

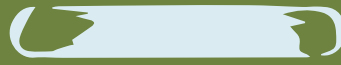


RURAL MATTERS

The magazine of the Rural Community Assistance Partnership

let's talk

Wastewater



*and why accessing
clean water depends on it*



**A LIFE OF A LOAN,
UNDERSTANDING
COMMUNITY
WASTEWATER
SYSTEMS,
BUILDING
EFFECTIVE
BOARDS,
and MORE**



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Rural Community Assistance Partnership

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ceo letter

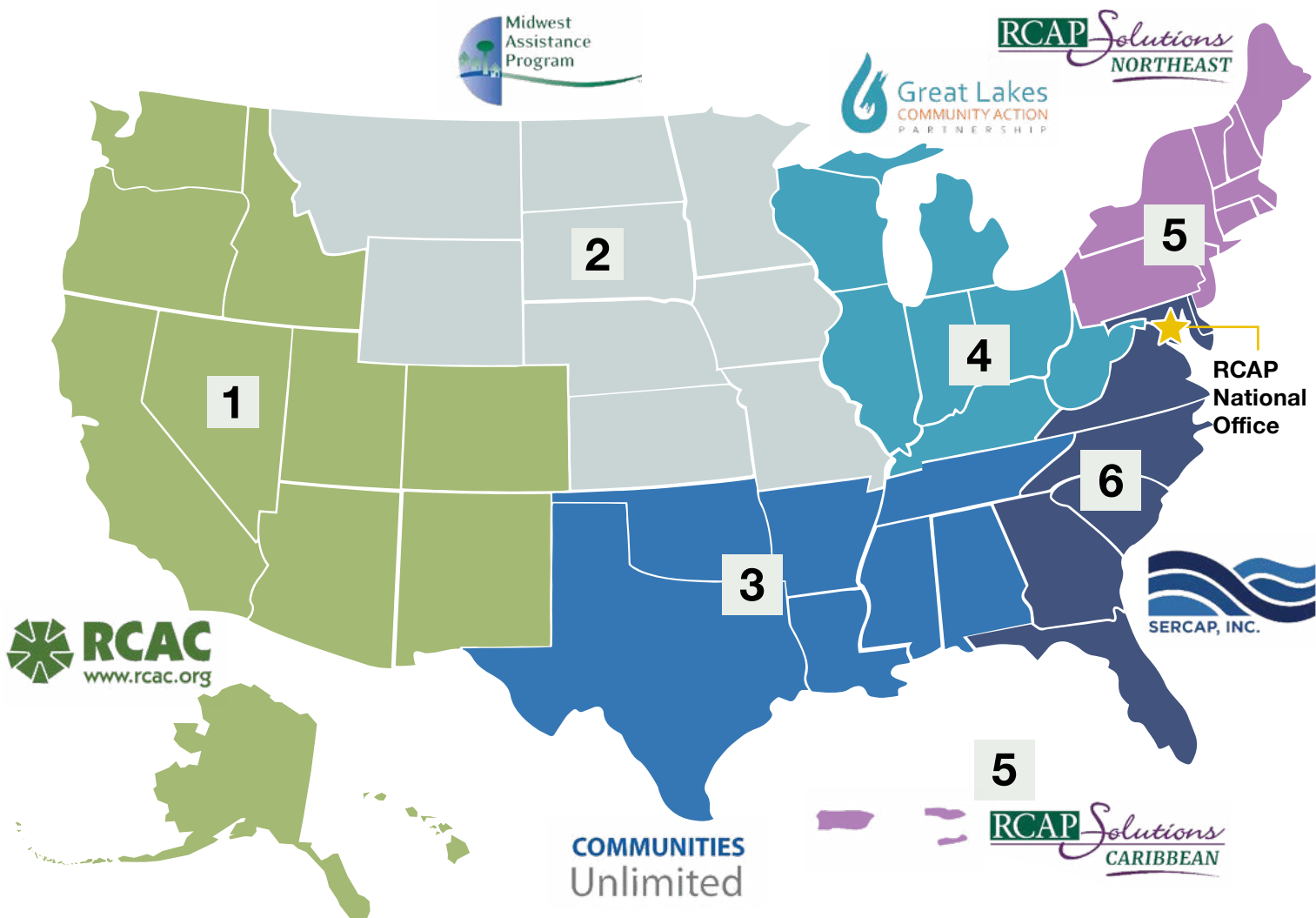
It's an honor and privilege to write my first note as interim RCAP CEO as I help steward and make way for an exciting new vision and chapter of leadership for the organization.

My relationship with the RCAP family began 15 years ago when I joined the Southeast Rural Community Assistance Project (SERCAP) Board. Six years ago, I joined the RCAP National Board and, for four of those years, I was fortunate enough to serve as the chairman. My leadership and management journey includes 30 years in the U.S. Air Force as a pilot and other leadership roles that culminated in retiring as a colonel. I have also worked in the corporate sector and then spent 20 years as a city and county manager. Yes, that makes me older than dirt! But these experiences have also given me a deep appreciation for the power and impact of the hardworking, mission-driven people and communities reflected in our national network and in the pages that follow.

Wastewater, the topic of this issue, may not seem glamorous, but it is key to how small rural communities—how all communities—are able to thrive. Access to clean water is fundamental—essential to human, environmental, and economic health all over the world—and the way we reduce pollution and manage our wastewater is a critical part of that. This issue offers a spotlight on what supporting wastewater systems and treatment looks like in different parts of the U.S., in tribal nations, and in U.S. territories we support, like Puerto Rico and the U.S. Virgin Islands. You will also notice that the work we do outside of technical assistance is often just as important to supporting access and improvements to wastewater systems and treatment.

On November 15, 2021, a historic infrastructure bill was signed into law. The funds Congress allocated are generational and the first significant federal investment in water since the 1970s—back when Nike shoes were being made in a waffle iron! In this time where change is our only constant, amidst the challenges, we are also in a key moment of opportunity to step toward cleaner water and greater economic prosperity in rural America. RCAP will continue pressing forward with flexibility and a willingness to listen and learn from one another and by supporting important issues and good work everywhere. We thank you for your continued support of our mission to elevate rural voices and build local capacity to improve quality of life, starting at the tap.

Keith Ashby
Interim CEO, RCAP



Rural Community Assistance Partnership

The Rural Community Assistance Partnership (RCAP) is a national network of nonprofit partners with over 300 technical assistance providers across the country. RCAP works to improve the quality of life in rural America starting at the tap.

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rcac.org

2. Midwestern RCAP

Midwest Assistance Program (MAP)
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map-inc.org

3. Southern RCAP

Communities Unlimited (CU)
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communitiesu.org

4. Great Lakes RCAP

Great Lakes Community Action Partnership (GLCAP)
800.775.9767
glcap.org

5. Northeastern and Caribbean RCAP

RCAP Solutions
800.488.1969
rcapsolutions.org

6. Southeastern RCAP

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866.928.3731
sercap.org

WHAT Matters

CONTENTS

The majority of public wastewater treatment facilities in the United States are small, serve fewer than 10,000 people, and can treat up to 1 million gallons per day. Many of these systems grapple with low technical, managerial, and financial capacity. This can often lead to compliance issues with the Clean Water Act and can negatively impact public and environmental health. In addition, more than 1 in 5 U.S. households use individual on-site or septic systems to treat their wastewater. When these systems are poorly designed, installed, operated, or maintained, water contamination can occur.

In FY 2021, RCAP assisted over 50 small communities with their wastewater treatment systems and provided nearly 50 trainings to 1,300 attendees. That's over 50,000 people who are on their way to well-managed utilities, longer-lasting systems, and access to cleaner water!

“We have neighbors who do not have access to clean, safe drinking water—the most basic of resources—yet it’s an invisible problem.”

Kenneth Rodgers

Talk to Us!

Visit us on the web and tell us what’s on your mind.



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4

Toolkit

6

Loan Management
101

9

Addressing the
Water Access Gap

12

Mapping Septic
Systems on
the Tule River
Reservation

14

Building a
Better Board

18

Managing
Wastewater in
Puerto Rico and the
U.S. Virgin Islands

RURAL ROUND-UP

Recent wins and happenings

Making Rural Voices Heard! The 2022 RCAP Fly-In (virtual this year) brings representatives from our six regional partners from across the country to meet with members of Congress and their staffs in Washington to generate awareness for issues and advocate for funding that's critical to small and rural communities. Check out our priorities here: rcap.org/advocacy-research/rcap-policy-priorities-117th-congress.



Policy Ideas? RCAP is providing ideas on how EPA and states can make it easy for low-income communities to access the State Clean Water Revolving Fund and other federal water funding. Submit them to tstiger@rcap.org.



Getting the Lead Out! Recent actions and plans put out by the EPA and White House are accelerating the push to more effectively remove harmful lead and other contaminants from our nation's drinking water. RCAP has been engaged and supports this important effort.



More Agua4All! RCAP's Agua4All program has partnered with Waterboys and Liquid IV to expand clean drinking water in schools and serve more than 12,000 students. Learn more about Agua4All here: rcap.org/special-initiatives/agua4all.



Building Back Better. As of the printing of this issue, action on the Build Back Better Act is up in the air, but RCAP remains committed to supporting provisions essential to rural partnership building, water infrastructure, and a low income water assistance program.



TIPS from a TAP (Technical Assistance Provider)

Glen Terry, Great Lakes Community Action Partnership (GLCAP)

Late winter weather headed your way? The best way to prevent winter water mishaps is to get ready for them! Here are a few small things to help water operators (and those of you watching out for your systems) prep for the next storm and/or cold spell.

- Hydrants should be clearly marked and free of snow to protect your residents and businesses from the ravages of a fire.
- Street valves need to have asphalt chipped away from the lids, and dirt and stones removed from all sides. Knowing exactly where your valves are and which work saves precious time during an emergency.
- Generators should be tested monthly, ensuring that all fluids are topped off and starter batteries charged. Operators should be familiar with how to start the generator and how to switch their systems into emergency mode.
- Checking for gaps around doors, windows, and pipes can help prevent unnecessary freeze-ups in cold weather as well as unwanted pests during warmer weather.

Following these simple yet useful tips will make an important difference when the winter weather hits. Read the full post online.



Did You Know?

- **An estimated 461,279 occupied households in our country have incomplete indoor plumbing.** African American and Latinx households are nearly twice as likely to lack complete plumbing as white households, and Native American households are 19 times more likely. This is according to the 2019 publication *Closing the Water Access Gap in the United States—A National Action Plan*, produced by DigDeep and the U.S. Water Alliance. *Learn more about our work to help address this on page 10.*
- **Unregulated septic tanks constitute 96% of all septic tanks in Puerto Rico.** Before 2011, constructing a septic tank did not require a permit. Since 2011, a new regulation has been introduced by the General Permits Office to regulate the design and inspection of septic tanks.
- **Since October 2020, RCAP has assisted 54 communities in 29 states, Puerto Rico, and USVI with wastewater-related projects.** In addition, there have been 54 training courses conducted on this topic across the U.S.
- **An operating ratio, a measure of efficiency used in management, allows a water utility to understand its financial health.** To calculate the operating ratio, one divides operating revenues by operating expenses. An operating ratio of less than 1.0 indicates fiscal distress. *Read more on page 12.*
- **Community Development Financial Institutions (CDFIs) are organizations that have loan funds that utilities or homeowners can access if they need funding to upgrade infrastructure (if a utility) or install a new septic system (if a homeowner).** Two RCAP regional partners, the Rural Community Assistance Corporation (RCAC) and Communities Unlimited (CU), are CDFIs.

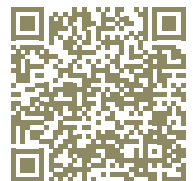
Training Calendar



RCAP hosts free webinars on topics ranging from capacity building to wastewater treatment. **Sign up for an upcoming webinar here!**



We also have webinars in business and financial planning and much more that are designed to support small business entrepreneurs across the country in our Open For Business Hub, powered by the Wells Fargo Open for Business Fund. **Learn more and sign up for an upcoming webinar!**



Loan Management 101

How a new Life of Loan manual can support the success of systems and USDA Rural Development Borrowers.

Phillip Fishburn, Technical Assistance Provider, Midwest Assistance Program



Each year, USDA Rural Development (RD) invests millions of dollars to help rural communities across the country build new or improved public drinking water and wastewater disposal systems. This is important because, as U.S. Secretary of Agriculture Tom Vilsack says, "... safe drinking water and sanitary waste disposal systems are vital not only to public health but also to the economic vitality of rural America." When projects are successful, RD's investment in rural public utilities has improved the quality of life and increased the economic opportunities for many rural people. That is why I have been helping rural communities in Kansas develop such vital projects for the last 25 years.

The Challenge

However, not every RD-funded project is successful. Some communities, unfortunately, do not fully live up to the obligations they made to RD in order to secure funding for improvements. This can lead to them defaulting on the loan—a situation nobody wants.

Problems usually arise because a borrower does not understand or fulfill all the requirements of the

Signs of inadequate stewardship include:

- equipment that is not correctly cared for
- a poorly operated system
- delayed repairs
- underfunding
- poor administration of the utilities
- the premature failure of equipment

grant/loan agreement. Even if the utility board and management that helped secure the financing understood the obligations they agreed to, over time this knowledge can fade with each new generation of leaders/staff that take over. If these new leaders/staff are not educated about their loan obligations, non-compliance with or non-performance of finance agreement obligations can translate to poor stewardship of the system.

Supporting Loan Fulfillment Through Education

The Midwest Assistance Program (MAP)—the Midwest RCAP—provides education to current and future leaders in rural areas about what they must do as an RD borrower to avoid borrower compliance issues now and down the road. When they understand the expectations, they are able to do the right thing. We provide support for these leaders through in-person trainings, technical assistance, and educational materials including templates to help them be successful in their management of RD funds.

Our latest offering is the *Life of Loan Manual*

I recently created the *Life of a Loan Manual* for the Kansas RD borrowers I'm working with. The purpose of the manual is to educate local leaders, to help them understand the concepts involved in the life cycle of an RD loan, and to clarify the covenants (obligations) their community must execute, perform, or adhere to. We give a *Life of Loan Manual* to each governing official and critical staff member, and we encourage leaders and staff to read it.

Additionally, RCAP has a newly updated USDA Borrowers Guide that is a helpful tool as communities navigate the application and grant/loan management process with RD. The Borrowers Guide is present on RCAP's Managerial and Financial Hub on its website, where you can find other great resources to help you apply for funding.

The manual helps the borrower understand RD's Water and Environment Program (WEP). It explains all the conditions, rules, and promises of the loan instruments that must be followed or performed. The borrower learns that they have a contractual agreement with RD for compliance, and there are consequences for not meeting their obligations. As needed, I also do on-site training of current leaders regarding the concepts discussed in the manual.

The manual is designed to educate both current and future leaders and staff. Because an RD loan can have a term as long as 40 years, the current team should pass on the manual to a subsequent governing leader or staff member so the institutional knowledge is not lost. A community's RD loan will likely outlast the terms of all currently elected officials and the tenure of all current staff of the utility. We instruct the borrower to pass on the manual to a new governing leader or staff member when there is a personnel change. In addition, the manual can help orient people in new leadership or staff positions, and it can be a reference resource.

What's in the *Life of Loan Manual*

The *Life of Loan Manual* lays out the basic concepts of the loan agreement in plain English.

Contractual Agreement. The manual stresses that a borrower has entered into a financial contract with RD to obtain the funding needed to build, rebuild, or rehabilitate its drinking water or wastewater utility. The borrower signed and agreed to the terms found in multiple documents. These terms and conditions are binding on the borrower for the term, or the life, of the loan. If the borrower is making a debt payment to RD, it is bound to perform, meet, and adhere to the terms and conditions found in all instruments that a representative of the borrower signed. The manual stipulates that all the debt-financing instruments executed have specific terms and conditions, or rules, relating to how the borrower uses the funds and conducts its business until the debt is



satisfied, or paid. These terms and conditions are called “loan covenants.”

Loan. The term “loan” requires that the financing (principal) RD provided be repaid by the borrower, along with interest on the principal, at a specified rate over a period of time. The borrower agrees that these loans are for a specified length of time and that they require a legal finance agreement instrument to be approved and executed. The instrument may be a mortgage loan, municipal bond, or some other acceptable instrument, such as a promissory note.

Life of Loan. The phrase “Life of Loan” gives context to the borrower, meaning that for as long as there are any unpaid balances on the debt, the borrower must comply with all terms, obligations, conditions, and covenants found in all legal instruments agreed to and executed by the borrower to obtain funding.

Legal Instrument. This is a formally executed, written document. It contains the legally enforceable acts, processes, contractual duties, obligations, or rights placed on both parties to an agreement as evidenced in the specific act, process, or agreement.

Loan Covenant. A covenant is a promise to do or not do something. The loan covenant is a condition of a loan or bond issue that requires the borrower to do certain things or prohibits the borrower from undertaking certain activities in order to receive the loan. The manual describes the following three kinds of covenants:

- **Action covenants** are tasks or actions that the borrower is required to do. These are required annually or periodically as specified—for example, submitting an annual financial report to RD.
- **Performance covenants** require the borrower to maintain specific requirements at specified levels. An example is a requirement to maintain adequate insurance coverage on system property.
- **Restrictive covenants** restrict actions that a borrower can take, primarily involving system assets. For example, a borrower cannot sell the system or components of the system to another party without approval from RD.

What Happens if Loan Obligations are Not Met

The manual lets borrowers know that financing agreement documents contain provisions to deal with a default of covenants. It explains that default can be triggered by non-payment of loan payments or by not performing a covenant in any of the financing instruments they executed to obtain the funding from RD. For example, even if the borrower makes payments on time, they are not fulfilling all their loan obligations if they do not carry adequate insurance.

The manual also teaches borrowers that RD would rather not invoke the most stringent default measures if problems arise. Instead, RD strives to work with its borrowers to take corrective actions to regain loan compliance. Steps may involve RD requesting that the borrower work with an RCAP technical assistance provider to correct loan covenant compliance issues.

In very basic terms, RD wants borrowers to have systems that work well and benefit the public as intended. The purpose of loan obligations is to foster stewardship. Since taxpayers, through the federal government, have made investments in the form of a loan, the borrower must maintain the system so their community can have safe and affordable drinking water and sanitary sewer disposal.

Building for the Future

MAP has always strived to build human infrastructure capacity while helping communities make physical infrastructure improvements. The development of our *Life of Loan Manual* for RD borrowers will help communities practice good borrower stewardship for the term of their loans, leading to success and safety for their systems. If you are interested in this manual, please reach out directly to our office at map@map-inc.org.

THE STAGES OF “DEFAULT TEETH”

Usually applied incrementally for non-compliance of loan and financing covenants.

SMILE STAGE

The lender is happy and smiling. Borrower is meeting all terms.



SNARL STAGE

Lender has to warn borrower about not performing covenants; expects corrective action.



NIP STAGE

Borrower will not take corrective actions, and lender forces borrower to make corrective actions, and actions are taken by the borrower.



OUCH BITE STAGE

Lender must take over functions and contract with someone else to take corrective actions.



DEATH BITE STAGE

Lender takes over total ownership or control of the system or assets and makes arrangement for operations.





Addressing the Water Access Gap

Helping Communities Gain Reliable Access to Water and Indoor Plumbing

Kenneth Rodgers, Rural Housing Specialist, and **Lauren Mason**, Planning Director, Southeast Rural Community Assistance Project (SERCAP)

Between advertisements for Lowe's and Home Depot and articles in *Architectural Digest* and *Better Homes & Gardens*, one might assume that every household in the United States is perfectly sound structurally and just in need of an artificial facelift to keep up with the current style and housing trends. However, this public perception of the housing

industry does not tell anywhere near the full story. While multimillion-dollar houses are featured in shows on HGTV, thousands of U.S. residents can barely secure adequate, affordable housing in their own communities, and they struggle daily just to access safe drinking water and an environmentally sound wastewater disposal solution.

Imagine you grew up in a house that your parents inherited from your grandmother. The house was built in the early 1900s and has no indoor plumbing. But your family cannot afford to move into a new house, or even an apartment, with indoor plumbing facilities. So, you stay in the home you were blessed with and spend time each day hauling water from outside, heating water for bathing, and walking outside to use the outhouse. Maybe you don't even have your own outdoor tap, and you have to pay your neighbor to let you to fill buckets with water from their garden hose. Or you have to drive several miles to a local fire station that allows you to use their outdoor tap. Can you picture what your life would be like if you didn't have easy and reliable access to clean, safe drinking water?

Now, what if we told you that these



Can you picture what your life would be like if you didn't have easy and reliable access to clean, safe drinking water?

are just a few of the scenarios that some individuals and families currently living in the United States of America face each day? Would you believe us? According to the 2019 American Communities Survey 5-Year Estimates released by the U.S. Census Bureau, an estimated 461,279 occupied households in our country have incomplete indoor plumbing. This means that they either have no toilet, a failed septic system, or no plumbing at all. The people living in these residences face uncertainty each day around where their drinking water will come from and if

their wastewater might be harming the environment or public health.

Southeast Rural Community Assistance Project, Inc. (SERCAP)—the Southeast RCAP—is a 501(c)(3) nonprofit organization that provides training and technical and financial assistance to low-to-moderate income (LMI) individuals and small rural communities to address water/wastewater infrastructure, housing, and community development needs. SERCAP's mission is to improve the quality of life for low-income individuals by promoting affordable water and wastewater facilities,

community development, environmental health, and economic self-sufficiency.

In 2019, SERCAP's Housing Department assisted a low-income, elderly woman living in Nelson County, Virginia, with just her dog for company by completing a substantial reconstruction of her home. She was living in an old mobile home with large sections of the exterior wall missing, which she had covered with tarps to keep out the elements. She heated her home with a wood stove and carried in bottled water, since she did not have a well and was not connected to a public water system. Despite these significant challenges, she maintained her own vegetable and flower gardens, kept her yard and mobile home quite neat and clean, and maintained a wonderfully pleasant disposition.

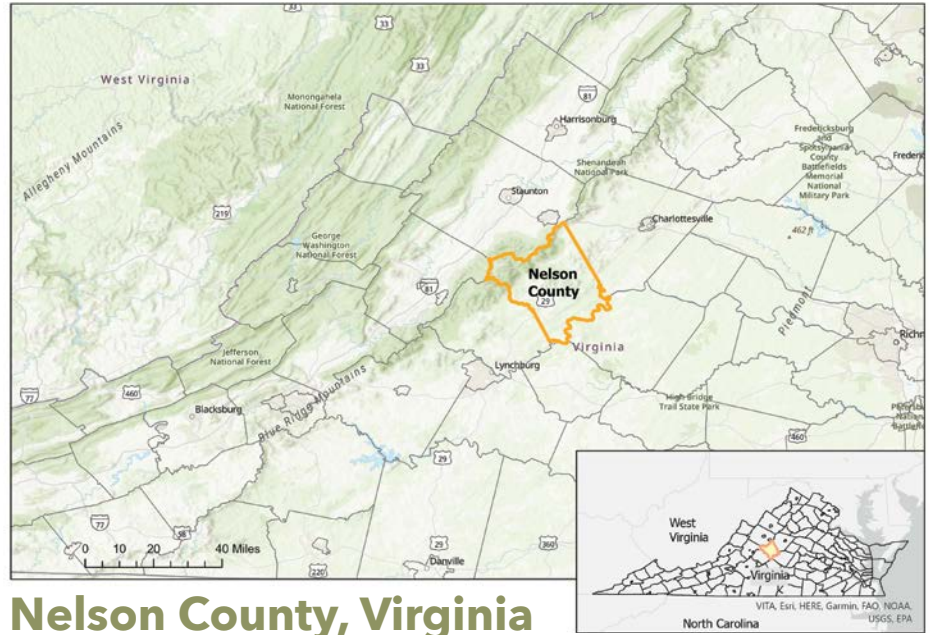
This home was truly in need of several critical repairs and rehabilitation services. However, due to her low-income status, the resident was unable to afford the cost of these needed repairs without suffering significant financial hardship. Fortunately, SERCAP learned about her thanks to a local veterinarian and friends in the area who wanted to see both her and her dog receive the assistance they needed.

The project was approved as a substantial reconstruction under SERCAP's Indoor Plumbing & Rehabilitation (IPR) Program. Funded by the Virginia Department of Housing & Community Development (DHCD), this program allows service providers like SERCAP to provide significant rehabilitation to owner-occupied houses that lack complete indoor plumbing facilities, have a failed septic system, and/or lack access to potable water. In some cases, the existing home is in too much disrepair for rehabilitation and is approved for substantial reconstruction. A substantial reconstruction is when the existing structure is demolished and a new house is built in its place on the homeowner's land. In this case, SERCAP completed the project—building this client a new home—for approximately \$105,000. Once the project was completed, the client gained an affordable home that is warm, safe, and dry with reliable access to clean drinking water and an environmentally sound wastewater solution.

In the long term, the positive impact of SERCAP's IPR projects is the improvement of overall quality of life for the clients due to the improvement of their environmental health and economic self-sufficiency.

This project positively impacted the environmental health of the client by:

- providing her with an affordable home that is warm, safe, and dry;
- providing her with both a reliable source of clean drinking water and an environmentally sound wastewater solution in her home; and
- preventing potential financial burden, which could have occurred if financial assistance had not been available to complete the project and could have had a negative impact on the mental and emotional well-being of the client.



Nelson County, Virginia

The project also positively impacted the client's economic self-sufficiency by increasing the value of her personal assets through the increased value of her property. Additionally, the project improved the economic self-sufficiency of the community at large by encouraging neighborhood revitalization and increasing the current property tax base for Nelson County.

Why have we shared this story with you? SERCAP and RCAP's national network of nonprofit partners have been fighting for more than 50 years to secure reliable access to clean drinking water and environmentally sound wastewater solutions for individuals and small, rural and tribal communities in the United States. They have many clients who face the challenges we have shared above on a daily basis. Yet, these individuals are invisible to the news media, social media, and the general public. Frequently, one sees stories about water and wastewater issues in developing nations overseas, but rarely does anyone bring attention to the fact that water access is still an issue in the United States, right here in our own backyards. We have neighbors who do not have access to clean, safe drinking water—the most basic of resources—yet it's an invisible problem.

Want to help? Share our stories and raise awareness about these issues with your friends, neighbors, and colleagues. To learn more, visit sercap.org and rcap.org.



Ms. Vest, SERCAP's Indoor Plumbing & Rehabilitation client, after the work was completed on her home with the SERCAP team and Dr. Stacy Reeder, the veterinarian who referred Ms. Vest.

SERCAP's housing programs are made possible by the Virginia Department of Housing & Community Development's (DHCD) Indoor Plumbing & Rehabilitation Flex (IPR-Flex) Program, by county funds (budget appropriations) from counties across the Commonwealth of Virginia, and by program income funds from the IPR-Flex Program.



Mapping Septic Systems on the Tule River Reservation

Working with tribal members to locate systems and improve wastewater management.

Zane Mortensen, Technical Assistance Provider, Rural Community Assistance Corporation (RCAC)

According to the U.S. Environmental Protection Agency (EPA), more than 60 million people across the country are served by septic systems. Septic systems treat household wastewater before it is drained into the soil, and, in some cases, into surface water.

Technical assistance providers (TAPs) like myself primarily work in small, rural communities that may not have as many resources as larger communities when it comes to wastewater treatment and disposal. Many can't afford the high rates

for centralized sewer systems, so they use septic systems. Although these communities have had septic systems for years, they may not have had the opportunity to learn how to maintain them properly.

Geographic information system (GIS) mapping is proving an effective tool in water and wastewater management, and it has been particularly helpful in locating septic systems. Such was the case on the Tule River Reservation, located in Tulare County, California. The community is in the Sierra Nevada foothills, with more

than 1,000 tribal members living on the Reservation. Tule River Indian Tribe of California members are descendants of the original San Joaquin Valley inhabitants.

GIS Mapping Facilitates Connections to New System

The Tule River Indian Tribe was in the process of locating many aging individual septic systems that had reached the end of their lifespan. The average lifespan of a septic system ranges from 15 to 40 years. Contaminant and, particularly concerning, fecal coliform, were leaching into the Tule River downstream.



Tule River Reservation, California

Ways to properly maintain a home septic system include

- Inspect and pump the system regularly
- Dispose of waste properly by not dumping anything in the sink or toilet, including grease, pharmaceuticals, chemicals, wipes, or diapers
- Use water efficiently, since all water that goes down the drain ends up in the home's septic system
- Properly maintain the drain field where contaminants are removed from the liquid

Fortunately, the community has a new, larger wastewater treatment system that treats wastewater from homes. It is a membrane bioreactor, which combines a membrane filter with a biological process to treat the wastewater. This community system was constructed about four years ago, but it has taken time to connect individual homes to it. Individual septic systems were, of course, scattered around the reservation. To perform maintenance and possibly interconnect these homes served by failing septic systems to the new more centralized system, the Tribe needed an accurate way to locate them.

The Rural Community Assistance Corporation (RCAC) has long history of working with the Tule River Tribe and, over time, we have built a strong

I worked alongside Tribal members, going door to door to ask if homeowners knew the location of their septic systems.

relationship. So, when they were looking for a way to map the existing septic systems, Tribal staff contacted the RCAC to help. The Tribe had been working for about four years to locate all the old septic systems, and my GIS expertise would help to move the project forward and hopefully get it to the finish line.

Over several months, I worked alongside Tribal members, going door to door to ask if homeowners knew the location of their septic systems. After getting permission from each homeowner to access their property, I used a Trimble GPS unit to identify the location of each septic tank and notate that on the system. Afterward, I entered the data into a GIS mapping system.

During the project period, I visited the Reservation for three to four days at a time. Once I had downloaded the information, it was easy for me to use that data to create a map. Working with Tribal members, I was able to map the septic systems for more than 200 homes.

Upgrades and Maintenance Planned for Old Systems

When the map was completed, the Tribe set to work connecting those homes to the larger system and, as of summer 2021, all but about 60 homes had been connected to the centralized community treatment system. Some homes are very remote and located up in the rocky, mountainous area, so it would be too expensive to connect them to the community system. Those homes will be upgrading their septic systems, and the Tribe will create a plan to ensure the systems are properly maintained.

Strong Relationships Support Access

I completed most of the mapping during the COVID-19 pandemic. That meant following local travel and safety guidelines and RCAC's strict travel policy, which includes masking, contact tracing, and, in some cases, travelling in separate vehicles. At certain periods during the pandemic, I had to go through a community checkpoint. But because I had established good communication with the Tribe, they knew when I would arrive and could grant me access.

Throughout the process, the Tribal community members were friendly and accommodating. The homeowners were my greatest resource throughout the project.



Building a Better Board

*A Journey to Develop
a New and Effective
Sewer Board for Phillips
County, Arkansas*

Brad Jarrett, Arkansas State
Coordinator, and **Johnathan Patrick**,
Community Environmental Management
Specialist, Communities Unlimited (CU)

It's not every day that you can get a group of people from diverse backgrounds to agree to volunteer and make tough but fair decisions that will benefit their neighbors. When USDA Rural Development (RD) referred Communities Unlimited (CU) to offer technical assistance to the Phillips County Sewer Board, the task of developing a new board of directors for their wastewater system was a bit of an unknown.

Phillips County is a Mississippi River Delta community that proudly encompasses the cities of Helena-West Helena, Lakeview, Elaine, Lexa, and Marvell. The Phillips County Sewer Board, a county subsidiary nonprofit, had been inactive for quite a few years, with only the office clerk and the wastewater operator facilitating the board's operational and administrative needs. With the clerk soon to retire, the county judge, Clark Hall,



room starts spinning, consider what most, if not all, nonprofits have in common: bylaws. Though it might seem outdated, checking the existing bylaws will give you an excellent foundation on which to build. Under the direction of the bylaws, you can determine the number of directors that defines a quorum. With that one key definition, you can begin posting notices within the area for possible candidates.

Though it might seem outdated, checking the existing bylaws will give you an excellent foundation on which to build.

Recruit Volunteers

Finding volunteers to manage the wastewater needs of nearly 800 customers within the Barton-Lexa Water Association, the City of Lakeview, and the City of Helena-West Helena proved to be challenging. As the facilitator, we worked closely with Judge Hall. Judge Hall reviewed and selected potential candidates to revive this previously dormant utility board.

By October 2020, Judge Hall selected Evelyn Schmidt, Cleveland Jackson, and Jerry Martin to serve as the directors of the Phillips County Sewer Board. Each candidate's background is uniquely different, but they share a common interest in the success of the board. Their first board meeting took place in the Phillips County Library. During this meeting, they learned that the clerk and wastewater operator would be retiring within the month. Although things seemed uncertain, the new board took this news in stride and asked us to facilitate their future meetings. We knew that this board, like others, needed to establish roles and responsibilities, and take inventory of its assets. The position of board president was accepted by Evelyn Schmidt, secretary/treasurer by Cleveland Jackson, and director #1 by Jerry Martin.

Review the Current Situation

It was confirmed that the board owns some 27 lift stations across the service area that pump wastewater to the cities of Helena-West Helena and Lakeview to be treated. We confirmed with the Arkansas Department of Energy and Environment that there was no further need

found himself tasked with finding and appointing a new board of directors. He contacted CU for assistance.

Check the Bylaws

Before one can fathom managing a board of directors, some thought has to go into developing the board. You'll need to answer such questions as:

- How many directors are necessary?
- What should the board look like?
- Where can the directors live?
- How are the members selected? Is it voluntary? Are they elected or appointed?
- Are the board members volunteers, or can and will they be compensated?

If there has been no active board management, beginning to answer these questions may be intimidating. But, before the

to employ a wastewater operator, because the system does not treat wastewater.

When reviewing the expenses of an entity to look for ways to reduce budget expenditures, payroll is usually the number-one area that can significantly display a hefty reduction. In comparison, other line items, such as utilities like electricity, are pretty consistent unless some significant, energy-efficient upgrades are made.

As a part of managing their assets, the board realized they needed to get the financial records from the now-retired clerk, and they decided to hire a new bookkeeper.

In the following months, the board of directors worked through CU's technical, managerial, and financial assistance assessment. They were able to plan, recognize, and address important business matters while understanding their new environment within wastewater operations.

Discuss Issues and Solutions

By mid-November 2020, the board began noticing a significant inconsistency in the billing invoices from one of the systems that treats Phillips County's wastewater. Anyone with firsthand knowledge of the billing process had retired, leaving the board with unanswered questions.

At the December meeting, President Schmidt stated, "Something has to be done. This board can't continue to operate in chaos. We have inherited some issues that will hinder our effectiveness if not addressed." The other directors agreed. We suggested that the board request a meeting with the Mayor of Helena-West Helena to discuss wastewater treatment and the billing challenges. A motion was made and passed unanimously to meet with the Mayor in January.

We also encouraged the board to let CU review all debt and income as well as current sewer rates to gain a true perspective of the sewer board's operating ratio—and to determine the need, if any, to restructure some of the board's RD debt with a loan from CU.

Determining the operating ratio would allow CU and the board to fully note the sewer board's profitability. To calculate the operating ratio, one divides operating revenues by operating expenses. An operating ratio of less than 1.0 indicates fiscal distress.

After the CU review, the board's operating ratio was found to be 1.0. While this isn't a terrible position, any increase in yearly expenses would put the board in



“Something has to be done. This board can't continue to operate in chaos. We have inherited some issues that will hinder our effectiveness if not addressed.”

— PHILLIPS COUNTY BOARD PRESIDENT EVELYN SCHMIDT



financial distress if the sewer rates were not updated/increased.

Early in 2021, Board President Evelyn Schmidt, CU staff, the board's new bookkeeper, and the Mayor of Helena-West Helena met at City Hall to discuss the billing discrepancy and solutions. The mayor actively listened and noted the board's concern; he was fully aware of the issue. He assured the group that he and his staff would work diligently to correct the error if one was determined.

Expect the Unexpected

Like most things in life, something unexpected almost always rolls down the pipeline. In this case, during February 2021, the Phillips County Sewer Board faced a nearly two-week-long winter storm

with temperatures dipping below zero degrees Fahrenheit, with the lowest being 18 degrees below zero. Due to the extreme temperatures, the pump station equipment sustained damages totaling almost \$25,000.

Initially, the board was relieved to know that the insurance plan would cover damages. But, much to their surprise, the insurance plan had been canceled. Unfortunately, it was set to renew when the previous clerk retired. In that transition, nobody made the payment and the policy lapsed. The cost of making the repairs would have created a significant hardship for the board; fortunately, CU was able to assist them with a small utility loan.

Adjust as Needed

In preparing the CU loan application and reviewing the income revenues and expenditures of the sewer board, it became clear that the sewer rates needed to increase from \$18 to \$23 for the first 2,500 gallons, and \$2.20 for every 1,000 gallons in usage after that. With that increase, the Phillips County Sewer Board would quickly achieve a more stable 1.05 operating ratio.

Once the directors saw the results of the loan application review, they were eager to move forward in the best interest of the board and its customer base. Shortly after that, a motion was passed to raise the rates.

After a few months, the Phillips County Sewer Board was approved for a \$255,000 CU loan that allowed for the reimbursement of pump station repairs and the restructuring of existing debt.

During this time, the board also heard from the USDA area office about a scheduled compliance review, as required of all USDA loan borrowers per RD regulations. They successfully provided USDA with all the necessary documents, thus keeping the board compliant with RD guidelines and prepared in the event of a disaster.

Keep Going

Despite the hurdles, the newly appointed directors of the Phillips County Sewer Board made it through their first year, aided by CU's technical assistance. The system has successfully adjusted and implemented its new sewer rates. They also pinpointed the billing issue with the wastewater processing system and have a pending resolution to solve the problem.

In the future, the board of directors hopes to construct a maintenance building to house equipment and supplies and to host its monthly meetings.



Managing Wastewater in Puerto Rico and the U.S. Virgin Islands

Community Perspectives on Challenges and Solutions

Carlos Velázquez, Wastewater Technician RCAP Solutions (Caribbean),
Héctor Ortiz, Environmental Engineer, and **Pedro Modesto**, Municipal
Program Specialist

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In Puerto Rico and the U.S. Virgin Islands (USVI), most communities do not have the resources, funds, technical background, or organizational tools to sustainably manage their wastewater systems. Communities often inherit systems where they are forced to cope the best they can with what they have.

For more than 25 years, this has been a recurring scenario for many communities in Puerto Rico and USVI. Potential explanations for these problems include:

- Communities in remote locations far from utility service areas
- Limited access to materials and services
- People and organizations who developed wastewater systems and later left without providing proper training once the project was completed

These problems are not exclusive to a specific type of wastewater system. They affect both centralized and decentralized arrangements, septic systems, treatment plants, and sewage pump stations. Pick any type of system and we can tell you a story.

PERSPECTIVES

FROM THE FIELD

For the last three years, RCAP Solutions in Puerto Rico has worked closely with staff from the United States Environmental Protection Agency-Caribbean Environmental Protection Division (USEPA-CEPD). These individuals have the best understanding of community wastewater systems in Puerto Rico and USVI. Below, in their own words, are the problems they've seen and the solutions they would like to see.

Héctor Ortiz

Environmental Engineer, Municipal Water Program Branch, USEPA-CEPD

"We don't have factual and actual knowledge of the situation with all the community wastewater systems in Puerto Rico, but we know that the septic systems in use almost all over the island were constructed without any government permitting and without any professional guidance. Most of them are leaking, and if they are near creeks, rivers, or lakes, they are leaking to and contaminating those bodies of water. We see evidence of that in our inspections around the island, where we find systems leaking directly to the sea or other bodies of water.

Unregulated septic tanks constitute 96% of all septic tanks in Puerto Rico. Before 2011, constructing a septic tank did not require a permit. Since 2011, a new regulation has been introduced by the General Permits Office to regulate the design and inspection of septic tanks. Still, we don't know if the problem is under control—and the Government does not have the personnel to inspect all the septic tanks out there to answer this question.

To address the situation, it would be good to start with a sample of the septic systems in the communities across Puerto Rico: inspect a representative amount of the systems around the Island to gather information, then prepare a plan to deal with this situation. The plan should involve government entities and the affected communities on the island.

Regarding private pumping stations, EPA continues to work to remedy the situation that affects thousands of people who live with these deficient facilities close to their homes, causing sewer overflows and frequently polluting surface waters."

Pete Lopez

EPA Regional Administrator

"Over 40% of the population living in Puerto Rico and over 50% of the population in USVI rely upon septic systems to dispose of domestic wastewater. These systems are often used because they are cheaper, and centralized sewage systems or piping are not located nearby. However, septic systems can pose a threat to groundwater and sensitive environments like karst terrain if they are not properly installed or monitored."

Pedro Modesto

Municipal Program Specialist, USEPA-CEPD

"Less than 40% of the Territorial population in USVI is served by municipal wastewater treatment plants. There is no systematic plan in place by local government authorities to expand the sewage collection system to areas without current service. Since no significant fees are collected for the service provided, there is no incentive to expand or increase the service area. Most people in the Territory are served by septic tanks and cesspools, which present a significant threat to the quality of surface waters and the well-being of communities. There is no inspection, certification, or enforcement of septic tanks and cesspools in accordance with applicable national codes.

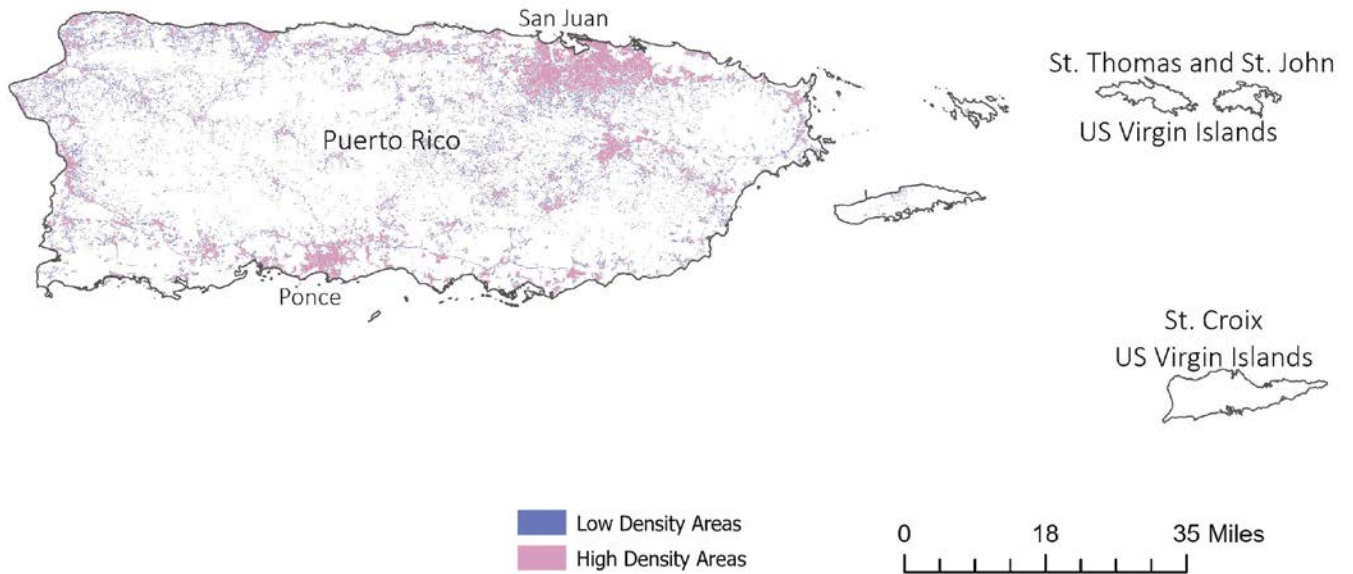
The topography and soils in the islands of St. Thomas and St. John are a challenge for the installation of domestic sewage disposal systems. Lately, the tendency has been to install aerobic treatment units, self-contained treatment systems that operate like an extended aeration plant. These systems are expensive, and not many people can afford to install and maintain them.

Insufficient funds from USVI government's authorities to properly deal with sewage is a prevailing situation in the territory. The USVI government mostly relies on the USEPA grants program to deal with their sewage infrastructure problems. User charge fees, which are paid on a yearly basis

with property taxes in the amount of around \$120, are all that is collected. Such an amount is inadequate to deal with the requirements of a properly operated and maintained sewage treatment system.

USVI has not considered the various activities preceding the EPA grant award regarding planning, design, and related construction overhead costs. On the other hand, septic haulers take their loads to sewage treatment plants with operation and maintenance deficiencies, and the fees these haulers collect do not necessarily end up with a proper share for the utility that owns the sewage treatment systems."

Puerto Rico and the U.S. Virgin Islands



We all can make a difference. Even with problems that have existed for 20 or more years, we will not stop moving toward a solution.

Working to Address the Issues

Most problem-solving methods include definition, analysis, implementation, and evaluation. Working toward a solution for better wastewater treatment in Puerto Rico and USVI requires federal and state government agencies, municipalities, non-governmental organizations (NGOs), and communities to take part. For the past three years, RCAP has been part of these efforts, often through referrals coordinated by USEPA-CEPD.

Projects have been diverse. They have included outreach around trainings and other educational materials; direct specific technical assistance for communities

to develop their technical, managerial, financial, and administrative capacities; and much more. Working groups such as the Caribbean Septic Systems Working Group—formed by USEPA, which RCAP has participated in from the beginning—promote discussion and development of regulations, updates, and outreach activities in Puerto Rico and USVI.

Since properly dealing with wastewater is not a simple problem, there is no simple and fast solution. Still, communities have taken concrete steps toward progress, parallel to evaluation and planning activities. There is still a long way to go, but there is a certain level of satisfaction with the work performed so far.

Describing the work of recent years, Héctor Ortiz stated: “RCAP has been

essential for assisting communities regarding their problems with managing wastewater. The communities do not have the expertise, funding, or help to solve the situation. The government is not aware of the situation and thus does not have the structure to deal with these situations. RCAP has been providing trainings and counseling, organizing the communities and explaining what they need to do.”

We all can make a difference. Even with problems that have existed for 20 or more years, we will not stop moving toward a solution. We will encourage more organizations to join these efforts. Again, we are happy to be part of the team, and are pleased with what has been accomplished so far.

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