



LESSON PLAN

Do We Have a Right to Clean Water?



RELATED PHOTO ESSAY

The Fall of Flint

BY MATT BLACK



Do We Have a Right to Clean Water?



Class: 60 minutes

Key Idea

Residents of Flint, Michigan, have been facing a water crisis since 2014, caused by poor decision-making by state government regarding the source and treatment of Flint’s drinking water. The crisis calls into question citizens’ rights to clean water and how our natural resources are allocated across racial and income lines.

Background

In 2014, in order to save money, managers for the state of Michigan made the decision to switch the source of Flint, Michigan’s drinking water from the glacial, spring-fed waters of Lake Huron to the polluted Flint River. This key decision, along with the failure to adequately treat that water or to respond to public concerns about water safety, led to one of the worst public health crises of our time.

In a two-year period, twelve people have died from Legionnaires’ Disease in Genesee County in Flint, most likely caused by bacteria from the Flint River.* Other health issues connected to drinking and bathing in the water include painful rashes, hair loss, and lead poisoning, which can cause irreversible brain damage, especially for children and unborn fetuses.

While Flint has switched back to its historical water source, damage to pipes from inadequately treated river water continues to cause lead to leach into the city’s water. Flint officially entered a state of emergency in January of 2016, which prompted federal funding to supply residents with filters and bottled water for drinking and bathing. Plans are underway to replace existing, failing, pipes that deliver water to Flint homes.

At one time, Flint was a thriving industrial city—home to General Motors (GM), one of America’s giant automobile manufacturers. In the 1980s, GM downsized its Flint operations, and unemployment skyrocketed, worsening the poverty and racial segregation that had already affected the area. Today, residents of Flint, Michigan, are predominantly African-American, with 40% living in poverty, according to NPR.** An investigation into the water crisis, ordered by Governor Rick Snyder, identified the crisis as an example of “environmental injustice,” concluding that race and the poverty of residents played a factor in government response to public concerns, according to the *The New York Times*.***

SUBJECT AREAS

HIGH SCHOOL

- Economics
- English Language Arts
- Environmental Science
- Geography
- Health Care
- Modern World Studies

COLLEGE

- Economics
- English
- Environmental Studies
- Health Care
- History
- Journalism
- Photography

THEMES

- Environmental justice
- Human connection to the environment
- Consequences of corruption

MATERIALS

- Access to the photo essay online (or printed copies of it)

PREPARATION

- (Optional) Make copies of the photo essay



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Photographer Matt Black, in his photo essay, "[The Fall of Flint](#)," portrays the town of Flint and its residents as they persevere through the water crisis. These photographs are part of Black's commitment to documenting poverty across the United States. The work is part of a larger series titled, "[The Geography of Poverty](#)," which highlights individuals and communities whose poverty rate exceeds 20 percent.

*"[Legionnaires' Disease Death Toll Rises To 12 In Flint Area](#)." CBS Detroit, April 11, 2016.

**Merrit Kennedy, "[Lead-Laced Water In Flint: A Step-By-Step Look At The Makings Of A Crisis](#)." NPR, April 20, 2016.

***Julie Bosman, "[Flint Water Crisis Inquiry Finds State Ignored Warning Signs](#)." *The New York Times*, March 23, 2016.

Connections to National Standards

Common Core English Language Arts. SL.9-10.5 and SL.11-12.5. Make use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understandings of findings, reasoning, and evidence and to add interest.

College, Career, and Civic Life (C3) Framework for Social Studies. D2.Geo.2.9-12. Use maps, satellite images, photographs, and other representations to explain relationships between the locations of places and regions and their political, cultural, and economic dynamics.

College, Career, and Civic Life (C3) Framework for Social Studies. D2.Civ.10.9-12. Analyze the impact and the appropriate roles of personal interests and perspectives on the application of civic virtues, democratic principles, constitutional rights, and human rights.

Next Generation Science Standards. HS-ETS1-2. Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.



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Lesson

SETTING THE STAGE

Explain to students that in 2010, the United Nations declared that clean drinking water is a human right. Regardless of where one lives or how much money one has, one has the right to safe water. Ask students: Do you agree with the United Nations point of view. Why or why not?

Ask students if they have experienced any kind of water crisis, from drinking water toxicity, flooding, or drought. If so, what was the experience like? Ask students if they have heard about any of the water crises affecting the United States this past year in the news. (Answers include: drought in California, flooding in West Virginia and Louisiana due to storms, and lead in water in various cities like Flint, Michigan.) Ask students: Who do you think might be held accountable if those resources are not available where you live?

ENGAGING WITH THE STORY

Tell students they will be viewing a photo essay that depicts the town of Flint, Michigan, and its residents who have been severely impacted by a water crisis since 2014.

Before viewing the photo essay, ask students to read Matt Black's statement. This four-paragraph description provides information about Flint, Michigan, the water crisis, and the effects the crisis is having on Flint's residents.

While viewing the photo essay, ask students to consider the following questions: What are the impacts of the water crisis, as conveyed in the photographs and captions? How are individuals coping with the lack of clean water? What are the emotional impacts of the water crisis on Flint residents?

Delving Deeper

After viewing the photo essay, lead a discussion with such questions as:

- List the activities Flint residents are engaged in, as depicted in the photo essay.



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- Photographer Matt Black includes photographs of homes in the photo essay. Which photographs depict these homes? (Photographs no. 7, 9, 12). Using the photographs as evidence, how would you describe the state of these homes? What do these photographs and their captions reveal about the income levels of people who live in Flint?
- As described in the images and captions, make a list of the health impacts residents are facing caused by Flint's polluted water? (Answers include: Legionnaires' disease, hair loss, rashes, premature births).
- In some photographs, some of the residents' faces are shown in close-up photos, with no context or background. Why do you think the photographer chose to portray the residents this way? What do these photos reveal? Do you think this is effective? Why or why not?
- Given the evidence from the photographs, the photo captions, and the photographer's statement, who is held responsible for the Flint water crisis and its impacts on residents?
- Find photograph no. 19 that shows Flint native, Deborah Hayman. The caption reads: "You know what my biggest fear is? That people are going to forget about us." What are some facts included in Black's photographer's statement that could be a basis for Hayman's fears?
- Black says photography is "separate from politics."* Yet, his photographs serve to raise awareness about the water crisis in Flint and compel government accountability. Government employees in Michigan—including Governor Rick Snyder—are under investigation for their role in the crisis. Which photographs and captions make the strongest case regarding government accountability, or responsibility, for the water crisis. Why?
- In an interview with the Alexia Foundation, Black explains an underlying theme within his photography: "Historically, we've never lived like this before: so many people, so disconnected. It's having a deep influence on the way we live, and it's what each of my stories deals with. What's left behind after this profound



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human detachment from the land and from each other? That's the question." What do you think about this statement? Do you think Black's photography can help viewers empathize with the marginalized people that he documents? If so, how?

*"[Matt Black: Lessons in the Field.](#)" Photo Wings.

Reflecting and Projecting

Give students one of the following reflective writing prompts to demonstrate their understanding of the story. (Note for teachers: Just as quotes from a book or text are used to prove an analytical thought, students use the photo essay to justify their reasoning.)

1. Matt Black's commitment to documenting poverty is rooted in his connection to his home, the California's Central Valley. Some of the Valley's counties contain the highest percentages of residents living below the poverty line in the U.S.

In an interview with *Time Magazine*, Black described his current project, documenting poverty within impoverished communities in more than 70 cities on Instagram: "I've driven all the way across the country, but in a lot of ways I feel I still haven't left the Central Valley. It feels like one place. Uniting them in this kind of visual document is challenging but immensely satisfying because it feels like I'm making a statement that needs to be made." How do you think one's connection to home impacts their worldview? Describe an issue that you have witnessed and/or care about in your community. Do you see this issue on a national/international stage? (CCSS.SL.9-10.5 and SL.11-12.5)

2. One key figure in the Flint water crisis is Dr. Marc Edwards, a scientist and professor at Virginia Tech, who—with his students—responded to Flint citizens' concerns and engaged in massive water testing. Results from their testing showed high levels of lead. The team sounded the alarm, which motivated city and state officials to take action. Some residents in Flint feel that without Dr. Edward's involvement, nothing would have ever happened. According to an article in *The New York Times*, LeeAnne Walters felt that the key to change was that the Virginia Tech team "cared."



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*“They cared about the people,” Ms. Walters said as the college team showed her twin boys around their labs. “That’s why Virginia Tech has all the trust.” **

When asked how he manages to gain the trust of the people he photographs, Matt Black answered: “Language, culture, looks and appearance, all of that melts away when you’ve built a real understanding with somebody. People really communicate on a totally different level than language. You’re credible, you’re not; you care, you don’t—that’s how people size you up.**

In both of the above examples—Dr. Edward’s success at galvanizing change in Flint and Black’s success photographing the people of Flint—the issue of whether or not someone “cares” is key. What do you think? Do you think it matters when a person cares about a situation or another person? Do you think this might be a key to successful outcomes? Why or why not? Use both your own personal experiences and the photo essay as evidence to explore these questions and write a 2-3 paragraph short essay. (C3.D2.Civ.10.9-12)

3. According to the U.S. Environmental Protection Agency, environmental justice is defined as: “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”

An independent panel appointed by Michigan Governor Rick Snyder concluded that the Flint water crisis is an example of environmental injustice. The panel’s report according to *The New York Times*, states: “Flint residents, who are majority black or African-American and among the most impoverished of any metropolitan area in the United States, did not enjoy the same degree of protection from environmental and health hazards as that provided to other communities.”***

Select one photograph from the photo essay and write an essay, 2-3 paragraphs, describing how the depicted scene illustrates environmental injustice. Use the photograph, caption, and photographer’s statement as evidence to make your case in your description. (C3.D2.Geo.2.9-12)



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4. Flint residents complained to local and state agencies with concerns about water quality and yet nothing was done to address the issue. What might be a course of action for citizens when city or state officials do not act responsibly to assist the community?

[This step-by-step timeline](#) from NPR describes how the Flint water crisis unfolded. While reading this article, select one of the problems described that led to the crisis. Next, think about a potential solution-based response that could protect Flint residents. (Some ideas could include raising awareness, contacting a non-governmental researcher, etc.) Describe how you think your selected solution could make an impact. (NGSS.HS-ETS1-2)

*Mitch Smith, "[As Flint Fought to Be Heard, Virginia Tech Team Sounded Alarm.](#)"
The New York Times, February 6, 2016.

***[Interview with Matt Black.](#)" Alexia Foundation, October 9, 2012.

***Julie Bosman, "[Flint Water Crisis Inquiry Finds State Ignored Warning Signs.](#)"
The New York Times, March 23, 2016.

Resources

["Principles of Environmental Justice."](#) Ejnet.org.

Olivier Laurent, "[How One Photographer Is Mapping America's Poverty.](#)"
Time Magazine, July 16, 2015.

Dean Brierly, "[Matt Black: A Commitment to Truth.](#)" Photographers Speak,
April 14, 2009.

(Curriculum Framework) "[Big Ideas: Linking Water, Power, And Sewer In K-12.](#)" The Center for Ecoliteracy.

Merrit Kennedy, "[Independent Investigators: State Officials Mostly To Blame For Flint Water Crisis.](#)" NPR, March 23, 2016.

Merrit Kennedy, "[Lead-Laced Water In Flint: A Step-By-Step Look At The Makings Of A Crisis.](#)" NPR, April 20, 2016.



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["An American Disaster: The Crisis in Flint."](#) MSNBC, January 27, 2016.

Lenny Bernstein and Brady Dennis, "[Flint's water crisis reveals government failures at every level.](#)" *The Washington Post*, January 24, 2016.

John Eligon, "[A Question of Environmental Racism in Flint.](#)" *The New York Times*, January 21, 2016.

Lindsey Nolen, "[Health Consequences of Flint's Water Crisis: The effects of water contamination could last a lifetime.](#)" Advance Healthcare Network.

Mitch Smith, "[As Flint Fought to Be Heard, Virginia Tech Team Sounded Alarm.](#)" *The New York Times*, February 6, 2016.