

Inquiring Minds Topic---March 18. 2016

Melissa Butler, Moderator

What Can We Learn from Flint's Water Crisis?

- 1) **What does the Flint water crisis tell us about government? Does it show the danger of “running government like a business” or the inability of government to solve problems?**
- 2) **Did the crisis result from a series of unfortunate decisions showing poor judgment by individuals or did it stem from systemic causes?**
- 3) **If Flint is the “canary in the coal mine,” how can the US deal with its decaying infrastructure?**

Jessica Mendoza, “Flint crisis: a cautionary tale about America’s water supply” *Christian Science Monitor*, January 13, 2016

The lead poisoning crisis in Flint, Mich., demonstrates the consequences of quick fixes in the face of financial woes, experts say. But it also is exposing a greater need in cities around the country.

Samuel Smith is happy to receive a case of bottled water and a new water filter at his home on Mallery St. in Flint, Mich., as volunteers accompanied by Michigan State Police and Genesee County Sheriff's Deputies bring residents water filters and bottled water on Tuesday. Volunteers and police carrying bottled water, filters and lead test kits knocked on doors in Flint on Tuesday, seeking to help residents in the Michigan city that's confronting a water crisis. (Dale G. Young/The Detroit News via AP)

Michigan Gov. Rick Snyder (R) mobilized the National Guard late Tuesday to help dispense filters and water bottles in Flint, as state and local officials struggle to deal with the city's water crisis a year and a half after it began.

The order is meant to boost aid to Flint residents, whose tap water was tainted with lead after the city changed its source of drinking water in 2014 in an effort to cut costs. On Oct. 1 – more than a year after the switch and after test results revealed that children had elevated levels of lead in their systems – Michigan officials declared a public health emergency.

The crisis is emblematic of the consequences when local leaders seek quick fixes in the face of financial troubles, experts say. That's especially true in Flint, where the deficit soared as high as \$19 million in 2012 and about 40 percent of the population fall below the poverty rate.

But the city's drinking water disaster also stems from a conundrum both deeper and broader in scope, water policy experts say. Decades of inadequate replacement and repair of aging water infrastructure has resulted in a nationwide problem that cuts across income brackets and city lines. These water systems need to be replaced – at a cost of perhaps \$330 billion nationwide.

“Flint is a microcosm,” says Robert Glennon, a professor of law and public policy at the University of Arizona in Tuscon and author of the book, “Unquenchable: America's Water Crisis and What To Do About It.” “The maintenance of water systems and wastewater systems is not just an urban problem, or a problem for places with low-income residents. It's a problem all over the nation that needs to be addressed.”

Addressing it isn't going to be cheap – but it's essential to public health and safety. And for cities like Flint, one of the poorest in America, that becomes an added challenge.

“You've got to keep in mind – the requirements are the requirements whether you're a growing, prosperous city or a city with a lot of low-income residents and people moving out,” says Adam Krantz, chief executive of the National Association of Clean Water Agencies (NACWA) in Washington, D.C. “You have to do what everyone is doing, but without the same capacities.”

Flint's tainted water

The crisis in Flint, some say, is partly a result of a leadership struggling under financial strain.

In 2013, Flint city officials voted to stop buying water from Detroit – which it had been doing since 1967 – and join a new pipeline project that would source water from Lake Huron. Officials estimated the

switch would save the city \$19 million over eight years, but the project wasn't due to be finished until late 2016. Detroit, meanwhile, was set to shut off its water supply to the city in the spring of 2014.

City leaders announced that until the pipeline was completed, Flint would pump water from the Flint River to the city's water plant, where it would be treated before being distributed. The switch occurred on April 25, 2014 – and complaints quickly poured in from residents, who noted a bad taste and odor in their tap water.

Then-Mayor Dayne Walling and emergency manager Darnell Earley maintained the water was safe, according to MLive.com. But the problems mounted: Fecal coliform bacteria was found in the water four months after the switch, and later, high levels of trihalomethanes (TTHM) – a chemical compound that, over time, is known to cause a range of medical issues – were also discovered. The city issued boil-water advisories but declined Detroit's offer to reconnect to its water supply.

Soon, residents began reporting rashes, hair falling out, and headaches, especially among children.

In the fall of 2015, Virginia Tech professor Marc Edwards confirmed it was the water: Tests from local samples found that supply from the Flint River was more corrosive than Detroit's, and ate away at the lead in the city's underground pipe system. Ten percent of homes in Flint had 25 parts per billion (ppb) of lead or more, exceeding the Environmental Protection Agency's (EPA) recommendation of lead levels at or below 15 ppb, the study found.

What's more, "Several samples exceeded 100 ppb, and one sample collected after 45 seconds of flushing exceeded 1000 ppb," Dr. Edwards and his colleagues wrote on their study's website. "Flint has a very serious lead in water problem."

Following the release of the results, Michigan officials declared a state of emergency. In late December – after months of defending the safety of Flint's water supply – Governor Snyder issued an apology.

"I want the Flint community to know how very sorry I am that this has happened," Snyder said. "And I want all Michigan citizens to know that we will learn from this experience ... I'm taking the actions today to ensure a culture of openness and trust."

...Flint residents have said they feel betrayed. "It's sad, it's frustrating, it's irritating because it's like nobody cares," Elena Richardson, whose pediatrician told her the tainted drinking water may be behind her children's symptoms, told CBS News.

While state and municipal leaders' initial decision to switch water sources out of financial need may have been understandable, their inaction amid residents' concerns following the shift was inexcusable, says Erik Olson, senior strategic director for the Natural Resources Defense Council's health program.

"There's no more fundamental government service than providing safe water for your citizens – and if you can't do that, you're not doing your job," says Mr. Olson, who since the 1980s has worked on issues around drinking water safety, including as general counsel for the EPA.

"Yes, you can say you're saving money by switching water sources," he continues. "But in the long-run, if you have kids that are lead-poisoned across the city, how much is that going to cost?"

The value of water

Flint, some experts say, is illustrative of a larger problem. Poor asset management, shrinking federal and state budgets, and a lack of political will to address the issue over decades has left the US with deteriorating water and wastewater systems – some dating back to the Civil War era – in urgent need of repair and replacement.

With more than one million miles of water mains across the country, the cost of restoring and expanding them to serve a growing population could cost up to \$1 trillion over the next 25 years, the American Water Works Association (AWWA) estimates. The EPA's forecasts are more conservative – an investment of just over \$330 billion over 20 years – but even those remain well above the \$1.38 billion state and local governments are spending annually on drinking water and wastewater infrastructure, the American Society of Civil Engineers reports.

At the heart of the issue, some say, is how Americans value water.

“In many ways, drinking water utilities have been a victim of their own success in providing safe and reliable service,” says Greg Kail, the AWWA’s director of communications. As the infrastructure starts to fail, however, and federal funding remains stagnant, the burden to pay for repairs has moved increasingly to state and local agencies – and to customers.

Already an issue that politicians tend to shun – “No elected official wants to run on a platform of, ‘I fixed your sewer system,’ ” says Professor Glennon – raising the price of water is a tough proposition to Americans who for generations have been able to retrieve safe, clean drinking water from their taps.

“If you consider what the water infrastructure provides, you’d be hard pressed to find a more essential service. But it’s simply not something that we think about every day,” Mr. Kail notes.

That attitude may be changing, as the consequences of neglected water systems become more apparent: In Flint, it’s poisoning from lead in old pipes. In Toledo, Ohio, it’s harmful algal bloom, a result of defective septic systems and runoff of over-fertilized fields. In Los Angeles, it’s a pattern of water main breaks due to pipes that are more than 80 years old.

“This issue increasingly is being brought up by mayors and city councils across the country, and affordability concerns are front and center,” says the NACWA’s Krantz.

In response, some cities are launching initiatives to upgrade their water systems, as well as developing sustainable funding mechanisms to aid those efforts. Chicago, for instance, is in the middle of a 10-year plan, begun in 2012, to replace 900 miles of century-old pipes throughout the city – a project financed in part by cutting payroll at the Department of Water Management, raising water rates, and partnering with private contractors.

Next door to Flint, the city of Burton – using the state of Michigan’s revolving fund for drinking water infrastructure projects – has likewise begun to replace its 1930s water mains, but with cheaper, non-corrosive, environmentally-friendly PVC pipes. The effort received an award from Genesee County in November.

In the end, different cities will need to respond differently depending on their own needs, says Krantz. Once Flint has safe drinking water again, leaders there will need to think about how to finance a long-term effort to upgrade the city’s infrastructure, he notes.

Citing a decline in federal funds since the 1970s, Krantz adds that the federal government will need to step in to provide support. That’s particularly true in areas with large low-income communities like Flint, Krantz adds.

Whatever the case, what’s clear is “we can’t stay on the path that we’re on,” says the NRDC’s Olson. “This is clearly a nationwide problem and we do need a national solution.”

Jessica Mendoza, “Flint water crisis reveals limits of running a state as a business,” *Christian Science Monitor*, January 20, 2016

The Flint water crisis, for which Gov. Rick Snyder apologized Tuesday during his State of the State address, highlights deeper issues tied to the way governments run states.

Michigan’s governor did something highly unusual Tuesday night: He apologized to a city.

“I’m sorry and I will fix it,” GOP Gov. Rick Snyder told the people of Flint in his State of the State address. “Government failed you at the federal, state and local level.”

Governor Snyder spent much of his address taking on the water crisis in Flint, where more than 8,500 children have been exposed to lead after the city, in a cost-saving measure, began pumping its supply from the Flint River in 2014. The corrosive water caused lead to leach out of pipes. Although the city switched back to sourcing its drinking water from Lake Huron in October, the water remains unsafe to drink.

In his speech, the governor, who has long billed himself as taking a pragmatic, business-like

approach to challenges in his state, laid out a plan to fix the problem – even as protesters called for his resignation outside the Michigan Legislature in Lansing.

The crisis, however, reverberates beyond Michigan and heralds more than just trouble for Snyder’s political career, some say.

Indeed, the situation in Flint – coupled with Michigan’s other financial woes – points to deeper issues tied to the way governments run states, particularly in times of financial distress, political experts say. And in Michigan – where rocky relations between a GOP-controlled state and often Democratic local agencies compound tensions between the governor’s office and the more hard-line Legislature – such issues are thrown into sharp relief, they add.

The water crisis underscores the limitations of an entrepreneurial method of governance in a way that could resonate beyond Michigan, says Thad Kousser, a political science professor at the University of California in San Diego.

“What this crisis points out is one of the limits in running a government as a business,” says Professor Kousser, whose research focuses on state politics. He notes that since the Great Recession, other states have attempted to apply business principles in an effort to avoid tax hikes: In 2009, then-California Gov. Arnold Schwarzenegger put forward a contested proposal to sell off state landmarks to erase a \$24 million budget deficit.

Arizona lawmakers, too, sold buildings in its state capitol – along with a slew of other state properties – in a desperate push to balance its 2010 budget.

In Flint’s case, Kousser says, the problem stemmed from what appears to have been a trade-off between cost-cutting measures and public health.

“The private marketplace works because of competition, but governments often have monopoly,” he notes. “When Volkswagen screws up, you can buy a Ford. But when lead starts coming out of your tap, you can’t just turn on another tap.

“I don’t think it proves a general point that governments can’t be run like a business,” Kousser adds. “But it shows some of the things you risk when you do.”

The business of governance

Flint is a once-thriving Michigan city whose growth paralleled that of the auto industry. After General Motors closed or relocated its plants in the 1980s and ’90s, both the city’s population and economic prospects declined. Today, roughly 99,000 people call Flint home, with 40 percent of the population living below the poverty level.

In recent years, the city’s debt spiraled, leading the state to declare a financial emergency. Since 2011, Snyder has appointed five emergency managers to grapple with the city’s finances.

The decision to switch the water to the Flint River came during the tenure of emergency manager Darnell Earley. After months of Flint residents being told the water was safe by the Michigan Department of Environmental Quality, a Virginia Tech professor’s research uncovered elevated levels of lead in the water last fall. On Saturday, a Flint Journal Freedom of Information Act request uncovered a possible link between Flint’s water and an outbreak of Legionnaire’s disease that killed 10 people.

Federal and state investigations have been launched into the water crisis and donations of bottled water are pouring into the Great Lakes city from everyone from Cher to churches and mosques to ex-convicts. President Obama signed a federal emergency declaration last week, freeing \$5 million to help the city, and announced this week that he is appointing a water czar for Flint.

“The Flint water crisis happened because of a series of very bad decisions taken because of a toxic political climate,” writes Jenna Bednar, a research professor at the Center for Political Studies at the University of Michigan’s Institute for Social Research in Ann Arbor, in an e-mail to the Monitor. “Snyder’s business-like approach [to governance] values the bottom line. The bottom line here is that responsibility for creating that toxic decision-making environment belongs with the Legislature as well as with the governor.”

Snyder, a Republican, is a former tax accountant and venture capitalist who in 2010 campaigned on the promise that he would use business principles to pull Michigan out of financial difficulty. The approach has seen some successes, most notably the 2014 deal that helped haul Detroit out of the largest municipal bankruptcy filing in US history.

But Snyder's strategy also has run into potholes, Michigan political experts say. In trying to rebuild the state's infamous roads, for instance, Snyder pushed to raise funds for repairs in a bid that pitted him against more ideologically conservative legislators, who wanted to address the issue without raising taxes. The resulting ballot proposal in 2012 was a convoluted piece of legislation that lost "by the largest margin in recent history," Dr. Bednar wrote.

"Good businesses plan beyond the next quarterly report," she writes. "Snyder tried with mixed success to create support for long-range investments for Michigan."

Reassessing state-local relations

Both the governor and the Legislature now appear united in a desire to help tackle Flint's water crisis.

Indeed, the Republican head of the House Appropriations Committee told the Detroit Free Press that he expects full support for Snyder's request for \$28.5 million to cover immediate needs in Flint, including the cost of filters, bottled water, and additional troops from the Michigan National Guard.

Some political observers urge a closer examination of the top-down approach to governance that the state imposes on municipalities – especially those in financial trouble.

"The complexities here have more to do with the general state-local relationship," says Matt Grossmann, director of the Institute for Public Policy and Social Research and an associate professor of political science at Michigan State University in Lansing. "The decisions were made at times when Flint was being managed by [state-appointed] emergency managers. A review of that policy and its implementation here is warranted."

Under Michigan law, the state can appoint an emergency financial manager to a municipality in financial crisis. The manager, tasked to take charge of the city's finances, is accountable to the governor and the legislature.

But following the Flint crisis, advocates and residents have called the policy into question, noting that the dubious decision to switch the water supply from Detroit to the Flint River was done under emergency manager Darnell Earley.

To some, the decision reveals a lack of understanding, on the state's part, of the value of engaging communities during times of crisis – a mistake that they see the state already repeating in Detroit, where Mr. Earley is now in charge of reforms to the beleaguered Detroit Public School system.

On Wednesday, 88 Detroit schools were closed as a result of a teacher sickout. Organizers say the sickouts, which have been ongoing this month, are designed to draw attention to the dire state of some buildings – problems include buckling floors, mold, mildew, and a lack of heat in some classrooms.

"We need a better approach to state and local relations in general," says Eric Scorsone, associate professor and founding director of the Michigan State University (MSU) Extension Center for State and Local Government Policy. "Communities are where the hard work happens, where quality of life is created or destroyed. The state needs to take a more proactive approach" in reaching out to municipalities.

"We need to have a serious assessment of our governmental operations," he adds.

Some states, such as New Jersey and Pennsylvania, have developed policies that could serve as models for state-local cooperation, Dr. Scorsone notes, citing an August 2015 MSU report on state takeovers during times of financial crisis. Those vary, but all stress working in a greater spirit of collaboration.

In some ways, "Michigan's economic and demographic difficulties make public policy choices more difficult and make errors more calamitous," writes Dr. Grossmann in a follow-up e-mail to the Monitor.

But making a point to understand and respond to the specific needs of residents in ways that foster

cooperation is a principle that all states can apply, Scorsone notes.

“We need to remember that government is not a business. It’s supposed to be there to protect health, safety, and welfare of the people,” he says. “This may be a good wake-up call.”

Shikha Dalmia, “Flint's water crisis isn't a failure of austerity. It's a failure of government.” *The Week* January 22, 2016.

Flint, Michigan, near where I live, has become a national scandal for distributing lead-laced water to its residents for 16 months. Lead poisoning, especially among children, is linked to irreversible brain damage, violent behavior, Legionnaire's disease (a form of pneumonia), and numerous other health problems. That such a Third World-worthy disaster should happen in a rich country like America is shocking and shameful but its root cause is not a cheapskate Republican governor hell bent on imposing a diet of austerity on a struggling city, as many liberals have concluded. It is that entrusting government, which failed spectacularly at every level, to protect the health of its citizens is dangerous naivety.

It is true that the debacle happened on the watch of an emergency manager whom Republican Governor Rick Snyder appointed in 2011 to help this Rust Belt city, built before Michigan's auto industry (literally) went south, balance its books and avoid bankruptcy. After decades of fiscal mismanagement by local leaders, Flint's \$1.1 billion unfunded legacy obligations and dwindling population base was making it difficult to fund city services and day-to-day operations. At the same time, the city was re-negotiating a 30-year contract with its water supplier, the Detroit Water and Sewage Department.

Facing future rate hikes as well as greater liability for stranded costs — i.e. how much of the bond payment for upgraded infrastructure Flint would be on the hook for if it prematurely quit the contract — Flint in 2013 decided against renewing its Detroit contract. It opted, instead, to switch to a new regional system drawing water from Lake Huron that was offering cheaper rates and better terms.

There was no disagreement among any of the stakeholders that this was a sensible move for a city desperately looking to control costs and pay its bills. However, since the Huron system wouldn't be up and running for a few years, in the interim a fateful decision was made to reopen a mothballed Flint water plant that relied on the polluted Flint River rather than pay the extra \$10 million in higher rates over two years that Detroit would charge for a temporary contract.

There is a big dispute about who exactly made the call to immediately disconnect from DWSD (Snyder released e-mails Thursday to shed light on this and other concerns). Regardless, the move has elicited howls of protest against Gov. Snyder and his fiscal conservatism. "This is what Snyder does not understand," the liberal *Detroit Free Press* lectured while questioning its endorsement of the governor: "To lead a state, accountancy is not sufficient. To lead the state, a balanced budget is not sufficient...He has got to see people, not sums, as the bottom line of the state balance sheet." Meanwhile, a headline in *Vox* declared, "Flint, Michigan, tried to save money on water. Now its children have lead poisoning." And *The Week's* Ryan Cooper has accused Flint of poisoning its own residents to save a few bucks. "This is a stark demonstration of austerity's false economy," he maintains.

But this is tantamount to blaming a car crash on the driver's failure to lease a Mercedes rather than the reckless use of his vehicle — the driver in this case being the government.

There is no doubt that because Flint was using Flint River as its source, it needed to be extra cautious to ensure water quality. Instead, it ignored even elementary controls.

Residents started complaining about the taste and color of the water right after the switch in April 2014. The city denied anything was wrong, but later discovered that the water contained a higher-than-recommended concentration of TTHM (trihalomethanes) — a byproduct that is generated when too much chlorine is required to disinfect the water. This, along with some other issues, prompted General Motors to quit the Flint water system after its auto parts started corroding. Yet Democratic Flint Mayor Dayne Walling was still telling residents the water was safe, even advising them that buying bottled water

would be "wasting their precious money."

After the initial botch up, one would think the authorities would have woken up, especially since these early problems were a harbinger of lead poisoning, among the worst possible things that can happen to a water system. That's not because the Flint River itself contains lead. It's because when acidic, chlorinated water flows through pipes, it destroys their coating, allowing lead to leach in. This is a totally avoidable problem whose cure was not necessarily to return to more expensive Detroit water. Rather, it was to simply add phosphorous to the water, something that could be done for as little as \$50,000 annually, well within the means even of a cash-strapped city, sources knowledgeable about the problem maintain.

But instead of doing this, the Michigan Department of Environmental Quality and the federal Environmental Protection Agency that oversees it started a year-long Sherlock Holmes-style investigation.

Indeed, the EPA totally blew off the suggestion by its water expert Miguel del Toral to add corrosion control treatment as far back as last June. At around the same time, an aide of Gov. Rick Snyder raised concerns about excessive lead levels with the DEQ, and was assured that everything was just peachy.

One reason why the DEQ didn't take the aide seriously is that its own lead tests didn't show any problems. But these tests were based on an EPA standard that allows taps to be flushed for five minutes the night before water samples are collected. Never mind that's not what most people do before making their morning cup of coffee, so such samples don't accurately reflect the actual quality of water they are consuming. As if this was not bad enough, even after realizing last summer that the DEQ really should be doing phosphorous treatment, the EPA didn't go public with its concerns and warn residents for fear of stepping on the toes of local authorities. The regional EPA head, Susan Hedman, who opted to do nothing, resigned yesterday.

But not only did the DEQ-EPA duo totally drop the ball, the Michigan Department of Health and Human Services did too. It dismissed tests by its own epidemiologist showing elevated lead levels in blood streams of children shortly after the switch to Flint water as a "seasonal anomaly."

It was not until late fall when independent water tests by Virginia Tech Professor Marc Edwards and blood tests by Flint's Hurley Children's Hospital pediatrician showed spiked lead levels in both — and state tests confirmed the results — did authorities hit the panic button and Gov. Snyder declare an emergency.

Snyder is (rightly) calling Flint his Hurricane Katrina and has requested \$28 million in state funding to fix its problems (and President Obama just agreed to release \$80 million). This figure will almost certainly balloon as the state is forced to settle the class-action lawsuits that are already underway. This means that state and federal taxpayers will now be on the hook for a problem they didn't create and that Flint residents didn't deserve to suffer.

In short, the problem that could have been averted by less than a hundred thousand dollar investment will now end up costing hundreds of millions without ever being able to undo the damage to the health and lives of Flint residents. This is not the fault of government austerity — but government incompetence, negligence, and rank stupidity on the very part of those agencies that are entrusted with public health. And there is no amount of government spending that can fix that.