Rural Illinois resident and water expert investigate possible Legionnaires' cluster against stonewalling of state water authorities

James Brewer
20 September 2026

Beaverville, Illinois, a town of 300, some 80 miles south of Chicago, had been suffering smelly and disgustingly dark drinking water since last year. Kathleen Butron and other residents had been complaining about it and contacted ABC News, which reported on it last November and in April. According to the ABC team and the IEPA (Illinois Environmental Protection Agency) the darkness in the water was caused by high levels of manganese and iron. The state agency claimed to be working with the village to solve the issue, which they said was an aesthetic one and that despite its look and smell, the water was safe to drink.

Over the hot and humid summer however, the unpleasant looking and smelly water allowed the growth of deadly pathogens, particularly Legionella pneumophila (Lp), the bacteria responsible for deadly Legionnaires' disease. Tragically, in the midst of her battle to convince water officials to provide clean water, and before any scientific determination that the deadly bacteria was in her water, Kathleen and three of her family members contracted respiratory illnesses. Her mother-in-law, who was 87, succumbed with a diagnosis of probable pneumonia.

In March, Butron had written to the WSWS to request help after reading "An interview with Flint whistle-blower Miguel Del Toral." The response from this reporter included comments from Del Toral and Dr. Marc Edwards, renowned water expert from Virginia Tech who played a critical role in exposing the government wrongdoing in Flint, Michigan.

In response, Butron commented, "Unfortunately, speaking out about this has brought significant backlash and retaliation. When our situation began, I immersed myself in it to find answers and resolution. Nine months later, we are still facing ongoing water issues."

In early May, she contacted Dr. Edwards:

> I will be sending the sediment/particles for testing tomorrow. Words can't express our gratitude to you. We've been dealing with this for ten months now. It's been a nightmare. After the update aired last week, I discovered that the village applied for an "exception" to the violation received for improperly installed anthracite. One of the conditions for approval is that the village demonstrates that there are no issues with the quality of the water. The village lied when they stated there have been no complaints in months. USEPA receives daily/weekly videos/pics of our water.

In an email to this reporter, Edwards explains his initial contact with Butron:

> As you know, I consider one of my foremost responsibilities, to help consumers dealing with water problems, that seem to fall into regulatory or fiduciary gaps. About 98% of the time I end up telling people their water is crappy and/or expensive—confirming what they already know—but we cannot identify anything illegal or that poses a dangerous health threat.

The testing of samples by the VT team began in May and continued through the summer. Edwards reports that his team began to worry about the situation on analyzing the samples and "getting almost daily updates from our citizen science collaborator." Based on those updates from Butron, Edwards continued:

> It sounded like this case might confirm some of our worst fears based on very new research recent by my team in the lab. Specifically, dirty looking water might be a health risk. Of course we eventually proved that to be true in Flint, because in a few cases dirty water also meant high lead, and it also meant low chlorine that could allow Legionella to grow.
>
> In Beaverville we hypothesized that the rusty water (mostly iron and manganese) could also provide a good surface for Legionella and other pathogens to grow, and then get stirred up in the water heater before quickly passing to the shower. This is a new and somewhat controversial idea. We'd also heard rumors of growing concerns about increased Legionella throughout the state.

In July Kathleen and three of her family members got sick, all with respiratory illness. Kathleen and her husband went to an urgent care facility with a cough on July 4, the same day Margarita, her mother-in-law, was admitted to Iroquois Memorial Hospital in Watseka. Both Kathleen and Margarita were diagnosed with pneumonia. Margarita didn't get better. When she died, her body was cremated, since at the time, it was not suspected that her pneumonia diagnoses could have obscured possible Legionnaires' disease.

Less than a week after Margarita died, Kathleen emailed EPA withe subject line:"Today's Dark Water with LOTS of sediment 7/17/2026 - HELP - I'm seriously ill."

> I am very ill with pneumonia and concerned it could be Legionnaire's disease related to this contaminated water. We urgently need safe and clean drinking water provided to our household. What specific actions are being taken to resolve this?

> This situation is putting my household in peril. Please address it immediately!!

When Edwards' team in Virginia began to consider that the high levels of iron and manganese in the water could cause a growth of pathogens, they coordinated a trip to Beaverville for "an exploratory sampling event during the heat of summer." The VT team traveled to Beaverville on the weekend of August 22-23.

The very presence of the VT sampling team aroused the animosity of a local water functionary, who sought to intimidate them during the course of the visit, parking his vehicle nearby and taking photographs of everything they were doing.

The results were alarming. No residual chlorine was detected at either of the two homes tested. In addition, the level of Legionella pneumophila (Lp), the bacteria responsible for Legionnaires' disease, was 19 times greater than the immediate response threshold set by the Centers for Disease Control and Prevention (CDC).

Upon returning to the lab on the VT campus, Edward's colleague Dr. Tolulope Odimayomi recognized that the initial recorded level of Lp was at the limit of the test, so the sample was diluted and retested, resulting in a 600 percent increase in the Lp. This translated into an Lp level 129 times the CDC threshold for immediate response.

Because this finding suggested similar problems in other homes, Edwards shared the results with Region 5 of the federal EPA, who hosted a conference call a week later, on August 31. Edwards' team and Butron both attended, along with the federal EPA and the IEPA, for a presentation of Dr.Odimayomi's results. The meeting convinced Edwards and Butron that they wouldn't get the cooperation of the IEPA. Using the data acquired from the VT sampling, Butron composed a comprehensive appeal to state and county health authorities titled "Urgent request to open a community legionellosis cluster investigation," dated September 2.

In a supporting introductory email he provided, Edwards recounted the August 31 conference call:

> I can only characterize [it] as disappointing. I did not initially believe the residents when they stated IEPA was not trustworthy. I went into the call hoping they would show concern and scientific curiosity. At a minimum I expected them to at least fake such concern and curiosity.

On the conference call the IEPA took an "irresponsible attitude" which Edwards describes as "every bit as arrogant and offensive as that exhibited by MDEQ [Michigan Department of Environmental Quality—the state agency responsibility for drinking water] towards residents of Flint in 2015." The victim herself was repeatedly blamed for the spike in Legionella, using a highly implausible technicality.

"Butron bought a reverse osmosis system to protect herself from the dirty water. IEPA claimed it contaminated her water supply," an allegation Edwards says is "absurdly unlikely."

In addition, Edwards was then accused of trespassing by an IEPA team member for pacing out the 100 meter distance between the home's hose bib, where the water was tested for chlorine, and the city's well house. An IEPA representative claimed this supposed transgression had caused the "subsequent anger and intimidating actions of an individual allegedly operating the town water system." According to Illinois law, walking on a public lawn is not trespassing, unless signs stating as such are posted. No such signs were present, but they were suddenly posted after Edwards' visit.

Edwards describes the heart of the matter:

> They [IEPA] dismissed the fact I could not get detectable chlorine at her hose bib even after flushing for 40 minutes. They then point blank refused to consider testing total chlorine at Ms. Butron's residence, to confirm or refute our data, before asserting the law required them to do nothing about Legionella. I then asked what the law said about delivering a detectable chlorine residual and they claimed to have another phone call and hung up.

Butron's appeal was directed to the administrators of the both the Illinois Department of Public Health and the Iroquois County Public Health Department. She wrote as "a Beaverville resident and as next of kin." She explained that the Virginia Tech team had sampled her home and a neighboring residence and briefed both the EPA and IEPA of their results.

In addition to the alarming lack of any residual chlorine in either house, ammonia averaged 5.30 mg/L (milligrams per liter). Combined, these measurements indicate a problem with the water system's chloramination process, where both chlorine and small amounts of ammonia are added to the water one at a time, reacting together to form chloramine, a disinfectant that is normally long lasting. In Beaverville the disinfectant was completely disappearing in the approximately 100 meter distance to Butron's home.

The high levels of iron and manganese in Beaverville's water distribution system are not simply an aesthetic issue, but because chlorine is a strong chemical oxidant, these dissolved or reactive metals destroy it so that it can't perform its function of killing harmful bacteria. In the heat of the summer, the rate of the reaction can increase, allowing Lp bacteria to grow. Legionellosis (Legionnaires' disease) is not contagious, but is only contracted through the inhalation of the pathogen when it is vaporized as it would be in the steamy water of a shower head.

Butron enumerated the failure of water officials to pursue a study or even admit to any deficiency in the treatment of the village's water. She also pointed to the likelihood of the illness and death in her family being related to the growth of Lp in the water and that "residents were told for a year that [the problem of] dark, odorous, sediment-laden water was 'aesthetic' and that they should not drink it. No one warned us that showering could be the exposure."

Butron's demands were itemized clearly. First, an immediate investigation as a community-wide legionellosis cluster. Secondly, include illnesses that had been diagnosed as pneumonia as probable cases of legionellosis. Third, sample other residences beyond the two that the Virginia Tech scientists sampled. Fourth, issue immediate public health guidance warning that showering or any aerosol-producing water usage could be dangerous. Fifth, coordinate with EPA Region 5 under the emergency powers provided under the Safe Drinking Water Act. Lastly, that no investigation should be closed as a single-home plumbing event until issues were resolved community-wide.

Although initially the water issues in Beaverville were reported as "aesthetic issues," Butron's assiduous investigation led to augmenting a collective understanding of the water infrastructure in the US. In the initial response to Butron, this reporter obtained and forwarded comments from both Del Toral and Edwards on rural water systems. Del Toral wrote:

> The overwhelming number of public water systems serve 3,300 people or less. Last I recall, they constituted around 83% of all public water systems. With little funding available, they have the vast majority of the violations. At times they cannot even afford to pay system operators so they have volunteers. Even for the paid operators, the turn-over is non-stop. They either leave because they're not paid timely or they only stay until they can find a

better job.

State funding usually goes to systems with health-based issues (arsenic, radionuclides, nitrate, bacteria MCL [Maximum Contaminant Level] violations). Rusty, stinky water is gross, but the State usually reserves the bulk of the funding for fixing health-based problems.

Also included in the response were comments from Edwards, whom Butron subsequently contacted for help:

Yes, it is indeed a big problem. There is nothing illegal with smelly, distasteful and dirty water. I work with dozens of systems with these problems. The CNN documentary discussed this at some length. Dirty Water: Danger From the Tap.

The WSWS reporter related that Edwards, who appears in the CNN documentary, described the water systems in these rural communities as “not adequate for 20th century standards, much less 21st century.”