator strategically located at each end of their service area.

Randy Vessels met with Tyson Preston/SWRCB D2 and Alex Urena/OIT at the Pit River XL Reservation in Alturas, CA on May 25, and May 26. The topics of the trainings included water quality, water sources, water sampling, pipes, pumps, SCADA and water operator math, valves, cross connection control, water meters, hydrants, underground service alert, tanks, disinfection, and operator safety.

As a bonus hands-on experience, the well transmission line began leaking at the end of day one and the class was able to go through the steps of coordinating staff to investigate the possible source of the leak, interacting with the emergency response plan and contacting known vendors for repairs. The next day, the operators performed follow-up as the broken piping location was confirmed and repaired. The well was returned to full capacity with no loss of water service to the consumers.

#### **Colusa County Water District #1 – City of Grimes - Follow-up TA for TMF Capacity Needs**

TA Provider: Linda Stonestreet

RCAC reached out to Grimes initially in alignment with recommendations based on the needs assessment for phase 2 follow up. The board treasurer died suddenly and left much undone and unmapped in her wake. Her husband was the board president and left suddenly leaving a giant gap of knowledge.

RCAC assisted the utility in learning how to operate their utility. Trained the new bookkeeper how to invoice the SWRCB grant. RCAC established regular contact with the system to address missing information for their funding application for a long-term treatment solution. RCAC Completed the TMF, which had previously been halfway completed. RCAC Coordinated with DDW regulator and DFA Project Manager and Project Engineer to help the System comply with their Grant.

Grimes is on a path for successfully meeting their grant requirements. And is now aware of their deficiencies (based on the TMF process) and can be better prepared to address them, as they can. The State Water board and DDW regulator are also more aware of the system's needs and deficiencies going forward, as the system veers towards compliance. The volunteer board now has Spanish speaking members.

#### **Elk Creek Community Service District – Watershed Protection Plan**

TA Provider: Katrina Hiott and Zane Mortensen

The Elk Creek CSD received a compliance letter requesting an updated watershed protection plan. The system submitted a deficient plan and requested RCAC prepare a plan that would meet regulatory requirements. Staff researched the watershed boundaries, potential contaminating activities and created a detailed report outlining the potential concerns in the area for water quality in the surface water reservoir that supplies the water system. The report was provided to the system and accepted by the regulator to maintain compliance.

## Elk Creek Community Service District – Asset Mapping

TA Provider: Zane Mortensen

The CSD lacked accurate maps of the community's infrastructure assets, including the location of distribution lines. Without a map of the service lines, it was exceedingly difficult for the operator to keep up with maintenance and repair records. GPS coordinates were taken of the system's components and utilized to create a comprehensive GIS map of the system infrastructure.

## Conclusion

RCAC utilized disadvantaged community surveys within Sacramento River Watersheds, prior needs request data, and community outreach to identify technical assistance needs that were compatible with our skills and abilities. Tribal communities were the focus of the outreach for workshop topics, and both tribal and non-tribal communities were contacted for technical assistance needs. The inability to perform in-person workshops due to COVID restrictions limited our main point of contact for initiating TA projects. The other related challenge was that tribal communities do not respond well to “cold-calls” from people they do not know, even under the best circumstances; with the panic of the pandemic and tragic health challenges within their communities, many tribes closed their offices and were not accepting calls or emails.

Fortunately, RCAC tribal circuit riders that serve the Sacramento River Funding Area were able to make contact and refer communities to our project team. This outreach assisted us in completing eight of the twelve workshops and five of the twelve technical assistance projects specifically geared toward and advertised to tribal communities. RCAC is grateful to have been a part of the Sacramento River Disadvantaged Community Involvement program, bringing resources and assistance to rural communities that may not have otherwise been aware of the benefits of being involved with their regional IRWM networks. We appreciate the opportunity to serve the IRWM and look forward to a continued partnership with the Yuba Water Agency and the Department of Water Resources.