Managing PFAS in communities with no municipal water

By Lisa Fought
Senior Rural Development Specialist

Many of us are now acutely aware of the presence of PFAS and how pervasive this expansive family of man-made chemicals (nearly 5,000 types) is in our everyday lives. They are fire resistant; repel oil, stains, grease and water. USEPA has set a lifetime health advisory limit (LHA) of 70 parts per trillion (ppt) for two types of PFAS combined: perfluorooctane sulfanate (PFOS) and perfluorooctanoic acid (PFOA). The federal guideline is strictly an advisory at this time and not enforceable at the federal level.

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Addressing staff turnover, billing issues helps Wisconsin village utility system

By James Meece
Senior Rural Development Specialist

The Village of Lake Nebagamon in Wisconsin is back on the right path after hitting a few bumps in the road. How they got back on track is a story about what happens when a dedicated town and RCAP staff come together to work on and solve issues in a community.

“Lisa really saved our bacon. Without her, I am not really sure what we would have done,” said Amy Huber, clerk for the Village of Lake Nebagamon.

Located in northwestern Wisconsin, about 5 hours from the state capital of Madison, Lake Nebagamon is a village with a population of just over a thousand people. There are 446 households and the town has both a water and wastewater system. One unique thing about the village is that not everyone is hooked up to the wastewater system. What this all adds up to is the clerk must keep track of a lot of billable accounts.

In early 2018, the county clerk’s office in the village was going through some changes. The long-time clerk left the position and Amy Huber took over. Like many new employees, Huber began her new position by looking into the practices of the old clerk for guidance. However, what she found was not helpful and she determined that she would need to develop new practices.

continued on page 2
"Staff turnover" from front page

“There were no policies and procedures in place and the books had not been audited for years. I was not sure even where to begin,” Huber said.

When looking around to find solutions and assistance for the village’s issues, the clerk began to reach out to neighboring towns to see if they could help. In doing this research, she came across a name she was not familiar with: the name was RCAP.

“I first heard about RCAP from one of our neighboring towns. The clerk in Poplar told me about them and told me I had to call them,” Huber said.

A meeting was set up between RCAP and the village and once RCAP got there, they began helping immediately. Lisa Totten, a long time RCAP technical assistance provider began looking over the village’s billing software and found ways to help. She began by assisting the utilities department with setting up overtime billing, budget and public hearing notices.

“When I first arrived to the community, I identified their biggest problem was regrouping as a result of staff turnover,” Totten said.

Over the next year and a half, Totten worked with the village clerk and the village board to help them maximize their billing software. As a result, their utilities department is running smoother than ever. Through Totten’s assistance, they began looking over the village’s billing software and found ways to help. She began by assisting the utilities department with setting up overtime billing, budget and public hearing notices.

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Over the next year and a half, Totten worked with the village clerk and the village board to help them maximize their billing software. As a result, their utilities department is running smoother than ever. Through Totten’s assistance, they began looking over the village’s billing software and found ways to help. She began by assisting the utilities department with setting up overtime billing, budget and public hearing notices.

The village's biggest problem was regrouping as a result of staff turnover. "Through working with this community, I learned first-hand that when you have a community consisting of both a board and staff members with the same goal and dedication to their community, anything is truly possible," Totten said.

The Village of Lake Nebagamon still has some work to do, but continues to be able to identify and solve the issues that come their way. "The future for this project looks bright. They have come a long way and continue to improve," said Lisa.

When reflecting on the last year and a half and how far they have come, the clerk believes the amount of work that has been completed.

"Without Lisa and RCAP we would have never made it through the last year and a half," Huber said. "I tell every community around here that they need to call RCAP."

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RCAP’s Mary Hutson receives award

Congratulations to our own Mary Hutson, state coordinator in West Virginia, who was chosen for the George Warren Fuller Award.

AWWA created the George Warren Fuller Award in 1937. The recipients of the award are chosen annually by the Sections of AWWA, and they are selected based on their contributions to the advancement of waterworks practices for their distinguished service to the water supply field and in commemoration of the sound engineering skill, the brilliant diplomatic talent, and the constructive leadership of the members of the association who exemplified the life of George Warren Fuller one of America’s most eminent engineers.

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Grants help small village build wastewater system

By Ron Winland

Rural Development Specialist

The Village of Dexter City is a small rural community located in southern Noble County, Ohio, along the Interstate 77 corridor. The village encompasses an area of approximately 0.20 miles, with an estimated population of 129 (2010 U.S. Census Bureau) and includes approximately 64 single residences and five small businesses. The village purchases drinking water from a local water district, while often failing private household sewage treatment systems (HHSTs) are utilized for wastewater treatment. In 2017, the Noble County Health Department reported that the majority of HHST systems in Dexter City are more than 50 years old with a failure rate of over 30 percent. In some cases, the HHSTs were draining directly into a stormwater drain, contributing raw and partially treated sewage discharges to the West Fork of Duck Creek, which defines the village to the east.

Dexter City is situated in the Appalachian Foothills with surrounding land uses generally involving agriculture, mining, oil and gas production and forested areas. Topography is steep hills and ridges with many intervening valleys. The underlying bedrock is mainly shale, limestone, siltstone, shale and coal, with depth to bedrock often shallow. Soils in the Dexter City area are generally clay to clay loam which along with shallow bedrock create difficult conditions for soil dispersal systems, often leading to failing on-site septic systems.

In 2017, the village hired an engineering firm in order to initiate the feasibility of constructing a wastewater collection and treatment system. As such, the village and their engineer evaluated several alternatives to construct a new wastewater collection and treatment system. The alternative ultimately selected was a centralized wastewater collection and treatment system consisting of a septic tank effluent pumping (STEP) collection system with an ORENCO AX-Max recirculating media filter treatment system. The estimated cost for the project was approximately $3 million.

In March 2018, the Village of Dexter City reached out to Ohio RCAP for assistance with project planning and funding assistance necessary to construct a centralized wastewater collection and treatment system. RCAP attended an initial Village Council meeting in May 2018 to present a funding scenario, review critical timelines, and build a relationship with the village. Starting in August 2018, RCAP began working with the village to leverage eligible funds. Grant funding for the project was critical due to the very small size of the village, low MHI ($33,393) and lack of development, and also due to the fact that there was no existing sewer or water utility. Throughout 2019, RCAP continued working with the village and funding agencies to identify and leverage funds. RCAP also assisted the village with establishing a sewer planning fee in order to obtain project design funding that was critical in meeting the timetable of funders, and met with the Noble County Commissioners Office to gather their support necessary for Community Development Block Grant (CDBG) funding.

In the spring and summer of 2019, RCAP worked with the village to hold three public meetings in order to review the project and proposed funding to local residents, and prepared funding applications for the Ohio EPA Water Pollution Control Loan Fund; Ohio Water Development Authority (OWDA) Unsewered Area Grant; and CDBG-Residential Public Infrastructure Grant. In the fall of 2019, funding was leveraged for the Village of Dexter City and construction was initiated in February 2020.

At the time this summary was written, the project was approximately 65 percent completed. Today, RCAP continues to work with the village by administering the CDBG RPIG Grant agreement as required by the Ohio Development Services Agency, and will assist low-to-moderate income property owners applying for hook-up assistance funding this year once they are able to connect to the newly constructed system.

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The Great Lakes RCAP Connection

Ruthann House
President/CEO

Kristin Woodall
Program Director

Alex Boroff
Production Designer

Great Lakes RCAP assists rural communities in developing and maintaining community infrastructure and meeting other community development goals to improve quality of life. Great Lakes RCAP is administered by Great Lakes Community Action Partnership and is a member of the Rural Community Assistance Partnership, a national network of regional non-profit organizations that provide comprehensive, on-site technical assistance and training to help small, rural communities address their drinking water, wastewater and other community development needs.

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GLRCAP Project Spotlight

Village of Dexter City, Noble County, Ohio

Synopsis

Dexter City received technical and leveraging funding assistance to build a wastewater collection and treatment system. Project affordability and significant savings to Village with entire grant funded project. Improvements in local water quality, public health and property value.

Leveraged Funds

• $1,700,551 Principal Forgiveness ODEPA WPCLF
• $750,000 OWDA Unsewered Area Grant
• $750,000 CDBG Residential Public Infrastructure Grant

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Great Lakes Community Action Partnership, Attn: Rural Community Assistance Program
P.O. Box 590, 127 S. Front St, Fremont, Ohio 43420
1-800-775-9767 • www.glcap.org/rcap
Indiana RCAP tackles contamination in recyclables

By Debbie Hackman
Solid Waste Specialist

In 2018, China eliminated imports of recyclable plastics and fiber from the United States due to contaminated shipments. Though the Chinese market had become one of the most lucrative and available markets for American material recycling facilities, little by little, cardboard shipments began to arrive with a few plastic bottles or film. Plastic shipments became riddled with “mixed” plastics and fibers. Eventually, the Chinese government decided it was no longer feasible for them to sort the contamination from the product and shut off imports from the U.S.

So where does this leave American recyclers today? It leaves them with loads of cardboard and plastic bottles stacking up in warehouses with nowhere to go. The number of domestic paper mills and plastic recycling facilities is not large enough to process all the recycling collected in the United States. While waiting for those markets to develop, prices dropped to the lowest in over a decade. Unfortunately, some municipalities have terminated their recycling programs. Many municipalities are seriously considering discontinuing curbside recycling. With prices for collecting recycling sometimes tripling the tipping fees at landfills, it doesn’t make financial sense to recycle. It costs less to land fill products than recycling them. It is difficult to justify recycling to those responsible for spending tax dollars wisely.

Recycling is, however, still the right thing to do. To buy a little time waiting for American markets to develop, many communities in Indiana have joined together to do the one thing that will reduce the amount paid for recycling to be processed: reduce the contamination in the recycling stream.

The contamination, which is often heavier than recycling, would be moved to trash and reduce the tonnage of the recycling. Contamination which often finds its way into recycling bins includes garden hoses, toys, lawn furniture, Christmas lights, Styrofoam, plastic bags, textiles and food waste.

To reduce the contamination in Indiana recycling, towns and cities are making a serious and statewide plea to the recycling public to clean up their recycling. Emphasis was made on #1 and #2 plastics, paper and cardboard, steel and aluminum cans and in some communities, glass bottles and jars. With the use of mailers, flyers, stickers, radio ads, local television ads, press releases and social media, Indiana recyclers began to see the contamination start to disappear. Because the state of Indiana utilizes the ReTrac recordkeeping system, it will be January 2021 before actual volumes can be quantified.

To assist with the financial commitment of the advertising and programming, the Indiana Department of Environmental Management (IDEM) made a special grant available to communities and solid waste districts. This community recycling grant is intended to increase recycling through improved programming and advertising campaigns.

Indiana RCAP Solid Waste Specialist Debbie Hackman assisted the Brown County Solid Waste Management District to successfully apply for the IDEM grant in order to purchase a forklift that will allow them to move sorted recyclables thus reducing contamination at the recycling facility.

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Everyday heroes keep water flowing in their communities

Safe drinking water is crucial for human life at all times and, during the COVID-19 pandemic, it is no more and no less critical. At the top of our unsung heroes list are our water and wastewater providers who are rarely, if ever, recognized outside our industry by the public. They were on the job yesterday, are presently on the job, and will be on the job tomorrow, ensuring we all get our 5-13 gallons of clean, safe water each and every day. Great Lakes RCAP wants to recognize these “water heroes” who are doing their part to serve their communities.

Michael Brothers

As is the case with many rural communities, the Bracken County Water District (BCWD) located in Brooksville, Ky., constantly strives to meet the many needs of their customers with the limited resources of their small district. Their already limited resources took a hit when, due to some unforeseen circumstances, BCWD lost some of their field staff just as the COVID-19 pandemic was hitting its stride. The district is now utilizing only one licensed distribution operator, Michael Brothers. With this severe understaffing, Michael has been working long hours to make sure that meters are being read, sampling and other requirements are being met, water emergencies are being addressed, and that BCWD continues to provide safe, potable water to its customers during these unprecedented times. Water operators have always been on the front lines of public health in our communities and that fact is never more true than now with our current “new normal” of social distancing and staying healthy at home. Michael is dedicated to providing this essential, life-sustaining service to his community and there is no doubt that he is an every day water hero.

Gary Mooney

Village of Naplate, Ill., has a USDA project for water and wastewater improvements. The village advertised for bids in February and by the time bids were due to be opened, Illinois was on a stay at home order. Mayor Gary Mooney instructed the engineer to advise all bidders to practice social distancing by not attending the bid opening for everyone’s protection. He wanted to stay within the established timeline in the permit process, so he decided to not postpone the opening. He utilized the Zoom platform, so that they could proceed with opening bids. Bids were opened and the project is moving forward. Also the village is continuing to use Zoom for their meetings in order to continue to conduct business. In addition, the village has waived late fees for water bills and ordered no water shutoffs for non-payment during this time.

He advised the water billing clerk to compile the past three years of water billed to customers and water receipts collected to determine the financial impact it may have on the future revenue stream of the water system, which is the starting point for any type of FEMA reimbursements. There is talk amongst the council to consider a reduction in their salary and they have established a spending freeze.

James Hoskins

While many of our small communities have suspended recycling services, Bell County Recycling Center, serving Ambleside, Frakes, Pineville, and Yellow Creek of southeastern Kentucky has managed to maintain daily operations after losing two-thirds of their staff to COVID-19 restrictions. Because of the understaffing, James Hoskins, Bell County Recycling Center manager/operator, is working overtime daily to keep up with collections. James is one of the few recycling centers in Kentucky fulfilling the increasing demand for Old Corrugated Cardboard (OCC) as commercial operations for producing cardboard have significantly decreased. James is an unsung hero to provide an essential service to our local people and environment, especially during this challenging time.

Eddie Lee

The City of Cloverport is a small town on the Ohio River and one full of heart. With a small workforce limited on supplies and equipment, the loss of their inmate work program as an essential resource has taken its toll. The four paid employees, two full-time and two part-time, are handling a larger workload now that the COVID-19 pandemic has put an indefinite end to using three inmates. Three of those four paid employees are pulled away to collect the city’s trash three days of each week. This leaves Eddie Lee, the public works director, to carry the rest of the workload during that time. Those tasks include fixing water leaks, collecting compliance samples for both water and wastewater, reading meters, completing meter rechecks, running the wastewater plant and completing necessary repairs, mowing, weed eating, as well as completing most work orders and other day to day activities needed around the city.

Eddie suffered a major heart attack in Sept. 2019 and was back on the job shortly after. He has obtained multiple licenses since then, to allow the city to move away from having a contract operator. Eddie has also been taking the online Sacramento courses in his personal time, working towards gaining the next level of license for drinking water distribution. The state has halted all operator certification testing currently and the results from the Sacramento Course are being processed slower right now, but Eddie continues to prepare for when he can proceed. He is the first to show up and the last to go home, he doesn’t complain, and works hard to maintain the water, wastewater, and general city needs even in times where social distancing is impractical, such as when fixing a major leak in a trench with the other guys. Eddie doesn’t look for recognition, and that is exactly why the city wants to ensure he is recognized for all that he contributes especially during the pandemic.
Lewis "Chip" West

Lewis "Chip" West is a seasoned veteran of the water industry. He has been the chief operator at the City of Fairmont for the past sixteen years. The City of Fairmont produces approximately six million gallons of water per day for its own use and wholesales to twenty public-water supplies in surrounding communities. RCAP has provided technical assistance to ten of the twenty systems. Chip has a long-term commitment to the viability of water systems in West Virginia. In understanding the depth of the challenges facing water utilities, he has made it his mission to engage Fairmont and the surrounding areas and tirelessly promote the importance of safe drinking water at every opportunity. After all the consecutive systems were out of compliance for disinfection byproducts, Chip initiated quarterly meetings to discuss treatment changes that Fairmont was doing to ensure that all systems were in compliance and working on a flushing program to incorporate a continuous flush from the plant throughout all of the systems. With his dedication and tenacity, all systems are in compliance and communication is at an all-time high. He has stepped up in the last two months to assist the consecutive systems, maintain contact with each system and compile a weekly summary with updates.

He created a pandemic preparedness plan and distributed it to the consecutive systems on March 21, 2020. The plan included chemical supplies with phone numbers, locations of all standard operating procedures, all critical personnel with phone numbers and email addresses from all consecutive systems; PPRV locations with normal operating pressures, along with sample locations in the consecutive systems; and general guidelines on keeping workplaces and employees healthy. Chip shared this document with RCAP so that we could distribute it to the other systems. He has supplied consecutive systems with cleaning supplies, hand sanitizer, and has his staff available if an emergency arises within one of those systems from field work to sampling. Chip has always stepped up the plate in any and all crisis situations. He always supported and worked closely with RCAP to provide training opportunities and meetings with use of his facilities. His pleasant nature, clear insight and guiding vision have garnered the respect and admiration of his staff, consecutive systems, primacy and RCAP alike.

Robert Capps

Robert Capps, general manager of the Monroe County Water District, routinely gives his systems a continuous flush from the plant throughout all of the operating pressures, along with sample locations in the consecutive systems; and general guidelines on keeping workplaces and employees healthy. Chip shared this document with RCAP so that we could distribute it to the other systems. He has supplied consecutive systems with cleaning supplies, hand sanitizer, and has his staff available if an emergency arises within one of those systems from field work to sampling. Chip has always stepped up the plate in any and all crisis situations. He always supported and worked closely with RCAP to provide training opportunities and meetings with use of his facilities. His pleasant nature, clear insight and guiding vision have garnered the respect and admiration of his staff, consecutive systems, primacy and RCAP alike.

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Jeff Dobson

In the midst of COVID 19 stay at home orders, southeastern Kentucky was struck on Sunday, April 12, with severe storms that knocked out electricity to residents in several counties. With no electricity and no generator at the regional water plant that sells wholesale water to six water systems as well as their own retail customers, one judge executive decided to provide a much needed essential resource to his residents during a time when staying healthy at home is crucial. Knott County Judge Executive Jeff Dobson provided bottled water to his residents who were quarantined in their homes after the storm kept residents without power for several days. He is a true hero in a time of great need.

"PFAS" from front page

Michigan has adopted the 70 ppt as the enforceable standard. Since 2018, the state of Michigan’s Department of Environment, Great Lakes and Energy (EGLE) began testing all community supplies across the state and is currently in the rule promulgation process to establish maximum contaminant levels (MCLs) for seven compounds, including reduced levels for PFOA (8 ppt) and PFOS (16 ppt). Much has been written about addressing this issue in public water supplies, but what does a community do when there is no community supply? The village of Pellston in Emmet County, Michigan was presented with this exact situation. As part of the Statewide Drinking Water Sampling Program in 2018-2019, EGLE sampled four locations in the village, including the Pellston public schools and the village hall. All four samples were non-detect. In January 2020, a Pellston high school science class was given PFAS sampling test kits from the organization, Freshwater Future, and sampled a number of residences in the village. The analysis of these samples was conducted by the University of Michigan Biological Station, one of which exceeded the proposed MCL. Once these results were provided to EGLE, a confirmation sample was taken within three days and results provided within seven days. These results were almost double that of the Freshwater Future results for that same location, which is in relatively close proximity to the airport.

Since then, EGLE has contracted with an organization that specializes in PFAS collection sampling. To date, 161 wells have been tested. Currently, a total of 72 locations have reported at least one PFAS detection in a private well, 15 of which have exceeded the 70 ppt limit. In addition, while collaborating with the Michigan Department of Health and Human Services (MDHHS) and the local health department, these locations have received vouchers for bottled water until point-of-use filters can be installed. To date, 39 of these have been installed and replacement filters provided. Public information meetings have been held and weekly update calls are conducted between the village, EGLE, MDHHS, district health, as well as other interested parties including local and federal legislators, Emmet County and the Little Traverse Bay Band of Odawa Indians.

So, back to the initial question: What does a community do when there is no community supply? First, at the local level, make contact with your primary agency and/or local health department regarding the potential risk to your community, especially if your community is near an airport/airfield, a major manufacturing site (past or present) that have used PFAS chemicals in their processes (remember grease/oil/fire resistant).

Second, Pellston understood that primacy needed to take the lead on this process. Trust that they are the experts. A prime example of this, if a potential risk is identified, EGLE knew the appropriate group to do the sampling. These are sophisticated tests that are hyper-sensitive and require certain protocols to be followed by those taking the samples in order to have the most accurate results. Pellston’s DPW helped identify additional wells for sampling and the fire department was assisting with the water distribution by setting hours for pickup and communicating those volunteers.

As an elected official or community employee, you are the constituents’ first contact with community concerns. Stay informed, stay engaged and rely on your partnerships as everyone’s goal is to keep your community safe.
The Great Lakes RCAP Connection

By Jack McIntosh
Technical Assistance Provider

One week before Christmas, I received a distress call from the small town of Davy which is located in southern West Virginia, right in the heart of the Appalachians. Their system has a customer base of 170 and the distribution is 12 miles of a variety of, you name it — they’ve got it: piping, very few valves and hydrants. The system has six households without water and another six with minimal pressure. The dedicated and devoted staff of two for the town was delivering water to the customers every day, sometimes twice a day throughout the outage.

The system has “old school” geophones for leak detection and staff were listening everywhere, in hopes of the Christmas miracle. Unfortunately, they kept coming up dry, despite their valiant efforts.

Recently, a company came in and installed guardrails along three miles of the system without any notice to the town. The town had already repaired a break caused by a guardrail post that had surfaced on its own. This new leak wasn’t surfacing and just so happened to be in the same three-mile stretch.

As a West Virginia TAP for the Great Lakes Region and having an attitude for success, I packed my bags and headed south. With my trusty leak detector that I normally use for training and a gut full of determination, I was not coming home until water was restored for Christmas.

During my six-hour journey into the mountains, I begin setting a game plan in my head of how to accomplish this mission and what obstacles would be in my way.

The first obstacle was that workers had already canvassed the area in question with no results in their leak detection efforts. My plan was going to be to re-canvass the low-pressure complaint area, just in case, then to pinch close the available valves to determine size and direction of leak. Next, I would check pressure in as many spots as we can. The worst case scenario would be the simple formula: no water + no pressure = no noise. My trusty leak detector wasn’t going to help in this situation! Of course, I was keeping a positive attitude and hoping this would not be the case.

The second obstacle was that the town has a limited supply of repair parts and money. So after we located the leak, available parts and valves for the repair could be a concern. My plan was to contact the neighboring utilities and suppliers to see what was available and how quickly we could obtain them, if needed.

As most dramatic and suspenseful stories go, the first day did not go well. We walked and listened to every foot of line with no noise present. We pinched the valves in the suspected area but the leak that we listened to and the pressure readings didn’t help much.

On the second day, we rousted up a valve, some pipe and clamps to split the three-mile area in half by installing a shut-off valve. We were able to acquire some spare parts from the neighboring system that was eight miles away along a stretch of road they call the “Head of the Dragon” which happens to be West Virginia State Coordinator Mary Huston’s favorite road in McDowell County.

After the installation of the valve, we determined the leak was on the latter half. The good news: six low-pressure customers were back to full pressure.

At dawn on Friday, December 20 (day three), Mayor Gentry took helm of the backhoe and James and De-