



*Photo credit: Regina Boone, Detroit Free Press*

# The Flint Water Crisis: An Engineering Perspective

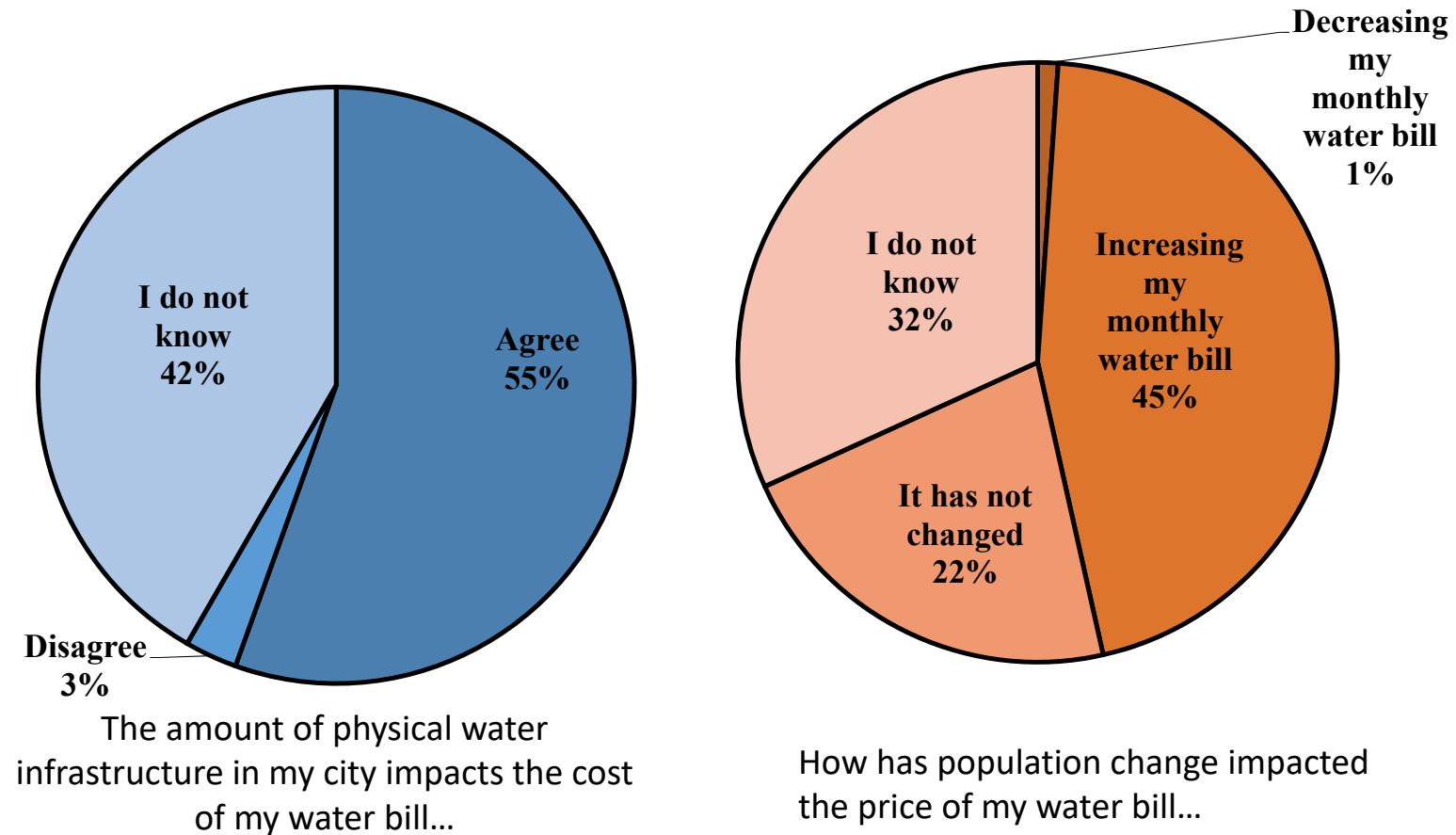
Shawn P. McElmurry, PhD, PE

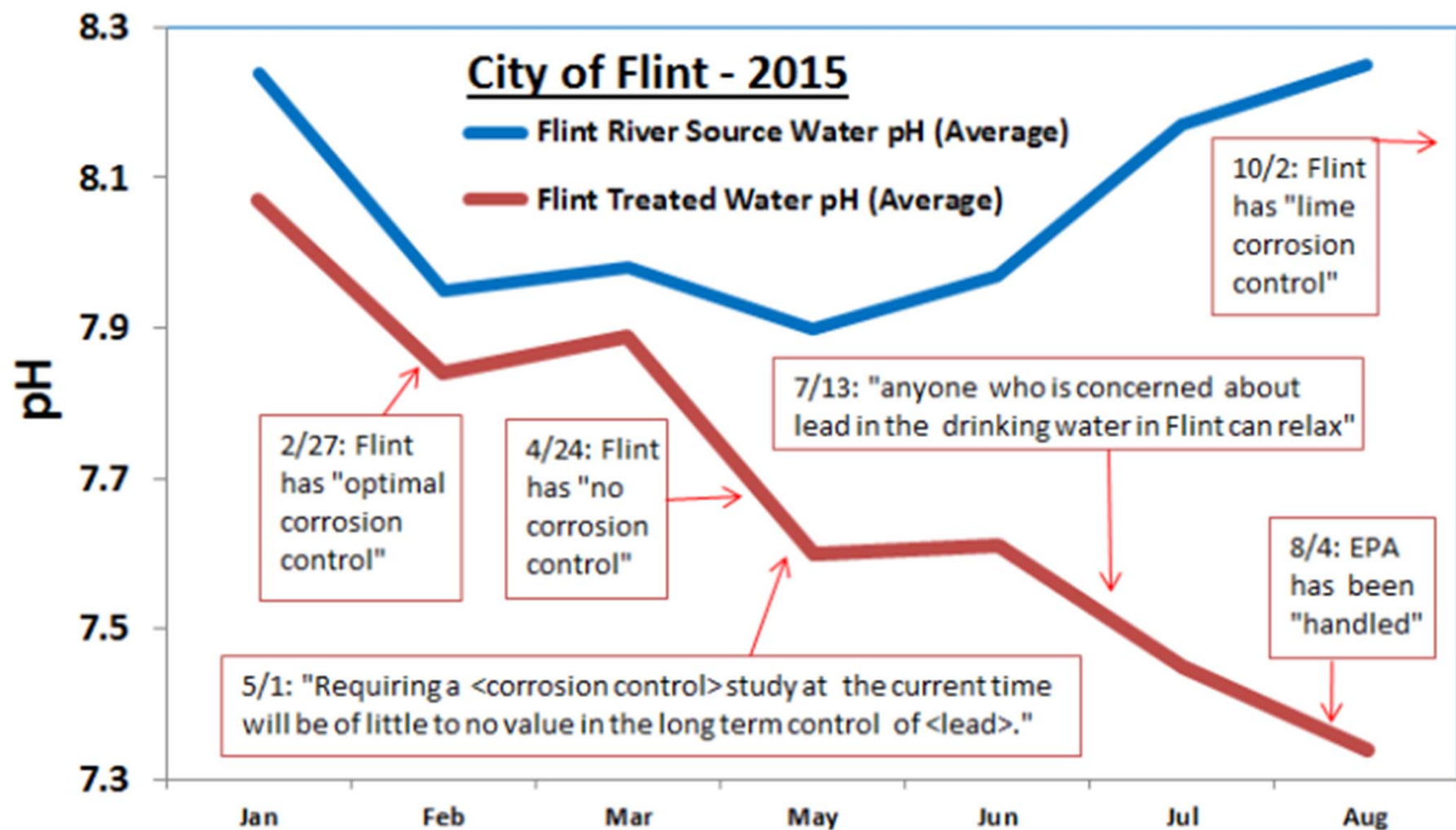
Associate Professor

Department of Civil & Environmental Engineering



# Public Knowledge and Awareness Towards Infrastructure Issues in Shrinking Cities





# Flint Area Community Health and Environment Partnership (FACHEP)

In collaboration with Flint residents and community partners, a large multidisciplinary team focused on evaluating drinking water quality, including:

- Metals (Pb, Cu, Cr, etc.)
- Disinfection by products (TTHMs, etc.)
- Chlorine residual
- Bacteria (*E. coli*, *L. pneumophila*, etc.)

Developing advanced surveillance plan to evaluate association between water quality and the incidence of disease:

- Legionnaires' disease
- Skin diseases



# Thank you!

Shawn P. McElmurry  
s.mcelmurry@wayne.edu

## **Flint Residents:**

Shayne Hodges  
Vicki VanBuren (Flint City Council)  
Rachel Wenzlick (United Way)  
Others...

## **Students:**

Alex Frazen  
Audrey Zarb  
Emily Bradley  
Jenna Hage-Hassan  
Justin Kietur  
Liz Whiddon  
Mariana Runho  
Mohammed Dardona  
Rebecca Cooper  
Roozbeh Ravansari  
Sydney Szeles  
Yousef Al-Hashem

## **Collaborators:**

Abdulbaset Salim, MD (WSU)  
Carol Miller, PhD, PE (WSU)  
Daniayl Shamim (DMC)  
David Pitts, PhD (WSU)  
Donna Kashian, PhD (WSU)  
Donnie Sackey, PhD (WSU)  
Laura Sullivan, PhD (Kettering)  
Matt Seeger, PhD (MSU)  
Mona Hanna-Attisha, MD (MSU/Hurley)  
Nancy Love, PhD, PE (UM)  
Paul Kilgore, MD, MPH (MSU)  
Simon Davies, PhD (MSU)  
Susan Masten, PhD, PE (MSU)

## **Support:**

Office of the Vice President of Research  
College of Engineering  
Urban Watershed Environmental Research Group (UWERG)  
Center for Urban Responses to Environmental Stressors (CURES)

