

POISON IN THE WATER

Using a local water supply was supposed to help the struggling city of Flint, Michigan. Instead, it exposed tens of thousands of people to toxic chemicals. How did this happen?

BY BRYAN BROWN



For months, government officials denied that anything was wrong. In April 2014, Flint, Michigan, switched to a new water source, the Flint River, to save money. Almost immediately, residents began complaining about the water coming out of their faucets. It was orange or brown and smelled disgusting. People developed rashes or headaches. Some lost clumps of hair in the shower. Yet for a year and a half, the Michigan Department of Environmental Quality (DEQ), the agency responsible for the safety of the state's drinking water, insisted there was nothing to worry about.

But Flint residents pushed for answers. Dr. Mona Hanna-Attisha, a pediatrician, ultimately brought the emergency to light at a press conference last September. After analyzing the blood tests of children in the community, she found that the number

of kids with elevated levels of lead in their blood had almost doubled since the water switch. Lead is a toxic metal known to cause permanent brain damage, especially in young children.

Within a week, Michigan Governor Rick Snyder finally admitted there was

a crisis and told residents not to drink the water without filtering it. Flint River water, officials now say, is highly corrosive. As it moved through the city's aging pipes, many of which contain lead, it ate away at them, absorbing the toxic substance before pouring out of showerheads and kitchen faucets.

On October 16, 2015, Flint switched back to its previous water supply. But by then, the damage had been done. Lead pipes throughout the city are now so corroded that unless replaced, they'll likely continue to deposit lead into the water, regardless of the source.

Underscoring the severity of the situation, President Barack Obama declared a state of emergency in Flint in January. "If I was a parent [there], I would be beside myself that my kids' health could be at risk," he remarked days later. "It is a reminder of why you can't shortchange basic services that we provide to our people."

Now lawmakers and citizens around the country are asking: How is it possible that the people of Flint were failed so miserably? →

A black and white photograph of a hand holding a large plastic jug. The jug is filled with water, and a dark, sludgy layer is visible at the bottom. The background is dark. Five callout boxes with white text and curved lines pointing to the jug are scattered around the image.

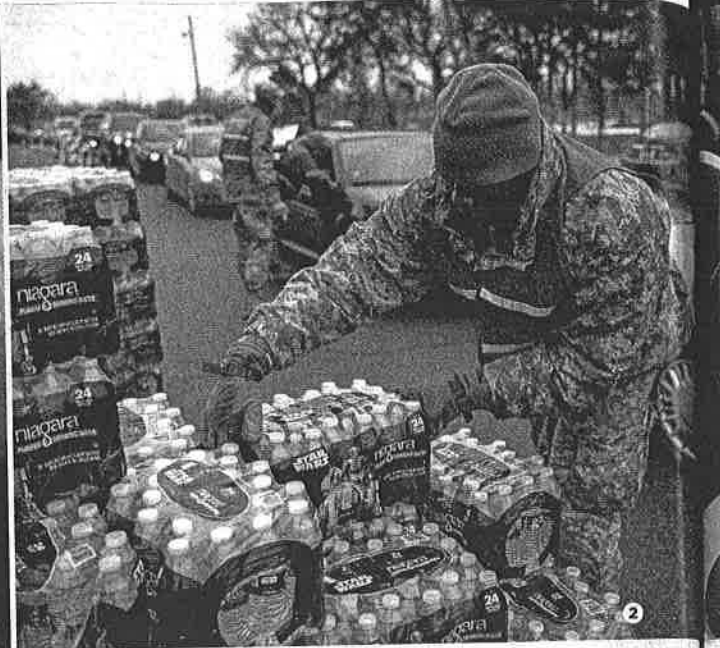
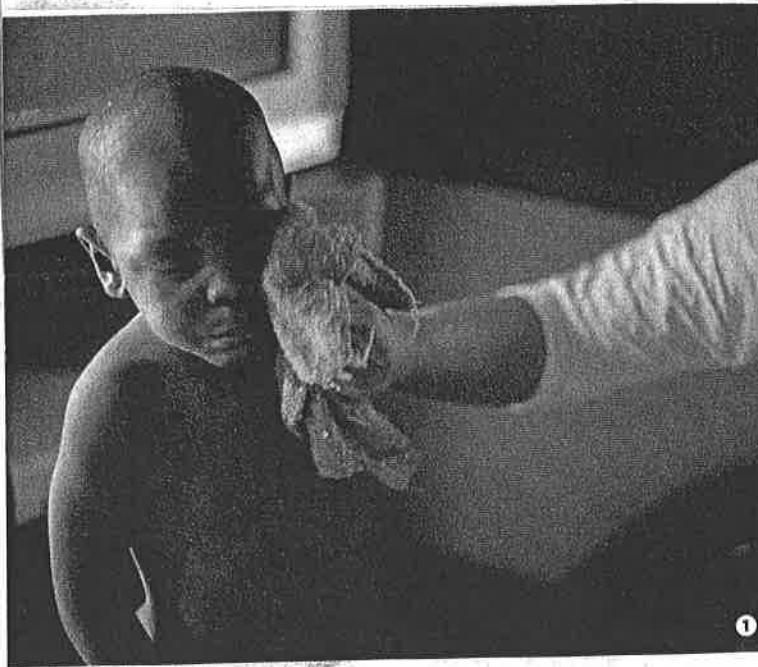
In April 2014, Flint switched its water source to a local river in order to save money.

Residents soon reported strange smells and colors in the water. Some complained of rashes or hair loss.

Angry Flint residents began confronting officials with jugs full of sludge from their taps.

Tens of thousands of people may have been exposed to toxic chemicals, including lead.

Officials denied there was a problem for a year and a half.



A Fateful Decision

It began as an effort to save money, a chronic concern in Flint. The birthplace of General Motors, Flint was once a manufacturing hub for the auto industry. But in the 1980s, as jobs moved overseas, the city started to decline. Today, nearly 42 percent of its residents live in poverty.

In 2011, when Governor Snyder took office, Flint was millions of dollars in debt. He soon appointed an emergency manager to take control of Flint's finances. Under Michigan law, such unelected officials have veto power over a city's mayor and city council.

Water seemed like a logical cost-cutting option. For decades, Flint had drawn water from the system in nearby Detroit. (See map, p. 10.) But that was expensive. In 2013, city officials voted to join a new regional pipeline to Lake Huron that would be more cost-effective. But the pipeline wouldn't be ready until 2016. The Flint River was chosen as an interim water supply.

Who actually made that decision? Today, city and state officials are pointing fingers at each other. Under control of the emergency manager, the city had no real influence in the matter, claims then Mayor Dayne Walling. "I look back on that and I'm just so angry with how it was handled," Walling says, laying blame firmly at the feet of state officials.

FLINT BY THE NUMBERS

8,657

Children under age 6 exposed to lead

41.5

Percent of residents below the poverty line*

\$24,834

Median household income (Michigan median: \$48,411)

SOURCES: USA Today; U.S. Census Bureau (2)

Frightening Changes

The day the switch was made to the Flint River, officials toasted each other with tap water at a ceremony. Not everyone in Flint was so enthusiastic, however. For years, the river had been a dumping ground for **industrial waste** and old cars.

Almost immediately, residents began complaining. "The water was brown, and it had a disgusting smell," Flint resident Tammy Loren recalls. "It was like dirt coming out." After her four sons developed rashes that doctors were unable to treat, the family

switched to bottled water when possible. Still, there were times they couldn't afford it. "We just kept drinking out of the tap," she says.

Conflicting Results

By March 2015, amid rising concerns, Flint's City Council sought to reconnect to Detroit's system—but the emergency manager overruled it. Although the DEQ had been testing Flint's water and had found lead, it insisted the water met federal standards. Experts now say that those tests were flawed.

Worse, the DEQ had not done what almost all **municipalities** do: add a chemical to the water to cut down on corrosion. It was this lapse, critics say, that caused lead to leach from Flint's pipes into the water.

As increasing numbers of residents reported serious symptoms, independent experts began conducting investigations. Researchers at Virginia Tech found that water in some Flint homes contained such high lead levels that it could be classified as hazardous waste.

Then, in September, Hanna-Attisha reported her analysis of children's blood lead levels. Faced with her findings and an angry public reaction, state officials finally acknowledged the reality. Snyder pledged millions of dollars in state aid to help Flint switch back to Detroit's water system and provide special filters for homes.

*In 2014, the national poverty line for a family of four was \$24,230.



National Reaction

For many Americans, Flint's crisis raises uncomfortable questions of race and class. Flint is nearly 57 percent black, with a median income about half the state's average. Is that why officials ignored its plight for so long? "I'll tell you what," said Democratic presidential candidate Hillary Clinton in January, "if the kids in a rich suburb of Detroit had been drinking contaminated water and being bathed in it, there would've been action."

Although it took many months, help is arriving. National Guard troops have distributed thousands of gallons of bottled water and filters. President Obama has earmarked \$80 million in federal aid—much of it to repair Flint's water infrastructure.

Meanwhile, the U.S. House of Representatives is holding hearings and the FBI is investigating whether officials broke laws, such as the Safe

Drinking Water Act. The Environmental Protection Agency is also looking into the Michigan DEQ's actions.

For his part, Governor Snyder has been contrite about the state's failures. The DEQ also admitted that its oversight was flawed. As a task force appointed by Snyder soon concluded about the agency: "It failed in [its] responsibility and must be held accountable for that failure."

Moving On?


In some ways, Flint is moving on. Late last year, the city began adding the chemical phosphate to the water. Experts say that this has cut down on lead levels. Flint's emergency manager has been removed and a new mayor, Karen Weaver, was elected in December. She has called for quickly removing the old lead pipes. Yet replacing them could take years and cost \$1.5 billion.

▲ Scenes from Flint: ❶ A mother bathes her young son with bottled water, since tap water causes him to break out in rashes. ❷ The National Guard hands out bottles of water. ❸ A nurse tests a boy's blood for lead. ❹ Flint residents protest in Lansing, Michigan's capital, calling for Governor Snyder to resign.

Other challenges remain. Flint residents still cannot use untreated water, so they frequently lug bottled water home from distribution centers and install special water filters on their faucets. Parents shuttle children to pediatricians for blood tests, uncertain about what damage was done by months of drinking lead-tainted water.

And, like Tammy Loren, whose sons' skin remained irritated months after Flint returned to its original water source, they worry. The effects of lead poisoning—including learning and behavioral problems—can take years to develop. "My trust in everybody is completely gone," Loren says. "We've been lied to so much. . . . These lies are affecting our kids for the rest of their lives, and it breaks my heart." ♦

With reporting by *The New York Times*

 **The EPA requires action to reduce lead in water when levels reach 15 parts per billion (ppb). Flint's water tested as high as 13,000 ppb.**

YOUR TURN Do governments really pay more attention to the needs of affluent people? Explain your answer.



Watch a **video** about the Flint water crisis at junior.scholastic.com.