

Name _____

Date _____

Flint Water Crisis

Use the text to answer each question below.

1. In 2007 and 2008, the US economy went through a slow period known as a recession. The recession caused the state of Michigan to lose a lot of money and many local businesses failed. In Flint, Michigan, many people lost their jobs. After the recession, local officials focused on saving the city money. In April 2013, the city council and the state treasurer decided that switching Flint's water supply from the Detroit water system to Lake Huron's would save money. In order to access Lake Huron's water supply, a pipeline had to be constructed between Flint and Lake Huron. This construction project was supposed to take two to three years to complete. In the meantime, city and state officials decided that Flint would temporarily get its water from the Flint River. Some people were concerned about the river's water quality, so to show that it was safe to drink, the then-mayor of Flint and other city officials drank directly from the river on live TV. Flint officially switched its water supply to the Flint River on April 25, 2014.

Why did Flint begin getting its water from the Flint River?

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| A. Officials decided Flint residents would temporarily get water from the Flint River while a pipe between Flint and Lake Huron was being constructed. | B. Officials switched Flint's water supply from the Detroit water system to the Flint River because Detroit's water was too toxic. |
| C. Officials decided to switch Flint's water supply from Lake Huron to the Flint River permanently to save money. | D. The recession caused many Flint residents to lose their jobs and move, so fewer people needed water. |

2. Complaints and concerns about the water began almost immediately after the switch. Residents said that the water tasted and smelled bad. Some people also reported that the water had a brownish-red color when it came out of the faucet. In August, city officials announced that E. coli was found in the water. E. coli is a bacteria that produces toxins and causes intense stomach cramping, diarrhea and sometimes a fever. It can be deadly if untreated. City officials told Flint residents to boil their water before drinking it to kill the E. coli.

Then, in January 2015, the city announced that trihalomethanes had been found in the water. Trihalomethanes, or TTHMs, are a disinfectant byproduct. A disinfectant is a substance designed to kill bacteria and other harmful chemicals. When the disinfectant was put into the Flint River, it reacted with natural particles in the water, creating the TTHMs. TTHMs are toxic carcinogens, or substances that increases a person's risk of getting cancer. Having TTHMs in drinking water is illegal, but officials told residents that the water was still safe to drink.

Why were Flint residents told to boil their water?

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| A. to get rid of the bad smell | B. to get rid of the bad taste |
| C. to kill E. coli bacteria | D. to destroy lead particles |

3. On January 12, 2015, the Detroit Water and Sewage Department (DWSD) offered to reconnect Flint to the Detroit water supply. The DWSD even waived, or got rid of, the \$4 million fee Flint would have had to pay to reconnect. Residents of Flint enthusiastically supported the reconnect and urged the government to accept the offer. Three weeks later, however, the state-appointed emergency financial manager, Jerry Ambrose, declined the offer. The emergency financial manager's job is to advise the city council and to control the way the city spends money. Ambrose said that Flint should not reconnect to the Detroit water system because it would cost \$12 million a year. He also said that Flint did not have a direct connection to the Detroit water system anymore. Later that year, the Flint city council voted to reconnect to the Detroit system, but they were overruled by Ambrose, so Flint continued to get its water from the Flint River.

Why did Jerry Ambrose decline the offer to reconnect Flint to Detroit's water supply?

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| A. Ambrose was worried that Detroit's water supply was equally polluted. | B. The Detroit Water and Sewage Department would not waive the \$4 million fee it would cost to reconnect. |
| C. Ambrose was not in charge of finances and said he did not have the authority to accept the offer. | D. Ambrose said reconnecting would cost \$12 million a year. |

4. Lead was discovered in Flint's drinking water in February, 2015. Lead can cause stomach pain, headaches, hearing loss and kidney damage. It is most dangerous for children because they are still growing. Lead poisoning can cause learning difficulties, behavioral problems and slow physical development; its effects are irreversible. The Environmental Protection Agency (EPA) and the Michigan Department of Environmental Quality (MDEQ)—groups in charge of human health and the environment—decided to investigate Flint's water. They tested the water at resident Lee-Anne Walters' home and found it had 104 parts per billion (ppb) of lead in it. The EPA's limit for lead in drinking water is 15 parts per billion, but neither the EPA nor the MDEQ did anything about their discovery. In March, Walters tested her water again and found the lead level had increased to 397 ppb. In August, other researchers tested Walters' water for a third time, and the lead level was 13,200 ppb, which qualified it as hazardous waste. They tested the water in other homes and found it all had elevated lead levels. But the EPA, MDEQ and government officials said that the researchers' testing was inaccurate and took little action.

Lead poisoning in children can result in which of the following?

- A. learning difficulties
- B. low physical development
- C. behavioral problems
- D. all of the above

5. In September, 2015, a group of doctors led by Dr. Mona Hanna-Attisha announced that in one year, the lead levels in some Flint children's blood had tripled. She told government officials of her alarming discovery, but they said her research was invalid. Dr. Hanna-Attisha warned Flint residents about the lead levels in the water and said that no one should drink it. Between the toxic bacteria and the lead, one must wonder why Flint's water was so bad. The biggest reason is that the Flint River was not being treated with an anti-corrosive agent, making it much more corrosive than other water sources. To corrode means to wear away, or weaken, something over time. In this case, the water wore away layers of the pipes being used to transport it and leached the particles that were in them, most notably lead. The Flint River water was so corrosive General Motors stopped using it at their manufacturing plant in October 2014. They said that the water corroded and rusted metal car parts. General Motors informed the city government of this issue, and the city organized for the company to get water from a different source.

Which of these was a reason there was lead in the Flint River?

- A. General Motors had polluted the Flint River by illegally dumping toxic waste in it.
- B. The Flint River was not being treated with an anti-corrosive agent, so the water leached lead from pipes.
- C. The Flint River was not being treated with a disinfectant byproduct, so the water leached lead from pipes.
- D. Lead naturally flowed into it from Detroit's water supply and from Lake Huron.

6. Although the government quickly responded to General Motors' complaints about the water, Flint residents' problems would not be addressed for another year. Finally, on October 1, 2015, government officials announced that the Flint water was unsafe to drink. Government researchers reviewed Dr. Hanna-Attisha's reports and said that they were accurate. The next day, Michigan Governor Rick Snyder said that the government would buy water filters for Flint schools. A few weeks later, Flint was reconnected with Detroit's water system. However, water from the Flint River had so corroded the pipes that when the new water was added into the system, the pipes continued to put toxic particles into the water. To fix the problem completely, the pipes need to be fully replaced. On December 14, 2015, Flint declared a state of emergency, saying that the situation was very dangerous and that Flint needed help.

Why did problems with the water persist after Flint was reconnected with Detroit's water system?

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| A. Detroit's water system was also full of toxic particles. | B. The old pipes were replaced by pipes that were also corroded. |
| C. The water ran through corroded pipes that put toxic particles into the water. | D. A disinfectant byproduct had been added to the water, and it made people sick. |

7. On January 13, 2016, Governor Rick Snyder announced that the Flint water caused an outbreak of Legionnaires' disease from June 2014 to October 2015. Legionnaires' disease is caused by a type of bacteria that lives in water or water mist. It is normally found in humid or hot water, such as in hot tubs or showers. The disease causes a severe type of pneumonia, which is an infection in the lungs. It causes a fever, chills and coughing, and it makes it hard to breath. In Flint, 88 people got Legionnaires' disease from the water, and 10 people died from it. The cases of Legionnaires' disease declined after Flint switched back to Detroit water. On January 16, 2016, President Obama declared a state of emergency in Flint. This meant that money and aid from the federal, or national, government would be used to help the city. The state of emergency also meant that the Federal Emergency Management Agency (FEMA) could get involved. FEMA reacted quickly and sent the National Guard to give bottled water and filters to Flint residents.

What causes Legionnaires' disease?

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| A. lead | B. bacteria |
| C. pneumonia | D. trihalomethanes |

8. Flint residents, national politicians and many others have demanded to know how the Flint Water Crisis could have happened. This has resulted in a lot of contradicting stories, which makes it difficult to understand exactly what happened and who is responsible. The DEQ says that the EPA should have taken action when lead was first detected. The EPA says that the DEQ did not do enough to improve the water quality in the first place. Michigan Governor Rick Snyder has been accused of ignoring the situation and its many warning signs. But Snyder claims that his advisors were not telling him what was really happening. The head of the EPA, Gina McCarthy, has also received a lot of criticism for ignoring the situation. But she, like Snyder, claims that her aides did not inform her of what was really happening. Both Snyder and McCarthy have refused to leave their positions, even though many people believe that they should step down. Congress, the FBI and other private investigators are currently looking into what happened.

Both Gina McCarthy and Rick Snyder

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| A. agreed to leave their positions in the Michigan government in 2016. | B. maintain that Flint's water was safe to drink through the end of 2015. |
| C. claim that they were not fully informed about the situation in Flint. | D. took swift action to make sure Flint had clean water by May 2015. |