The Roanoke Times - Virginia Tech water study team faces financial struggles

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By Robby Korth robby.korth@roanoke.com 381-1679

BLACKSBURG — The Virginia Tech professor who helped expose elevated lead levels in Flint, Michigan, water said he would continue fighting for safe water, though it's becoming increasingly difficult because of financials.

Marc Edwards, dubbed a "hero" professor by national media, announced during a news conference Tuesday that March testing by a Virginia Tech study team revealed that lead and iron levels have dropped in the city, but residents need to take more action to make them safe again.

After the news conference, Edwards said work his team did to expose a water crisis in Flint has ended up costing his lab $250,000 plus the equivalence of five years' worth of work hours. He also took a semester off from teaching classes and hasn't had time to apply for funding for his lab's work, essential duties of a tenured professor.

"Why I haven't been fired by Virginia Tech I'm not really sure," Edwards joked. "They seem happy so far so I'm glad I still have my job.

"But I haven't been able to write grants."

Those grants are the lifeblood of Edwards' work, but in the year he's been working on the Flint study, he said he's been unable to apply for more and his lab's funds are running dry. The team has raised just shy of $100,000 on a GoFundMe page and gotten a National Science Foundation Grant worth $33,000. The lab, with personnel and equipment upkeep, requires $850,000 annually to operate.

Edwards said he and others involved in the Flint study are gauging interest in doing a similar project in Philadelphia. There are some initial similarities between Philadelphia and Flint, Edwards said.

Kelsey Pieper, a postdoctoral researcher on Edwards' team, is also looking at investigating lead levels in private wells in New York and North Carolina. That's on top of work by Tech research scientist Jeff Parks analyzing lead-testing kits distributed by nonprofit Healthy Babies, Bright Futures.

"We could not do what we did in Flint again today because I'm just not as financially strong as I was," Edwards said. "You have to be in a very strong place financially."

That doesn't mean the work in Flint hasn't paid off, he said.

"We're not complaining," he said. "This was priceless. We'll go to our graves knowing we stood up for Flint kids when no one else could or would."

Work in Flint, though, still needs to be done.

“The system is definitely on its path to recovery,” Edwards said. “But we need to get more water running through the system.”

Edwards recommended Flint residents continue to use lead filters or drink bottled water. Testing completed last month determined lead and iron levels in the water are dropping, but residents need to use more water to flush amassing contaminants in pipes and water mains.

Pieper said it’s also important that Flint residents run their water to make sure that the infrastructure can “heal.” Lead particulate is built up in the pipes, and running water will help dislodge some of that excess lead and essentially rinse it from the system, she explained.

In March, researchers took 174 samples from homes sampled in 2015. Their results showed drops in lead amounts in many of the homes, Pieper said. However, in some homes there were still high levels of lead, Pieper said.

According to Edwards, the team will continue to monitor the situation. Right now, they’re planning for another round of testing in August.

“We’re the only ones with access to this data,” Edwards said.

The group of 25 researchers from Blacksburg has traveled to Michigan five times to analyze the tap water and then worked to make their findings public after they were ignored by government agencies. The work has resulted in national attention on water infrastructure, a state of emergency, resignations and a switch back to an old water system.

Flint’s water had been contaminated with lead since 2014, when the city began getting its water from the Flint River as a cost-cutting measure. The water was then not properly treated to prevent lead in pipes from running through residents’ taps. It has also been revealed that the water issues also could have caused a high number of Legionnaires’ disease cases — including nine fatalities, Edwards said — in Flint.

Edwards, once again, blamed bad work from governmental agencies for the problems in Flint.

The Michigan Department of Environmental Quality and federal Environmental Protection Agency did little to nothing to help people in Flint as taxpayers funded their salaries and work, he said.

“We’re all paying a horrible price for corruption and this culture where the agencies are not serving us,” Edwards said. “That’s what Flint has shown.”

Making sure that science can help people is the most important takeaway from the Flint study, Edwards said. His hope is that he can help the public regain trust in science and stop federal agencies from betraying the public because of their own interest, he said.

Edwards said he needs to apply for grants and find ways to gather more money to continue his mission as a faculty member of Virginia Tech.

“It always works out for me,” Edwards said. “If you have to sit there and ask yourself how it’ll work out you’d never get anything. So what you’ve got do is follow your heart, do the right thing and figure it out later.

“But at the same time, there are limitations that ultimately you can’t ignore.”