

# Non-Academic

## Perspectives on Access to Safe Potable Water in the U.S.

*Marc Edwards, Kelsey Pieper and Adrienne Katner*

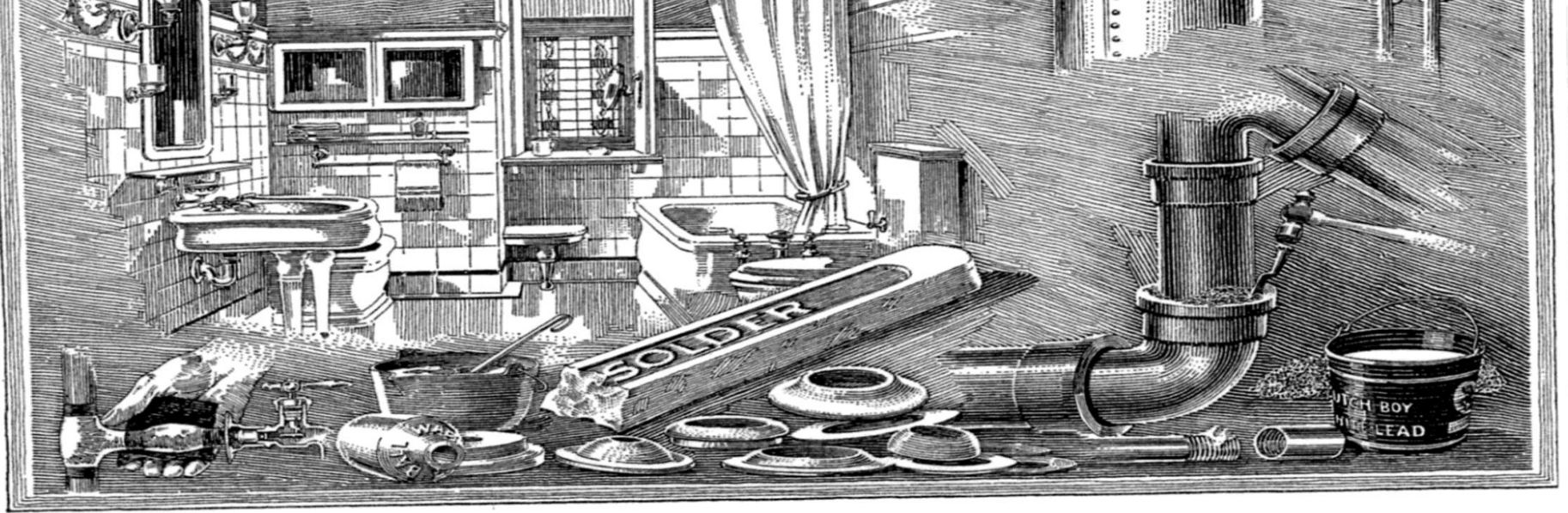
*10/11/2016: Presentation at UNC Chapel Hill*

# LEAD IN WATER 101

# Vitruvius 312 B.C.

“.....water ought by no means to be conducted in lead pipes, if we want to have it wholesome”

“no stagnation”



## Lead helps to guard your health

**Y**OU wouldn't live today in a house without an adequate plumbing system. For without modern plumbing, sickness might endanger your life.

Lead concealed in the walls and under the floors of many modern buildings helps to give the best sanitation.

In some cities today the law specifies that lead pipe alone may be used to bring water from street mains into the building.



Edited From Ad in National Geographic 11/1923

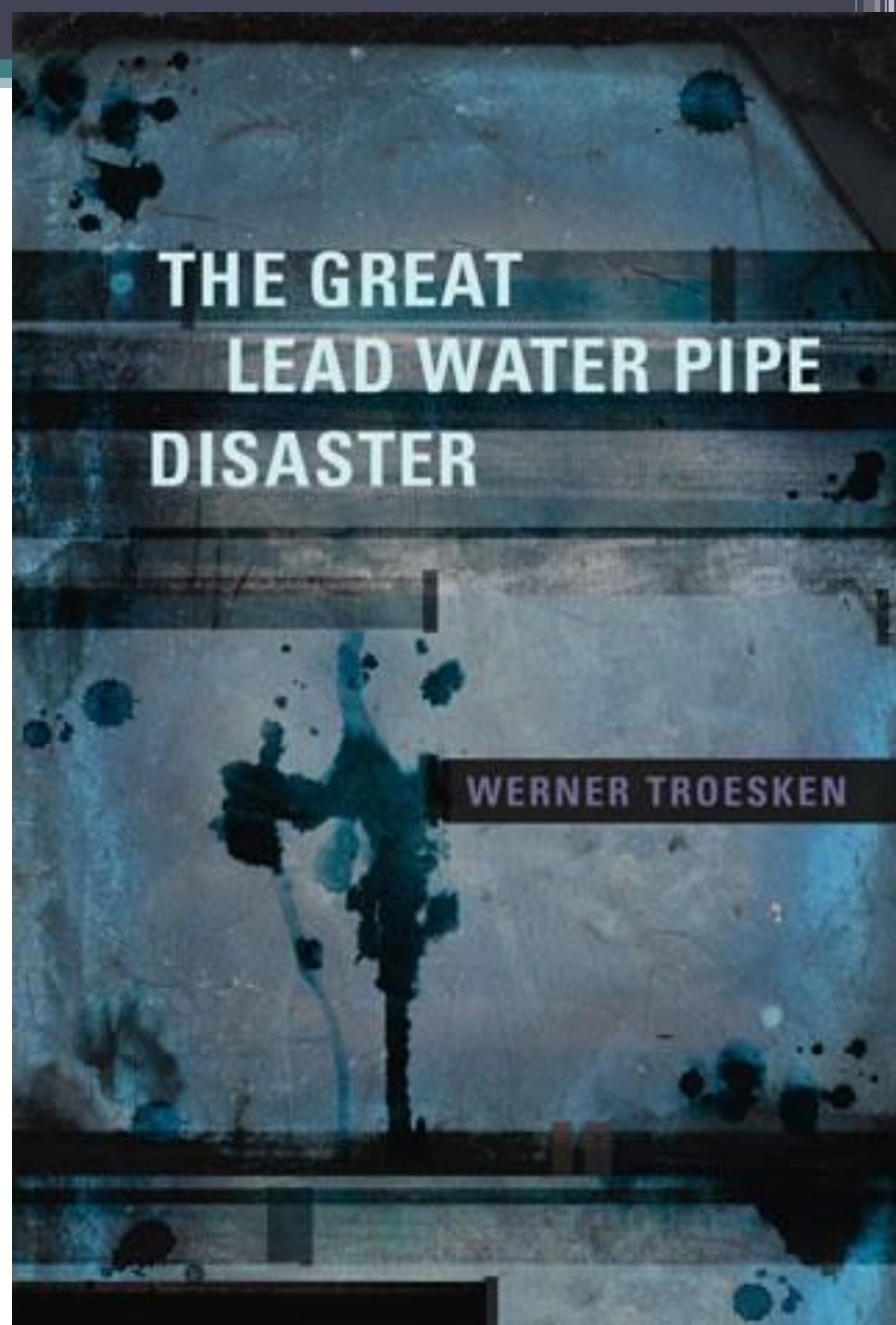
**NATIONAL LEAD COMPANY**

New York, 111 Broadway; Boston, 131 State St.; Buffalo, 116 Oak St.;

Decision by US cities  
to require use of lead  
service lines:

**“one of the most serious  
environmental disasters  
in US History”**

150 years of death,  
deceit and denial



# Public Water Systems:

Poor Government

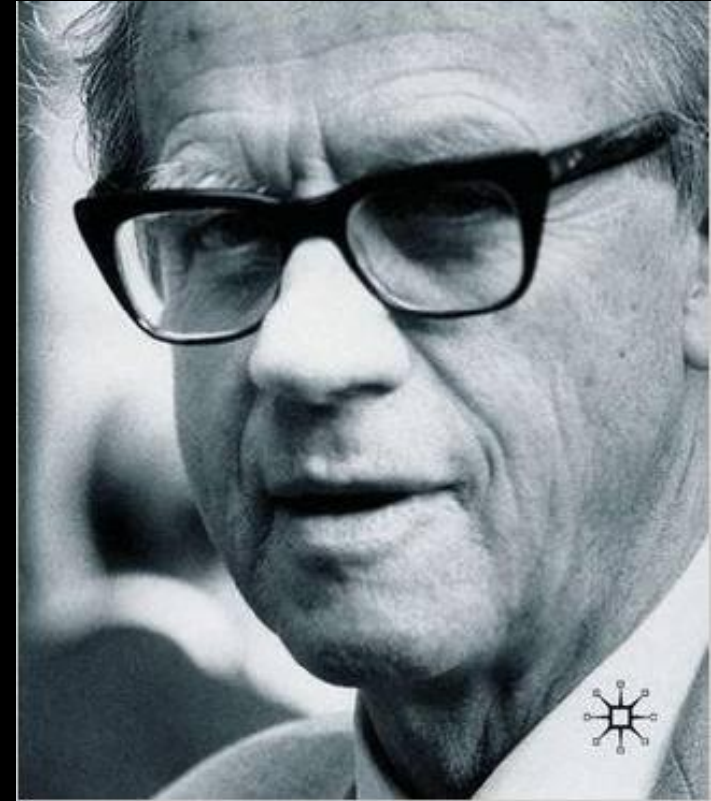
# Michael Young

*Rise of the Meritocracy (1958)*

*Dystopian “Fictional” History  
of Western Democracies 1870-2033*

Merit = IQ + Effort

“Meritocracy”



The underclass in a meritocracy is made to feel deserving of their misfortune.

*Who will speak/fight for them?*



Young: Certain human rights should not be distributed on the basis of merit.

Health care

Education

Police protection

**Water?**

AMERICAN CITIES  
ARE RUN AS  
MERITOCRACY's

[Public Money](#)

# Why Cities Can't Go Bankrupt in Canada or Germany

There's a lot America can learn from these two countries about how to avert municipal bankruptcies.

by [Frank Shafroth](#) | May 2014

**“In the U.S....Neither the federal government nor states share tax bases with localities.”**

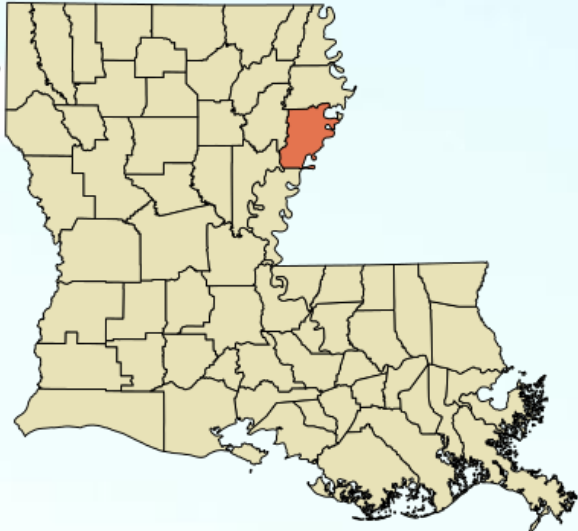
# IMPOVERISHED RURAL AMERICA

# Work of Adrienne Katner (LSU)



# St. Joseph, Louisiana

- Population decline of 30+%
- Population: 1,176 (Service connections: 587)
- 77.7% African American
- Per capita income: \$9,049.
- 37.8% below poverty line

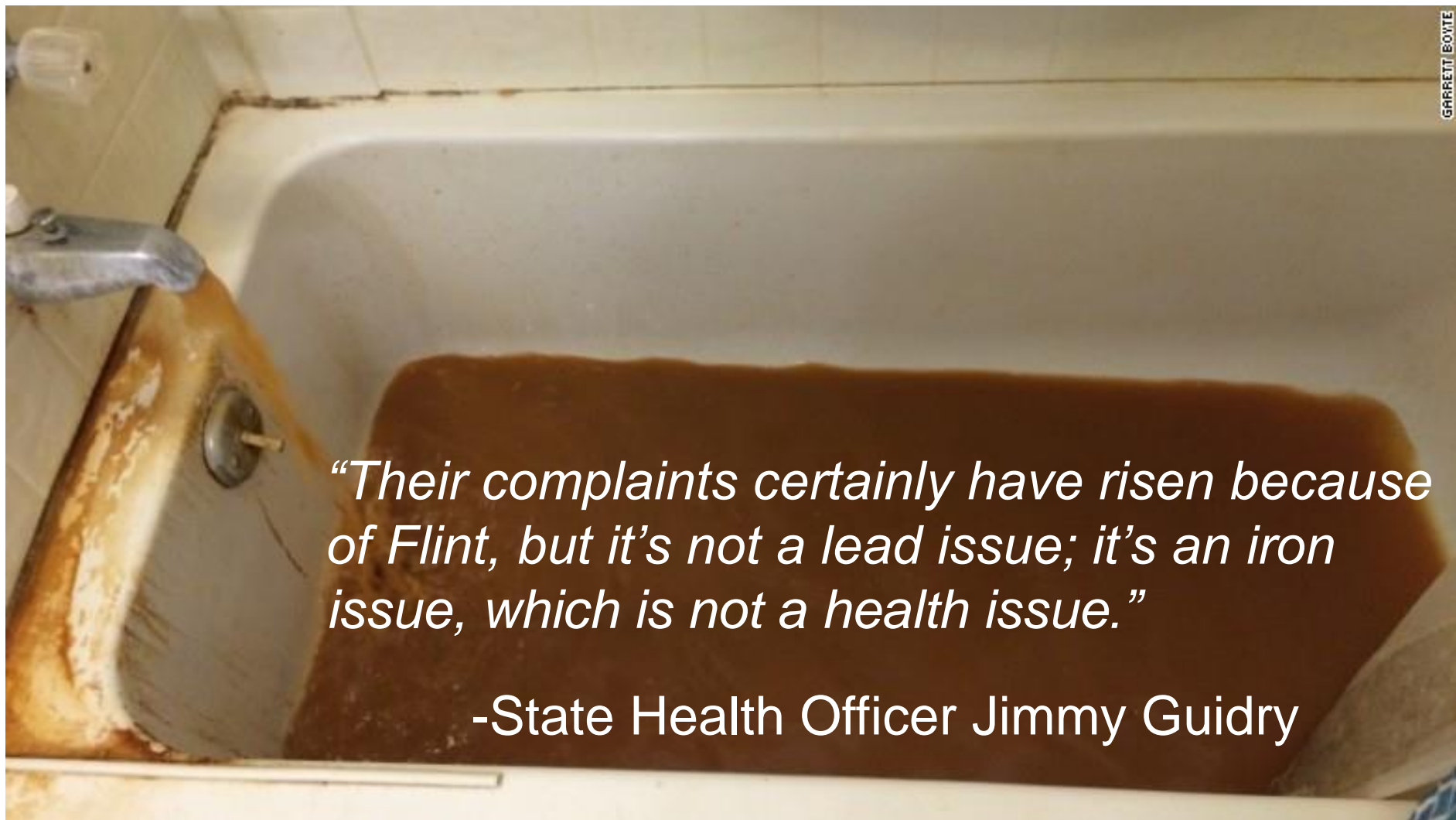


# St. Joseph's Drinking Water

- High iron and manganese
- Constant boil-water alerts
  - Between May 2012 and January 2016 St. Joe issued **20 boil water advisories**
- Filters won't help
  - Clog within days



# State Says St. Joe's Water is Safe



GARRETT BOWTE

*“Their complaints certainly have risen because of Flint, but it’s not a lead issue; it’s an iron issue, which is not a health issue.”*

**-State Health Officer Jimmy Guidry**



# Drinking Water Violations

## **Failure to Monitor Chlorine**

- May 2015
- June 2015
- October 2015
- December 2015
- March 2016

## **Failure to Report Required Chlorine Concentrations**

- October 2015
- December 2015
- January 2016
- February 2016

## **Inadequate Minimum Chlorine Residual**

- May 2015
- October 2015
- March 2016

## **Failure to Monitor Coliform**

- July 2007
- October 2012
- May 2013
- September 2014
- May 2015
- October 2015

## **Coliform Detected in Water**

- August 11, 2014
- August 14, 2014
- April 28, 2015
- May 5, 2015
- September 8, 2015
- September 10, 2015

## **Public Notice Rule Violation**

- October 2012
- May 2013
- May 2015
- June 2015
- March 2016

## **Consumer Confidence Report Violation**

- July 2006
- July 2007
- July 2009
- July 2010
- July 2011
- October 2011
- July 2014
- October 2014
- July 2015
- October 2015
- August 11, 2014
- August 14, 2014
- April 28, 2015
- May 5, 2015
- September 8, 2015
- September 10, 2015

IS THIS CIVILIZATION AS WE KNOW IT?

# Community-Driven Campaign



Porscha Fayard

2 hrs · 🌐

This is the water in St. Joseph, LA. Today school was called off because the water isn't potable. This primarily low-income, primarily black town is suffering under Flint, MI's same fate. By signing the petition and asking others to sign, you are magnifying the voices of its residents and increasing the likelihood that this issue will be addressed by the president.

Since 2014, St. Joseph has been under near-constant boil water advisory because of their water situations. There is not livelihood possible with water like this. Our kids and families deserve better. Bring them justice, and spread it far and wide.

**#StJosephLa**

**#FlintMI**

**#justicelikewater**

# White House Petition

Community [petitioned](#) White House calling on President Barack Obama to declare a state of emergency (Jan 20, 2016)

It needed 100,000 signatures by February 19, 2016

Only 13,732 signed

*“This petition has been archived because it did not meet the signature requirements. It can no longer be signed.”*

# Independent Investigation

## St. Joseph Cold Water Tap Samples Analyzed for Lead (Mar 22 – Apr 18, 2016)

	<b>Site 1</b>	<b>Site 2</b>	<b>Site 3</b>
First Draw	2.1 ug/l	12.0 ug/l	42.0 ug/l
30-45 Second Flush	1.0 ug/l	5.5 ug/l	23.1 ug/l
2 minute flush	2.8 ug/l	3.6 ug/l	5.9 ug/l
3 minute flush (5 min. total)	1.7 ug/l	1.8 ug/l	1.7 ug/l

Researchers: Dr. Adrienne Katner, LSU School of Public Health; Drs. Jeff Parks and Marc Edwards, VA Tech

# IMPACT

- Residents brought LSU& VA Techs results before the State Legislature
- The State Health Officer was immediately contacted and charged with addressing the problem
- The researchers have since been black-listed from working with their former state partners

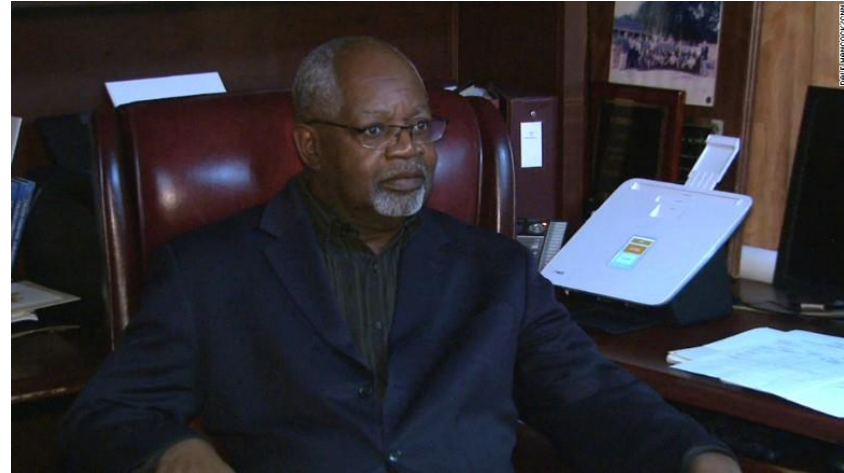
# Corruption

- State

- Committed \$6 million to help fix the 90-year-old water infrastructure.
- State hands were tied until the mayor released his financial audit

- Mayor

- Pocketed \$19,000
- Awarded contracts to family amounting to \$127,058



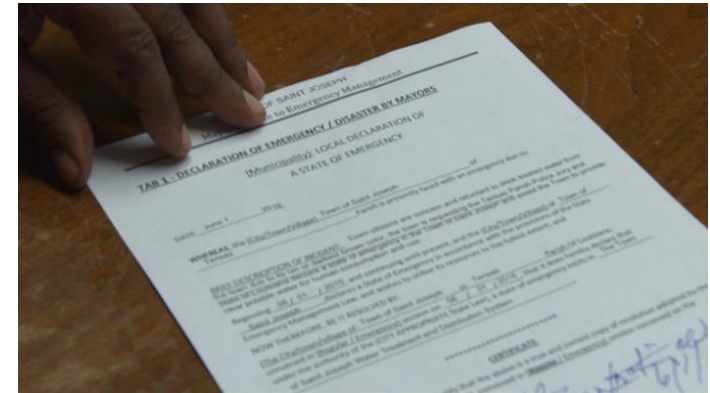
St. Joseph Mayor Edward Brown declined CNN's request for an interview but said he is aware of residents' concern about the town's water and is "working to solve it."

(Source: CNN)

# Declaration of Emergency

**June 1, 2016**

- To allow outside assistance the Mayor had to sign a Declaration of Emergency
- **Pride kept him from signing it for 6 days**
- Came after a food bank trucked in water to aid residents lacking clean water.
- Mayor says he will not fight appointment of a fiscal administrator to oversee community finances.



*In view of the **findings** and **violations**, the extensive water leaks, continued boil advisories, lack of maintenance in the water system, **it is hereby declared a serious and imminent danger to the public health.***



# Dr. Katner and Flintwaterstudy sampling September 29th



Look familiar? Flint Residents?

Photo's Flintwaterstudy.org



Yes, this is what the water has looked like from the tap for years.  
Photo: Joyce Zhu. [Flintwaterstudy.org](http://Flintwaterstudy.org)



Flintwaterstudy's Joyce Zhu and William Rhoads, with St. Joe sign and Janie Jones (President, Council on Policy & Social Impact)